TREND MICRO™

Threat Management Services Portal (On-premise)2.6

Administrator's Guide

Network Security

Release Date: August 2010

Document Part No: APEM24478/100616

The Administrator's Guide for Trend Micro™ Threat Management Services Portal (On-premise) is intended to introduce the main features of the product, provide deployment information for your production environment, and provide information on configuring and using the product. Read through this document prior to deploying or using the product.

Detailed information about how to use specific features are available in the online help file and the online Knowledge Base at Trend Micro's website.

Trend Micro always seeks to improve its documentation. Your feedback is always welcome. Please evaluate this documentation on the following site:

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

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Preface

Welcome to the Administrator' Guide for the on-premise edition of Trend Micro™ Threat Management Services Portal (TMSP). This manual contains information about product setup and configuration.

This preface discusses the following topics:

Documentation

The product documentation consists of the following:

TABLE P-1. Product documentation

DOCUMENTATION	DESCRIPTION
Administrator's Guide	A PDF document that discusses product setup and configuration
Help	HTML files compiled in WebHelp format that provide "how to's", usage advice, and field-specific information. To access the Help, open the product console and then click the help icon. 
Readme file	Contains a list of known issues and basic installation steps. It may also contain late-breaking product information not found in the Help or printed documentation
Knowledge Base	An online database of problem-solving and troubleshooting information. It provides the latest information about known product issues. To access the Knowledge Base, go to the following website: http://esupport.trendmicro.com/support

The Administrator's Guide and readme file are available at the following website:

http://www.trendmicro.com/download

Audience

The documentation for this product is written for IT managers and administrators in medium and large enterprises. The documentation assumes a basic knowledge of security systems, including:

- Antivirus and content security protection
- Network concepts (such as IP address, Subnet Mask, LAN settings)
- Network devices and their administration
- Network configuration (such as the use of VLAN, SNMP)

Document Conventions

To help you locate and interpret information, this document uses the following conventions.

TABLE P-2. Document conventions

CONVENTION	DESCRIPTION
ALL CAPITALS	Acronyms, abbreviations, and names of certain commands and keys on the keyboard
Bold	Menus and menu commands, command buttons, tabs, options, and tasks
Italics	References to other documentation or new technology components
LOGS > LOG MAINTENANCE	A "breadcrumb" found at the start of procedures that helps users navigate to the relevant web console screen. Multiple breadcrumbs means that there are several ways to get to the same screen.
Note: text	Provides configuration notes or recommendations

TABLE P-2. Document conventions (Continued)

CONVENTION	DESCRIPTION
Tip: text	Provides best practice information and Trend Micro recommendations
WARNING! text	Provides warnings about activities that may harm computers on your network

Chapter 1

Introducing Threat Management Services Portal (On-premise)

This chapter introduces product features, capabilities, and technology.

This chapter discusses the following topics:

About Threat Management Services Portal

Trend Micro™ Threat Management Services Portal (TMSP) builds intelligence about your organization's network by providing meaningful reports at the executive or administrative level. Administrative-level reports keep IT security personnel informed about the latest threats and provide action items that help defend the network from these threats. Executive-level reports inform key security stakeholders and decision makers about the network's overall security posture, allowing them to fine tune security policies and strategies to address the latest threats.

TMSP processes logs from both Threat Discovery Appliance and Threat Mitigator and then correlates them with a set of proprietary rules to generate reports.

TMSP is part of Trend Micro Threat Management Services, a network security overwatch service that seamlessly integrates into your existing security infrastructure. Threat Management Services is powered by the Trend Micro Smart Protection Network™.

About Trend Micro Threat Management Services

Today's workplace is changing as new and emerging technologies enable people to work with increased mobility. This shift has brought about a new type of threat, one that can enter a network through these technologies and is sophisticated enough to evade detection by existing security infrastructure. For example, threats are unknowingly introduced into the network by employees and guests who bring with them infected mobile computers and portable storage devices. Technologies such as peer-to-peer applications, streaming media, instant messaging, and other potential infection channels can be easily exploited by hackers and cyber criminals, especially if usage is unregulated.

Organizations without dedicated security personnel and with lenient security policies are increasingly exposed to threats, even if they have basic security infrastructure in place. Once discovered, these threats may have already spread to many computing resources, taking considerable time and effort to eliminate completely. Unforeseen costs related to threat elimination can also be staggering.

Trend Micro Threat Management Services provides organizations with an effective way to discover, mitigate, and manage stealthy and zero-day internal threats. Threat Management Services brings together security experts and a host of solutions to provide ongoing security services. These services ensure timely and efficient responses to threats, identify security gaps that leave the network vulnerable to threats, help minimize data loss, significantly reduce damage containment costs, and simplify the maintenance of network security.

Threat Management Services combines years of Trend Micro network security intelligence and in-the-cloud servers that are part of Trend Micro's Smart Protection Network to identify and respond to next-generation threats.

The following diagrams illustrate how Threat Management Services work:

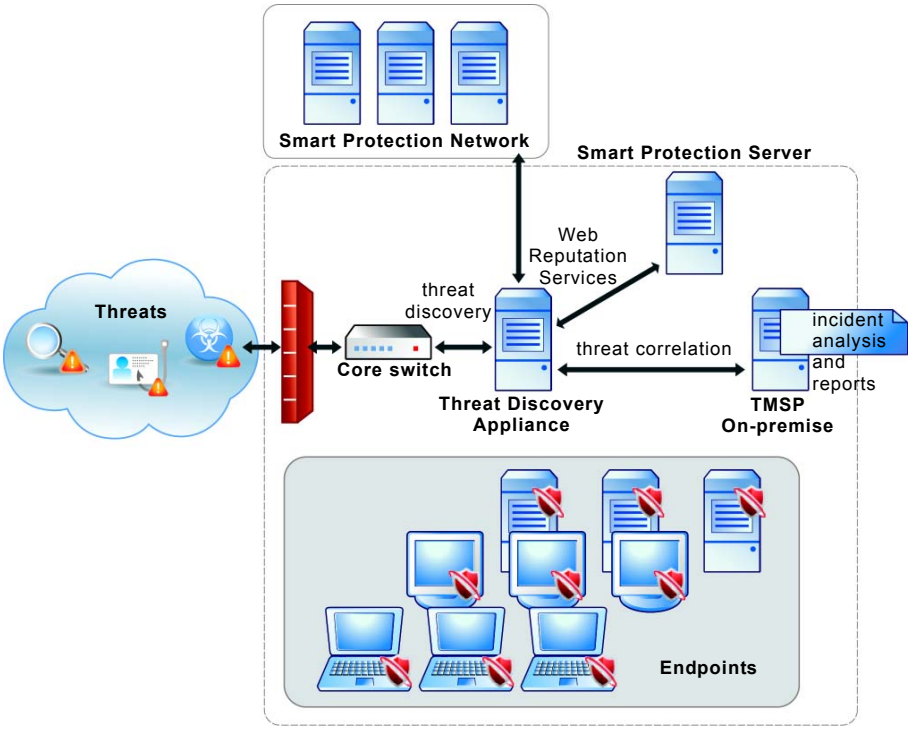


FIGURE 1-1. Threat discovery activities

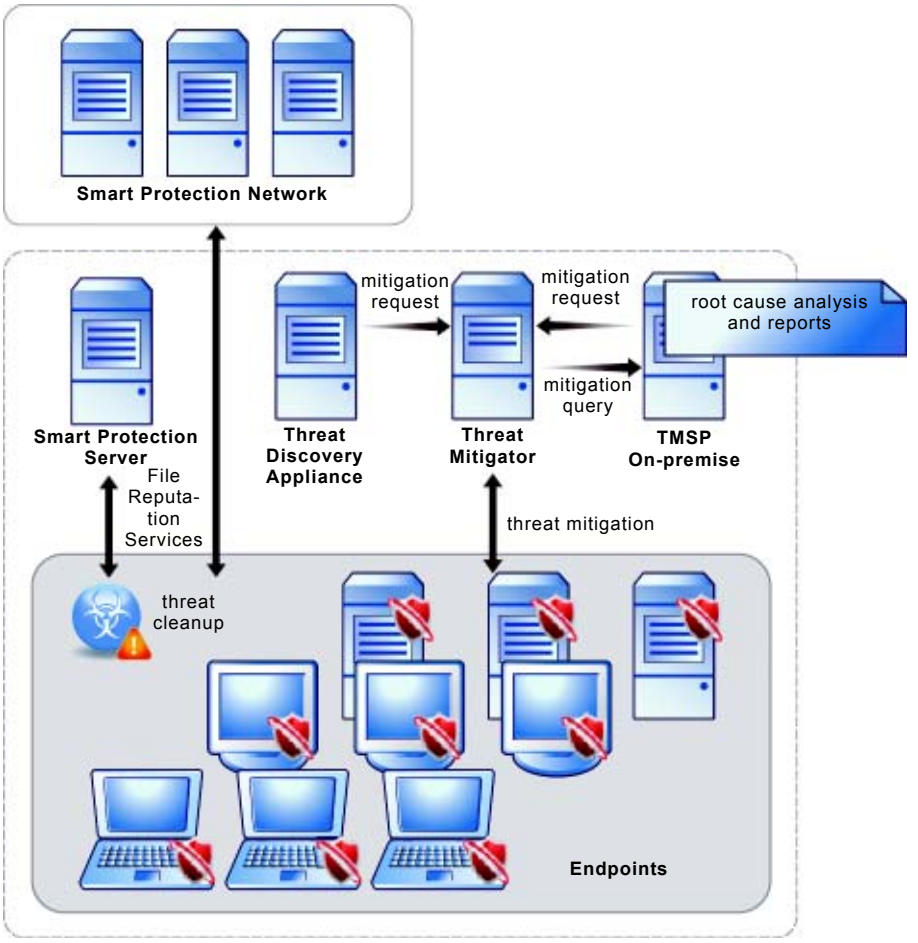


FIGURE 1-2. Threat mitigation activities

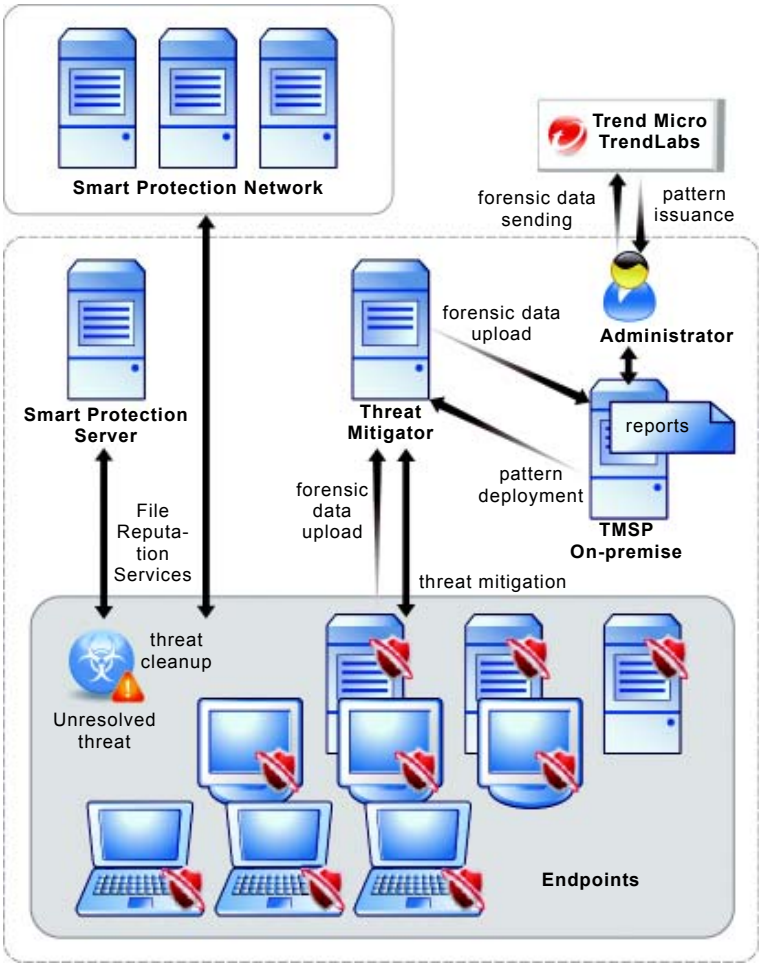


FIGURE 1-3. Advanced mitigation activities

Product Form Factor

In this product release, TMSP is available as an on-premise application that can be installed on a bare metal server or a VMware™ virtual machine.

TMSP as a Trend Micro hosted service is also available in this release. Please contact your Trend Micro representative for information about the hosted service.

Product Servers

TMSP comes with a set of servers, each responsible for a specific task. Assign a unique IP address for each server at various stages of deployment.

Administrative Server

This server hosts the user interface for the product's web-based administrative console. From this console, you can perform key administrative tasks, such as:

- Creating a customer account
- Controlling access to the end user portal
- Configuring settings for reports, notifications, and logs
- Generating reports
- Running tasks that are part of the threat mitigation process, such as downloading forensic data or deploying a custom pattern

Assign an IP address for the administrative server during the installation process. The administrative server uses port 80 by default. After the installation, log on to the web-based administrative console using the following information:

- **URL:** `http://<Administrative Console IP address>/admin`
- **User name:** `admin`
- **Password:** `123456`

Tip: Trend Micro recommends changing the password from the administrative console after logging on.

Portal

The portal is a separate user interface accessed by users who want to view the network's security status and download reports. These users are typically employees who have a stake in your organization's IT security but who do not have the authority to manage product settings.

The portal provides a dynamic representation of the network monitored by your threat management solution. It also provides the network's threat profile and allows users to download reports generated by TMSP.

Assign an IP address for the portal from the configuration wizard, which appears when you log on to the administrative console for the first time. The portal uses port 443 by default.

When you create a customer account, configure the logon credentials (user name and password) for the portal. After you configure the credentials, send the credentials and the portal URL to the users. The portal's URL is:

```
https://<Portal IP address>/tms2
```

For details, see *Creating a Customer Account* on page 4-2.

Log Server

The log server accepts logs from Threat Discovery Appliance or Threat Mitigator using the rsync protocol. For a list of logs received from both products, see *Downloading Registered Product Logs* on page 5-29.

Assign an IP address for the log server from the configuration wizard, which appears when you log on to the administrative console for the first time. The log server uses ports 443 and 22 by default.

Status Server

The status server receives the following information from Threat Discovery Appliance:

- Heartbeat message. For details, see *Heartbeat* on page C-2.
- Outbreak Containment Services logs

The status server receives the following information from Threat Mitigator:

- Heartbeat message
- Forensic data

Note: Threat Management Agent installed on an endpoint collects forensic data when cleanup is unsuccessful and uploads the data to Threat Mitigator.

Send the data to Trend Micro for analysis. After the analysis, Trend Micro issues a custom pattern in response to the threat. When you receive the pattern and upload it to TMSP from the administrative console, the status server stores the pattern and notifies Threat Mitigator to download the pattern.

Assign an IP address for the status server from the configuration wizard, which appears when you log on to the administrative console for the first time. The status server uses ports 443 and 22 by default.

Central Authentication Server (CAS)

The CAS server authenticates users that log on to the portal and administrative console. It also authenticates registered products before they send logs and data to TMSP.

Features and Benefits

TMSP provides the following features and benefits:

- Enhances visibility with executive summary reports
- Allows real-time access to business risk meters, threat statistics, and infection trends
- Improves effective incident response with daily reports
- Helps mitigate new and unknown threats by facilitating the collection of forensic data and the issuance of solutions to address these threats

Chapter 2

Installing Threat Management Services Portal

This chapter details the steps for installing Threat Management Services Portal (TMSP).

This chapter discusses the following topics:

Installation Overview

TMSP is packaged as an ISO file, and is installed on a purpose-built, hardened, performance-tuned 64-bit Linux operating system that is included in the package.

Run the installation on a bare metal server or a VMware virtual machine that meets the requirements listed in *System Requirements* on page 2-2. The bare metal installation boots from an installation CD (which contains the ISO file) to begin the process, while the VMware installation requires connecting the virtual CD/DVD drive to either the physical drive containing the installation CD or the ISO file.

WARNING! The installation process formats the host machine to install TMSP. Back up needed data on the host machine before installation.

System Requirements

TMSP requires the following resources:

TABLE 2-1. TMSP system requirements

RESOURCES	REQUIREMENTS
Host machine	**Minimum Requirements** • CPU: 2.0GHz processor • RAM: 2GB • Hard disk space: 50GB • Network interface card (NIC): 1 NIC

TABLE 2-1. TMSP system requirements (Continued)

RESOURCES	REQUIREMENTS
Host machine	**Recommended Requirements** The recommended requirements depend on the number of Threat Discovery Appliances you plan to register to TMSP. **For 5 Threat Discovery Appliances:** • CPU: Intel™ Xeon™ X5450 • RAM: 4GB • Hard disk space: 300GB **For 20 Threat Discovery Appliances:** • CPU: Intel Xeon X5470 • RAM: 8GB • Hard disk space: 1TB **For 50 Threat Discovery Appliances:** • CPU: Intel Xeon X5680 • RAM: 16GB • Hard disk space: 2TB **Note:** The installer can use several hard disk drives to install TMSP. To install successfully, at least one of the hard disk drives must meet the minimum disk space requirement.
Browser	To access the administrative console and portal, use Windows Internet™ Explorer™ 8.0.

Installation Checklist

Prepare the following before installation:

TABLE 2-2.

REQUIREMENT	DETAILS	YOUR VALUE
Host machine:	The host machine can either be a bare metal server or a VMware virtual machine.	
ISO file or Installation CD	TMSP is packaged as an ISO file. Obtain the ISO file or the bootable installation CD containing the ISO file before installation. To install on a bare metal server, use the bootable installation CD. To install the product on a VMware virtual machine, use the installation CD or the ISO file.	
Static IP addresses	Prepare four static IP addresses belonging to the same subnetwork (subnet). Assign these IP addresses to the following servers that make up TMSP: • Administrative server • Portal • Status server • Log server The IP address for the administrative server is assigned during installation. The other IP addresses are assigned after installation, from the web-based administrative console. For details about the product servers, see *Product Servers* on page 1-6.	

Installing TMSP

This topic covers installation on both bare metal server and VMware virtual machine.

Note: TMSP does not need a network connection during installation, but it must connect to the Internet when using the configuration wizard from the web-based administrative console.

To install TMSP:

1. Perform the following steps if installing on a bare metal server:
   a. Insert the installation CD into the CD/DVD drive.

      Note: If you wish to create your own installation CD from the ISO file, follow the steps in *Creating an Installation CD* on page B-1.

   b. Power on the bare metal server and then boot from the installation CD.
2. Perform the following steps if installing on a VMware virtual machine:

   WARNING! If you install on a VMware ESX server, disable the snapshot feature for the virtual machine because the snapshot might exhaust hard disk space.

   a. Create a virtual machine on the VMware ESX server. For details, see *Creating a New Virtual Machine* on page A-2.
   b. Start the virtual machine.
   c. Perform any of the following steps:
      - If you have an installation CD, insert the CD into the physical CD/DVD drive of the ESX server host, and then connect the virtual CD/DVD drive of the virtual machine to the physical CD/DVD drive.
      - If you have an ISO file, connect the virtual CD/DVD drive of the virtual machine to the ISO file.
   d. Restart the virtual machine by clicking **VM > Send Ctrl+Alt+Del** on the VMware web console.

3. When the Installation Menu screen appears, select **Install TMSP** and press [Enter].

FIGURE 2-1. Installation Menu screen

The other options on this menu are as follows:

- **System Recovery:** Select this option to recover a Threat Management Services Portal system. Before launching this operation, ensure that you have obtained system recovery instructions from, or are being guided by, your support provider.
- **System Memory Test:** Select this option to perform memory diagnostic tests to rule out any memory issues.
- **Exit Installation:** Select this option to exit the installation process and to boot from other media.

4. Read the license agreement and click **Accept** to continue.

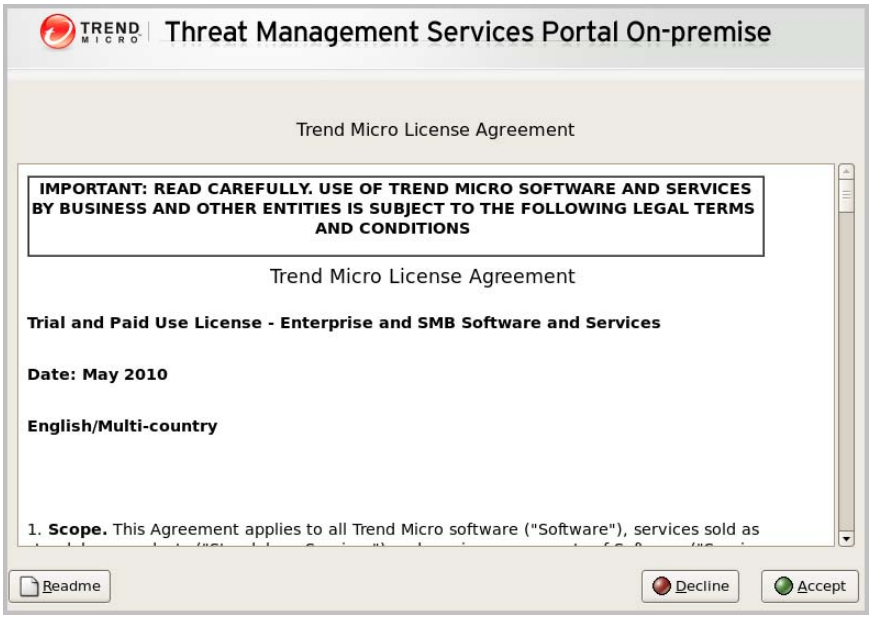


FIGURE 2-2. License Acceptance screen

Note: From this screen on, you can access the readme from a button in the lower left hand corner of the installation screen.

5. Select the keyboard language for the system and then click **Next**.

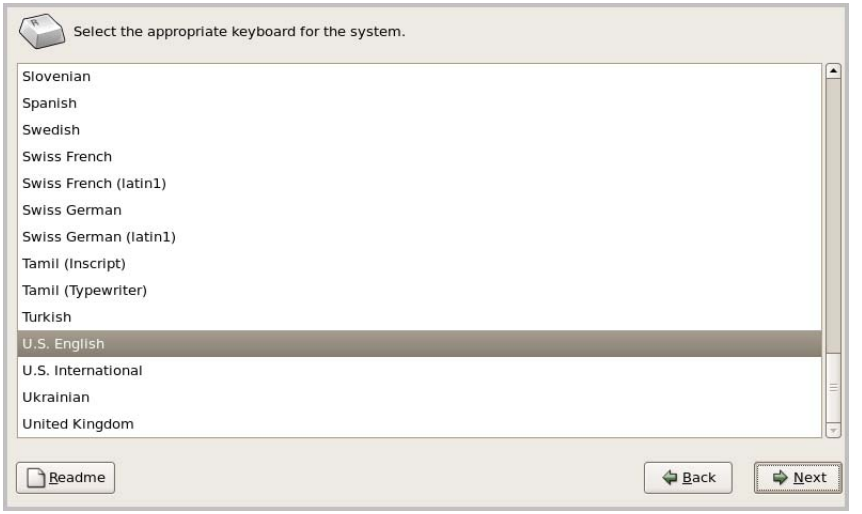


FIGURE 2-3. Keyboard Language Selection screen

6. Choose the hard disk drive to use for installation.

FIGURE 2-4. Hard Disk Drive Selection screen

a. Select the check box for the hard disk drive.

b. If you selected several hard disk drives, ensure that at least one of them satisfies the minimum disk space requirement specified in *System Requirements* on page 2-2.

c. Ensure that you have backed up needed data on the selected hard disk drives. When you proceed to the next step, the installer permanently removes all existing data on the hard disk drives.

d. Click **Next**.

e. When prompted to remove existing data, click **Yes**.

