



2.0 SafeSync for Enterprise

Installation Guide

Share, Distribute, and Access Enterprise files within your private cloud



Protected Cloud

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The user documentation for Trend Micro SafeSync for Enterprise introduces the installation instructions for your production environment. Read through it before installing or using the software.

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

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Preface

Preface

This Installation Guide introduces SafeSync and guides you through planning the installation and installing SafeSync.

Topics in this chapter include:

- *SafeSync Documentation on page v*
- *Audience on page v*
- *Document Conventions on page vi*
- *Terminology on page vii*

SafeSync Documentation

SafeSync documentation includes the following:

TABLE 1. SafeSync Documentation

DOCUMENTATION	DESCRIPTION
Installation Guide	A PDF document that discusses requirements and procedures for installing SafeSync.
Administrator's Guide	A PDF document that discusses getting started information and SafeSync usage and management.
Help	Hosted HTML files that provide "how to's", usage advice, and field-specific information. The Help is accessible from the SafeSync web console.
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

Download the latest version of the PDF documents and readme at:

<http://docs.trendmicro.com>





Audience

SafeSync documentation is intended for administrators responsible for SafeSync management, including SafeSync installation and management. These administrators are expected to have advanced networking and server management knowledge.

Document Conventions

The documentation uses the following conventions.

TABLE 2. Document Conventions

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

Terminology

The following table provides the official terminology used throughout the SafeSync documentation:

TABLE 3. SafeSync Terminology

TERMINOLOGY	DESCRIPTION
Administrator (or SafeSync administrator)	The person managing the SafeSync server
Console	The user interface for configuring and managing SafeSync. The console for the SafeSync server program is called "web console".
End-user	Users that share content using SafeSync.

Chapter 1

Preparing for Installation

This chapter introduces SafeSync, deployment recommendations, and system requirements.

This chapter includes the following topics:

- *About SafeSync on page 1-2*
- *Deploying SafeSync on page 1-3*
- *System Requirements on page 1-4*

About SafeSync

Trend Micro SafeSync is a turnkey solution for the Enterprise to the Cloud. SafeSync provides a seamless data accessing experience to users in a more secure, flexible and convenient way.

- Integrated with most external storage types (SAN or NAS).
- Single sign-on support for Active Directory and LDAP.
- Secure your data in the cloud at any time. SafeSync supports file version control and redundant backups of your data.
- Access your data using various devices (PC, Mac, Android, iOS devices)
- Enhance teamwork using a shared collaborative data space.

Why Use SafeSync

SafeSync provides the following:

BENEFIT	DESCRIPTION
Access	Anytime, anywhere file accessing, editing, and organizing from any device: PCs, Macs, and Android, and iOS mobile devices.
Sync	Data storage and synchronization with additional file copies held on your on-premise servers that can be easily restored or accessed, in case of a hardware loss, theft, or failure.
	Continuous automatic file synchronization with 2 ways to synchronize files. End-users can drag and drop files – Easily into the folder they wish to sync.
	Folder pairing enables automatic syncing of an entire folder without the need to drag and drop into the SafeSync folder.

BENEFIT	DESCRIPTION
Share	Fast and secure file and folder sharing with the shareable link.
	Set links with passwords that expire for additional security.
	“Team Folders” for effective group collaboration that can be created on the fly by staff and administrators.
Multiple-user accounts	SafeSync supports centralized administration for creating and controlling users.
Recover	Recovery of deleted files or previous file versions allows you to turn back time.
Confidentiality	You operate the data center, so no third party has access to your data.
Encryption	Data is transferred between you and SafeSync using the same AES 256-bit encryption used by financial institutions.
Centralized remote administration	You have the ability to control user accounts and share or revoke access to your shared files at any time.
Security	SafeSync has a built-in firewall that stops network traffic that is not required for sharing files.
Load balancers	Installing two SafeSync appliances ensures constant availability of online backup and file restoration, even in the event of equipment failure.
Redundant server and Internet connections	Two copies of data are stored on two separate servers plus two separate service providers connecting the data center ensuring availability of data.


Deploying SafeSync

SafeSync can be installed in a single appliance deployment or as a set of paired appliances. When deploying as a set of paired appliances, the first appliance (**primary server**) is the parent appliance. The other appliance (**secondary server**) is the failover appliance.

System Requirements

The following table provides the system requirements for using SafeSync.

TABLE 1-1. System Requirements

Hardware/Software	Description
Network switch	1GB
CPU	64-bit x86 (dual-core recommended)
Memory	4GB (32GB recommended)
Network card	Two 1GB NIC
System disk space	60GB (for SafeSync installation)
Storage disk space	<div>The disk storage depends on the needs of the users in the network.</div> <div> Tip Trend Micro recommends allocating 8 to 10GB to each user. If you want to replicate all of users' files, the allocated space is doubled (16-20GB). For example, if you intent to have 100 users, the recommended storage space is 2TB.</div>

Chapter 2

Installing SafeSync on Bare Metal Servers

Install one SafeSync and shared data is backed up on storage devices the administrator specifies. However, if the appliance encounters any issues end-users will not be able to access their shared data.



Tip

Trend Micro recommends installing two SafeSync appliances for high availability of SafeSync for end-users.

This chapter has the following topics:

- *Installing a SafeSync Appliance on page 2-2*
- *Installing SafeSync Appliances for High Availability on page 2-3*

Installing a SafeSync Appliance

Any existing data or partitions are removed during the installation process. Back up any existing data on the system (if any) before installing SafeSync.

Procedure

1. On a Bare Metal server, insert the installation DVD into the DVD drive of the desired server.
2. Power on the Bare Metal server.

A prompt appears with information about installing SafeSync.
3. Click **OK**.

The **License Agreement** screen appears.
4. Select **Agree and Install** to agree to the license agreement.

The **Select Installation Type** screen appears.
5. Select **Primary server** to install a single server or to install the first server in a high availability deployment.
6. Click **OK**.

The **Confirm Web Console Settings** screen displays.
7. Select one of the following to determine the connection settings for the end-user and management web consoles:
 - Select **yes** to use the default connection settings.
 - Select **no** to modify the connection settings.
Once installation completes the **Log On** screen for the command line interface appears.
8. Using a web browser, log on to the web management console (<SafeSync domain name>:3443) with the following user name and password:
 - user name: `administrator`

- password: safesync
-

Installing SafeSync Appliances for High Availability

Any existing data or partitions are removed during the installation process. Back up any existing data on the server before installing SafeSync.

Procedure

1. Install the first SafeSync appliance. See [Installing a SafeSync Appliance on page 2-2](#) for instructions.
2. On a second Bare Metal server, insert the installation DVD into the DVD drive of the desired server.
3. Power on the Bare Metal server.
A prompt appears with information about installing SafeSync.
4. Click **OK**.
The **License Agreement** screen appears.
5. Select **Agree and Install** to agree to the license agreement.
The **Select Installation Type** screen appears.
6. Select **Secondary server** to install the second server in a high availability deployment.
7. Click **OK**.
The **Confirm Web Console Settings** screen displays.
8. Select one of the following to determine the connection settings for the end-user and management web consoles:
 - Select **yes** to use the default connection settings.

- Select **no** to modify the connection settings.

Once installation completes the **Log On** screen for the command line interface appears.

9. Using a web browser, log on to the web management console (<SafeSync domain name>: 3443) with the following user name and password:
 - user name: administrator
 - password: safesync
-

Chapter 3

Installing on VMware ESXi

When installing SafeSyncon a VMware ESXi, the virtual machine requires the following:

SYSTEM	MINIMUM REQUIREMENT
Virtual machine	VMware ESXi™ 4.x, 5.x
CPU	64-bit single core
RAM	4GB
Hard disk	60GB
Network cards	Two 1GB NIC

Procedure

1. Launch VMware ESXi.
2. Select **File > New > Virtual Machine** from the menu.

The **Create New Virtual Machine** screen appears.

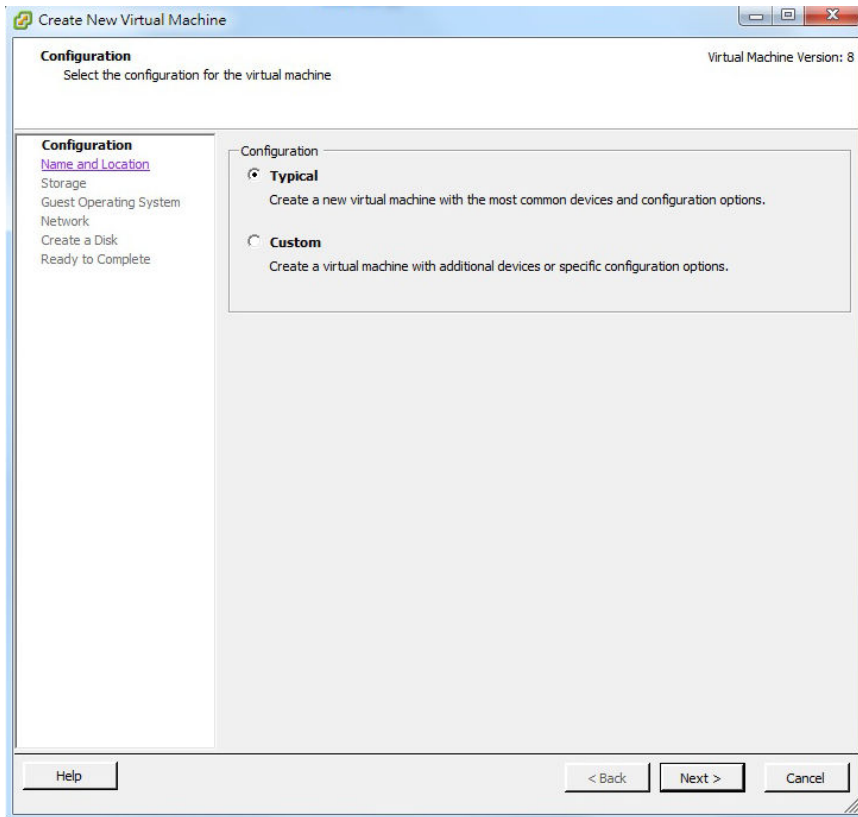


FIGURE 3-1. Select Configuration

3. Select **Typical**.
4. Click **Next**.

The **Name and Location** screen appears.

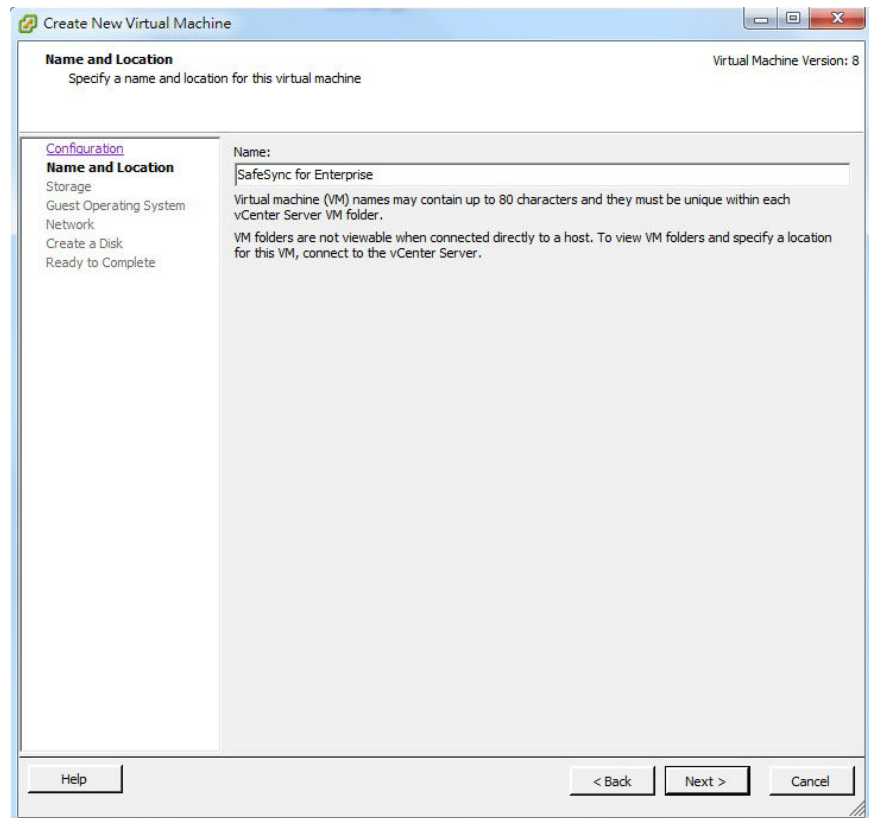


FIGURE 3-2. Name New Virtual Machine

5. Type a name for the virtual machine.
6. Click **Next**.

The **Guest Operating System** screen appears.

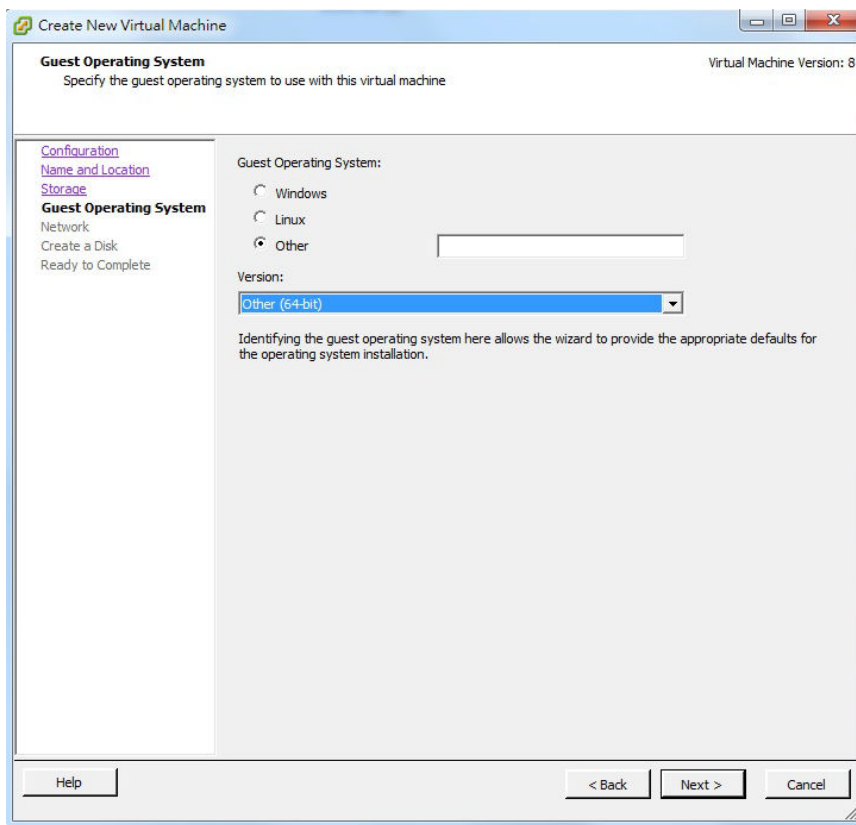


FIGURE 3-3. Guest Operating System

7. Select **Other** and choose **Other (64-bit)** from the drop-down.
8. Click **Next**.

The **Network** screen appears.

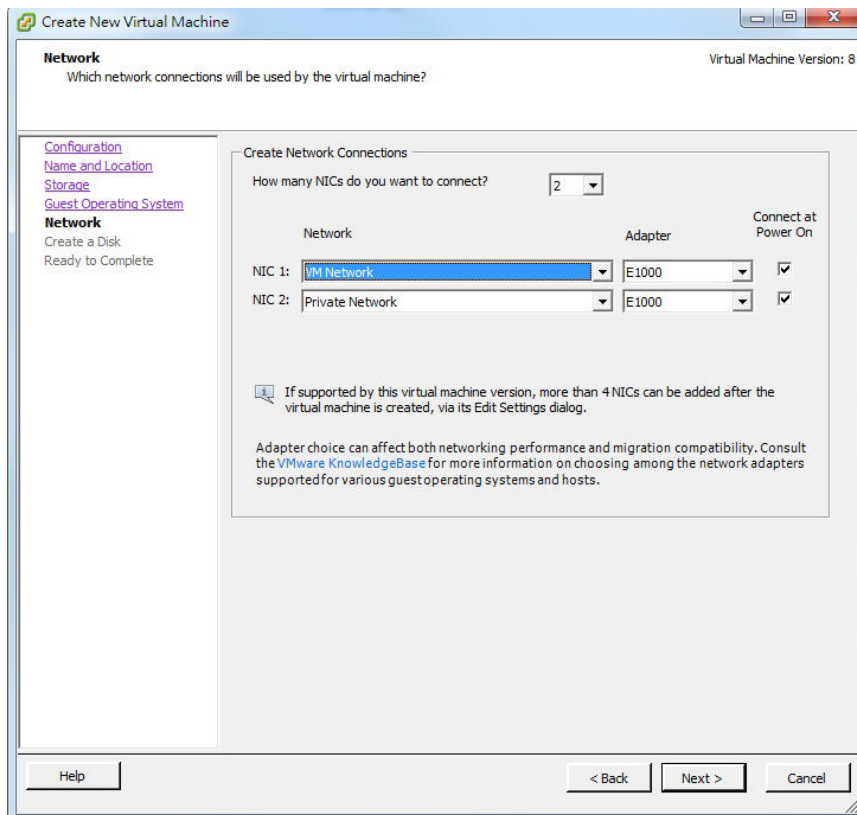


FIGURE 3-4. Create Network Connections

9. Select 2 NICs and specify the following settings:

TABLE 3-1. Network Settings for SafeSync

NAME	NETWORK	ADAPTOR	CONNECT AT POWER ON
NIC 1	VM Network	E1000	Enabled
NIC 2	Private Network	E1000	Enabled

10. Click **Next**.

The **Create a Disk** screen appears.