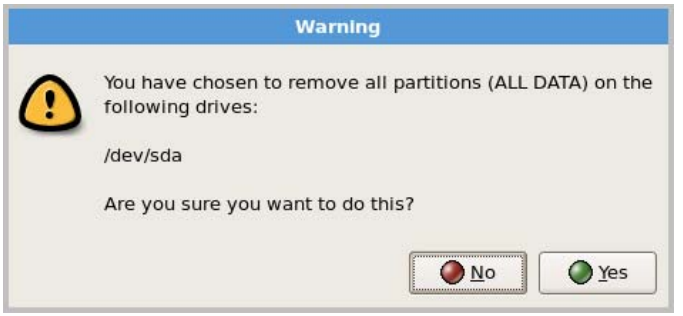


FIGURE 2-5. Data removal confirmation message

The installer checks if the system's resources are adequate and then displays the result on the next screen.

7. Check for any nonconforming components (highlighted on the screen). The installation stops if the requirements for critical components are not satisfied. If all components are satisfactory, click **Next**.

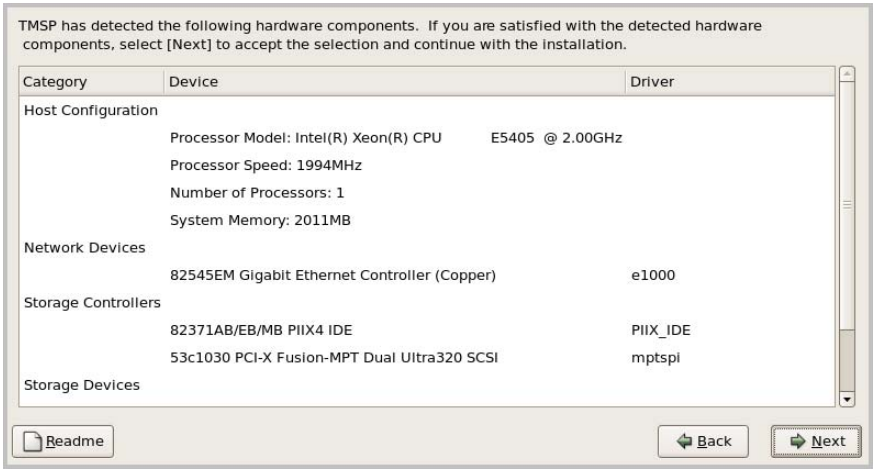


FIGURE 2-6. Hardware Components Summary screen

8. Configure network settings.

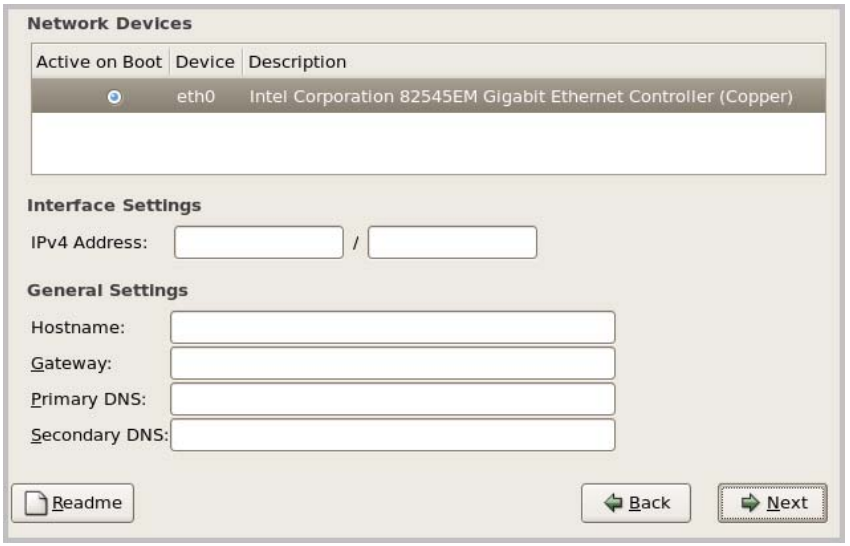


FIGURE 2-7. Network Settings screen

a. Select the network device that will be active on boot.

b. Type the following network interface settings for the device:

Note: After the installation, you can change network interface settings from the administrative console.

- A static IP address

Tip: Record the IP address. The IP address forms part of the URL used for accessing the administrative console.

- The subnet mask next to the static IP address
- A host name that is resolvable to the IP address
- Default gateway
- Primary DNS server
- (Optional) Secondary DNS server

c. Click **Next**.

9. Specify your time zone and then click **Next**.

FIGURE 2-8. Time Zone screen

Note: You can change the time zone from the administrative console after installation.

10. Record the credentials for the root and administrative accounts.

FIGURE 2-9. Account Password screen

Threat Management Services Portal uses two levels of administrative privileges to secure the system.

- **Root account:** Use the root account to gain access to the operating system shell. This account has all the rights to the product.
- **Administrative account:** Use the built-in administrative account to access the product's administrative console. This account has all the rights to the product's application, but has no access rights to the operating system shell.

Note: The built-in administrative account does not display in the installation screen because Trend Micro has pre-configured the account credentials.

a. Record the following credentials for the administrative account:

- User name: `admin`
- Password: `123456`

Tip: After the installation, log on to the web-based administrative console to change the account password.

---

b. Record the user name for the root account, which is `root`.

c. Type and confirm the password for the root account.

The root account password must be a minimum of six characters and a maximum of 32 characters. As you type, the meter on the right indicates the strength of the password. For best security, create a highly unique password only known to you. You can use both upper and lower case alphabetic characters, numerals, and any special characters found on your keyboard to create the password.

d. Click **Next**.

11. Review the pre-installation summary.

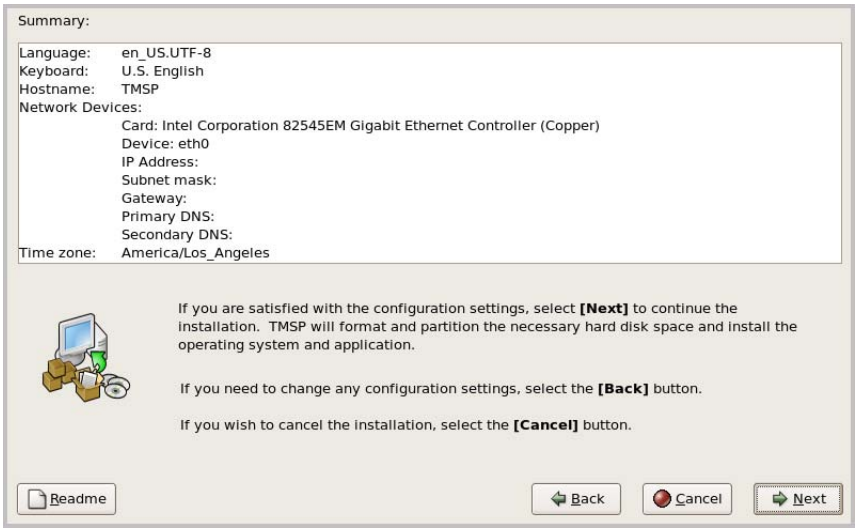


FIGURE 2-10. Pre-installation Summary screen

a. To proceed with the installation, click **Next**.

Note: To return to the previous screens and make changes, click **Back**.

b. When prompted to begin the installation, click **Continue**.

FIGURE 2-11. Pre-installation confirmation message

12. When the installation is complete, read the instructions in the screen and then click **Reboot** to restart the system.

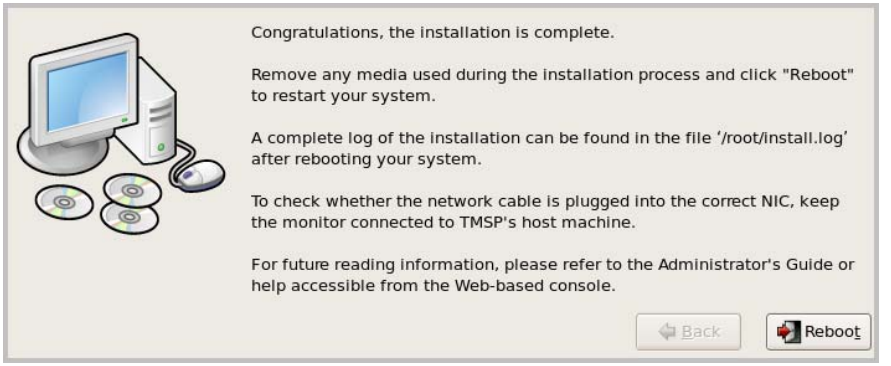


FIGURE 2-12. Installation Complete screen

Note: To view installation logs, open `/root/install.log`.

- **For a bare metal installation:** The installation CD automatically ejects. Remove the CD from the drive to prevent reinstallation.
- **For a virtual machine installation:** Trend Micro recommends disconnecting the CD-ROM device from the virtual machine now that TMSP is installed.

After Threat Management Services Portal restarts, the command line interface (CLI) logon screen appears.

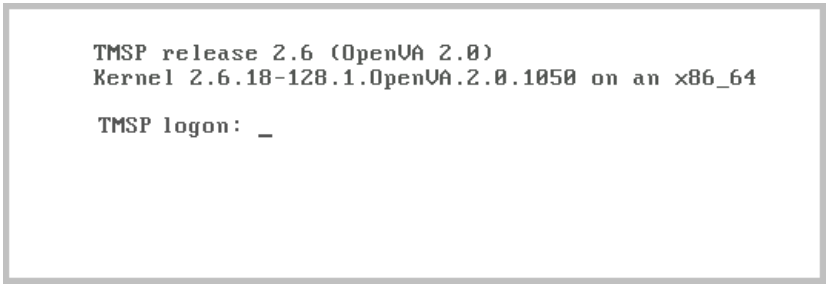


FIGURE 2-13. CLI logon screen

Tip: Trend Micro recommends logging on to the web-based administrative console instead of the CLI to configure product settings. The administrative console provides all the settings that you need to configure for the product to perform its functions.

13. Log on to the web-based administrative console using the built-in administrative account. For details, see *Accessing the Web-based Administrative Console* on page 3-2.

Chapter 3

Getting Started

This chapter introduces the settings you need to configure immediately after installing Threat Management Services Portal (TMSP).

This chapter discusses the following topics:

Accessing the Web-based Administrative Console

TMSP provides a built-in web-based administrative console through which you can configure and manage the product.

To log on to the administrative console:

1. Open a browser window.

   For a list of supported browsers, see *System Requirements* on page 2-2.

2. Type the following URL:

   `http://<Administrative Server IP Address>/admin`

3. Type the default logon credentials.
   - **User name:** `admin`
   - **Password:** `123456`

   Tip: Change the password after logging on by navigating to the Contact List screen. For details, see *Managing the Contact List* on page 4-7.

4. Click **Log On**.

Navigating the Administrative Console

The administrative console consists of the banner, the main menu bar, and the main content window.

Administrative Console Banner

The administrative console banner on top of the screen displays the name of the product, contains the **Log Off** link, and a provides drop-down menu listing several navigational options.

FIGURE 3-1. Product console banner

Click **Log Off** from any screen at any time to log off from the console and return to the logon screen.

The navigational options from the drop-down menu are as follows:

TABLE 3-1. Navigational options in the banner's drop down menu

OPTION	DESCRIPTION
Contents and Index	Opens the Help
Knowledge Base	Opens the search page of the Trend Micro Knowledge Base
Security Info	Opens the Trend Micro Security Information page, where you can get the latest Trend Micro advisories on malware, spyware/grayware, and other security issues
Sales	Opens the Trend Micro sales web page, where you can contact your regional sales representative
Support	Provides information on how to get online, telephone, and email support

TABLE 3-1. Navigational options in the banner's drop down menu (Continued)

OPTION	DESCRIPTION
About	Provides information about Threat Management Services Portal

Main Menu Bar

The main menu bar comprises of several menu items that allow you to configure product settings. A "+" icon before a menu item indicates that the menu item has several sub-menu items.

FIGURE 3-2. The main menu bar

Main Content Window

The main content window displays information relevant to the menu item selected in the main menu bar. Configure settings or issue tasks from this window (see an example in Figure 3-3).

Click the Help icon Help at the top right corner of the window to access context-sensitive help.

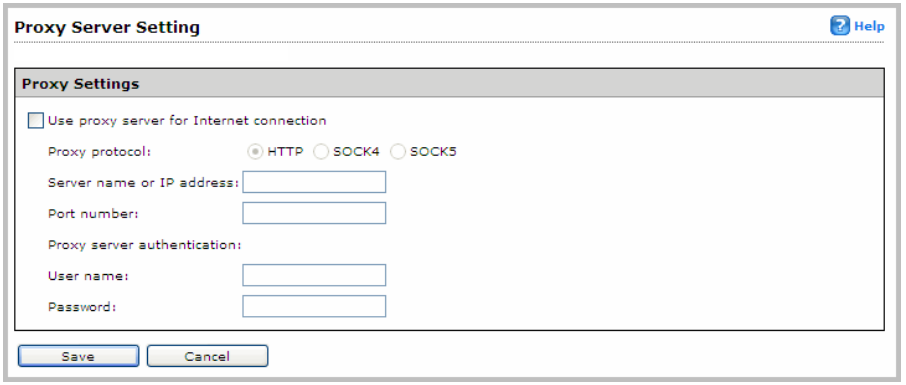


FIGURE 3-3. A main content window showing proxy server settings

Running the Configuration Wizard

The Configuration Wizard displays when you log on to the administrative console for the first time. The wizard guides you through the settings you need to configure to enable the full functionality of TMSP.

If you cancel any of the required steps, TMSP will only be partially operable.

The wizard includes the following steps:

TABLE 3-2. Configuration wizard steps

STEP	DETAILS
Step 1: Product License	Use a valid Activation Code to activate the product license and enable your Trend Micro product. A product will not be operable until activation is complete. Obtain the Activation Code from Trend Micro.
Step 2: Product Servers	Assign unique static IP addresses to the following product servers: • Portal • Log server • Status server Ensure that these IP addresses are not currently in use. For details about these servers, see *Product Servers* on page 1-6.
Step 3:Proxy Settings (optional)	Specify proxy settings if you want TMSP to use proxy settings for Internet connection. TMSP needs Internet connection to check the status of the product license from the Trend Micro Online Registration site.
Step 4: Email Delivery Settings	Configure settings that TMSP will use when sending event notifications and reports through email.

Step 1: Activating the product license

1. Click **New Activation Code**.
2. In the new screen that appears, type the Activation Code.

   An Activation Code has 37 characters (including the hyphens) specified in the following format:

   `xx-xxxx-xxxxx-xxxxx-xxxxx-xxxxx-xxxxx`

3. Click **Activate**.
4. Click **Save and Next >**.

   The license status is updated, indicating that the product has been activated.
5. To confirm the status, click **Check status online**.
6. Click **Save and Next >**.

Step 2: Assigning static IP addresses to the product servers

1. Type the IP addresses in the text boxes provided.
2. Click **Save and Next>**.

Step 3: (Optional) Configuring proxy settings

1. Select **Use a proxy server for Internet connection**.
2. Select the proxy protocol.
3. Type the proxy server name or IP address and the port number.
4. If the proxy server requires authentication, type the **Username** and **Password**.
5. Click **Save and Next>**.

Step 4: Configuring email delivery settings

1. Type the sender's email address.
2. Type the SMTP server name or IP address and the port number.
3. If the SMTP server requires authentication, type the **Username** and **Password**.
4. Click **Finish**.

After Exiting the Wizard

After you exit the wizard, you can access it again by navigating to **Administration > Configuration Wizard**.

You can also perform the steps individually by navigating to the following screens:

Step 1: Product License	**Administration > Product License**
Step 2: Product Servers	**Administration > Network Interface Settings > IP Addresses of Product Servers** section
Step 3: Proxy Settings	**Administration > Proxy Settings**
Step 4: Email Delivery Settings	**Administration > Notification Settings > Email Delivery Settings** section

Chapter 4

Configuring Settings

This chapter explains how to configure Threat Management Services Portal (TMSP) settings from the administrative console.

This chapter discusses the following topics:

Creating a Customer Account

Threat Discovery Appliance or Threat Mitigator servers that register to TMSP (collectively known as registered products) automatically belong to a group. TMSP processes raw logs from the product group to create meaningful reports.

A product group has a corresponding customer account. Registering a product to TMSP requires specifying the group's customer account.

Note: If you have access to a product, register it to TMSP from the product's web-based console.

An organization typically needs only one customer account, unless the organization is composed of networks that are not linked together and therefore are completely independent of each other. If products that monitor linked networks are grouped under different customer accounts, TMSP will not be able to report the security posture of the entire network.

A customer account is assigned to an account owner, who must have access to the administrative console. The default owner is the TMSP administrator.

To add a customer account:

PATH: CUSTOMERS

1. Click **Add**.
2. In the **Credentials for Registering Products** section:
   a. Type the user name and password that TMSP uses to authenticate registered products.
   b. Confirm the password.

Tip: These credentials are specified in a registering product's web-based console during registration. If you are not the product's administrator, record the credentials and send them to the administrator. For details about registering a product to TMSP, see *Registering Products to TMSP* on page 4-14.

3. In the **Contact Person** section:
   a. Type the account owner's first name and last name.
   b. (Optional) Type an email address.

Tip: The contact person is typically you, the TMSP administrator.

4. In the **Portal Logon Account** section:
   a. Type the user name and password that users will use to log on to the portal. For details about the portal, see *Portal* on page 1-7.
   b. Confirm the password.

Note: Send the portal logon credentials and the portal's URL to users. The portal's URL is `https://<Portal IP address>/tms2`.

Configure the portal's IP address from **Administration > Network Interface Settings** if you have not done so. For details, see *Configuring Network Interface Settings* on page 4-6.

Users can change the password from the portal. However, the user-configured password is overridden if you modify the password from the administrative console.

5. In the **Trend Micro Services** section:
   a. Select the language to use in reports and in the portal.
   b. In the **Managed by** field, select an administrative account. This is the account used by the owner of the customer account you are creating.

Note: The default owner is you, the TMSP administrator using the built-in administrative account `admin`.

If you have created custom administrative accounts from the Contact List screen, you can select one of these accounts in the **Managed by** field. For details about custom administrative accounts, see *Managing the Contact List* on page 4-7.

c. In the **Service type** field, select the Trend Micro Services that your service agreement with Trend Micro allows you to avail.

d. Type the validity period of the services.

6. In the **Company Information** section, specify the following information used for reference purposes:
   - Your organization's name
   - The industry segment to which your organization belongs
   - Your organization's size based on the number of endpoints in the network
   - Your organization's postal address and main telephone number
7. Click **Save**.

After Creating the Customer Account

After you create the customer account, and before you register products to TMSP using the customer account, configure the following settings:

- **System time settings:** Configure system time settings to ensure that the system time in TMSP and registered products are consistent. For details, see *Configuring System Time Settings* on page 4-5.
- **Network interface settings:** Configure the IP addresses for the product servers if you have not done so from the configuration wizard. Also configure TMSP to send a notification if a registered product did not send a heartbeat message to TMSP within a certain time period. For details, see *Configuring Network Interface Settings* on page 4-6.
- **Report and notification recipients:** Specify who can receive reports and who will receive notifications when events that require user intervention occur. For details, see *Managing the Contact List* on page 4-7.
- **Event notifications:** Select which events will trigger TMSP to send notifications to notification recipients. For example, TMSP can send a notification if it cannot exchange heartbeat messages with registered products. The notification allows a registered product's administrator to check if the product has problems connecting to TMSP. For details, see *Configuring Event Notifications* on page 4-10.

Configuring System Time Settings

TMSP integrates with registered products. If the system times in TMSP and the registered products are not synchronized, information may become unreliable and cause confusion. Configure TMSP to synchronize its system time with a Network Time Protocol (NTP) server to avoid these issues.

To configure system time settings:

PATH: ADMINISTRATION > SYSTEM TIME

1. View the current date and time for TMSP.
2. Synchronize time with an NTP server or set the system time manually.

   To synchronize time with an NTP server:

   a. Type the NTP server address.

   b. Click **Synchronize Now**.

   To set the system time manually:

   a. Click the calendar icon to select the current date.

   b. Specify the time in the format hh:mm:ss.
3. Select the time zone to use.
4. Click **Save**.

Configuring Network Interface Settings

Network interface settings include the IP addresses for the servers that make up TMSP and the heartbeat setting for registered products.

To configure network interface settings:

PATH: ADMINISTRATION > NETWORK INTERFACE SETTINGS

1. Specify static IP addresses for the following:
   - Portal
   - Log server
   - Status server
   - Administrative server
   - Default gateway
   - Primary DNS server
   - (Optional) Secondary DNS server

   For details about the product servers (portal, log server, status server, and administrative server), see *Product Servers* on page 1-6.

   Tip: The IP addresses for the log server and status server are specified in a registering product's web-based console during registration. If you are not the product's administrator, record the IP addresses and send them to the administrator. For details about registering a product to TMSP, see *Registering Products to TMSP* on page 4-14.

2. Configure the registered product heartbeat setting by specifying the number of minutes. Type a value between 20 and 720. If TMSP does not receive a heartbeat message from the product within the specified number of minutes, it sends an email notification so that the email recipient can check the connection status of the registered product.

   Note: Specify the email recipients in the Notifications screen. For details, see *Configuring Event Notifications* on page 4-10.

3. Click **Save**.

Managing the Contact List

The Contact List screen lists two groups of users: administrators and notification recipients.

Administrators

TMSP has a built-in administrative account called `admin`. This account has full access to the administrative console and cannot be removed.

TMSP allows you to create a custom administrative account, which has limited access to the administrative console. Users who log on using this account can manage the customer account assigned to them.

If you have created only one customer account (which Trend Micro recommends), you do not need to create a custom administrative account. Use the `admin` account to manage the customer account and the TMSP system.

The default password for the `admin` account is `123456`. For improved security, Trend Micro recommends changing the password after logging on for the first time and periodically thereafter. Passwords must contain 6 to 16 alphanumeric characters (such as 0-9, a-z, A-Z). The following symbols are also accepted:

! \ " # $ % & ' ( ) * + , - . / : ; < = > ? @ [ ] ^ _ ` { | } ~

The following are guidelines for creating a safe password:

- Avoid words found in the dictionary.
- Intentionally misspell words.
- Use phrases or combine words.
- Use both uppercase and lowercase letters.

If you lose the password, there is no way to recover it. Contact your support provider for assistance in resetting the password.

To add a custom administrative account:

PATH: CONTACT LIST

1. Click **Add**.
2. In the screen that appears, type the following information:
   - Account name
   - First name
   - Last name
   - Email address
   - Password (Confirm the password in the next field)
   - SMS
3. Click **Save**.

To modify the built-in or custom administrative account:

PATH: CONTACT LIST

1. Click **Edit**.
2. Modify account information, such as the password.
3. Click **Save**.

To delete a custom administrative account:

PATH: CONTACT LIST

1. Click **Delete**.
2. Confirm that you want to delete the account and click **OK**.

Notification Recipients

Notification recipients can receive periodic reports and event notifications through email. Event notifications inform users about items that require user intervention.

For details about sending periodic reports, see *Sending Reports Generated Periodically* on page 5-11. For details about event notifications, see *Configuring Event Notifications* on page 4-10.

Note: The administrator can also receive the same periodic reports and event notifications sent to notification recipients.

To add a notification recipient:

PATH: CONTACT LIST

1. Click **Add**.
2. In the screen that appears, type the following information:
   - First name
   - Last name
   - Email address
   - SMS
3. Click **Save**.