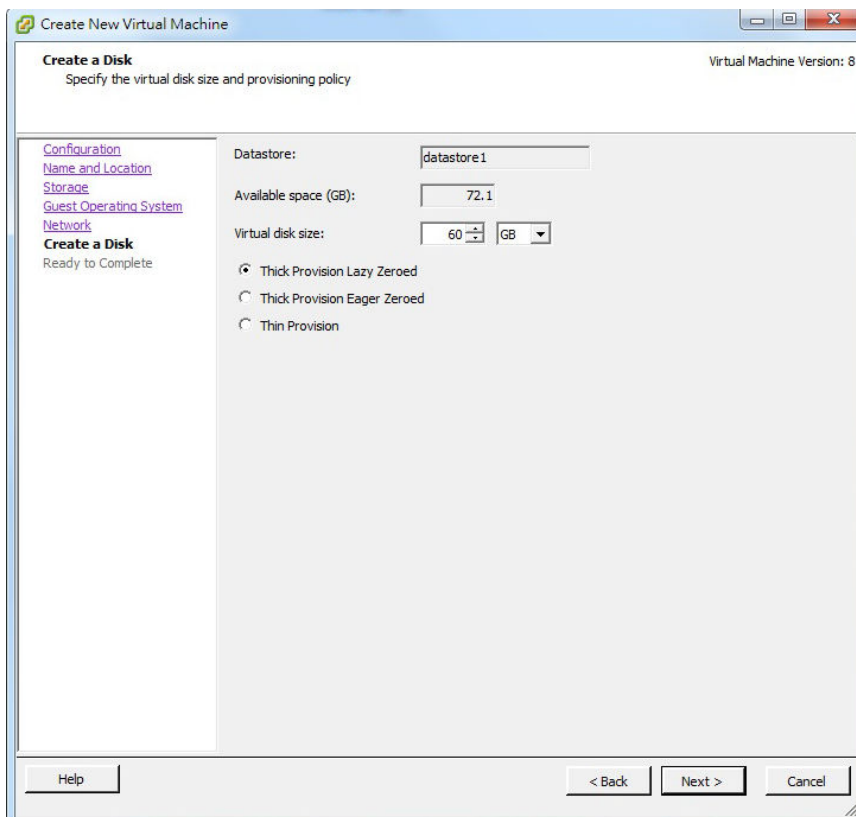


FIGURE 3-5. Create Disk Settings

11. Select at least 60GB of virtual disk space for SafeSync.
12. Select **Thick Provision Lazy Zeroed**.
13. Click **Next**.

The **Ready to Complete** screen appears.

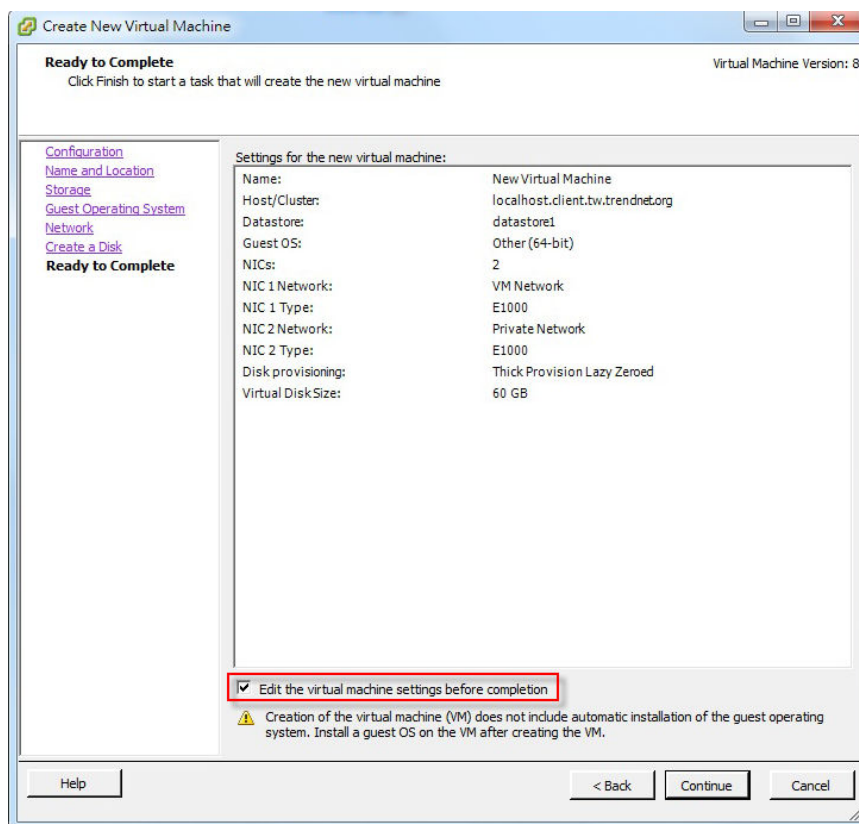


FIGURE 3-6. Ready to Complete

14. Select **Edit the virtual machine settings before completion**.
15. Verify the settings for the new virtual machine and then click **Continue**.

The **Virtual Machine Properties** screen appears.

16. Open the **Hardware** tab and select **Memory (adding)**.

Memory Configuration appears in the right pane.

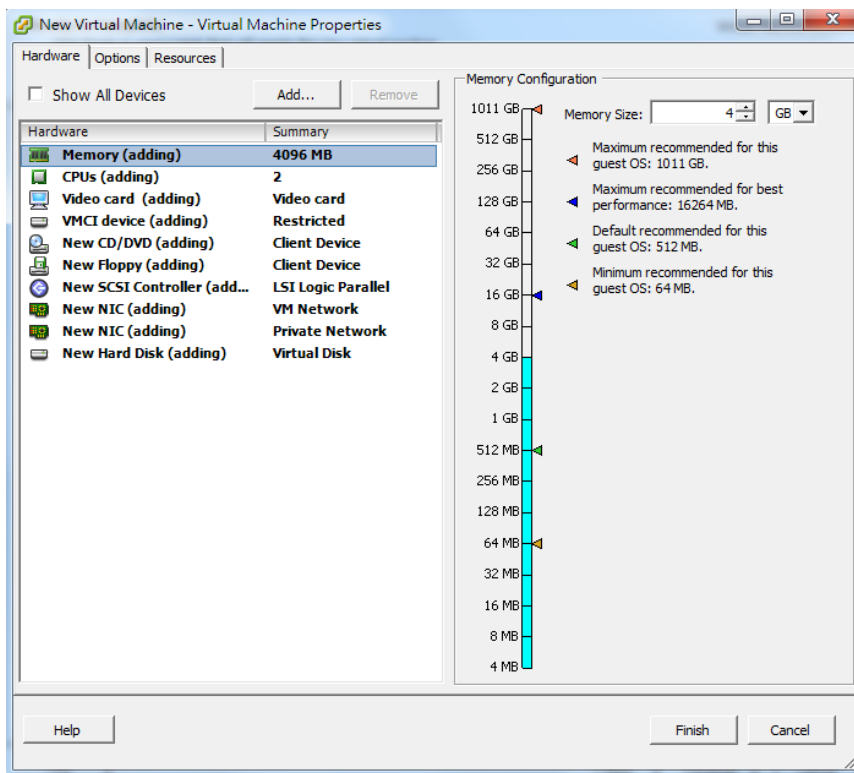


FIGURE 3-7. VM Properties - Memory Configuration

17. In the **Memory Size** field, select at least 4GB.
18. From the **Hardware** tab, select **CPU (adding)**.

CPU settings appear in the right pane.

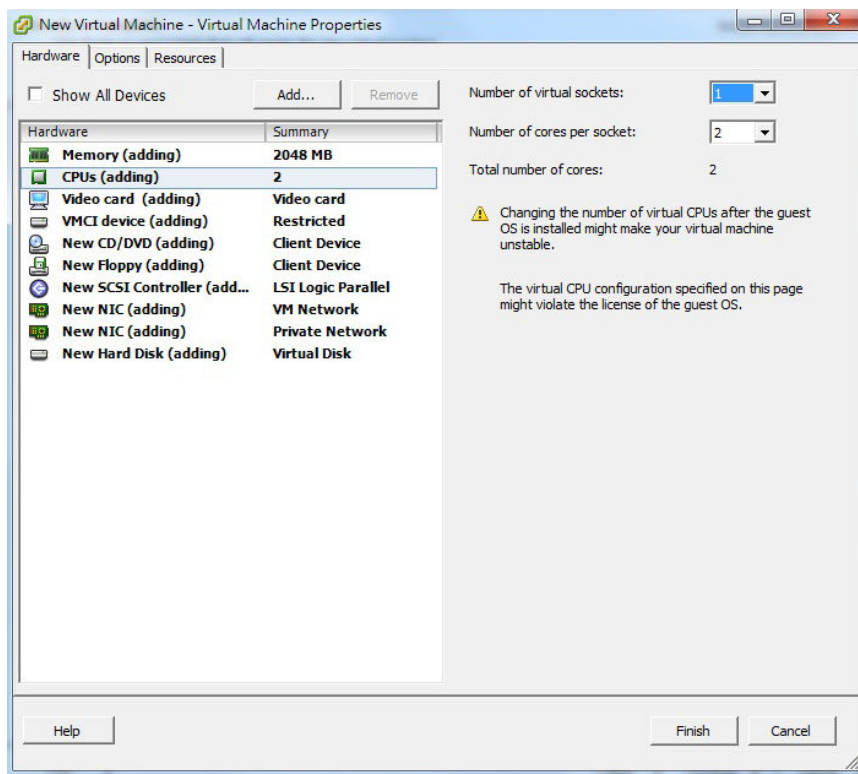


FIGURE 3-8. VM Properties - CPU Settings

19. In the **Number of virtual sockets** field, select **1**.
20. In the **Number of cores per socket** field, select **2**.
21. Click **Finish**.

Chapter 4

Installing on a VMware Workstation

When installing SafeSyncon a VMware Workstation, the virtual machine requires the following:

SYSTEM	MINIMUM REQUIREMENT
Virtual machine	VMware® WorkStation™ 6.x, 7.x or above
CPU	64-bit single core
RAM	4GB
Hard disk	60GB
Network cards	Two 1GB NIC

Procedure

1. Launch a VMware WorkStation.
2. Select **File > New > Virtual Machine** from the menu.

A setup wizard appears.



FIGURE 4-1. Virtual Machine Configuration

3. Select **Custom (advanced)**.
4. Click **Next**.

The **Virtual Machine Hardware Compatibility** screen appears.

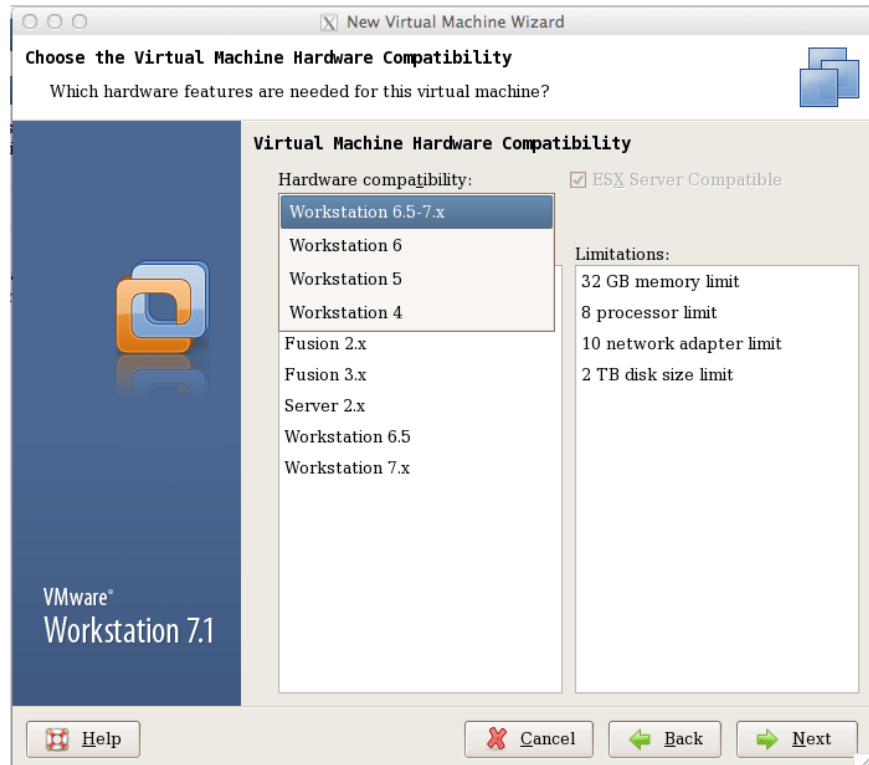


FIGURE 4-2. Virtual Machine Hardware Compatibility screen

5. Select **Workstation 6.5-7.x** from the drop down list.
6. Click **Next**.

The **Guest Operating System Installation** screen appears.

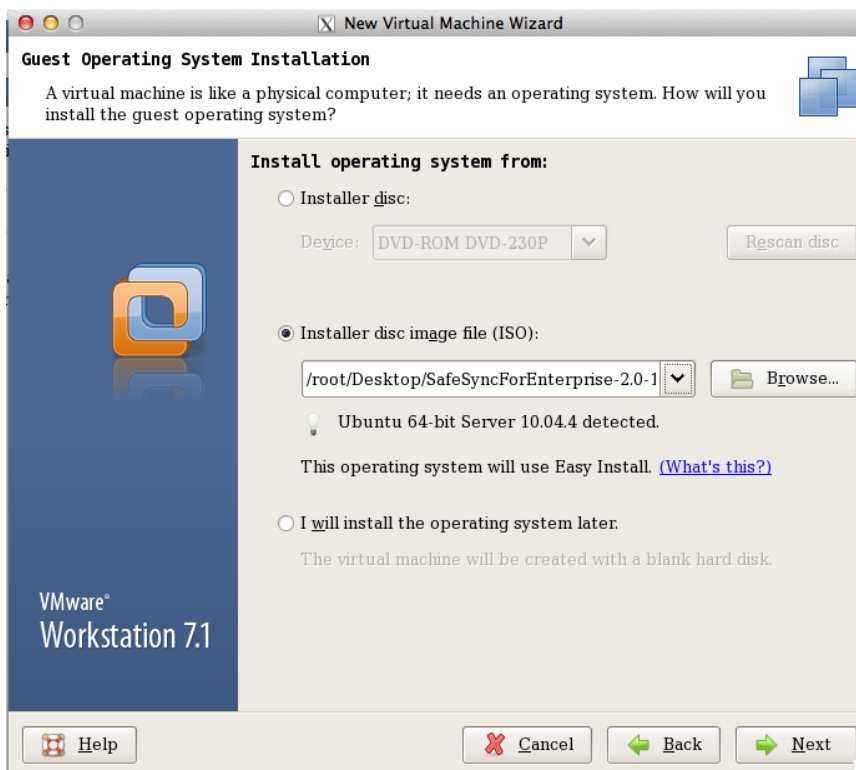


FIGURE 4-3. Guest Operating System Installation screen

7. Select one of the following:
 - Select **Installer disc**;, if a DVD is mounted to the physical machine.
 - Select **Installer disc image files (ISO)**: to upload the iso file from a physical machine.

VMware detects the operating system from the DVD or ISO files.

8. Click **Next**.

The **Easy Install Information** screen appears.



FIGURE 4-4. Easy Install Information screen

9. Provide the user name and password for Ubuntu.
10. Click **Next**.

The **Name the Virtual Machine** screen appears.



FIGURE 4-5. Name the Virtual Machine screen

11. Type a name for the virtual machine.
12. Type a path for file storage.
13. Click **Next**.

The **Processor Configuration** screen appears.



FIGURE 4-6. Processor Configuration screen

14. Provide the number of processors and the number of cores for the processors that the virtual machine uses.
15. Click **Next**.

The **Memory for the Virtual Machine** screen appears.



FIGURE 4-7. Memory for the Virtual Machine screen

16. Specify at least **4GB** RAM for SafeSync.
17. Click **Next**.

The **Network Type** screen appears.



FIGURE 4-8. Network Type screen

18. Select **Use network address translation (NAT)**.
19. Click **Next**.

The **Select I/O Controller Types** screen appears.



FIGURE 4-9. Select I/O Controller Types screen

20. Select **LSI Logic (Recommended)**.
21. Click **Next**.

The **Select a Disk Type** screen appears.



FIGURE 4-10. Select a Disk screen

22. Select **Create a new virtual disk**.
23. Click **Next**.

The **Select a Disk Type** screen appears.