To modify information for a notification recipient:

PATH: CONTACT LIST

1. Click **Edit**.
2. Modify the information in the screen that appears.
3. Click **Save**.

To delete a notification recipient:

PATH: CONTACT LIST

1. Click **Delete**.
2. Confirm that you want to delete the account and click **OK**.

Configuring Event Notifications

Configure TMSP to send notifications when certain events occur. These events usually require user intervention.

Notification recipients receive notifications through email. Configure the recipient list in the Contact List screen (see *Managing the Contact List* on page 4-7) and the email delivery settings in the Notification Settings screen (see *Configuring Notification Settings* on page 4-13).

To configure event notifications:

PATH: CUSTOMERS

1. Click **Configure** under the **Notifications** column.
2. Select the notification recipients for the following events:

TABLE 4-1. Events that trigger notifications

EVENT	DESCRIPTION	RECOMMENDED ACTION	RECOMMENDED RECIPIENTS
Outbreak Containment Services triggered	Outbreak Containment Services in Threat Discovery Appliance blocked and disconnected malware activities that have the potential of causing an outbreak. TMSP uses malware mapping settings to determine the malware name reflected in the notification. For details about malware mapping, see *Updating Malware Mapping Settings* on page 6-6.	Investigate if malware activities have been halted. If the malware is actually harmless, a recipient can delete the malware name entry from the Malware Mapping Settings screen.	Administrators for TMSP and Threat Discovery Appliance

TABLE 4-1. Events that trigger notifications (Continued)

EVENT	DESCRIPTION	RECOMMENDED ACTION	RECOMMENDED RECIPIENTS
Threat sample ready	Threat Mitigator uploaded a .zip file containing forensic data to TMSP.	Send the .zip file to Trend Micro for analysis. For details, see *Downloading Forensic Data* on page 5-16.	TMSP administrator
Registered product and services expiration	• The license for a registered product has expired. • Subscription to Trend Micro Services has expired. Configure TMSP to send email notifications before the subscription expires. For details, see *Configuring Notification Settings* on page 4-13.	Renew the license or the subscription immediately.	Administrators for TMSP and registered products
No heartbeat received from registered product	TMSP detects that a registered product has not sent a heartbeat message within a time interval. Configure the time interval in **Administration > Network Interface Settings**. For details, see *Configuring Network Interface Settings* on page 4-6.	Ensure that the registered product can connect to the network.	Administrators for TMSP and registered products

TABLE 4-1. Events that trigger notifications (Continued)

EVENT	DESCRIPTION	RECOMMENDED ACTION	RECOMMENDED RECIPIENTS
Too many/ Too few incidents	There are too many or too few threat incidents. Configure the number of incidents in **Administration > Notification Settings**. For details, see *Configuring Notification Settings* on page 4-13. The notification for this event is only sent once. When TMSP sends the first notification, it will not send notifications even if the threshold is met.	Check if the threat detection settings in Threat Discovery Appliance is working properly.	Administrators for TMSP and registered products

3. Click **Save**.

Configuring Notification Settings

Notification settings include notification triggers and email delivery settings. Notification triggers are for expiring subscriptions to Trend Micro Services and the Incident Monitor feature.

TMSP can send a notification before your subscription to Trend Micro services expires so that you can renew the subscription. Contact your Trend Micro representative for renewal details.

WARNING! **If your subscription expires, TMSP no longer generates reports and Trend Micro cannot send custom patterns for endpoints that require further mitigation.**

TMSP has an Incident Monitor feature used for testing the threat detection function in Threat Discovery Appliance. Incident Monitor requires you to define the number of threats considered too many or too few and the time period for detection. TMSP will send a one-time notification when the number of threat incidents during the time period exceeds or is below the threshold. When you receive the notification, adjust threat detection settings in Threat Discovery Appliance accordingly.

Configure email delivery settings that TMSP will use when sending event notifications and periodic reports.

To configure notification settings:

PATH: ADMINISTRATION > NOTIFICATION SETTINGS

1. Specify when TMSP sends notifications for the expiring subscription. TMSP can send notifications 30, 15, 10, 5, 3, or 1 day before the subscription expires.
2. Configure TMSP to send a notification when the number of threats is too many or too few. When you select **Too few** or **Too many**:
   a. Type the number of incidents.
   b. Type the time period (in number of days).

3. Configure email delivery settings.
   a. Type the sender's email address.
   b. Type the SMTP server name or IP address and the port number.
   c. If the SMTP server requires authentication, type the **User name** and **Password**.
4. Click **Save**.

Registering Products to TMSP

After you have created a customer account and configured the necessary product settings, start to register products to TMSP.

If you are not the product's administrator, send the following information to the administrator:

- IP addresses for the log server and status server
- Credentials for registering products (user name and password)

After a product registers, it displays in the Registered Products screen. For details, see *Monitoring Registered Products* on page 5-27.

IP Addresses for the Log Server and Status Server

Configure the IP addresses for the Log Server and Status Server in **Administration > Network Interface Settings** if you have not done so.

Specify the IP addresses in the registering product's Threat Management Services Portal screen, in the **Server Settings** section.

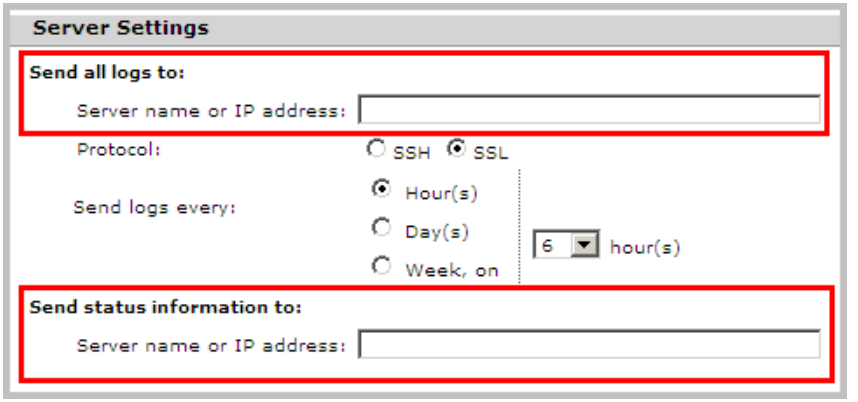


FIGURE 4-1. The Server Settings section in the registering product's web-based console

Credentials for Registering Products

Credentials for registering products are set when you created the customer account. For details, see *Creating a Customer Account* on page 4-2.

Specify the credentials in the registering product's Threat Management Services Portal screen, in the **Server authentication** section.

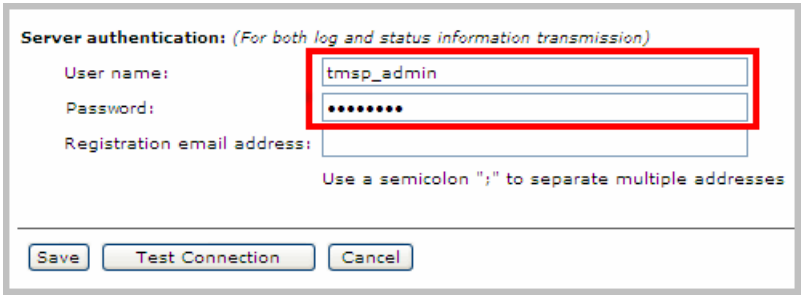


FIGURE 4-2. The Server authentication section in the registering product's web-based console

Chapter 5

Viewing and Analyzing Information

This chapter includes information about reports and tasks after setting up a customer account in Threat Management Services Portal (TMSP).

This chapter discusses the following topics:

Managing the Customer Account

The Customer Accounts screen shows information about the account you have created and allows you to launch various tasks.

Account Information

View the following information relevant to the customer account and the registered products assigned to the account:

TABLE 5-1. Information in the Customer Accounts screen

COLUMN NAME	INFORMATION
Account	The account name
Company Name	The name of your organization
Incidents	The number of threat incidents in the network TMSP correlates detection logs received from Threat Discovery Appliance with threat correlation rules to determine the number of incidents. TMSP updates the number of incidents once per day. It starts to correlate logs at 2:00 a.m.
Last Received	The date and time TMSP last received logs from a registered product The information refreshes as soon as a registered product finishes uploading logs. TMSP does not control the log uploading schedule. The schedule is set in the registered product's web-based console.
Trend Micro Services	The Trend Micro services included in your threat management strategy See *Trend Micro Services* on page C-6 for details.
Managed By	The owner of the customer account

TABLE 5-1. Information in the Customer Accounts screen (Continued)

COLUMN NAME	INFORMATION
Valid From	The date the subscription to Trend Micro services became valid Before your subscription to the services expires, contact your Trend Micro representative for information on how to renew the subscription.
Security Compliance	Whether Security Compliance is enabled or disabled in Threat Discovery Appliance. For details about Security Compliance, see *Security Compliance* on page C-3. TMSP updates the status of Security Compliance each time it exchanges a heartbeat message with Threat Discovery Appliance.

Tasks

In addition to providing account information, the Customer Accounts screen also allows you launch the following tasks:

TABLE 5-2. Tasks in the Customer Accounts screen

TASK	DETAILS
Add an account	Add an account if none exists. An organization typically needs only one customer account, unless the organization is composed of networks that are not linked together and therefore are completely independent of each other. If products that monitor linked networks are grouped under different customer accounts, TMSP will not be able to report the security posture of the entire network. To add an account, click **Add**. For details, see *Creating a Customer Account* on page 4-2.

TABLE 5-2. Tasks in the Customer Accounts screen

TASK	DETAILS
Perform threat mitigation tasks	Send forensic data to Trend Micro and manage patterns used for custom cleanup. To perform threat mitigation tasks, click the hyperlink under the **Account** column. For details, see *Performing Threat Mitigation Tasks* on page 5-14.
Manage reports	Download periodic and on-demand reports and add or remove report recipients. To manage reports, click **Manage**. For details, see *Managing Reports* on page 5-5.
View nonconforming endpoints	Check endpoints with unresolved threats and those that encountered threat mitigation issues. Threat Mitigator reports these endpoints to TMSP. To view nonconforming endpoints, click **View**. For details, see *Viewing Nonconforming Endpoints* on page 5-24.
Configure notifications	When certain events occur, TMSP sends notifications to the product administrator and notification recipients. To configure notifications, click **Configure**. For details, see *Configuring Event Notifications* on page 4-10.
Download logs	Download consolidated logs, which provides information about threat correlation results. To download logs, click **Download**. For details, see *Downloading Consolidated Logs* on page 5-34.
Edit account	Modify the customer account details to ensure that information is up-to-date. To edit the account, click **Edit**. For details, see *Modifying the Customer Account* on page 6-3.

TABLE 5-2. Tasks in the Customer Accounts screen

TASK	DETAILS
Delete Account	Remove a customer account. Before removing an account, ensure that you create a new account if no other account exists and then register products to the new account. Deleting an account does not automatically remove reports for the account. TMSP removes the reports from its database based on the log maintenance schedule configured in **Administration > Log Maintenance**. To remove the customer account, click **Delete**. When prompted to confirm the deletion, click **OK**.

Managing Reports

Information in reports generated by TMSP allows you to:

- Examine potential vectors of infection
- Identify malware, information leakage, affected assets, infection sources, and disruptive applications
- Uncover sensitive data loss and regulatory compliance violations
- Pinpoint specific problem areas by IP address
- Evaluate the effectiveness of your web, messaging, and endpoint security
- Increase visibility into your security so that you can better understand how the threats occur, where they enter your network, and how to address your security gaps

Configuring Log Sources for Reports

TMSP creates reports based on logs uploaded by registered products. For a list of logs received from registered products and how TMSP processes them, see *Downloading Registered Product Logs* on page 5-29.

TMSP has a default log source called **All Registered Products**. This log source enables TMSP to generate a comprehensive report, showing your network's overall security posture. This report is useful for people who oversee your network's infrastructure, such as the Chief Security Officer.

Generate targeted reports by adding log sources and narrowing down the scope to several registered products. A targeted report has many uses. Consider the following scenarios:

- If a network segment is vulnerable to threats, create a report from Threat Discovery Appliances that monitor this network segment so you can track user activities and take preventive action.
- If there are registered products in different geographical locations, with a dedicated administrator in each location, create a report from registered products in each location and send the report to the administrator.

To add log sources for reports:

PATH: CUSTOMERS

1. Click **Manage** under the **Reports** column. The Reports screen appears.
2. Click **Add Log Source**. The Add Log Source screen appears.
3. Type a descriptive name for the log source.
4. Select one or several registered products from the product list on the left section of the screen.
   a. To view a group of registered products, select a log source group from the **View** dropdown box.
      - **All Registered Products:** Shows all registered products
      - **Ungrouped Registered Products:** Shows registered products that do not belong to any previously created log sources
      - **<Log source name>:** Shows registered products belonging to a previously created log source
   b. To select several adjacent entries, click the first entry, press and hold the [Shift] key, and scroll up or down the list.
   c. To select several non-adjacent entries, press and hold the [Ctrl] key and click your preferred entries.
   d. Click **Add**. The selected registered products are added to the product list on the right section of the screen.
   e. To remove a registered product you selected, click the trash bin icon  .

5. Click **Save**. The Reports screen appears.
6. Configure the reports to generate from the log source. For details, see *Report Types* on page 5-7.

To manage log sources:

PATH: CUSTOMERS

1. Click **Manage** under the **Reports** column. The Reports screen appears.
2. To edit log source settings, click **Edit** and then make changes in the screen that appears.
3. To delete a log source, click **Delete**.

Report Types

TMSP provides the following report types that are available as PDF files.

TABLE 5-3. Report types

REPORT TYPE	DESCRIPTION	AVAILABILITY
Administrative Report	An Administrative Report summarizes threats detected in the network. This report is useful for people who need to constantly monitor the network for threats, such as members of the IT security team.	Daily

TABLE 5-3. Report types (Continued)

REPORT TYPE	DESCRIPTION	AVAILABILITY
Executive Report	An Executive Report provides a detailed account of the monitored network's overall security posture. The report provides the network's risk profile, the impact of risks to your network infrastructure and your organization as a whole, and recommended actions. This report is useful for people who oversee your network's overall security infrastructure, such as the Chief Security Officer. It is also useful for people with a stake in IT security, such as company executives.	Weekly, monthly, or upon request
Upsell Report	An Upsell Report provides a summary of the monitored network's overall security posture and presents a list of Trend Micro solutions and services that address specific security concerns in the network.	Upon request

Downloading Reports Generated Periodically

Reports that generate daily, weekly, or monthly are collectively known as **periodic reports**.

TMSP starts to generate a daily Administrative Report at 2:00 am of the following day.

A weekly Executive Report combines data generated from Sunday to Saturday of a particular week. TMSP starts to generate the report on Sunday of the following week.

A monthly Executive Report combines data for all the days of the month. TMSP starts to generate the report on the first day of the next month.

After a periodic report generates, TMSP displays a link to the report on the administrative console. When you click the link, the report downloads immediately.

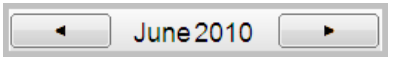
Important details about periodic reports:

- When TMSP needs to generate several periodic reports on a particular day, it follows a report generation order. For example, if a month ends on a Saturday (which is also the end of a particular week), TMSP needs to generate all three periodic reports. TMSP generates the daily report first, followed by the weekly report, and then the monthly report.
- TMSP provides a Report Builder feature that aggregates reports for a given date range and then archives them into a .zip file. The .zip file is available immediately for download but cannot be sent automatically as an email attachment.
- The language used in periodic reports and in the email containing the reports depends on the language selected for the customer account. For details, see *Creating a Customer Account* on page 4-2.

To download reports generated periodically:

PATH: CUSTOMERS

1. Click **Manage** under the **Reports** column. The Reports screen appears.
2. Click **Download** under the **Periodic Reports** column. A new screen appears, presenting you a monthly calendar view and a Report Builder feature at the lower section of the screen.
3. To download reports using the monthly calendar view:
   a. Use the buttons on top of the screen to switch to a different month.



   b. To download a daily report, go to the day of the month, click **Daily**, and save the PDF file.
   c. To download a weekly report, go to a Saturday of the month, click **Weekly**, and save the PDF file.
   d. To download a monthly report, go to the last day of the month, click **Monthly**, and save the PDF file.
   e. Click the re-generate button  if:
      - There are errors generating a daily report.

Note: You can only re-generate a daily report. If you wish to re-generate a weekly or monthly report, request an on-demand report and specify the particular week or month. For details about on-demand reports, see *Downloading Reports Generated Upon Request* on page 5-13.

TMSP removes the existing daily report from its database before generating a new report.

      - You changed the report language from the Customer Accounts screen. The re-generated report will be in the new language that you have chosen.

4. To download reports using Report Builder:
   a. Type a date in the **From** and **To** fields or use the calendar icon to select a date.
   b. Select whether to aggregate daily, weekly, or monthly reports for the date range you specified.

      For example, if you choose weekly reports and the date range is from June 1 to June 21, 2010, the .zip file you will download will have 3 weekly reports in it. The first report covers the week ending June 5, the second report covers the week ending June 12, and the last report covers the week ending June 19.
   c. Click **Download**.
   d. Save the .zip file.

Sending Reports Generated Periodically

TMSP can automatically send reports generated periodically as email attachments. You can choose the report recipients from a list of email addresses.

The email body is in plain text or HTML format. TMSP uses HTML format if the language for the customer account is Simplified Chinese. If the language is not Simplified Chinese, TMSP uses plain text format. For details about the customer account, see *Creating a Customer Account* on page 4-2.

Configure email delivery settings in the Notification Settings screen (see *Configuring Notification Settings* on page 4-13).

To send reports generated periodically as email attachments:

PATH: CUSTOMERS

1. Click **Manage** under the **Reports** column. The Reports screen appears.
2. Click **Configure** under the **Report Sending Settings** column. The Report Sending Settings screen appears.

3. Select one or several email addresses from the list on the left section of the screen.

Note: The email addresses in the list belong to:

- The contact person specified when you created the customer account

- The administrator/notification recipients listed in the Contact List screen

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   a. To select several adjacent entries, click the first entry, press and hold the [Shift] key, and scroll up or down the list.

   b. To select several non-adjacent entries, press and hold the [Ctrl] key and click your preferred entries.

   c. Click **Add**. The selected email addresses are added to the list on the right section of the screen.

   d. To remove an email address you selected, click the trash bin icon  .

4. Select the report types to send.
5. (Optional) Attach a top 10 malware report to the email. The report is available as a .csv file.

Note: This option is only available if the language for the customer account is Simplified Chinese.

---

6. Click **Save**.

Downloading Reports Generated Upon Request

A report that generates upon a user's request is called an **on-demand report**. The report is a single PDF file that combines data for a given date range.

The report is not immediately available for download because TMSP needs to consolidate data for the given date range and then generate a single PDF file. The amount of time it takes to generate the report depends on the date range you specified and the type of report selected. Among the report types, Executive Reports take the longest to generate because of the amount of data in the report.

The language used in an on-demand report can be set when you make a report request.

To download reports generated upon request:

PATH: CUSTOMERS

1. Click **Manage** under the **Reports** column. The Reports screen appears.
2. Click **Download** under the **On-demand Reports** column. A new screen appears.
3. Type a date in the **From** and **To** fields or use the calendar icon to select a date.
4. Select a language for the report.
5. Select a report type.
6. Click **Generate**.
7. In the table at the lower section of the screen, check the report generation status, including any errors encountered during report generation.
8. When the report has been generated:
   a. Click **Download**.
   b. Save the PDF file.
9. To remove the report from the product database, click **Delete**.

Performing Threat Mitigation Tasks

Perform threat mitigation tasks if you have Threat Mitigator as part of your threat management strategy.

When threats are not be removed completely from an endpoint during post-assessment cleanup, the following tasks are initiated:

1. Threat Management Agent notifies Threat Mitigator about the event (that is, that there are unresolved threats in the endpoint).
2. Threat Mitigator logs the event.
3. When the Threat Mitigator administrator checks the logs and finds out about the event, the administrator initiates case submission from Threat Mitigator's Threat Management screen.

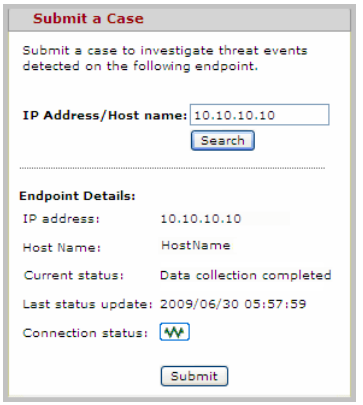


FIGURE 5-1. Threat Mitigator Threat Management screen - Submit a Case section

During case submission:

a. Threat Mitigator notifies the agent to collect forensic data that will be used to analyze unresolved threats. The agent encrypts the data and archives it into a .zip file.

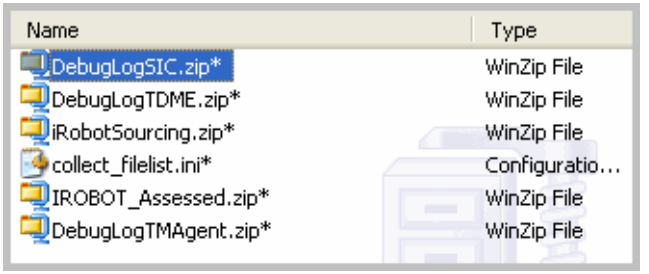


FIGURE 5-2. Sample .zip file containing forensic data

b. The agent uploads the .zip file to Threat Mitigator.

c. Threat Mitigator uploads the .zip file to TMSP.

4. After TMSP receives the .zip file, it displays the file name in the administrative console's Case List screen.

5. If you enabled event notifications, TMSP sends an email informing you about the .zip file.

Note: Configure notifications from the Notifications screen. For details, see *Configuring Event Notifications* on page 4-10.

---

6. Perform the following threat mitigation tasks:
   a. Download and send the forensic data (.zip file) to Trend Micro. For details, see *Downloading Forensic Data* on page 5-16.
   b. Manage pattern files issued by Trend Micro. For details, see *Managing Pattern Files Issued by Trend Micro* on page 5-18.

Note: In addition to managing forensic data and pattern files, you can also monitor nonconforming endpoints, which are endpoints that require threat mitigation or those with threat mitigation issues. For example, if the Threat Management Agent was unable to run cleanup because the custom pattern is corrupted, you can re-issue the pattern from TMSP. For details, see *Viewing Nonconforming Endpoints* on page 5-24.

Downloading Forensic Data

Download the .zip file containing forensic data from the following locations:

- The administrative console's Case List screen
- The notification that TMSP sent through email

Note: TMSP sends the notification if you enabled the "Threat Sample Ready" notification. For details, see *Configuring Event Notifications* on page 4-10.

After downloading the .zip file, send it to Trend Micro for analysis.

To download the .zip file (event notification enabled):

1. Click the hyperlink in the email notification.
2. Save the file to your preferred location.

To download the .zip file (event notifications disabled):

1. In the administrative console, click **Customers** in the main menu.
2. Click the hyperlink under the **Account** column. The Case List screen appears.

3. Locate the case. In the **Case List** section, information about the case displays in the following columns:

TABLE 5-4. Column names and the information that display in each column when the .zip file becomes available

COLUMN NAME	INFORMATION
Case ID	Blank The case ID is initially blank. When you submit the .zip file to Trend Micro, a Trend Micro Threat Management Advisor will issue a case ID.
Status	Any of the following status messages: • **New Case Received:** You will see this status if no action has been performed on the case • **Administrator Notified About New Case:** You will see this status only if you enabled notifications and if the notification was sent.
Received	The date and time the .zip file was uploaded to TMSP
Updated	N/A This column indicates the date and time you manually updated the case. Since you have not done an update, the data is N/A.
Mitigation Server	The Threat Mitigator server that uploaded the .zip file
Pattern ID	N/A The Pattern ID will only have a value if you upload a custom pattern or specify smart protection patterns.
Endpoint	The endpoint from which the .zip file was created
Download	A link to the .zip file containing forensic data

4. Under **Download**, click the .zip file. The file starts to download. When the download is complete, information in the **Status** column changes to **Threat Sample Downloaded**.

After downloading the .zip file:

1. Send the file to Trend Micro.
2. When you receive a case ID from Trend Micro, update the case ID.
   a. In the administrative console, click **Customers** in the main menu.
   b. Click the hyperlink under the **Account** column. The Case List screen appears.
   c. Click the hyperlink under the **Case ID** column.
   d. In the **Edit Case** screen that appears, type the case ID.
   e. Click **Apply**. The **Updated** column refreshes, indicating the date and time you updated the case.

Managing Pattern Files Issued by Trend Micro

After analyzing threats, Trend Micro notifies you of the pattern required to eliminate the threats. The pattern can be a custom pattern or smart protection patterns.

Custom Pattern

Trend Micro creates a custom pattern in response to a particular threat. The availability of custom patterns depends on your service agreement with Trend Micro. Contact your Trend Micro representative for details about your service agreement.

When threat signatures in the custom pattern are added to smart protection patterns, Trend Micro notifies you to download smart protection patterns instead.

A custom pattern can either be a Bandage Pattern or a Controlled Pattern. For details, see *Bandage Pattern* on page C-1 and *Controlled Pattern* on page C-1.

Tip: TMSP does not remove custom patterns from its database. Contact your support provider for help on removing these patterns.

To manage custom patterns:

1. Obtain the custom pattern from Trend Micro and save it to a computer. When you obtain the pattern, Trend Micro also provides you the following information:
   - The type of custom pattern (Bandage Pattern or Controlled Pattern)
   - The custom pattern's version
   - The case ID issued by Trend Micro when you sent the forensic data
2. Open the administrative console and click **Customers** in the main menu.
3. Click the hyperlink under the **Account** column. The Case List screen appears.
4. In the **Upload Custom Pattern** section, choose whether to upload a Bandage Pattern or a Controlled Pattern.
5. Type the version for the pattern.
6. Type a description for the pattern. For example, type the endpoint for which the pattern was created.
7. Click **Browse**, locate the pattern file, and click **Open**.
8. Click **Submit**. The custom pattern is uploaded to TMSP.
9. When the upload is complete:
   a. Go to the **Pattern List** section and verify that a new entry was created. This new entry has the following information:

TABLE 5-5. Information in the Pattern List section

COLUMN NAME	INFORMATION
Pattern ID	The ID number for the pattern **Note:** The product automatically generates the ID number. For example, if the entry is the third one to be created, the number is 3.
Type	The custom pattern type
File Name	The file name for the custom pattern
Status	Not Applied

TABLE 5-5. Information in the Pattern List section (Continued)

COLUMN NAME	INFORMATION
Version	The custom pattern version
Uploaded	The date and time you uploaded the custom pattern
Uploaded By	The administrator account that you used to log on to the administrative console
Description	The description for the custom pattern
Target Case ID	The hyperlink under this column points to a new screen that provides the following information: • Case ID: The case ID for which the custom pattern was created • Received: The date and time forensic data (.zip file) was uploaded to TMSP • Endpoint: The endpoint for which the custom pattern was created Mark the Resolved check box later when you have confirmed that the custom pattern has eliminated unresolved threats.

b. Go to the **Case List** section and locate the case. Information in the **Status** column changes to **Threat Mitigator Notified About Pattern**.

Threat Mitigator automatically downloads the custom pattern the next time it connects to TMSP.

10. Verify that Threat Mitigator has downloaded the pattern.

- In the **Pattern List** section, information in the **Status** column changes to **Downloaded**. This means that Threat Mitigator has started to download the pattern.
- If manual pattern deployment is enabled in Threat Mitigator (the Threat Mitigator administrator controls this setting), navigate to Threat Mitigator's Threat Management screen. When you click **Require custom cleanup**, the custom pattern displays in the table at the lower section of the screen.

After Threat Mitigator deploys the custom pattern to the endpoint, Threat Management Agent runs custom cleanup using the custom pattern.

11. Check the custom cleanup status from Threat Mitigator's threat event logs. If cleanup was successful:
    a. In the administrative console, click **Customers** in the main menu.
    b. Click the hyperlink under the **Account** column. The Case List screen appears.
    c. Go to the **Pattern List** section and click the hyperlink under the **Target Case ID** column.
    d. In the screen that opens, mark the check box under **Resolved**.
    e. Click **Save** and then **Back**.
    f. Go to the **Case List** section. Under the **Case ID** column, click the hyperlink of the case you just resolved.
    g. In the new screen that appears, change the status to **Closed**.
    h. Specify the reason for closing the case. For example, you can state that the custom pattern has eliminated unresolved threats from the endpoint.
    i. Click **Apply**. In the **Case List** section, information in the **Status** column changes to **Case Closed**.

Smart Protection Patterns

Trend Micro regularly releases smart protection patterns (either **Smart Scan Agent Pattern** or **Smart Scan Pattern**, or **both**) through the Trend Micro ActiveUpdate server to respond to the latest threats. These patterns are continuously available for download as long as the product license is valid. Information about specific pattern versions that you can use to eliminate unresolved threats can be obtained from Trend Micro.

For detailed information about smart protection patterns, see *Smart Protection* on page C-4.

Trend Micro may notify you to update one or both smart protection patterns if:

- Threat signatures in a custom pattern have been added to smart protection patterns
- Your service agreement with Trend Micro does not entitle you to custom patterns

To manage smart protection patterns:

1. Obtain the following information about smart protection patterns from Trend Micro:
   - The type of smart protection pattern to use to eliminate unresolved threats (Smart Scan Pattern or Smart Scan Agent Pattern, or both)
   - The version for the patterns
2. Open the administrative console and click **Customers** in the main menu.
3. Click the hyperlink under the **Account** column. The Case List screen appears.
4. In the **Specify Smart Protection Patterns** section, choose the pattern to use to eliminate unresolved threats.
5. Type the pattern version.
   - If you choose Smart Scan Pattern, type the pattern version in the text box provided.
   - If you choose Smart Scan Agent Pattern, type the pattern version in the text box provided.
   - If you choose both Smart Scan Pattern and Smart Scan Agent Pattern, type the pattern versions in the two text boxes.
6. Type a description for the pattern. For example, type the endpoint to which to deploy the pattern.
7. Click **Submit**.

   TMSP notifies Threat Mitigator about the patterns.
   - If the pattern is the Smart Scan Agent Pattern, Threat Mitigator downloads the pattern from its update source, which is the Trend Micro ActiveUpdate server by default.
   - If the pattern is the Smart Scan Pattern, view the pattern version that the smart protection source is using from Threat Mitigator's Threat Management screen.
8. If you chose Smart Scan Agent Pattern, verify that Threat Mitigator has downloaded the pattern.
   - In the **Pattern List** section, information in the **Status** column changes to **Downloaded**. This means that Threat Mitigator has started to download the pattern.
   - In the **Case List** section, information in the **Status** column changes to **Threat Mitigator Notified About Pattern**.

- If manual pattern deployment is enabled in Threat Mitigator (the Threat Mitigator administrator controls this setting), navigate to Threat Mitigator's Threat Management screen. When you click **Require custom cleanup**, the pattern displays in the table at the lower section of the screen.

After Threat Mitigator deploys the pattern to the endpoint, Threat Management Agent runs custom cleanup using the pattern.

9. Check the custom cleanup status from Threat Mitigator's threat event logs. If cleanup was successful:
   a. In the administrative console, click **Customers** in the main menu.
   b. Click the hyperlink under the **Account** column. The Case List screen appears.
   c. Go to the **Pattern List** section and click the hyperlink under the **Target Case ID** column.
   d. In the screen that opens, mark the check box under **Resolved**.
   e. Click **Save** and then **Back**.
   f. Go to the **Case List** section. Under the **Case ID** column, click the hyperlink of the case you just resolved.
   g. In the new screen that appears, change the status to **Closed**.
   h. Specify the reason for closing the case. For example, you can state that the pattern has eliminated unresolved threats from the endpoint.
   i. Click **Apply**. In the **Case List** section, information in the **Status** column changes to **Case Closed**.

No Pattern Required

In case of a false alarm, Trend Micro notifies you that no pattern is required. You can proceed to close the case if you receive such notice.

To close a case because no pattern is required:

1. Open the administrative console and click **Customers** in the main menu.
2. Click the hyperlink under the **Account** column. The Case List screen appears.
3. In the **Specify Smart Protection Patterns** section, choose **None**.

4. Type a description. For example, state that no pattern is required because no threat was detected in the forensic data sent to Trend Micro.
5. Click **Submit**.
6. Go to the **Pattern List** section and click the hyperlink under the **Target Case ID** column.
7. In the screen that opens, mark the check box under **Resolved**.
8. Click **Save** and then **Back**.
9. Go to the **Case List** section. Under the **Case ID** column, click the hyperlink of the case you just resolved.
10. In the new screen that appears, change the status to **Closed**.
11. Specify the reason for closing the case. For example, state that the case is a false alarm.
12. Click **Apply**. In the **Case List** section, information in the **Status** column changes to **Case Closed**.

Viewing Nonconforming Endpoints

Endpoints with unresolved threats and those that encountered threat mitigation issues are considered nonconforming. Threat Mitigator reports these endpoints to TMSP.

To view nonconforming endpoints:

PATH: CUSTOMERS

1. Click **View** under the **Nonconforming Endpoints** column.
2. Select from the following tabs:

- **Nonconforming Endpoints:** Displays the IP addresses of nonconforming endpoints

TABLE 5-6. Information in the Nonconforming Endpoints table

COLUMN TITLE	INFORMATION
IP Address	Shows the IP addresses and host names of nonconforming endpoints. Host names are enclosed in parentheses. Filter the IP addresses that display by selecting one of the following items in the dropdown box below the **IP Address** column: • **Any of the last 5 days:** Shows endpoints that are nonconforming on any of the last 5 days • **All of the last 5 days:** Shows endpoints that are nonconforming on all of the last 5 days • **All of the last 3 days:** Shows endpoints that are nonconforming on all of the last 3 days • **Yesterday:** Shows endpoints that are nonconforming during the previous day • **<IP address>:** Shows the nonconforming endpoint
<Second to sixth column>	The column titles indicate the dates of the last five days and the total number of threat events detected on each date. For example, a column with the title **2010-06-30 (23)** means that there are a total of 23 threat events detected on all nonconforming endpoints on June 30, 2010. Each cell shows the number of threat events detected on an endpoint for a particular date.

TABLE 5-6. Information in the Nonconforming Endpoints table (Continued)

COLUMN TITLE	INFORMATION
Last Threat Sample Received	Shows the date and time forensic data was received from the endpoint **N/A** displays if there is no forensic data in TMSP for the particular endpoint, which can happen for many reasons. For example, an agent may have collected data but encountered problems uploading the data to Threat Mitigator.
Last Pattern Deployed	Shows the date and time Threat Mitigator downloaded a custom pattern from TMSP **N/A** displays if Threat Mitigator has not received any pattern from TMSP.

- **Yesterday's Nonconforming Endpoints:** Provides a graph that shows threat events logged from nonconforming endpoints at various hours of the previous day
- **Yesterday's Threat Mitigation Issues:** Displays the IP addresses of endpoints with threat mitigation issues

TABLE 5-7. Information in the Yesterday's Threat Mitigation Issues table

COLUMN TITLE	INFORMATION
IP Address	Shows the IP addresses and host names of endpoints that encountered mitigation issues. Host names are enclosed in parentheses. Filter the IP addresses that display by selecting one of the following items in the dropdown box below the **IP Address** column: • **All:** Shows endpoints with threat mitigation issues during the previous day • **<IP address>:** Shows the endpoint with threat mitigation issues

TABLE 5-7. Information in the Yesterday's Threat Mitigation Issues table

COLUMN TITLE	INFORMATION
Agent Initialization Issue	Indicates endpoints that encountered errors initializing Threat Management Agent
Internal Error	Indicates endpoints that encountered agent component errors
Pattern Not Found	Indicates endpoints that do not have a pattern required for threat mitigation
Configuration Error	Indicates endpoints with corrupted threat mitigation components or files

Monitoring Registered Products

The Registered Products screen shows a table with a list of all the Threat Discovery Appliance and Threat Mitigator servers that have registered to TMSP. TMSP refreshes the list as soon as a product registers.

The Registered Products screen shows the following information:

TABLE 5-8. Information displayed in the Registered Products screen

COLUMN NAME	INFORMATION
Customer Account	The customer account
Product	Threat Discovery Appliance or Threat Mitigator
Host Name	The host name for the registered product
Version	The version for the registered product
Build	The build number for the registered product

TABLE 5-8. Information displayed in the Registered Products screen (Continued)

COLUMN NAME	INFORMATION
GUID	The GUID for the registered product
Security Compliance	Indicates whether Security Compliance is enabled or disabled Security Compliance is a separately licensed feature in Threat Discovery Appliance that detects and logs violations to compliance rules set for specific industries. For details, see *Security Compliance* on page C-3.
Status Last Received	The date and time refer to: • The last time TMSP received raw logs from the registered product • The last time TMSP and the registered product exchanged a heartbeat message. The exchange was initiated using the **Test Connection** feature in Threat Discovery Appliance or Threat Mitigator.
Logs Last Received	The date and time TMSP last inserted logs into its database

The Registered Products screen also allows you to perform the following tasks:

- Download logs received from registered products. For details, see *Downloading Registered Product Logs* on page 5-29.
- Delete a registered product. For details, see *Deleting a Registered Product* on page 5-33.

Downloading Registered Product Logs

You can download most of the logs that registered products send to TMSP.

Threat Discovery Appliance Logs

TMSP receives the following logs from Threat Discovery Appliance:

TABLE 5-9. Logs that Threat Discovery Appliance sends to TMSP

LOGS	DESCRIPTION	DOWNLOADABLE
Detection logs	Detection logs contain information about security threats, including malware activities blocked by Outbreak Containment Services. TMSP analyzes detection logs and then correlates them with a set of rules to calculate the number of unique threat incidents in the network. Information about threat incidents and the risk they pose is available in the administrative and executive reports.	Yes
Application filter logs	Application filter logs contain information about potential security threats that disruptive applications may introduce into the network. Information about disruptive applications and the risk they pose is available in the executive reports.	Yes

TABLE 5-9. Logs that Threat Discovery Appliance sends to TMSP (Continued)

LOGS	DESCRIPTION	DOWNLOADABLE
URL filtering logs	URL filtering logs contain information about websites and pages that Trend Micro smart protection technology verifies to be fraudulent or known sources of threats. Information about the websites and pages and the risk they pose is available in the executive reports. **Note:** URL filtering logs cannot be viewed from the Threat Discovery Appliance web console.	Yes
Security compliance logs	Security compliance logs contain information about violations to security compliance rules. Information about the security compliance violations and the risk they pose is available in the executive reports. **Note:** Security compliance logs cannot be viewed from Threat Discovery Appliance web console.	No Contact your support provider for assistance in extracting these logs from TMSP.

Threat Discovery Appliance also sends network configuration data to TMSP. Network configuration data includes:

- Monitored Networks
- Registered Domains
- Registered Services

TMSP displays network configuration data in reports and in various places in the administrative console. You can view network configuration data from the Threat Discovery Appliance web console.

Threat Mitigator Logs

TMSP receives the following logs from Threat Mitigator:

TABLE 5-10. Logs that Threat Mitigator sends to TMSP

LOGS	DESCRIPTION	DOWNLOADABLE
Threat event logs	Threat Mitigator sends logs related to threat mitigation, including threat cleanup and custom pattern deployment. Information about endpoints with threat mitigation issues is available in: • The executive and administrative reports • The administrative console. For details, see *Viewing Nonconforming Endpoints* on page 5-24.	Yes
Root cause logs	Threat Mitigator sends logs that trace the root cause of infections. Use these logs to: • Pinpoint malware infection channels • Break the infection chain • Make behavioral security adjustments Information about the root cause of infections is available in the executive and administrative reports.	No Contact your support provider for assistance in extracting these logs from TMSP.

To download detection or threat event logs:

PATH: REGISTERED PRODUCTS

1. Click **Download** under the **Detection/Threat Event Logs** column.
2. In the screen that displays, type a date in the **From** and **To** fields or use the calendar icon to select a date.
3. Click **Download**.
4. Save the .csv file to your preferred location.

To download URL filtering logs:

PATH: REGISTERED PRODUCTS

1. Click **Download** under the **URL Filtering Logs** column.
2. Select the monitored networks to obtain logs from. You can also click **Specific monitored network** and then type the monitored network names in the text box provided. Separate names by commas.
3. Optionally include endpoints that do not belong to any monitored network.
4. Select the network zone for monitored networks.
5. Type a date in the **From** and **To** fields or use the calendar icon to select a date.
6. Choose the IP addresses in the monitored networks to obtain logs from.
   - **All:** Includes all IP addresses for the selected monitored networks, including IP addresses of endpoints that do not belong to any monitored network if you chose that option
   - **IP address range:** Type the IP addresses in the fields provided.
7. Click **Download**.
8. Save the .csv file to your preferred location.

To download application filter logs:

PATH: REGISTERED PRODUCTS

1. Click **Download** under the **Application Filter Logs** column.
2. Select the monitored networks to obtain logs from. You can also click **Specific monitored network** and then type the monitored network names in the text box provided. Separate names by commas.
3. Optionally include endpoints that do not belong to any monitored network.
4. Select the network zone for monitored networks.
5. Type a date in the **From** and **To** fields or use the calendar icon to select a date.
6. Choose the IP addresses in the monitored networks to obtain logs from.
   - **All:** Includes all IP addresses for the selected monitored networks, including IP addresses of endpoints that do not belong to any monitored network if you chose that option
   - **IP address range:** Type the IP addresses in the fields provided.

7. Click **Download**.
8. Save the .csv file to your preferred location.

Deleting a Registered Product

A product's administrator may unregister the product from the product's web-based console. During unregistration, the product does not notify TMSP that it is being unregistered so TMSP does not remove the product on the registered products list. You will need to manually remove the product by clicking **Delete** in the screen. If you are not the product's administrator, ask the administrator to inform you of the unregistration so you can remove the product from the list.

If you delete a product still registered to TMSP, the product's logs that are currently in the TMSP database are not automatically removed, but they will no longer be available for download. When the product sends logs again, the product is added to the registered products list.

To delete a registered product:

PATH: REGISTERED PRODUCTS

1. Locate the product you wish to delete and then click **Delete**.
2. Click **OK** to confirm the deletion.

Downloading TMSP Logs

You can download the following logs that TMSP generates:

- Consolidated logs
- System logs

For details about these logs, see *Downloading Consolidated Logs* on page 5-34 and *Downloading System Logs* on page 5-34.

To download logs sent by registered products, see *Downloading Registered Product Logs* on page 5-29.

Downloading Consolidated Logs

TMSP stores the threat correlation results in consolidated logs. TMSP performs threat correlation when it receives detection logs from Threat Discovery Appliance to determine the number of threat incidents in the network.

To download consolidated logs:

PATH: CUSTOMERS

1. Click **Download** under the **Logs** column.
2. Type a date in the **From** and **To** fields or use the calendar icon to select a date.
3. Click **Download**.
4. Save the .csv file.

Downloading System Logs

TMSP records the following events in system logs:

- A user attempts to log on to the administrative console. TMSP records both successful and unsuccessful logon attempts.
- A customer account is created.
- A customer account is edited.
- A notification recipient or an administrative account is added in the Contact List screen.

To download system logs:

PATH: ADMINISTRATION > SYSTEM LOGS

1. Type a date in the **From** and **To** fields or use the calendar icon to select a date.
2. Click **Download**.
3. Save the .csv file.

Chapter 6

Maintenance

This chapter explains how to perform maintenance tasks for Threat Management Services Portal (TMSP).

This chapter discusses the following topics:

Managing the Product License and Activation Codes

To use the functionality of TMSP, obtain an Activation Code from Trend Micro and then activate the license. An Activation Code has 37 characters (including the hyphens) specified in the following format:

`xx-xxxx-xxxxx-xxxxx-xxxxx-xxxxx-xxxxx`

You can activate or renew the license in the Product License screen. Reminders will display during the following instances:

- 30 days before expiration
- When the license expires

Note: During this time, TMSP disables updates for threat correlation rules. Outdated threat correlation rules may lead to inaccurate reports.

To manage the product license:

PATH: ADMINISTRATION > PRODUCT LICENSE
ADMINISTRATION > CONFIGURATION WIZARD > STEP 1

1. Click **New Activation Code**.
2. Type the Activation Code in the screen that opens and click **Save**.
3. Read and then agree to the license agreement, which displays when activating the license for the first time.

Note: You cannot activate the license if you do not agree to the license agreement.

4. Back in the Product License screen, click **Update Information** to refresh the screen with the new license details. This screen also provides a link to the Trend Micro website where you can view detailed information about the license.

Modifying the Customer Account

You may need to modify the customer account from time to time to ensure that account information is current.

To modify the customer account:

PATH: CUSTOMERS

1. Click **Edit**.
2. Modify account information in the screen that opens.
3. Click **Save**.

Perform additional tasks if you modified any of the following information:

1. If you modified the credentials for registering products and you have access to the registered products' web console:
   a. Open the web-based console of the product.
   b. Navigate to the Threat Management Services Portal screen.
   c. Type the credentials in the **Server authentication** section.
   d. Click **Save**.

   If you do not have access to a registered product's web console, send the credentials to the product administrator.
2. If you modified the portal logon account, send the new logon credentials to the portal users.
3. (Optional) Notify your Trend Micro representative of changes to the following information:
   - Contact person
   - Trend Micro services
   - Company information

Configuring Proxy Settings

Specify proxy settings if you want TMSP to use proxy settings for Internet connection.

TMSP needs Internet connection to check the status of the product license from the Trend Micro Online Registration site.

To configure proxy settings:

PATH: ADMINISTRATION > PROXY SETTINGS

1. Select **Use a proxy server for Internet connection**.
2. Select the proxy protocol.
3. Type the proxy server name or IP address and the port number.
4. If the proxy server requires authentication, type the **User name** and **Password**.
5. Click **Save**.

Updating Threat Correlation Rules

When TMSP receives detection logs from Threat Discovery Appliance, it correlates the logs with the threat correlation rules to calculate the unique number of threat incidents in the network. Information about threat incidents is available in the reports.

Trend Micro updates threat correlation rules periodically to fine tune the metrics used for calculating threat incidents. This procedure is necessary because the nature, prevalence, and classification of threats change over time.

Your Trend Micro representative will contact you when updated threat correlation rules become available.

Note: When you upload the file containing threat correlation rules, malware mapping settings are also updated. For details about malware mapping settings, see *Updating Malware Mapping Settings* on page 6-6.

To update threat correlation rules:

PATH: ADMINISTRATION > THREAT CORRELATION RULES

1. Type the full path of the file or click **Browse** to locate the file.
2. Click **Upload**.

Updating Malware Mapping Settings

TMSP identifies malware that may potentially cause an outbreak by correlating malware mapping settings with Outbreak Containment Services logs. Trend Micro defines and updates malware mapping settings.

Note: Threat Discovery Appliance sends Outbreak Containment Services logs to TMSP immediately after it generates them.

When TMSP receives Outbreak Containment Services logs, it scans the logs for content contained in malware mapping settings (see the **Content** column in the Malware Mapping Settings screen). If content in the logs and in the malware mapping settings is an exact match, TMSP extracts the malware name (the name that appears in the **Malware Name** column) and then reflects the name in the event notifications. If there is no match, TMSP does not send an event notification.

Note: For details about event notifications, see *Configuring Event Notifications* on page 4-10.