FIGURE 4-11. Select a Disk Type screen

24. Select **SCSI (Recommended)**.
25. Click **Next**.

The **Specify Disk Capacity** screen appears.



FIGURE 4-12. Specify Disk Capacity screen

26. Specify at least **60GB** of disk space for SafeSync.
27. Click **Next**.

The **Specify Disk File** screen appears.



FIGURE 4-13. Specify Disk File screen

28. Specify where to store the disk file.
29. Click **Next**.

The **Ready to Create Virtual Machine** screen appears.

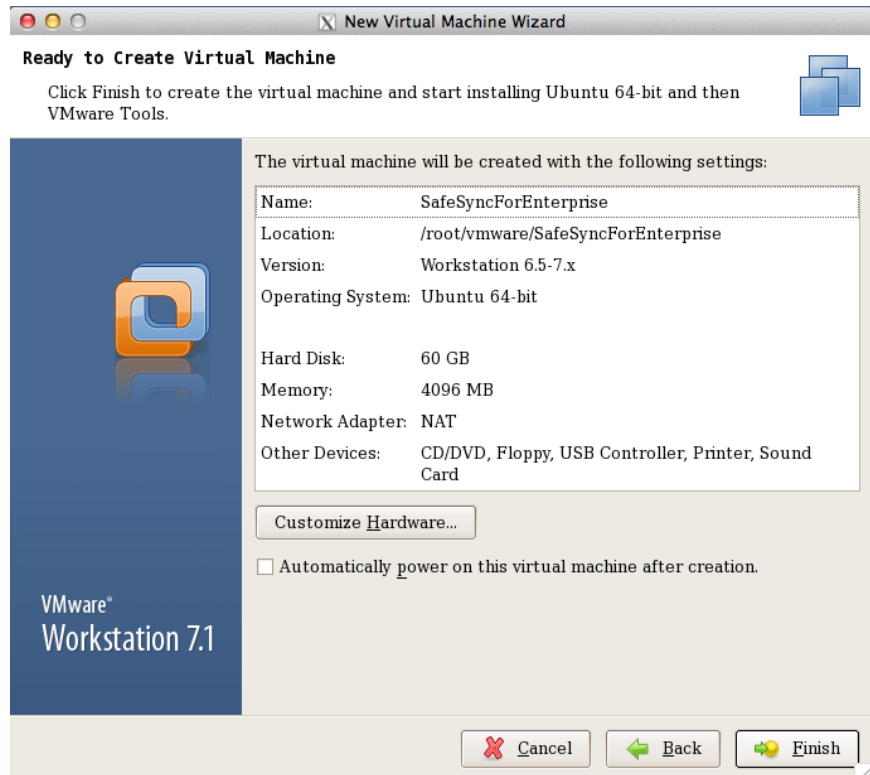


FIGURE 4-14. Ready to Create Virtual Machine screen

30. Click **Customize Hardware**.

The **Hardware** screen appears.

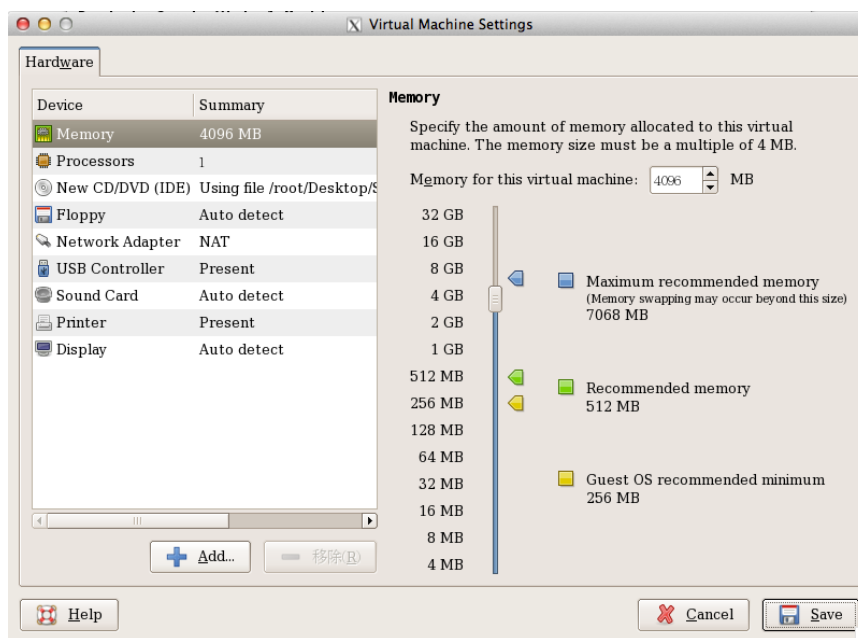
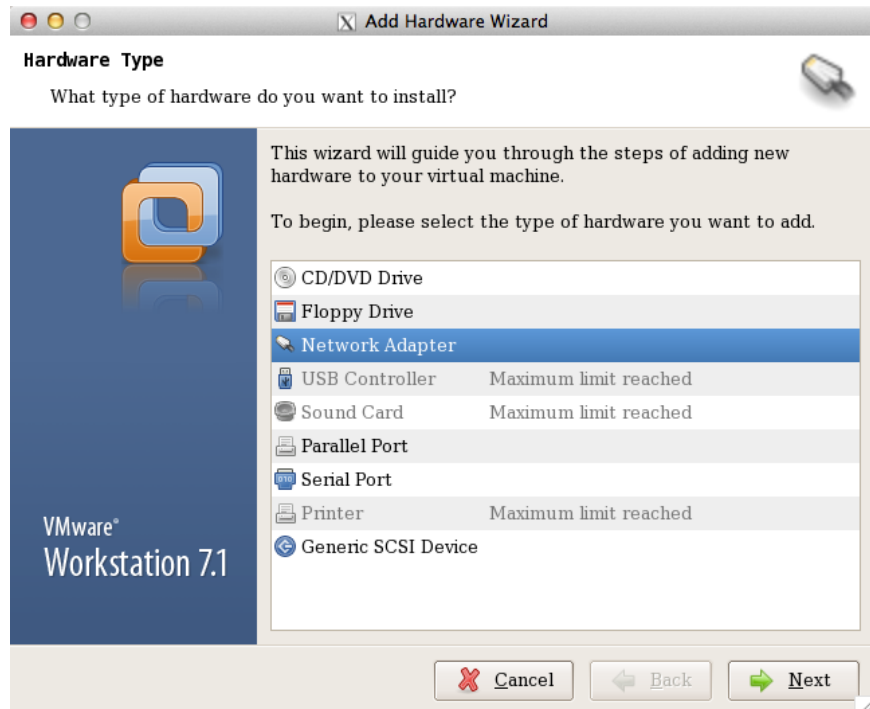


FIGURE 4-15. Hardware screen

31. Click **Add**.

The **Hardware Type** screen appears.



32. Select **Network Adapter**.

33. Click **Next**.

The **Network Adapter Type** screen appears.



FIGURE 4-16. Network Adapter Type screen

34. Select **NAT**.
35. Select **Connect at power on**.
36. Click **Save**.

The **Hardware** screen appears.

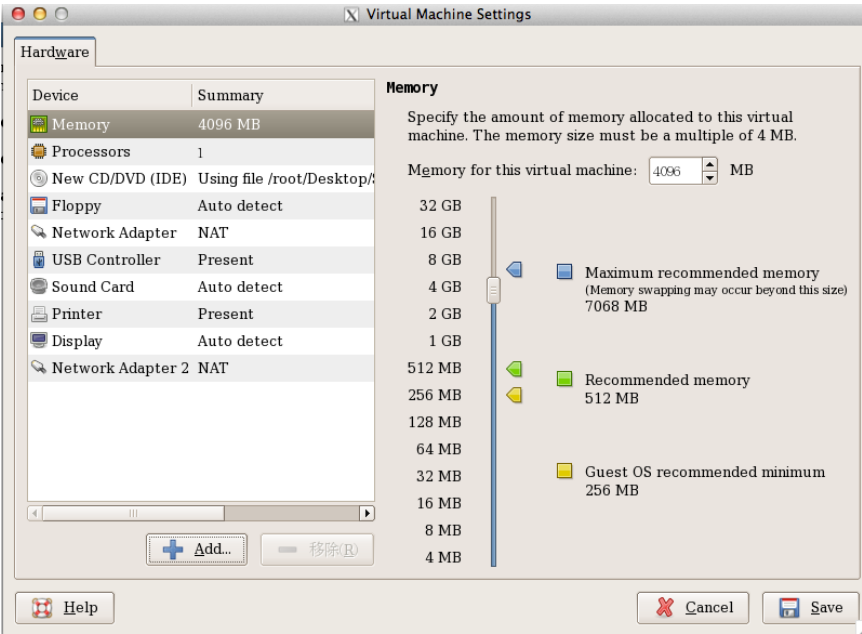


FIGURE 4-17. Hardware screen

37. Click **Save**.

The **Ready to Create Virtual Machine** screen appears.

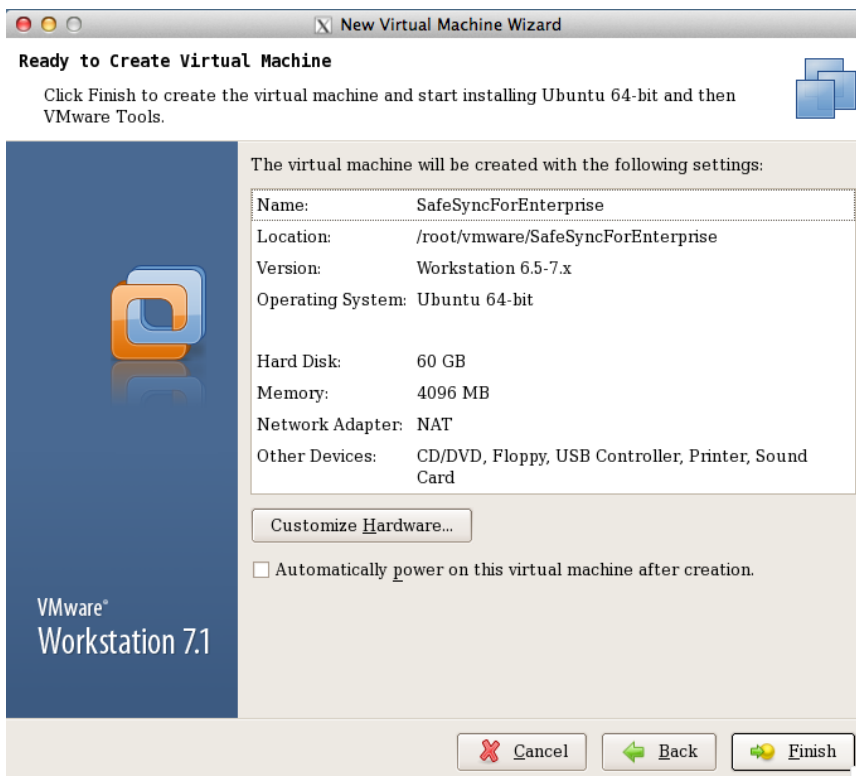


FIGURE 4-18. Ready to Create Virtual Machine.

38. Click **Finish**.

Chapter 5

Installing on an Oracle VM VirtualBox

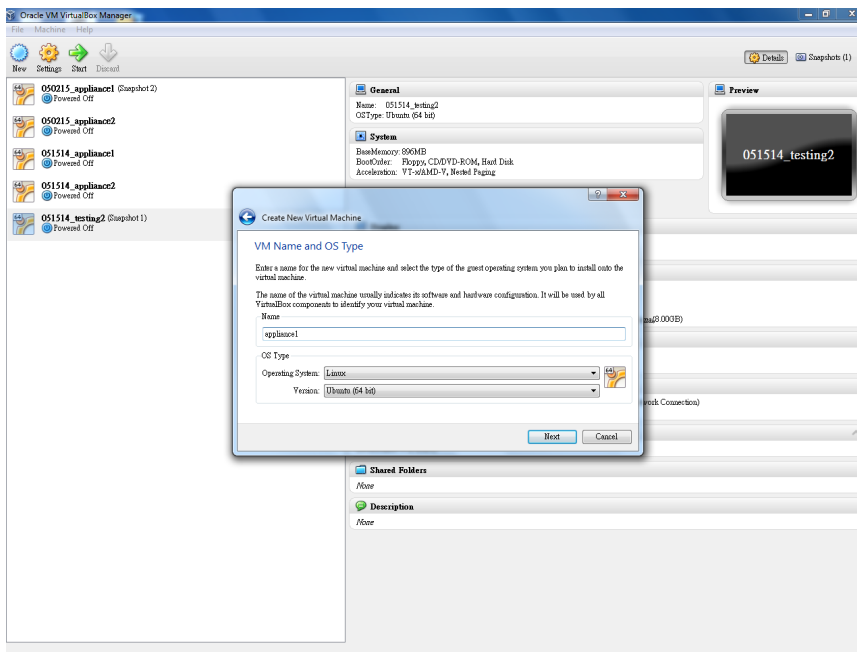
When installing SafeSyncon on an Oracle VM VirtualBox, the virtual machine requires the following:

SYSTEM	MINIMUM REQUIREMENT
Virtual machine	Oracle VM VirtualBox™ 4.x
CPU	64-bit single core
RAM	4GB
Hard disk	60GB
Network cards	Two 1GB NIC

Procedure

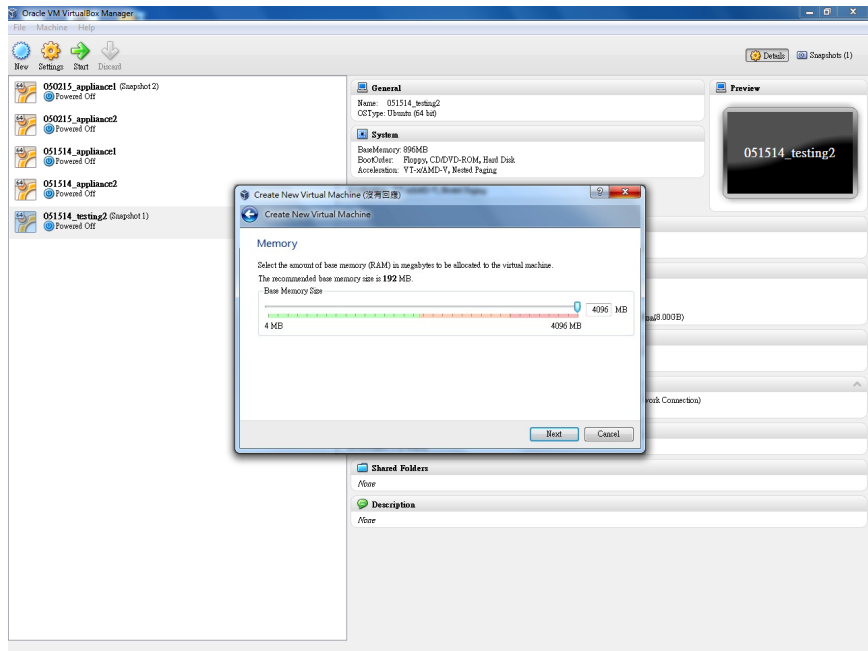
1. Log on to the Oracle VM VirtualBox.
2. Click the **New** button on the toolbar to add a new virtual machine.
3. Click **Next**.

The **VM Name and OS Type** screen appears.



4. Provide a name for the virtual machine.
5. Select the following for the OS Type:
 - **Linux**
 - **Ubuntu(64-bit)**
6. Click **Next**.

The **Memory** screen appears.



7. Specify the amount of memory allocated to the virtual machine.

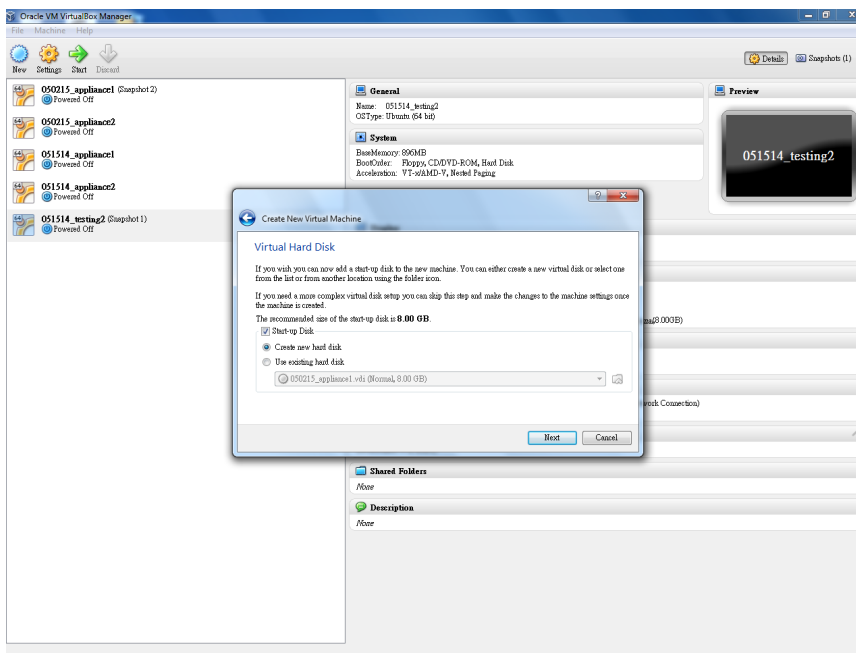


Tip

Trend Micro recommends specifying at least 4GB of memory.