Important details about malware mapping settings:

- If there is no malware name under the **Malware Name** column, Trend Micro does not have enough information about the malware at the time the malware mapping settings were created. In the event notifications, the malware name is N/A.
- If you see a particular malware name that you consider harmless or that you do not want to be notified about, locate the malware name in the Malware Mapping Settings screen and then click **Delete**.
- When you update threat correlation rules (see *Updating Threat Correlation Rules* on page 6-5 for details), TMSP removes all existing malware mapping settings and then adds the settings contained in the threat correlation rules. If you removed malware names previously but see them again after the update, manually remove them again if you still consider them harmless.
- In the Malware Mapping Settings screen, you can ignore the numbers under the **internal KBID** and **external KBID** columns as these are Trend Micro-assigned numbers.

Performing Log Maintenance Tasks

TMSP stores logs in the product's hard disk. Delete logs manually or configure a log deletion schedule to keep the size of logs from occupying too much space on the hard disk.

To configure log maintenance settings:

PATH: ADMINISTRATION > LOG MAINTENANCE

1. Select the logs to delete. You can delete raw logs and reports.

   Note: Raw logs include all logs received from registered products. For details, see *Downloading Registered Product Logs* on page 5-29.

2. **Select automatically delete logs older than __ days** and then type the age of logs by number of days. The minimum number of days is 15.

   TMSP deletes logs once per day. For example, if the current date is June 30, 2010 and the age of the logs you typed is 15 days, all logs generated on June 15 or earlier are automatically deleted. On July 1, 2010, all logs generated on June 16 are automatically deleted.

3. Select **Delete Now** to delete the logs immediately.
4. Click **Save**.

Chapter 7

Using the Portal

This chapter describes how to view and interpret information in the portal.

Note: The intended reader of this chapter is the portal user. This user has access to the portal but does not have access to the administrative console.

This chapter discusses the following topics:

Accessing the Portal

To access the portal, obtain the portal's URL and logon credentials (user name and password) from the TMSP administrator.

The portal displays in the language set by the TMSP administrator. Confirm the language from the administrator before accessing the portal. If you prefer a different language, ask if the language is supported.

To log on to the portal:

1. Open an Internet Explorer browser window.

   Note: TMSP supports Windows Internet Explorer 8.0.

2. Type the following URL:

   `https://<Portal IP address>/tms2`

3. Type the logon credentials.
4. Click **Log On**.
5. If you see the license agreement screen, read the license details and click **Agree**. The portal opens.

Navigating the Portal

The portal consists of three panels.

Main Menu

On the top left side of the portal is the main menu consisting of several menu items. On the right side is the main content window that displays information relevant to the menu item selected. When you log on to the portal, the default menu item is the **Security Dashboard**.

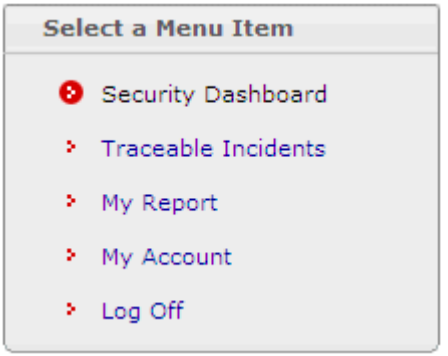


FIGURE 7-1. The portal's main menu

The main menu includes the following menu items:

- **Security Dashboard:** Shows threat information in your organization. For details, see *Security Dashboard* on page 7-7.
- **Traceable Incidents:** Provides an information map that illustrates the source of a threat incident. For details, see *Traceable Incidents* on page 7-31.
- **My Report:** Allows you to download reports that TMSP downloads periodically. For details, see *Reports* on page 7-34.
- **My Account:** Shows the portal account details initially configured by the TMSP administrator. For details, see *Account Details* on page 7-35.
- **Log Off:** Logs you off from the portal

Alert Level and Current Risk Level

Directly below the main menu is an information-only panel that presents an alert level based on the number of infected hosts and threat incidents. This panel also shows the network's current risk profile.

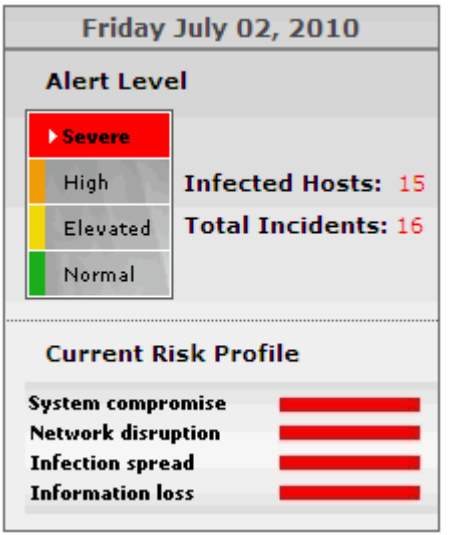


FIGURE 7-2. Alert Level and Current Risk Level panel

TMSP shows any of the following alert levels:

- **Severe:** There is at least one critical-risk incident or five moderate-risk incidents.
- **High:** There is at least one moderate-risk incident or five low-risk incidents.
- **Elevated:** There is at least one low -risk incident or five information-only incidents
- **Normal:** There is at least one information-only incident.

The risk profile shows the following risk types:

- **System compromise:** Shows the risk posed by unauthorized external parties gaining partial or complete control of endpoints. Malware such as IRC bots have the ability to connect to malicious servers to get commands from external parties, essentially creating a backdoor to the network.
- **Information loss:** Shows the risk posed by unauthorized external parties stealing and sending out sensitive user and corporate data. Many types of malware have the ability to monitor a user's activities. For example, malware can log keystrokes or actively search the endpoint for confidential documents to steal.
- **Network disruption:** Shows the risk posed by malware that consume network resources. Malware such as spambots and network worms often consume large amounts of network bandwidth, thereby affecting overall network performance.
- **Infection spread:** Shows the risk posed by malware that propagate to other endpoints in the network. Malware, such as network worms, has the ability to locate and infect endpoints that have security vulnerabilities.

A green-colored bar indicates a low risk level. The bar turns yellow if the risk level is elevated, orange if the risk level is high, and red if the risk level is severe.

Recent Incidents

The **Recent Incidents** panel presents a summary of incidents for the past two days.

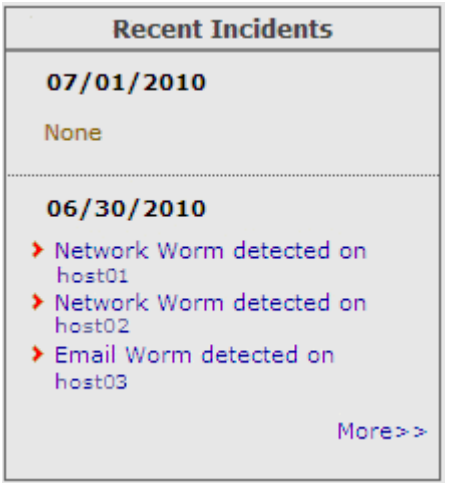


FIGURE 7-3. Recent Incidents panel

Click **More >>** to view details about these incidents and to check other incidents that occurred more than two days ago. A list of endpoints and incidents display in the dashboard at the right side of the screen. For details, see *All Endpoints Dashboard* on page 7-21.

Security Dashboard

Use the Security Dashboard to view threat events and statistics.

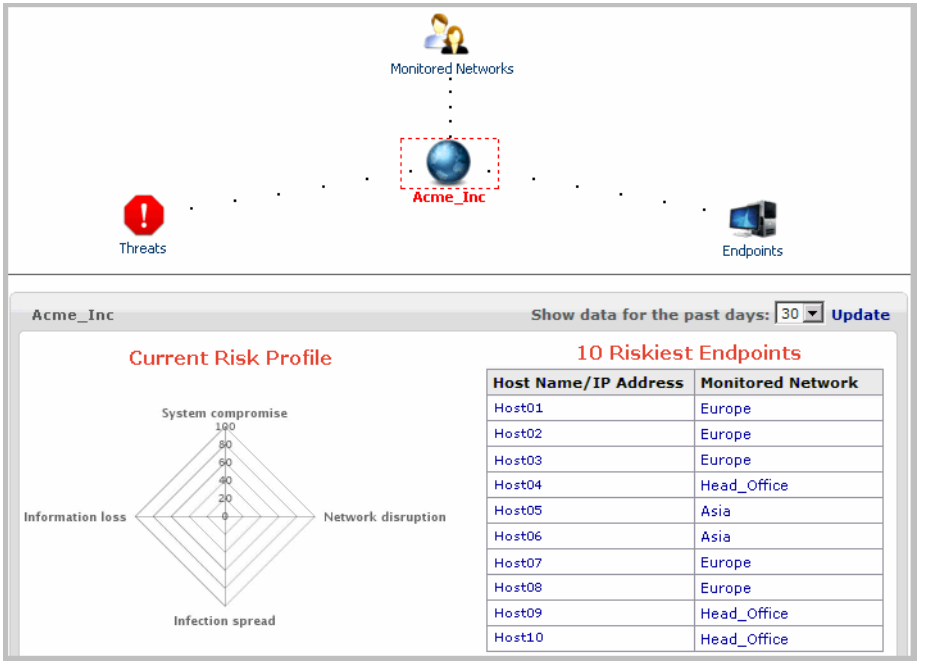


FIGURE 7-4. Security Dashboard

The upper section of the dashboard contains several icons. The portal can display a maximum of 10 icons.

The icon at the center is the focal point of the dashboard and displays a set of data at the lower section of the dashboard. Clicking an icon at the periphery moves it to the center and changes the data at the lower section accordingly.

At the lower section of the dashboard, you can control the scope of the data that displays by specifying the number of days in **Show data for the past days** and clicking **Update**. By default, the portal will display data for the past 7 days.

The portal provides the following dashboards:

- Organization Dashboard
- All Monitored Networks Dashboard
- Monitored Network Dashboard
- All Endpoints Dashboard
- Endpoint Dashboard
- All Threats Dashboard
- Threat Dashboard

Organization Dashboard

The Organization Dashboard displays by default each time you access the Security Dashboard. This dashboard presents a summary of your organization's threat data.

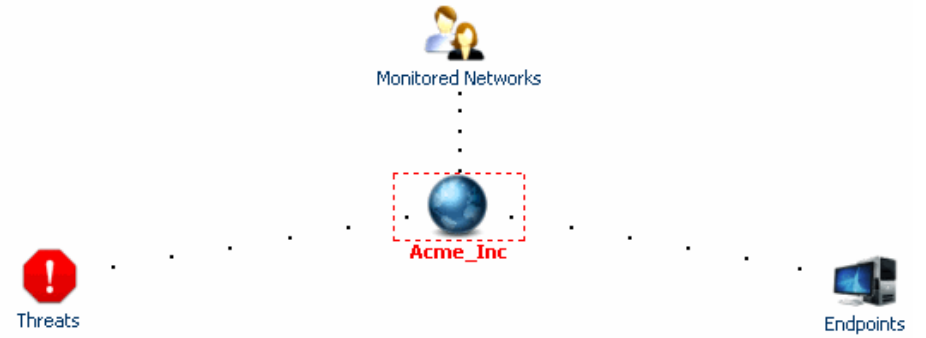


FIGURE 7-5. Organization Dashboard

Dashboard Data

The Organization Dashboard shows the following data:

Current Risk Profile

This section shows your organization's risk profile based on the following risk types.

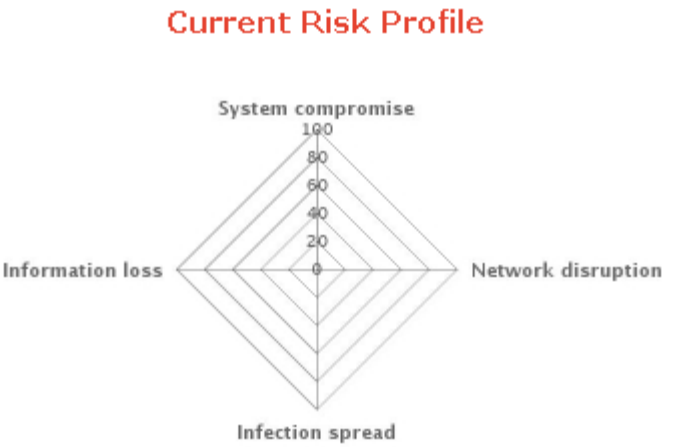


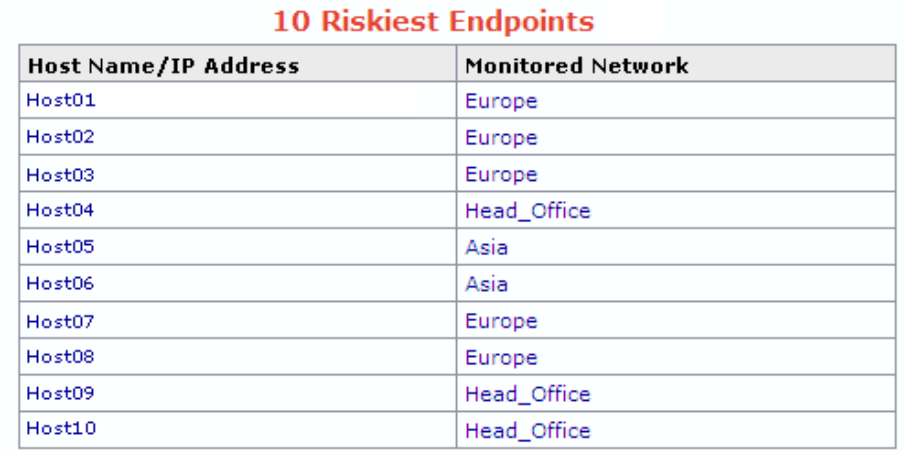
FIGURE 7-6. Current Risk Profile section

- **System compromise:** Shows the risk posed by unauthorized external parties gaining partial or complete control of endpoints. Malware such as IRC bots have the ability to connect to malicious servers to get commands from external parties, essentially creating a backdoor to the network.
- **Information loss:** Shows the risk posed by unauthorized external parties stealing and sending out sensitive user and corporate data. Many types of malware have the ability to monitor a user's activities. For example, malware can log keystrokes or actively search the endpoint for confidential documents to steal.

- **Network disruption:** Shows the risk posed by malware that consume network resources. Malware such as spambots and network worms often consume large amounts of network bandwidth, thereby affecting overall network performance.
- **Infection spread:** Shows the risk posed by malware that propagate to other endpoints in the network. Malware, such as network worms, has the ability to locate and infect endpoints that have security vulnerabilities.

<x> Riskiest Endpoints

This section shows endpoints with the most number of threat incidents. The portal can display a maximum of 10 endpoints.



10 Riskiest Endpoints

Host Name/IP Address	Monitored Network
Host01	Europe
Host02	Europe
Host03	Europe
Host04	Head_Office
Host05	Asia
Host06	Asia
Host07	Europe
Host08	Europe
Host09	Head_Office
Host10	Head_Office

FIGURE 7-7. <x> Riskiest Endpoints section

Clicking a host name/IP address opens the Endpoint Dashboard. Clicking a monitored network opens the Monitored Network Dashboard.

Incidents, Past <x> Days

This section shows the number of incidents using a graph and pie charts.

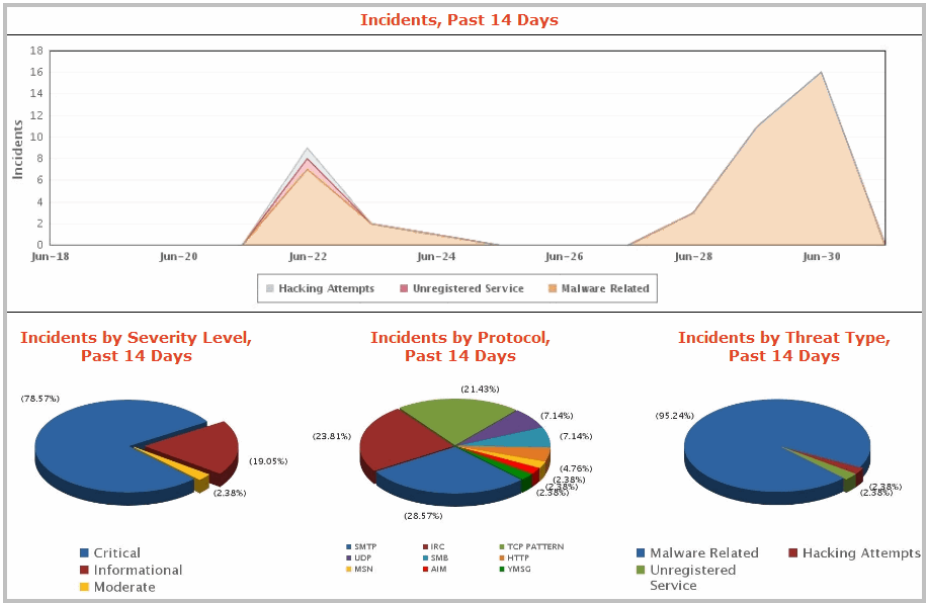
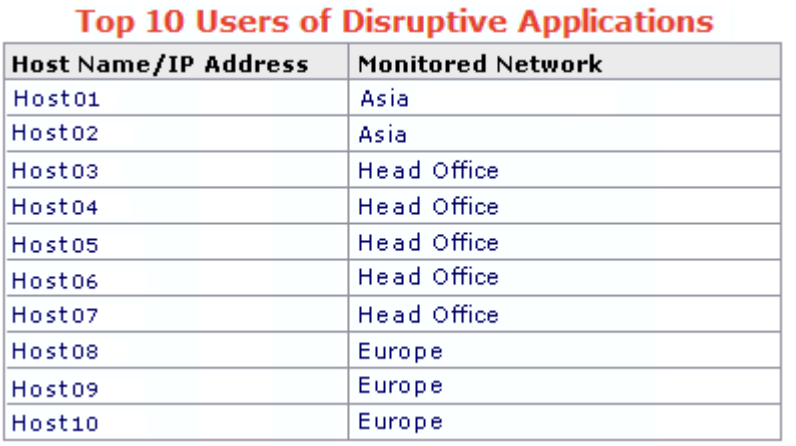


FIGURE 7-8. Incidents, Past <x> Days section

- The line graph shows the number of incidents by threat type.
- The pie charts break down incidents by severity level, protocol, and threat type.

Top <x> Users of Disruptive Applications

This section shows the host names/IP addresses of users who have used disruptive applications the most number of times. The portal can display a maximum of 10 host names/IP addresses.



Top 10 Users of Disruptive Applications

Host Name/IP Address	Monitored Network
Host01	Asia
Host02	Asia
Host03	Head Office
Host04	Head Office
Host05	Head Office
Host06	Head Office
Host07	Head Office
Host08	Europe
Host09	Europe
Host10	Europe

FIGURE 7-9. Top <x> Users of Disruptive Applications section

Disruptive applications include instant messaging, streaming media, and peer-to-peer applications. They are considered disruptive because they slow down the network, are a security risk, and are generally a distraction to employees.

Clicking a host name/IP address opens the Endpoint Dashboard. Clicking a monitored network opens the Monitored Network Dashboard.

Document Traffic Statistics

This section shows the number of inbound or outbound documents exchanged through HTTP, SMTP, IM (instant messaging), FTP, and other protocols.

Document Traffic Statistics

	HTTP	SMTP	IM	FTP	Others
Microsoft Excel	139	23	2	80	69
Adobe PDF	473	87	0	74	69
Microsoft Powerpoint	71	32	0	6	42
Microsoft Project	0	0	0	0	1
Microsoft Word	645	196	4	197	473

FIGURE 7-10. Document Traffic Statistics section

Switching to Another Dashboard

At the upper section of the dashboard, click an icon at the periphery to switch to another dashboard. The available icons are:

-  All Monitored Networks Dashboard
-  All Endpoints Dashboard
-  All Threats Dashboard

All Monitored Networks Dashboard

The All Monitored Networks Dashboard displays threat data for all the networks monitored by Threat Discovery Appliance.

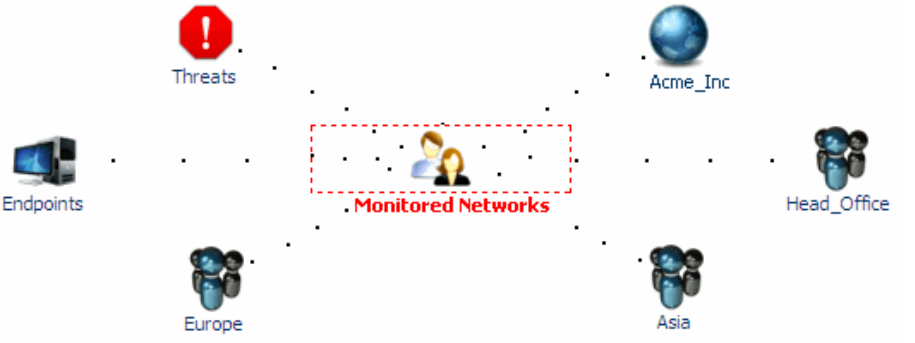


FIGURE 7-11. All Monitored Networks Dashboard

Dashboard Data

The All Monitored Networks Dashboard shows the following data:

Incidents, Past <x> Days

This section shows the number of incidents using graphs and a pie chart.

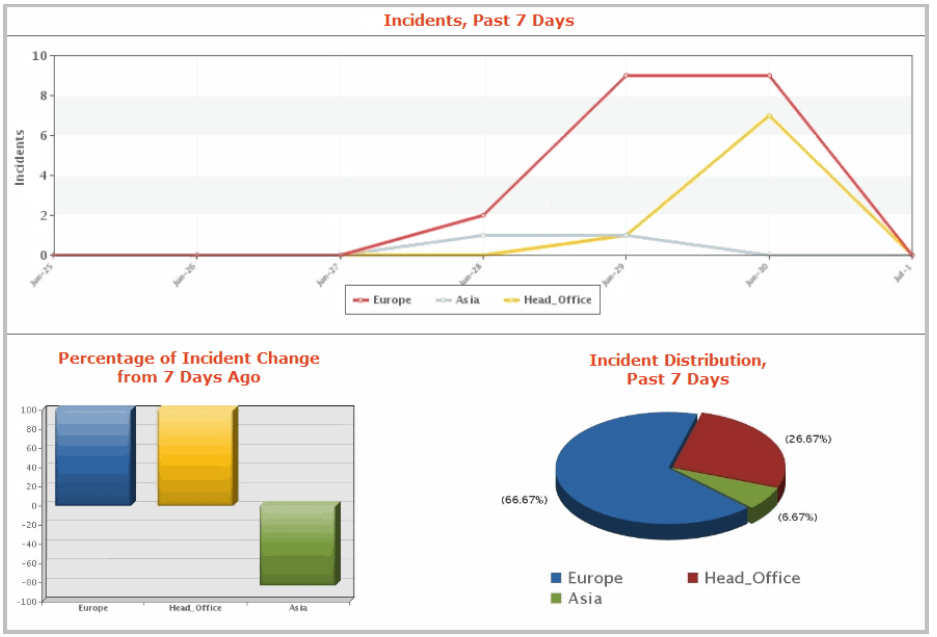


FIGURE 7-12. Incidents for past <x> days section

- The line graph shows the number of incidents detected in each monitored network.
- The bar graph shows the percentage of incident change in each monitored network.

  A number higher than zero means an increase in the number of incidents, zero means that there is no change in the number of incidents, and a number lower than zero means a decrease in the number of incidents.

For example, if there are 30 incidents 7 days ago and there are currently 30 incidents, the percentage change is 0. If there are currently 15 incidents, the percentage change is -50. If there are currently 60 incidents, the percentage change is 100.

- The pie chart breaks down the incidents by monitored network.

Disruptive Applications, Past <x> Days

This section shows the number of times users in each monitored network accessed disruptive applications.