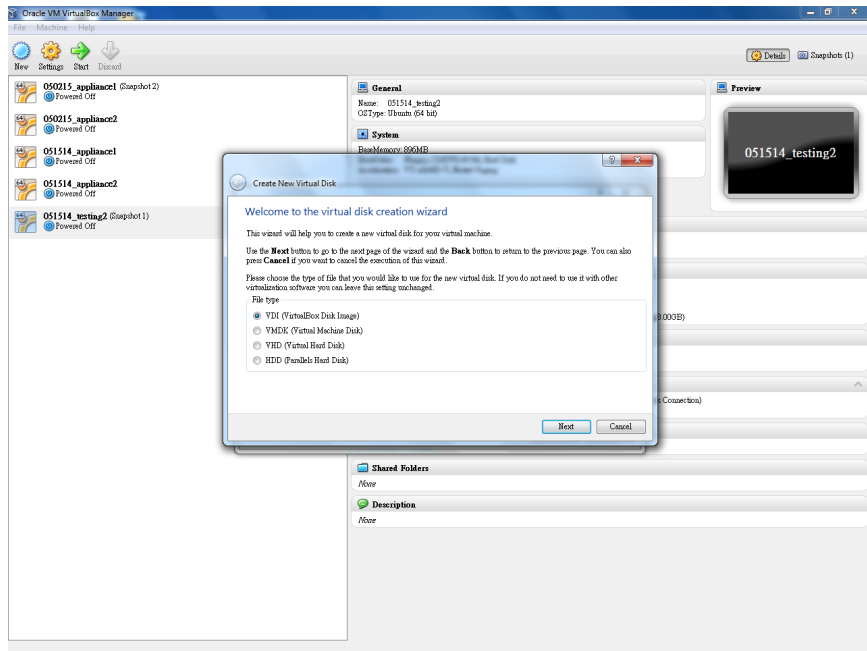
8. Click **Next**.

The **Virtual Hard Disk** screen appears.



9. Select **Start-up Disk**.
10. Select **Create new hard disk**.
11. Click **Next**.

The **Welcome to the virtual disk creation** screen appears.



12. Specify the type of the virtual disk to use.

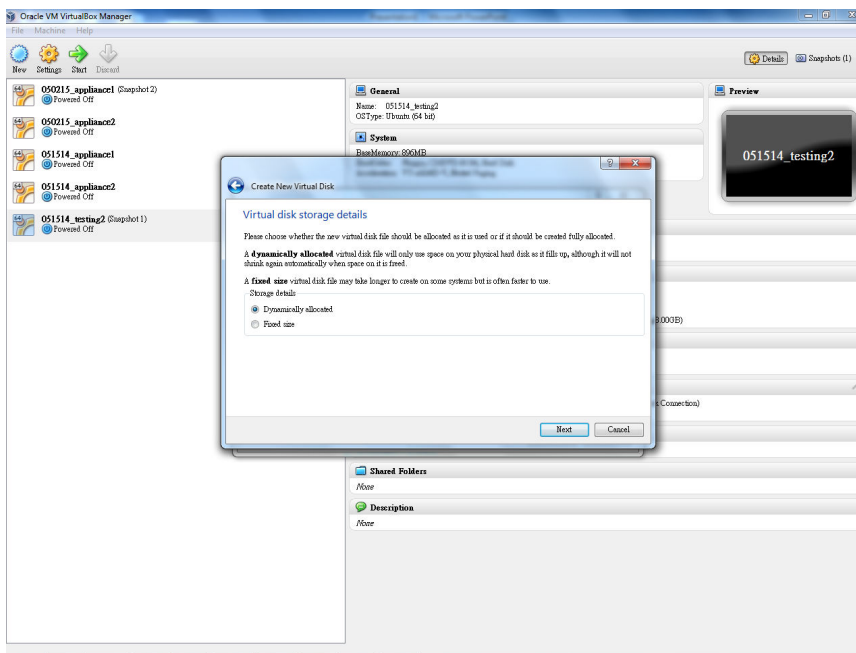


Tip

If you do not use the virtual machine with other virtualization software, leave the setting as **VDI (VirtualBox Disk Image)**.

13. Click **Next**.

The **Virtual disk storage details** screen appears.



14. Specify whether disk space if allocated dynamically or if disk space is fixed.



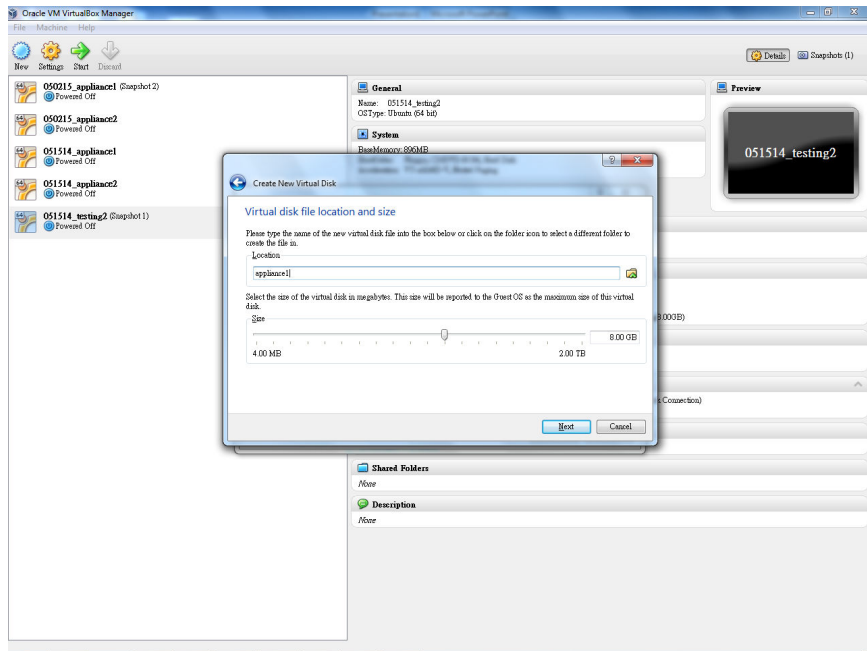
Note

Dynamically allocated space is allocated as the space fills up.

Fixed disk space only takes as much space as you allocate, but the fixed size disk is often faster to use.

15. Click **Next**.

The **Virtual disk file location and size** screen appears.



16. Specify a name and location for the virtual disk.
17. Specify the size of the virtual disk.

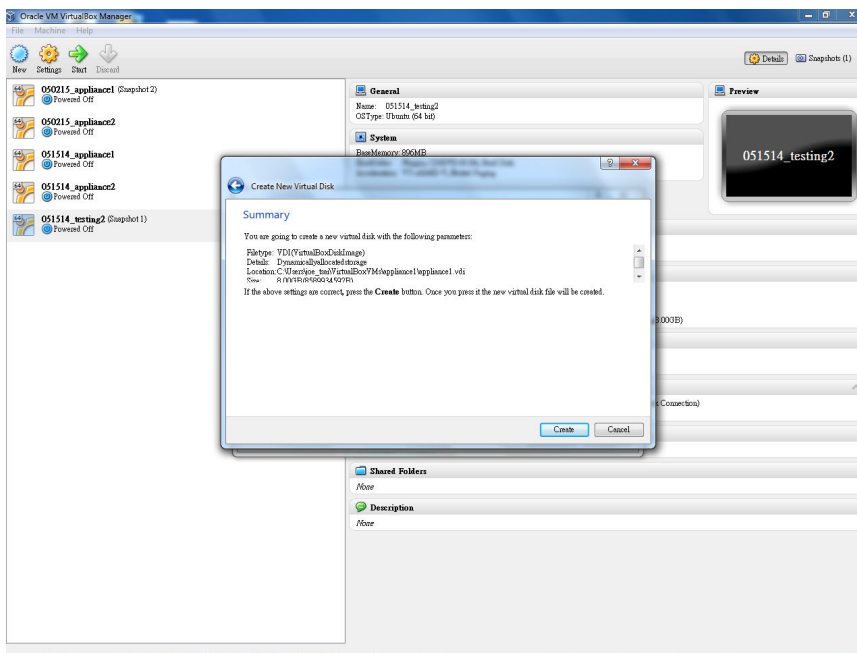


Tip

Trend Micro recommends specifying more than 60GB.