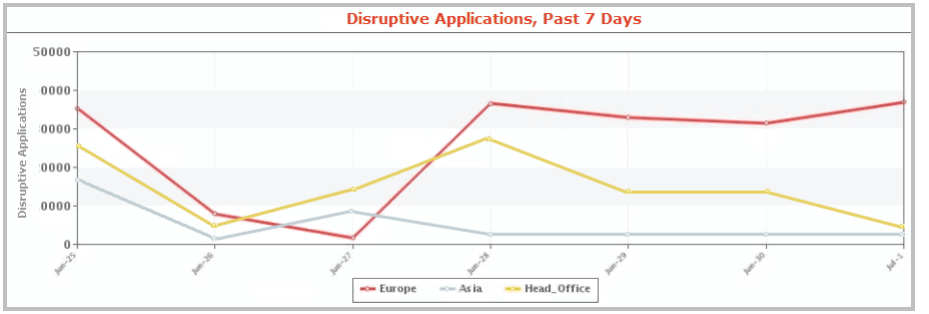


FIGURE 7-13. Disruptive Applications, Past <x> Days section

Switching to Another Dashboard

At the upper section of the dashboard, click an icon at the periphery to switch to another dashboard. The available icons are:

-  Monitored Network Dashboard

> **Note:** The portal can display up to 6 monitored networks. If the current number of monitored networks is higher, the portal randomly selects 6 networks to display.

-  Organization Dashboard
-  All Endpoints Dashboard
-  All Threats Dashboard

Monitored Network Dashboard

The Monitored Network Dashboard displays threat data for a network monitored by Threat Discovery Appliance. In the following example, the name of the monitored network is **Europe**.

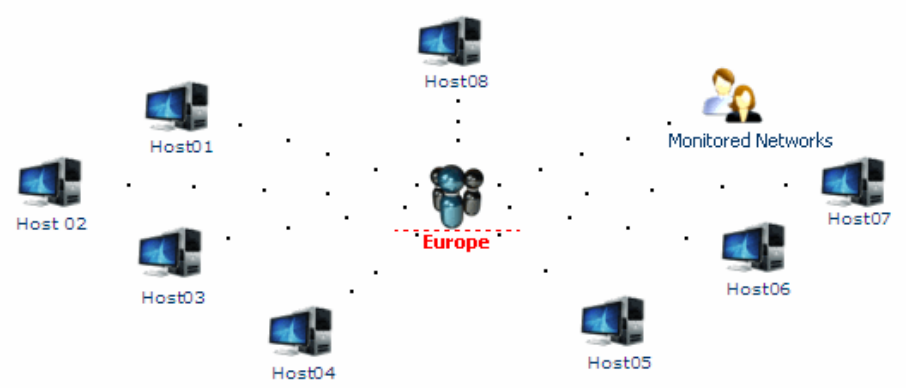


FIGURE 7-14. Monitored Network Dashboard

Dashboard Data

The Monitored Network Dashboard shows the following data:

Current Risk Profile (Monitored Network)

This section is similar to the **Current Risk Profile** section in the Organization Dashboard. The only difference is that data in this section is specific to the monitored network.

For details, see *Current Risk Profile* on page 7-9.

Incidents, Past <x> Days (Monitored Network)

This section is similar to the **Incidents Trend for Past <x> Days** section in the Organization Dashboard. The only difference is that data in this section is specific to the monitored network.

For details, see *Incidents, Past <x> Days* on page 7-11.

Incident Details, Past <x> Days

This section shows endpoints that harbor threats.

Incident Details, Past 14 Days

Host Name/IP Address	Monitored Network	Date	Severity	Threat Type	Threat Details
Host01	Europe	06/30/2010 16:21:00	Critical	Spam Bot	Details
Host02	Europe	06/30/2010 16:21:00	Critical	Spam Bot	Details
Host03	Europe	06/30/2010 15:46:00	Critical	Email Worm	Details
Host04	Europe	06/30/2010 15:45:00	Critical	Email Worm	Details
Host05	Europe	06/30/2010 14:26:30	Critical	IRC Bot	Details
Host06	Europe	06/30/2010 13:26:30	Critical	IRC Bot	Details
Host07	Europe	06/30/2010 13:26:00	Critical	IRC Bot	Details
Host08	Europe	06/30/2010 13:25:30	Critical	IRC Bot	Details
Host09	Europe	06/30/2010 13:25:00	Critical	IRC Bot	Details
Host10	Europe	06/29/2010 16:27:40	Critical	Spam Bot	Details
Host11	Europe	06/29/2010 16:27:40	Critical	Spam Bot	Details
Host12	Europe	06/29/2010 16:25:00	Critical	Email Worm	Details

FIGURE 7-15. Incident Details, Past <x> Days section

- Clicking a host name/IP address opens the Endpoint Dashboard.
- Clicking a monitored network opens the Monitored Network Dashboard.
- Clicking a threat type opens the Threat Dashboard.
- Clicking **Details** opens a new window with details about the threat. For more information, see *Threat Details* on page 7-20.

Threat Details

The Threat Details window has 3 tabs: **Threat Impact**, **Recommended Actions**, and **Other Infected Endpoints**.

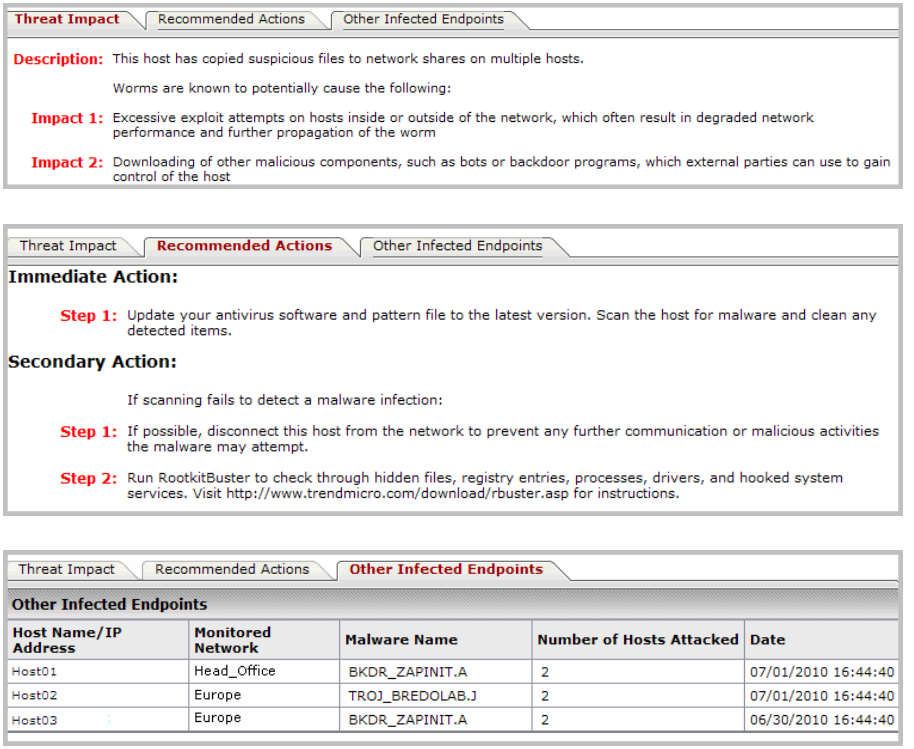


FIGURE 7-16. Threat Details window with 3 tabs

Switching to Another Dashboard

At the upper section of the dashboard, click an icon at the periphery to switch to another dashboard. The available icons are:

- Endpoint Dashboard

Note: The portal can display up to 8 endpoints with threats. If the current number of endpoints with threats is higher, the portal randomly selects 8 endpoints to display.

Threat-free endpoints do not display in this dashboard.

- All Monitored Networks Dashboard

All Endpoints Dashboard

The All Endpoints Dashboard displays threat data for all endpoints with threats.

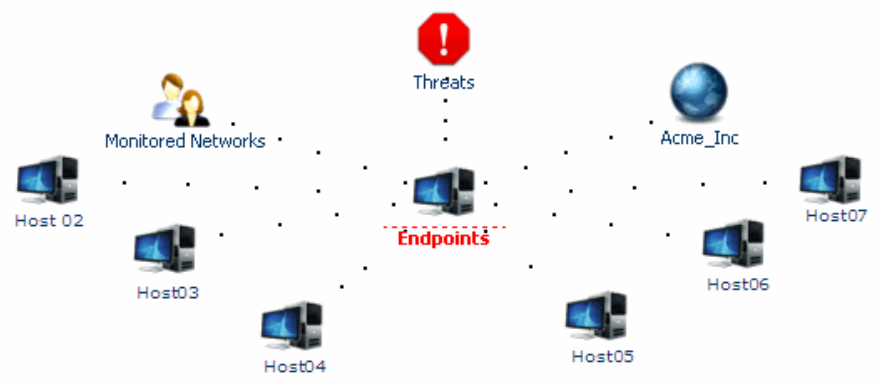


FIGURE 7-17. All Endpoints Dashboard

Dashboard Data

The All Endpoints Dashboard shows the following data:

Recent Incidents for All Endpoints

This section shows all endpoints with threat data.

Recent Incidents for All Endpoints

Host Name/IP Address	Monitored Network	Date	Severity	Threat Type	Threat Details
Host01	Europe	06/30/2010 16:21:00	Critical	Spam Bot	Details
Host02	Europe	06/30/2010 16:21:00	Critical	Spam Bot	Details
Host03	Europe	06/30/2010 15:46:00	Critical	Email Worm	Details
Host04	Europe	06/30/2010 15:45:00	Critical	Email Worm	Details
Host05	Europe	06/30/2010 14:26:30	Critical	IRC Bot	Details
Host06	Europe	06/30/2010 13:26:30	Critical	IRC Bot	Details
Host07	Europe	06/30/2010 13:26:00	Critical	IRC Bot	Details
Host08	Europe	06/30/2010 13:25:30	Critical	IRC Bot	Details
Host09	Europe	06/30/2010 13:25:00	Critical	IRC Bot	Details
Host10	Europe	06/29/2010 16:27:40	Critical	Spam Bot	Details
Host11	Europe	06/29/2010 16:27:40	Critical	Spam Bot	Details
Host12	Europe	06/29/2010 16:25:00	Critical	Email Worm	Details

FIGURE 7-18. Recent Incidents for All Endpoints section

- Clicking a host name/IP address opens the Endpoint Dashboard.
- Clicking a monitored network opens the Monitored Network Dashboard.
- Clicking a threat type opens the Threat Dashboard.
- Clicking **Details** opens a new window with details about the threat. For more information, see *Threat Details* on page 7-20.

Switching to Another Dashboard

At the upper section of the dashboard, click an icon at the periphery to switch to another dashboard. The available icons are:

-  Endpoint Dashboard

---

Note: The portal can display up to 6 endpoints with threats. If the current number of endpoints with threats is higher, the portal randomly selects 6 endpoints to display.

Threat-free endpoints do not display in this dashboard.

-  Organization Dashboard
-  All Monitored Networks Dashboard
-  All Threats Dashboard

Endpoint Dashboard

The Endpoint Dashboard displays threat data for a particular endpoint. In the following example, the endpoint's host name is **Host01**.

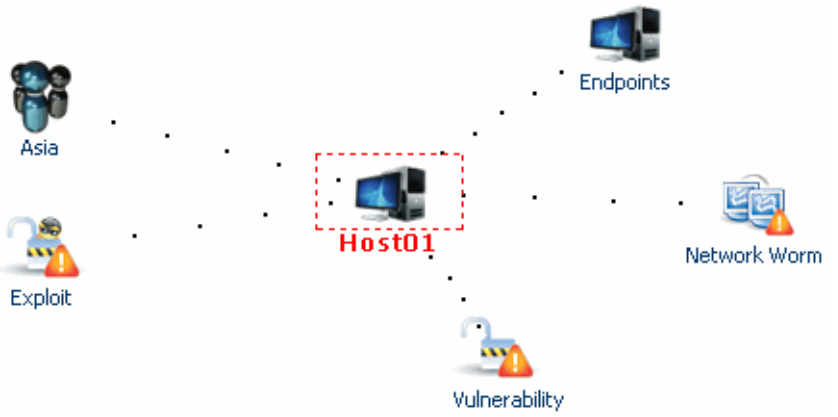


FIGURE 7-19. Endpoint Dashboard

Dashboard Data

This dashboard shows the following data:

<Host Name/IP Address>

This section provides information about the endpoint.

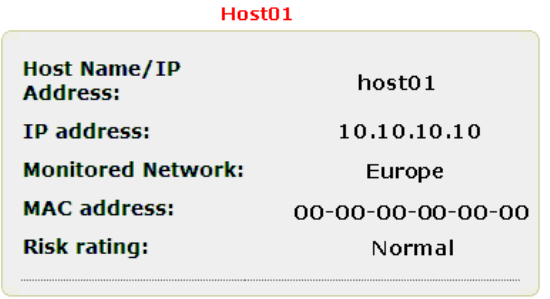


FIGURE 7-20. Endpoint information section

Current Risk Profile (Endpoint)

This section is similar to the **Current Risk Profile** section in the Organization Dashboard. The only difference is that data in this section is specific to the endpoint.

For details, see *Current Risk Profile* on page 7-9.

Incident Details, Past <x> Days

This section shows all threats in the endpoint.

Incident Details, Past 30 Days

Host Name/IP Address	Monitored Network	Date	Severity	Threat Type	Threat Details
Host01	Europe	06/30/2010 16:21:00	Critical	Spam Bot	Details
Host01	Europe	06/30/2010 16:21:00	Critical	Spam Bot	Details
Host01	Europe	06/30/2010 15:46:00	Critical	Email Worm	Details
Host01	Europe	06/30/2010 15:45:00	Critical	Email Worm	Details
Host01	Europe	06/30/2010 14:26:30	Critical	IRC Bot	Details
Host01	Europe	06/30/2010 13:26:30	Critical	IRC Bot	Details
Host01	Europe	06/30/2010 13:26:00	Critical	IRC Bot	Details
Host01	Europe	06/30/2010 13:25:30	Critical	IRC Bot	Details
Host01	Europe	06/30/2010 13:25:00	Critical	IRC Bot	Details
Host01	Europe	06/29/2010 16:27:40	Critical	Spam Bot	Details
Host01	Europe	06/29/2010 16:27:40	Critical	Spam Bot	Details
Host01	Europe	06/29/2010 16:25:00	Critical	Email Worm	Details

FIGURE 7-21. Security Incidents for Past <x> Days section

- Clicking a monitored network opens the Monitored Network Dashboard.
- Clicking a threat type opens the Threat Dashboard.
- Clicking **Details** opens a new window with details about the threat. For more information, see *Threat Details* on page 7-20.

Switching to Another Dashboard

At the upper section of the dashboard, click an icon at the periphery to switch to another dashboard. The available icons are:

- Threat Dashboard

Note: The portal can display up to 7 threats. If the current number of threats is higher, the portal randomly selects 7 threats to display.

- Monitored Network Dashboard
- All Endpoints Dashboard

All Threats Dashboard

The All Threats Dashboard displays all threats detected in endpoints.

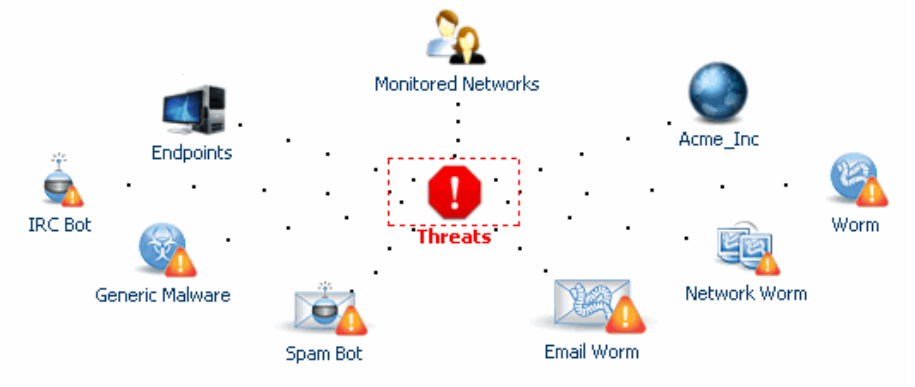


FIGURE 7-22. All Threats Dashboard

Dashboard Data

The All Threats Dashboard shows the following data:

Threats, Past <x> Days

This section shows the number of threats using graphs and a pie chart.

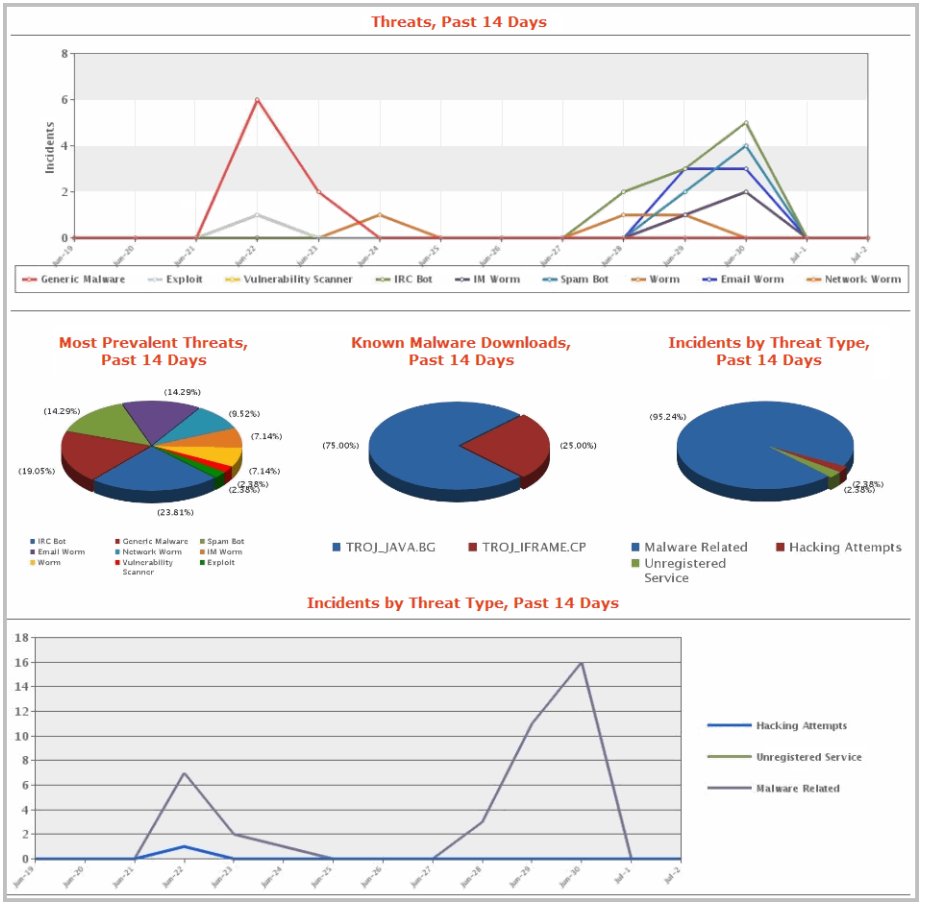


FIGURE 7-23. Threats, Past <x> Days section

- The first line graph shows the number of times a particular threat was detected.
- The pie charts show the most prevalent threats, known malware downloads, and incidents by threat type, respectively.
- The second line graph shows incidents by threat types.

Switching to Another Dashboard

At the upper section of the dashboard, click an icon at the periphery to switch to another dashboard. The available icons are:

-  Threat Dashboard

  Note: The portal can display up to 6 threats. If the current number of threats is higher, the portal randomly selects 6 threats to display.

-  Organization Dashboard
-  All Monitored Networks Dashboard
-  All Endpoints Dashboard

Threat Dashboard

The Threat Dashboard displays data for a particular threat. In the following example, the threat is a type of worm.

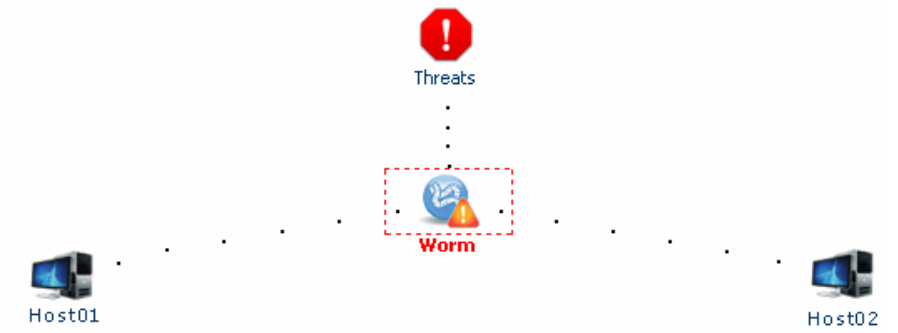


FIGURE 7-24. Threat Dashboard

Dashboard Data

The Threat Dashboard shows the following data:

Threat Information

This section provides a description of the threat.

Threat Information	
Threat type:	Worm
Threat category:	Malware Related
Description:	A worm is a malicious program whose main function is to propagate itself to other computers. There is a variety of methods worms use to propagate, and the method(s) used is a defining factor. For instance, a worm which uses instant messenger programs to propagate is known as an IM worm.

FIGURE 7-25. Threat Information section

Infected Endpoints, Past <x> Days

This section shows all endpoints affected by the threat.

Infected Endpoints, Past 30 Days

Host Name/IP Address	Monitored Network	Date	Severity	Threat Type	Threat Details
Host01	Europe	06/30/2010 16:21:00	Critical	Spam Bot	Details
Host01	Europe	06/30/2010 16:21:00	Critical	Spam Bot	Details
Host02	Europe	06/30/2010 15:46:00	Critical	Spam Bot	Details
Host03	Europe	06/30/2010 15:45:00	Critical	Spam Bot	Details

FIGURE 7-26. Infected Endpoints, Past <x> Days section

- Clicking a host name/IP address opens the Endpoint Dashboard.
- Clicking a monitored network opens the Monitored Network Dashboard.
- Clicking **Details** opens a new window with details about the threat. For more information, see *Threat Details* on page 7-20.

Switching to Another Dashboard

At the upper section of the dashboard, click an icon at the periphery to switch to another dashboard. The available icons are:

- Endpoint Dashboard

  Note: The portal can display up to 8 endpoints affected by the threat. If the current number of endpoints affected by the threat is higher, the portal randomly selects 8 endpoints to display.

- All Threats Dashboard

Traceable Incidents

The Traceable Incidents Dashboard shows the source of a particular incident.

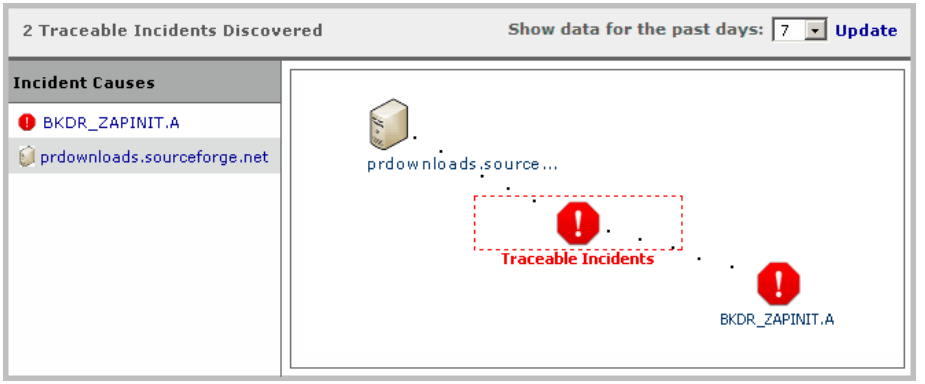


FIGURE 7-27. Traceable Incidents screen

The incident source can be any of the following:

- Endpoints harboring a particular threat. The threat is indicated by a red icon .
- A server (indicated by a CPU icon) that propagates threats. For example, an external web server sends an instant message with a malicious URL to endpoints.

The portal displays incident sources in the left menu and in the main window found at the right side of the screen. A maximum of 10 sources will display in the main window.

To narrow down the number of incident sources, specify the number of days in **Show data for the past days** and click **Update**. By default, the portal will display incident sources detected in the last 7 days.

To view data for a particular incident source, click an item in the left menu or an icon in the main window. The Incident Source Dashboard displays.

Incident Source Dashboard

The Incident Source Dashboard shows the incident source and the affected endpoints.

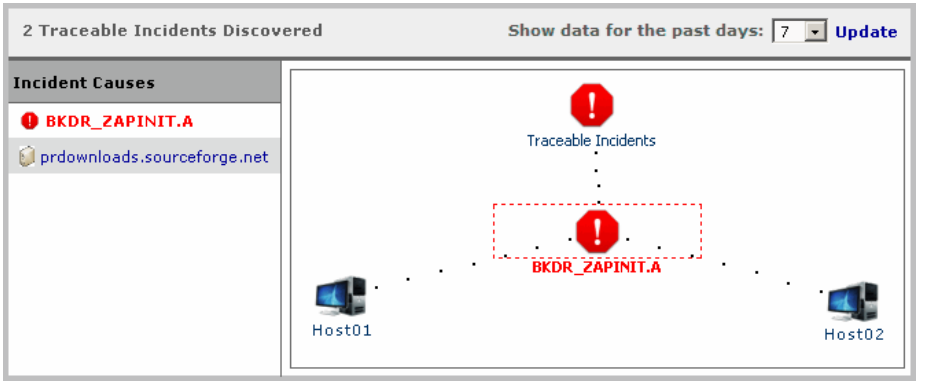


FIGURE 7-28. Incident Source Dashboard

Dashboard Data

The Incident Source Dashboard shows the following data:

Incident Source Information

This section shows the incident cause, type, and description.

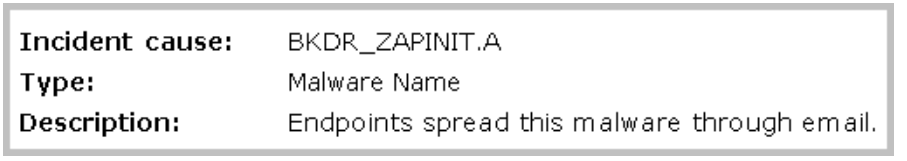


FIGURE 7-29. Incident Source Information section

Incident Source Details

This section shows a list of affected endpoints.

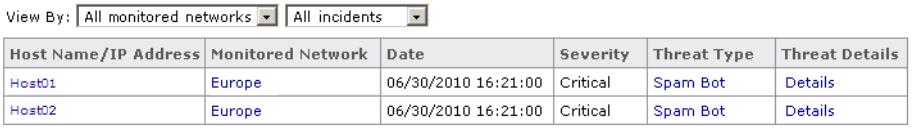


FIGURE 7-30. Incident Source Details section

Clicking a host name/IP address, monitored network, and threat type opens a separate dashboard.

Clicking **Details** opens a new window with details about the threat. For more information, see *Threat Details* on page 7-20.

Switching to Another View

At the upper section of the dashboard:

- Click the endpoint icon at the periphery to view the Endpoint Dashboard and view threat details for the affected endpoint.

  Note: The portal can display up to 8 affected endpoints. If the current number of affected endpoints is higher, the portal randomly selects 8 endpoints to display.

- Click the traceable incidents icon to view all incident sources.

To view another incident source, click its icon in the main menu.

Reports

The portal provides the following report types that are available as PDF files.

TABLE 7-1. Report types

REPORT TYPE	DESCRIPTION	AVAILABILITY
Administrative Report	An Administrative Report summarizes threats detected in the network.	Daily
Executive Report	An Executive Report provides a detailed account of the monitored network's overall security posture. The report provides the network's risk profile, the impact of risks to your network infrastructure and your organization as a whole, and recommended actions.	Weekly and monthly

To download reports:

1. In the main menu, click **My Report**.
2. Select a date from the monthly calendar. Use the arrows on top of the calendar to switch to a different month.

   The available reports display on the right side of the screen.
3. Click the link to the report. The report begins to download.
4. Save the PDF file.

Account Details

The TMSP administrator configures the account details that display on the My Account screen. You can change any of the account details that need to be updated.

The TMSP administrator can override the changes that you made. Inform the TMSP administrator if you plan to change any of the details to ensure that your changes are not overridden.

To modify the account details:

1. Click **My Account**.
2. Supply new information in the fields provided.
3. Click **Save**.

Chapter 8

Getting Help

This chapter discusses the following topics:

Before Contacting Technical Support

Before contacting technical support, please consider visiting the following Trend Micro online resources.

Trend Community

Get help, share your experiences, ask questions, and discuss security concerns in the forums with fellow users, enthusiasts, and security experts.

http://community.trendmicro.com/

The Trend Micro Knowledge Base

The Trend Micro Knowledge Base, maintained at the Trend Micro website, has the most up-to-date answers to product questions. You can also use Knowledge Base to submit a question if you cannot find the answer in the product documentation. Access the Knowledge Base at:

http://esupport.trendmicro.com

Trend Micro updates the contents of the Knowledge Base continuously and adds new solutions daily. If you are unable to find an answer, however, you can describe the problem in an email and send it directly to a Trend Micro support engineer who will investigate the issue and respond as soon as possible.

Security Information Center

Comprehensive security information is available at the Trend Micro website.

http://www.trendmicro.com/vinfo/

Information available:

- List of viruses and malicious mobile code currently "in the wild," or active
- Computer virus hoaxes
- Internet threat advisories
- Virus weekly report

- Virus Encyclopedia, which includes a comprehensive list of names and symptoms for known viruses and malicious mobile code
- Glossary of terms

Contacting Trend Micro

Technical Support

Trend Micro provides technical support, pattern downloads, and program updates for one year to all registered users, after which you must purchase renewal maintenance. If you need help or just have a question, please feel free to contact us. We also welcome your comments.

Trend Micro Incorporated provides worldwide support to all registered users.

- Get a list of the worldwide support offices at:

  http://www.trendmicro.com/support

- Get the latest Trend Micro product documentation at:

  http://downloadcenter.trendmicro.com/

In the United States, you can reach the Trend Micro representatives through phone, fax, or email:

Trend Micro, Inc.

10101 North De Anza Blvd., Cupertino, CA 95014

Toll free: +1 (800) 228-5651 (sales)

Voice: +1 (408) 257-1500 (main)

Fax: +1 (408) 257-2003

Web address:

http://www.trendmicro.com

Email: support@trendmicro.com

Speeding Up Your Support Call

When you contact Trend Micro, to speed up your problem resolution, ensure that you have the following details available:

- Microsoft Windows and Service Pack versions
- Network type
- Computer brand, model, and any additional hardware connected to your computer
- Amount of memory and free hard disk space on your computer
- Detailed description of the install environment
- Exact text of any error message given
- Steps to reproduce the problem

TrendLabs

TrendLabs[SM] is the global antivirus research and support center of Trend Micro. Located on three continents, TrendLabs has a staff of more than 250 researchers and engineers who operate around the clock to provide you, and every Trend Micro customer, with service and support.

You can rely on the following post-sales service:

- Regular virus pattern updates for all known "zoo" and "in-the-wild" computer viruses and malicious codes
- Emergency virus outbreak support
- Email access to antivirus engineers
- Knowledge Base, the Trend Micro online database of technical support issues

TrendLabs has achieved ISO 9002 quality assurance certification.

Sending Suspicious Files to Trend Micro

If you think you have an infected file but the scan engine does not detect it or cannot clean it, Trend Micro encourages you to send the suspect file to us. For more information, refer to the following site:

http://subwiz.trendmicro.com/subwiz

You can also send Trend Micro the URL of any website you suspect of being a phish site, or other so-called "disease vector" (the intentional source of Internet threats such as spyware and viruses).

- Send an email to the following address and specify "Phish or Disease Vector" as the subject.

  virusresponse@trendmicro.com

- You can also use the web-based submission form at:

  http://subwiz.trendmicro.com/subwiz

Documentation Feedback

Trend Micro always seeks to improve its documentation. If you have questions, comments, or suggestions about this or any Trend Micro document, please go to the following site:

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

Appendix A

Creating a New Virtual Machine

This appendix describes how to create a new virtual machine that will host TMSP.

Creating a New Virtual Machine

The actual installation of VMware ESX is not covered in this document. Please refer to the VMware product documentation to install this product.

The steps outlined below detail the process for creating a new virtual machine in VMware ESX to install TMSP. Please use the following steps as a guideline for creating the virtual machine for your environment. The number of CPUs, NICs, memory, and hard disk space selected should reflect the TMSP requirements listed in *System Requirements* on page 2-2.

Note: The screens in this procedure may appear in a different order and the options available in each screen may vary depending on the VMware ESX version.

To create the virtual machine:

1. From the VMware ESX menu bar, select **File > New > Virtual Machine**.

2. When the Configuration screen appears, click **Custom** and then click **Next**.

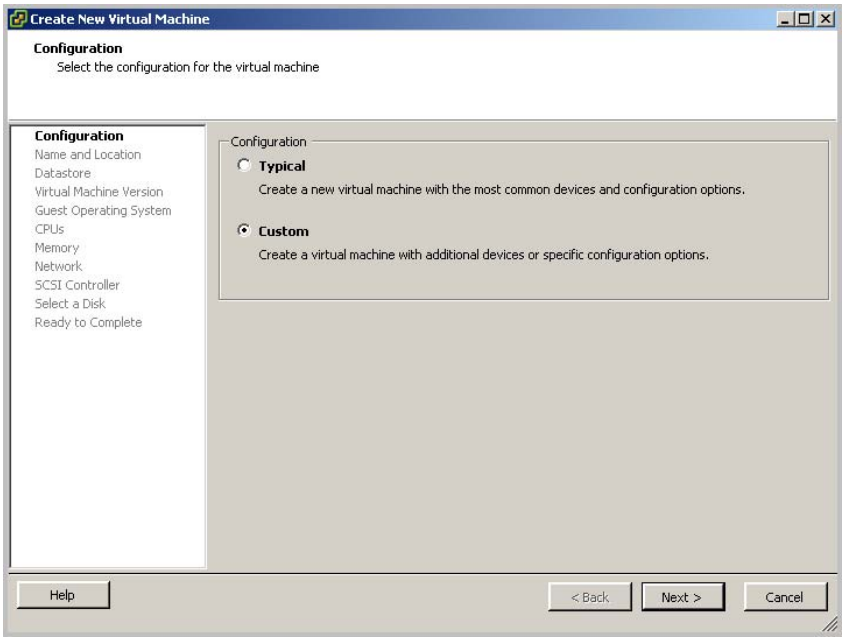


FIGURE A-1. Configuration screen

3. When the Name and Location screen appears, type a name for the virtual machine and then click **Next**.

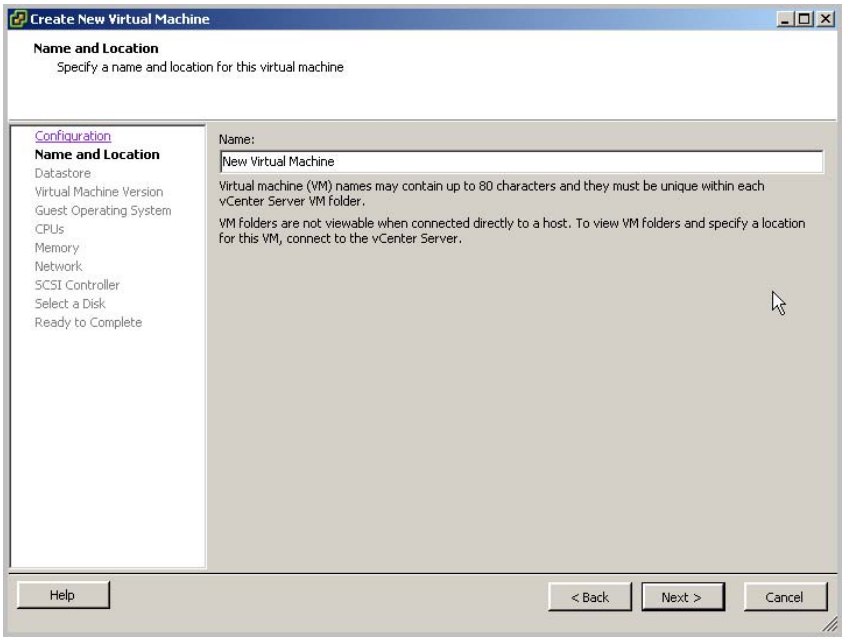


FIGURE A-2. Name and Location screen

4. When the Datastore screen appears, select the datastore where the virtual machine will reside and then click **Next**.

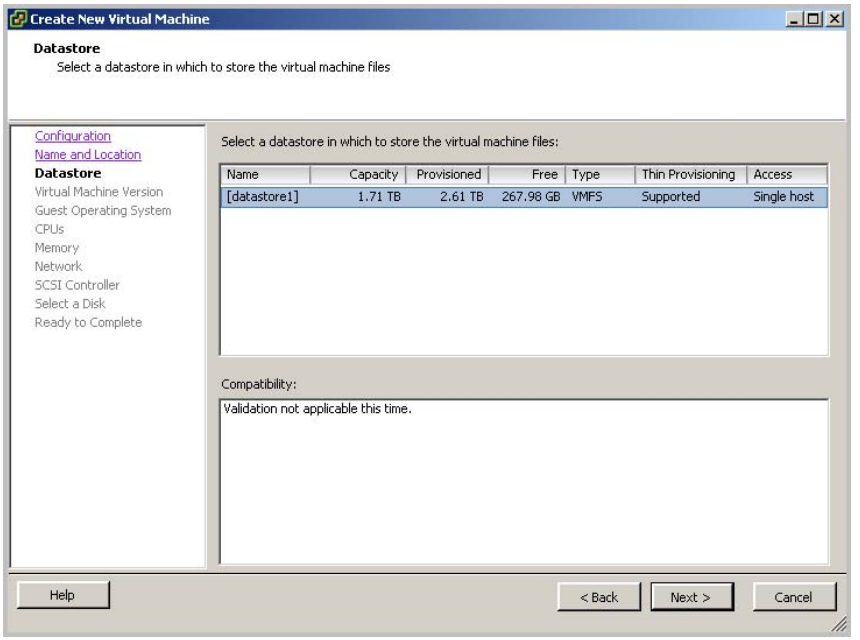


FIGURE A-3. Datastore screen

5. When the Virtual Machine Version screen appears, select the virtual machine version to use and then click **Next**.

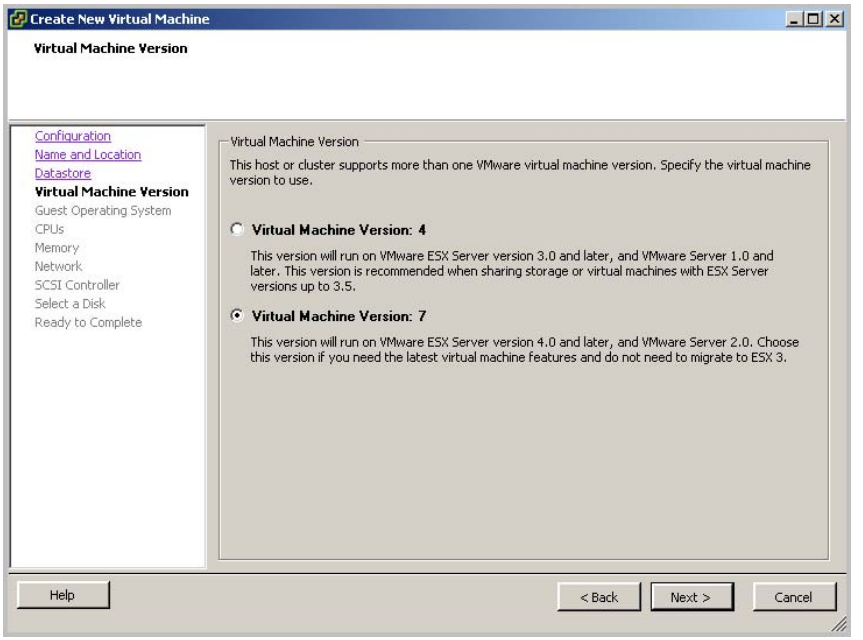


FIGURE A-4. Virtual Machine Version screen

6. When the Guest Operating System screen appears, select **Linux > Other Linux (64-bit)** and then click **Next**.

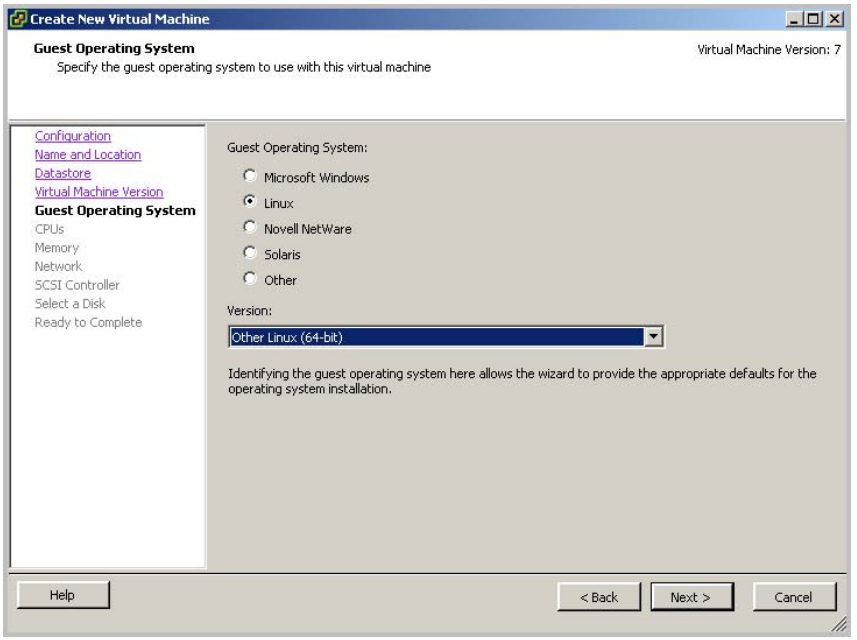


FIGURE A-5. Guest Operating System screen

7. When the CPUs screen appears, select the number of processors for the virtual machine and then click **Next**.

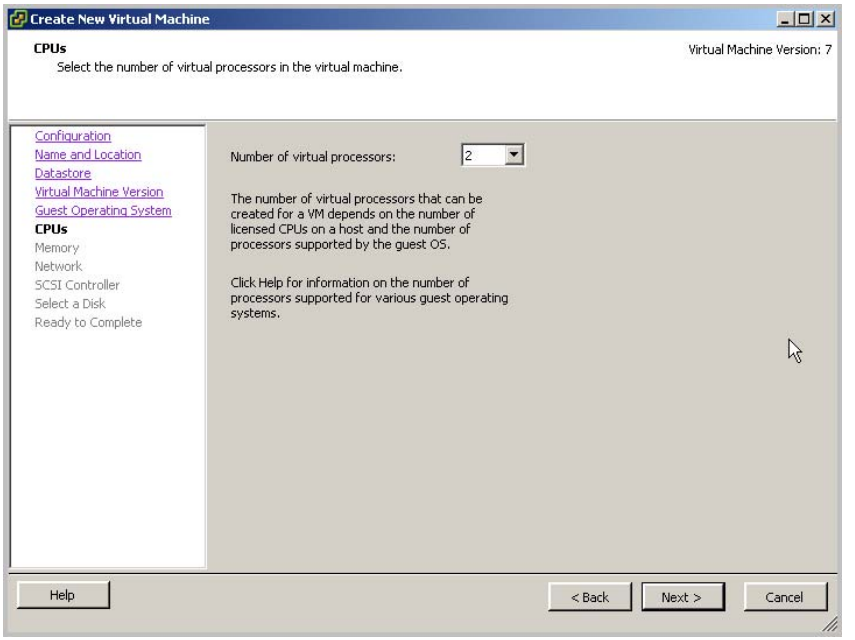


FIGURE A-6. CPUs screen

Tip: TMSP takes advantage of the Virtual SMP, so select the maximum number of virtual processors available.

8. When the Memory screen appears, allocate at least 2GB (2048MB) of memory for TMSP and then click **Next**.

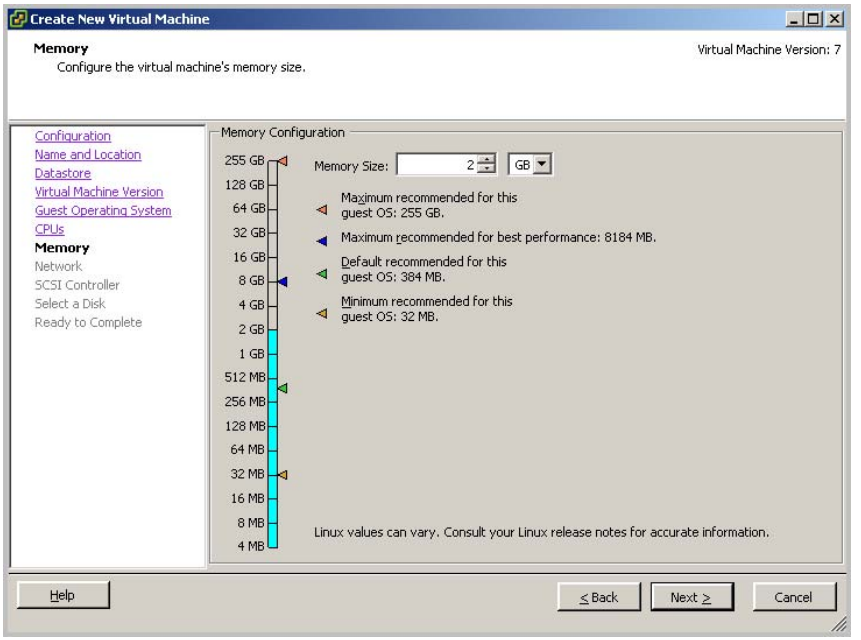


FIGURE A-7. Memory screen

9. When the Network screen appears, configure at least 1 NIC for TMSP and then click **Next**.

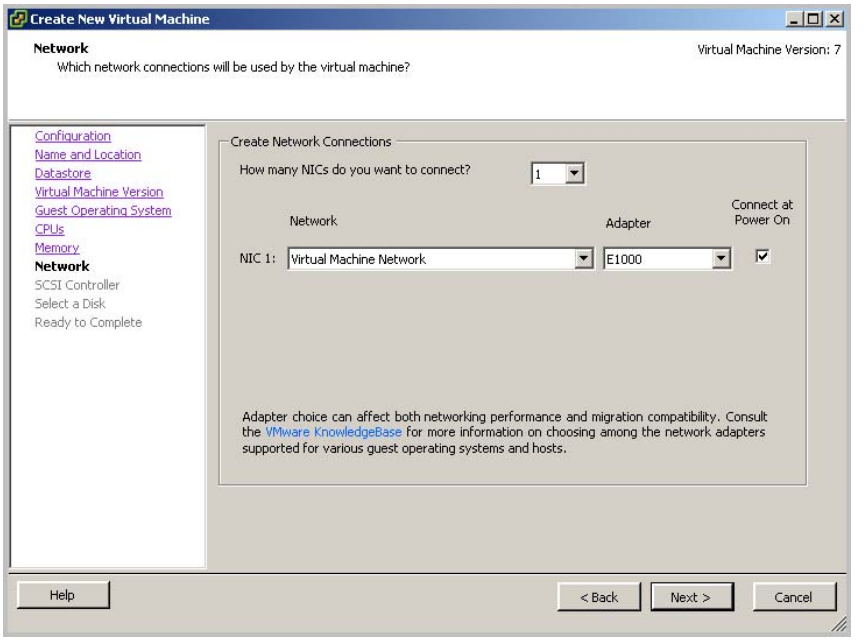


FIGURE A-8. Network screen

10. When the SCSI Controller screen appears, select the I/O adapter type that is appropriate for your virtual disk and then click **Next**.

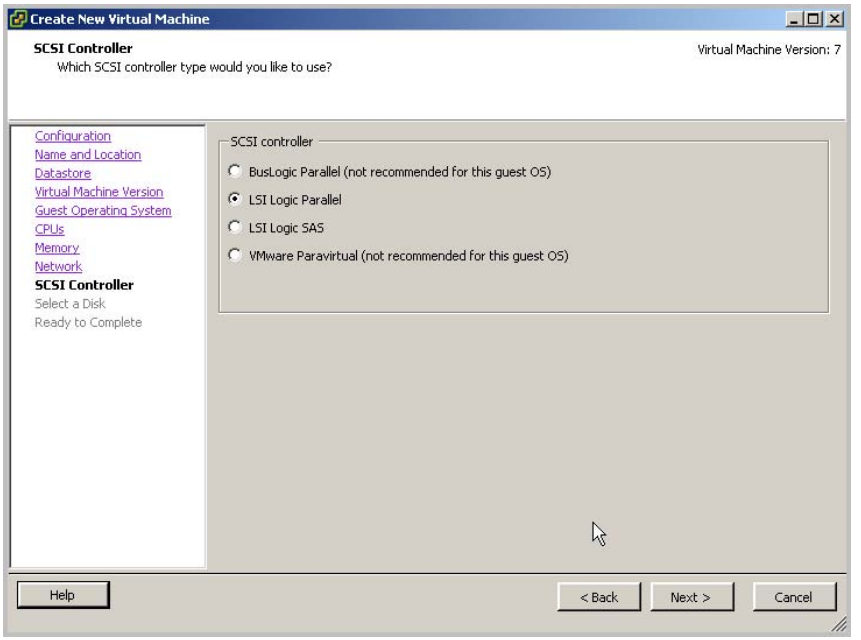


FIGURE A-9. SCSI Controller screen

11. When the Select a Disk screen appears, select the type of disk to use (**Create a new virtual disk** in this procedure) and then click **Next**.

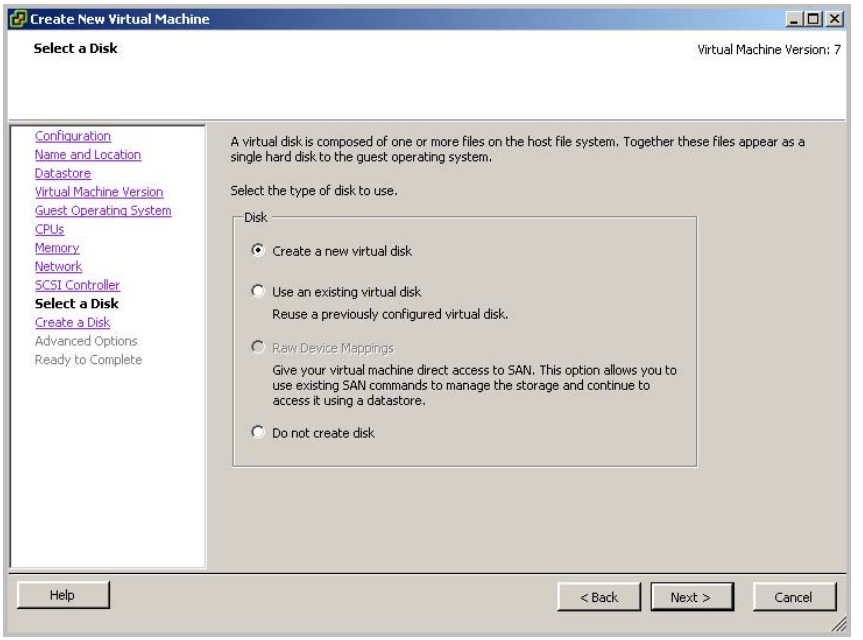


FIGURE A-10. Select a Disk screen

12. When the Create a Disk screen appears, allocate at least 50GB hard disk space for TMSP and then click **Next**.

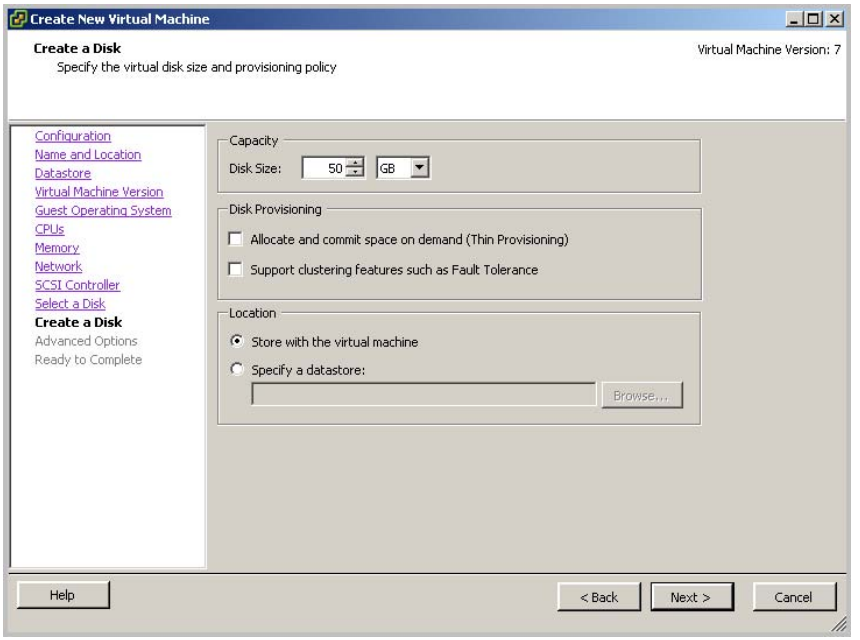


FIGURE A-11. Create a Disk screen

13. When the Advanced Options screen appears, leave the default selections and then click **Next**.

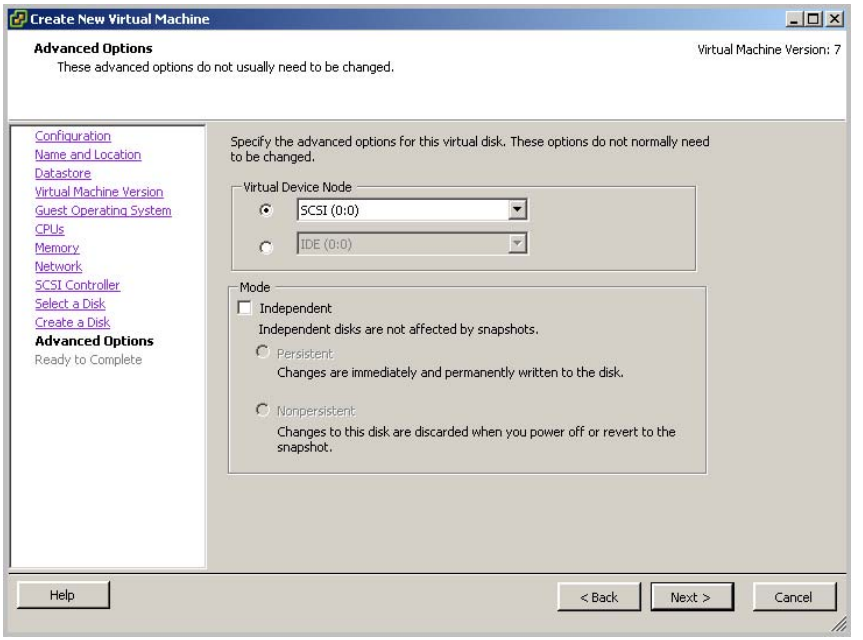


FIGURE A-12. Advanced Options screen

14. When the Ready to Complete screen appears, review the settings and click **Finish**.

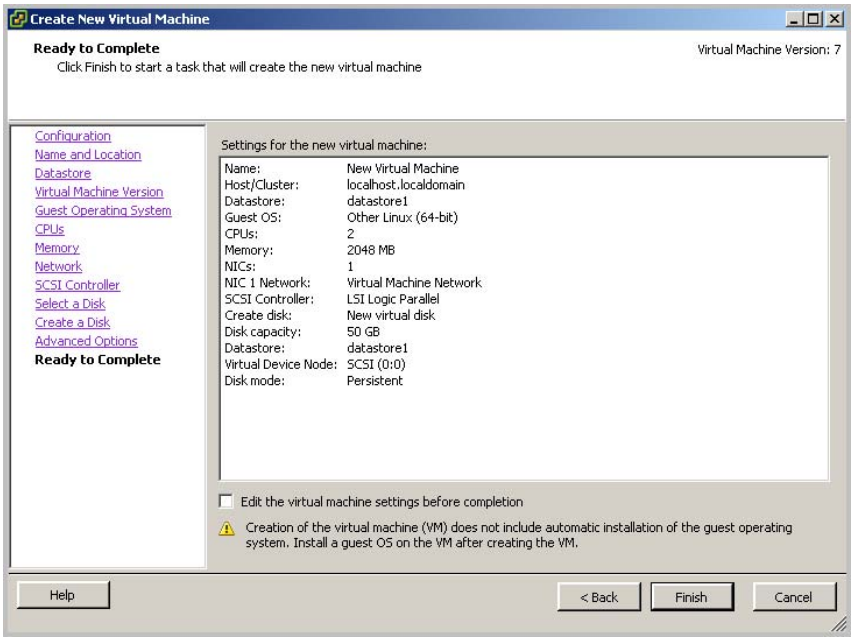


FIGURE A-13. Ready to Complete screen

The new virtual machine is now ready.

Appendix B

Creating an Installation CD

There are many third-party software applications that you can use to create CDs from ISO files, including software that came with your CD/DVD writer or commercial applications such as Nero™ by Nero AG. This appendix demonstrates the creation of an Installation CD (on Windows XP) by using a readily accessible freeware tool called ISO Recorder Power Toy. This tool is a Windows XP freeware utility that uses native Windows functionality to create the CD.

Download ISO Recorder from the following location:

http://isorecorder.alexfeinman.com/isorecorder.htm

ISO Recorder Power Toy Example

Download and install ISO Recorder onto the Windows XP computer. Once the tool is installed, use the following steps to create the installation CD.

To create an installation CD from the TMSP ISO file:

1. Obtain a blank CD-R.
2. Insert the CD-R into the CD writer.
3. Start Windows Explorer.
4. Locate the ISO file, right-click the file, and then select **Copy image to CD**.

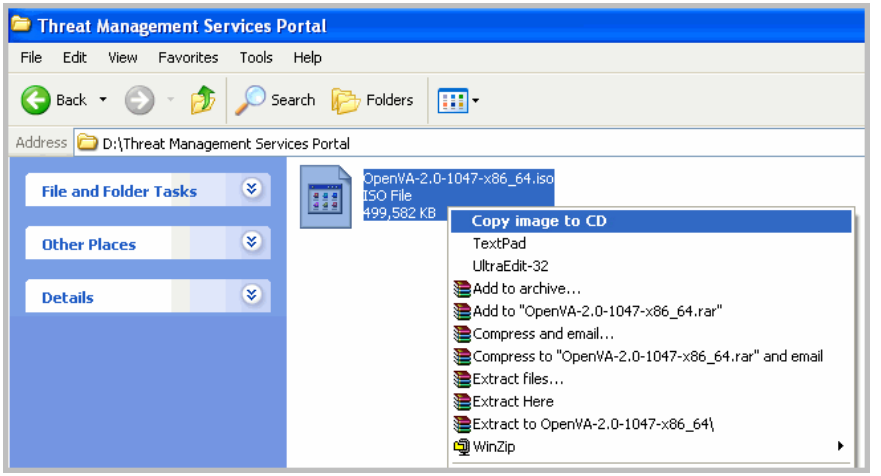


FIGURE B-14. Copy image to CD option

This process opens the ISO Recorder Wizard.

5. Ensure that the source is the location of the ISO file and the recorder is the CD/DVD writer.

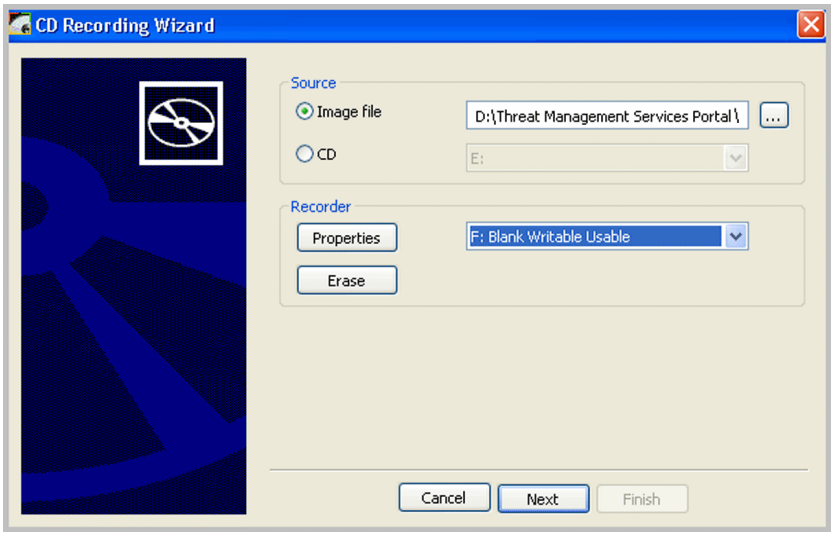


FIGURE B-15. Source and recorder information screen

6. Click **Next**.

   The recording wizard starts to create the installation CD.

7. Click **Finish** once the CD writer has completed writing the contents of the CD.

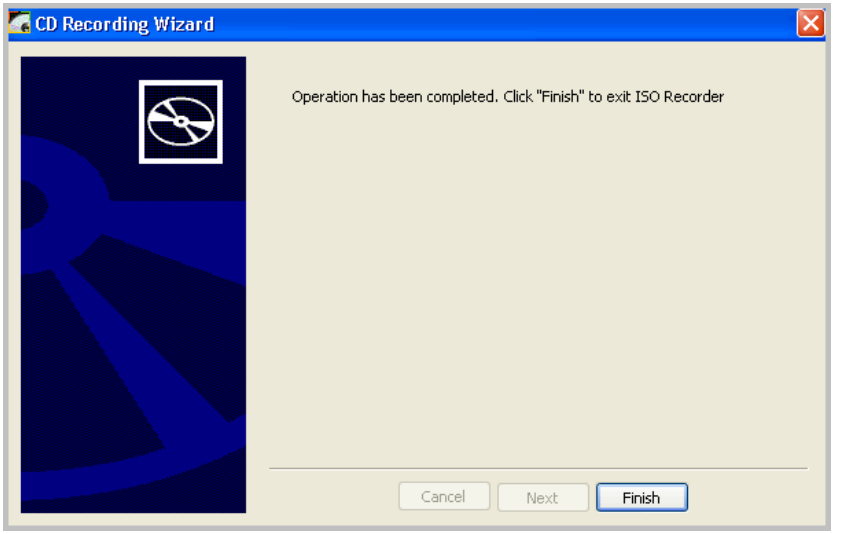


FIGURE B-16. Operation complete screen

The installation CD is now ready to use. The installation CD is a bootable CD that can be used on both bare metal and VMware virtual machine installations. For installation instructions, see *Installing Threat Management Services Portal* on page 2-1.

Appendix C

Product Terminology and Concepts

Bandage Pattern

A Bandage Pattern (also called BPR) is a pre-release version of a Trend Micro anti-malware database available for manual download. This pattern has not undergone full validation or integration testing and is intended to provide emergency protection prior to the availability of a Controlled Pattern (also called CPR) or smart protection patterns. A pattern signature included in a Bandage Pattern may or may not be incorporated into a subsequent Controlled Pattern or smart protection patterns.

Controlled Pattern

A Controlled Pattern (also called CPR) is a manually loadable, pre-release version of a Trend Micro anti-malware database, designed to provide users with additional protection in between smart protection pattern releases.

Disruptive Applications

Instant messaging, streaming media, and peer-to-peer applications are considered to be disruptive because they slow down the network, are a security risk, and are generally a distraction to employees. Threat Discovery Appliance logs activities on these applications and sends the logs to TMSP.

Heartbeat

Trend Micro products exchange heartbeat messages to initiate communication with each other. When communication is established, the products proceed with the required operation. For example, the initiating product starts to upload logs to the receiving product or requests the other product to quarantine a non-compliant endpoint.

Products exchange heartbeat messages at regular (and usually pre-determined) intervals. Some products offer users the ability to configure the time interval.

Threat Discovery Appliance and Threat Mitigator initiate a heartbeat message exchange with TMSP every 10 minutes.

Monitored Networks

A monitored network consists of IP addresses that Threat Discovery Appliance monitors for threats. By defining monitored networks, Threat Discovery Appliance can identify whether threats originate from within or outside the network.

Threat Discovery Appliance is set to automatically monitor the following IP address blocks reserved by the Internet Assigned Numbers Authority (IANA) for private networks:

- 10.0.0.0 - 10.255.255.255
- 172.16.0.0 - 172.31.255.255
- 192.168.0.0 - 192.168.255.255

Nonconforming Endpoints

An endpoint is considered nonconforming if the Threat Management Agent installed in the endpoint reports the following threat mitigation issues:

- There are unresolved threats in an endpoint after Threat Management Agent runs routine cleanup. To resolve these threats, send forensic data to Trend Micro.
- Trend Micro issued a pattern to eliminate the threats but the agent encountered issues while downloading the pattern.
- Threat Management Agent downloaded the pattern but encountered issues launching custom cleanup.

Outbreak Containment Services

Outbreak Containment Services in Threat Discovery Appliance blocks and disconnects malware activities that have the potential of causing an outbreak. After collecting Outbreak Containment Services logs, Threat Discovery Appliance sends the logs immediately to TMSP.

Registered Domains

A registered domain in Threat Discovery Appliance is an internal or external email domain that Threat Discovery Appliance considers trustworthy. By identifying trustworthy email domains, Threat Discovery Appliance can detect and classify email traffic from unknown or unauthorized domains.

Registered Products

TMSP integrates with a registered product to perform most of its functions. A registered product can either be Threat Discovery Appliance or Threat Mitigator.

Registered Services

A registered service in Threat Discovery Appliance is an internal or external service or server pairs that Threat Discovery Appliance considers trustworthy. By identifying trustworthy services or servers, Threat Discovery Appliance can detect and classify network traffic from unknown or unauthorized services or locations. For example, a Domain Name System (DNS) is generally a trusted service within the network, but a hacker outside or even from within the network could launch a network attack masquerading as a DNS response. By registering your local (internal) DNS servers, you enable Threat Discovery Appliance to determine which DNS traffic needs to be monitored and which is trusted and authorized.

Security Compliance

Security Compliance is a separately licensed feature in Threat Discovery Appliance that extracts meaningful content from various file formats and archives. Security Compliance checks whether the content contains information regulated by compliance rules. Threat Discovery Appliance logs violations to compliance rules and then uploads the logs to TMSP.

Compliance rules are contained in templates. Threat Discovery Appliance comes with a set of predefined templates for specific industries and regulations, such as:

- Payment Card Industry Data Security Standard (PCI-DSS)
- California Security Breach Information Act (SB-1386)
- Health Insurance Portability and Accountability Act (HIPAA)
- Financial Services Modernization Act (GLBA)
- US Personally Identifiable Information Act (US PII)

See the Threat Discovery Appliance *Administrator's Guide* for details about Security Compliance.

Smart Protection

Trend Micro smart protection technology provides File and Web Reputation Services to point products. Trend Micro delivers these services through smart protection sources. The following table provides a comparison between the currently available smart protection sources:

TABLE C-1. Smart protection sources

BASIS OF COMPARISON	SMART PROTECTION SOURCE	
	TREND MICRO SMART PROTECTION NETWORK	SMART PROTECTION SERVER
Purpose	Smart Protection Network is a globally scaled, Internet-based infrastructure that provides File and Web Reputation Services to Trend Micro products that leverage smart protection technology.	Smart Protection Server provides the same File and Web Reputation Services offered by Smart Protection Network but is intended to localize these services to the corporate network to optimize efficiency.
Administration	Trend Micro hosts and maintains this service.	A point product's administrator installs and manages this server.

TABLE C-1. Smart protection sources (Continued)

BASIS OF COMPARISON	SMART PROTECTION SOURCE	
	TREND MICRO SMART PROTECTION NETWORK	SMART PROTECTION SERVER
Connection protocol	HTTPS	HTTP/HTTPS

About Web Reputation Services

Web Reputation Services tracks the credibility of web domains by assigning a reputation score based on factors such as a website's age, historical location changes and indications of suspicious activities discovered through malware behavior analysis. To increase accuracy and reduce false positives, Trend Micro web reputation technology assigns reputation scores to specific pages or links within sites instead of classifying or blocking entire sites since there are times that only portions of legitimate sites are hacked and reputations can change dynamically over time.

About File Reputation Services

File Reputation Services uses two lightweight patterns that work together to provide the same protection offered by Trend Micro conventional anti-malware patterns. These patterns are collectively referred to as smart protection patterns.

Smart Scan Pattern contains majority of the pattern definitions. A smart protection source hosts the Smart Scan Pattern and updates it several times a day. By default, the smart protection source updates the pattern from the Trend Micro ActiveUpdate server.

Point products (such as Threat Mitigator) that leverage smart protection technology do not download the Smart Scan Pattern. The point product verifies potential threats against the pattern by sending scan queries to the smart protection source.

Smart Scan Agent Pattern contains all the other pattern definitions not found on the Smart Scan Pattern. The point product hosts the Smart Scan Agent Pattern and updates it daily. By default, the point product updates the pattern from the Trend Micro ActiveUpdate server.

The point product, using the Smart Scan Agent Pattern and advanced filtering technology, can verify whether a file is infected without sending scan queries to the smart protection source. The point product only sends scan queries if it cannot determine the risk of the file during scanning. A point product that cannot verify a file's risk locally and is unable to connect to a smart protection source after several attempts flags the file for verification. When connection to a smart protection source is restored, all the files that have been flagged are re-scanned. The appropriate scan action is then performed on files that have been confirmed as infected.

Trend Micro Services

The Trend Micro threat management offering includes the following services:

TABLE C-2. Threat management services

SERVICE	DESCRIPTION
Threat Discovery Services	These services continuously monitor networks for stealthy malware infections and generate daily and weekly infection reports.
Threat Remediation Services	These services provide early outbreak warnings and expert advisory to diagnose, contain, and remediate security threats.
Threat Lifecycle Management Services	These services combine automated threat remediation and root-cause analysis technology with proactive security planning from a dedicated Trend Micro Threat Management Advisor.

Each service has the following features and benefits:

TABLE C-3. Features and benefits for each service

FEATURE/BENEFIT	THREAT DISCOVERY	THREAT REMEDIATION	THREAT LIFECYCLE MANAGEMENT
Network overwatch threat discovery	Yes	Yes	Yes
Network security assessment reports (manual – daily / weekly)	Yes	Yes	Yes
Proactive threat monitoring & early warning notifications	No	Yes	Yes
Threat containment and remediation advisory services	No	Yes	Yes
24x7 access to Trend Micro Threat Management Advisors	No	Yes	Yes
Automated threat remediation technology	No	No	Yes
Threat infection root-cause analysis	No	No	Yes
Bi-annual threat outbreak drills for best practice responses	No	No	Yes
Customized Threat Security Management Plan	No	No	Yes
Quarterly Executive Business Review	No	No	Yes
Annual threat landscape updates briefings	No	No	Yes

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