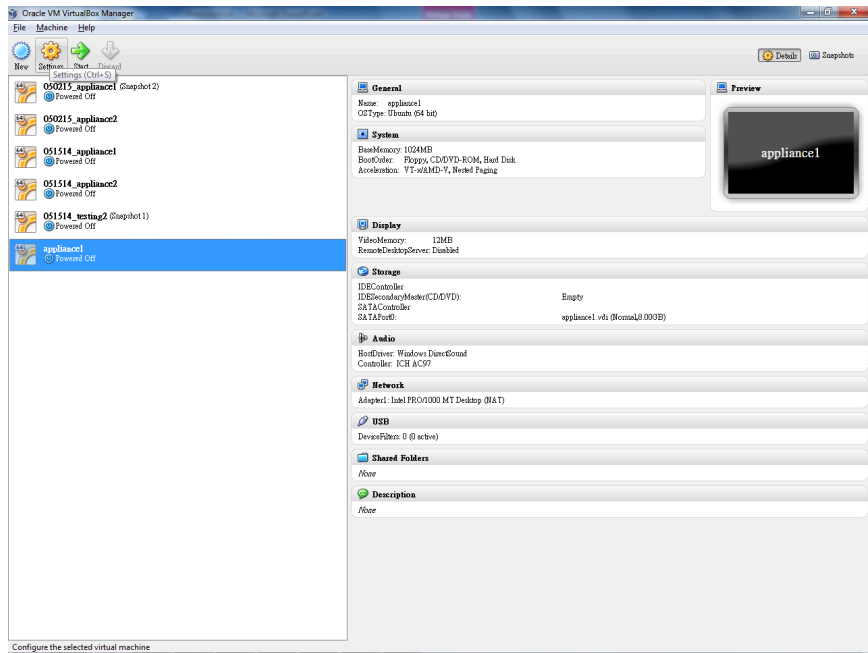
18. Click **Next**.

The **Summary** screen appears.

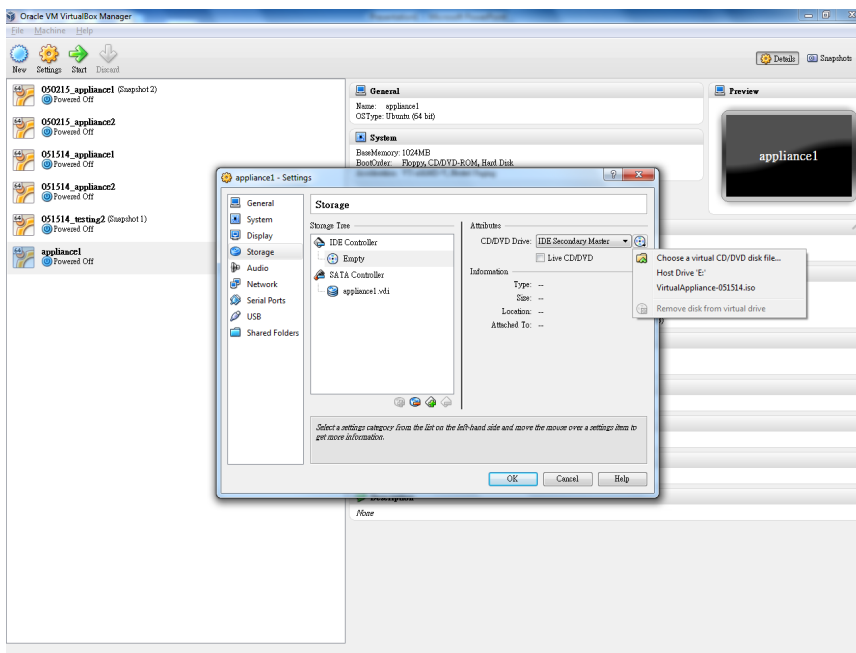


19. Review the specifications for the virtual machine.
20. Click **Create** if the specifications are correct.

The virtual machine appears in the virtual machine list.



21. Select the new virtual appliance.
 22. Click **Settings** from the main menu to set up the environment for SafeSync.
- The **Settings** screen for the virtual machine appears.



23. Click **Storage** from the **Settings** screen.
24. Select **IDE Controller**.
25. Right-click the **CD/DVD** drop down list and select **SafeSyncForEnterprise-2.0.iso**.
26. Click **Network** from the **Settings** screen.

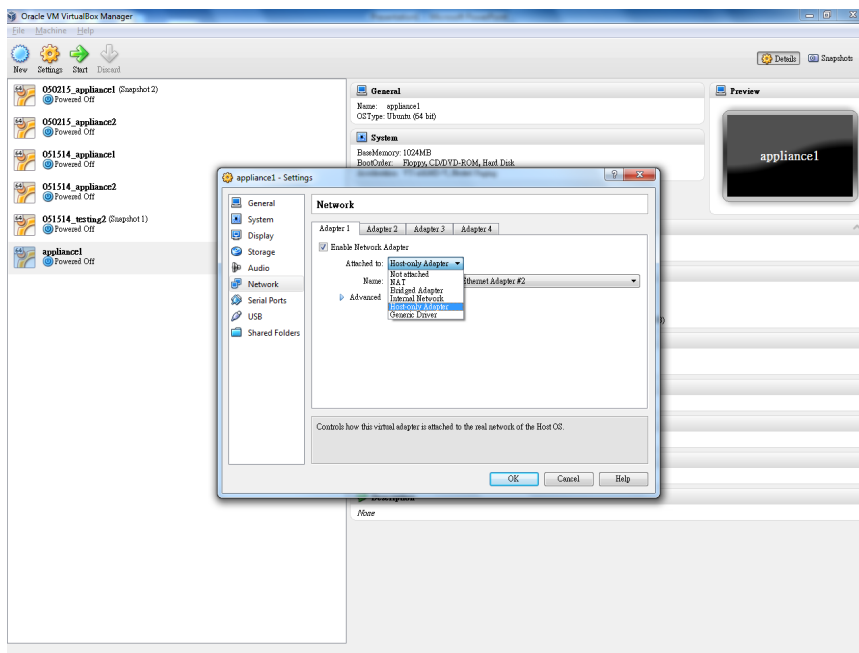
The content for Network appears.



Note

SafeSync uses **Adapter 1** network settings.

The SafeSync database uses **Adapter 2** network settings.

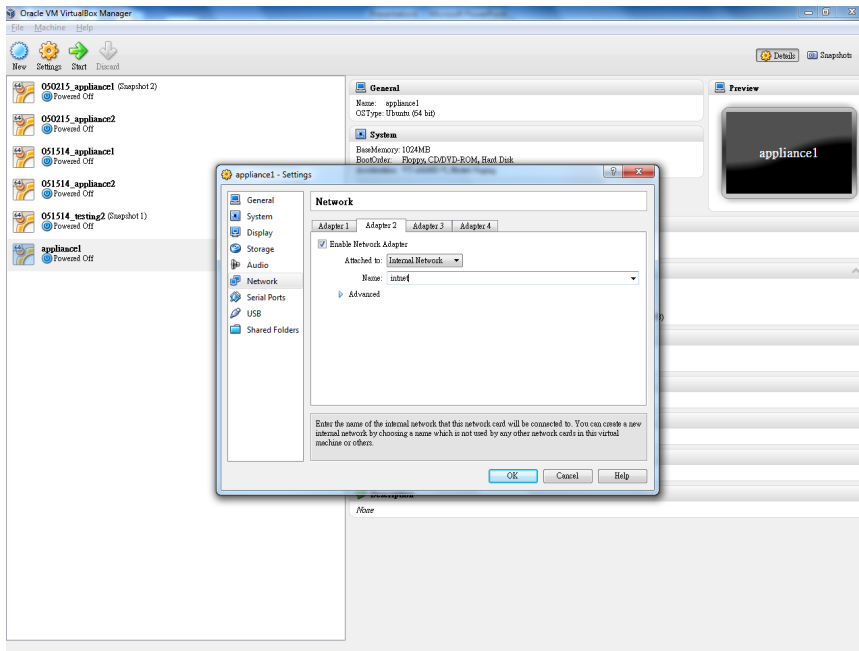


27. Specify one of the following for **Adapter 1**:

- **Bridge Adapter:** Select this option to allow connection to SafeSync using public networks.
- **Host-only adapter:** Select this option to only allow local access to SafeSync.

28. Click **Adapter 2**.

The **Adapter 2** tab displays.



29. Specify Internal Network for Adapter 2.

Chapter 6

SafeSync Post-Installation Tasks

This section outlines recommended and optional post installation tasks for SafeSync.

This chapter has the following topics:

- *Mounting Additional Disks on page 6-2*

Mounting Additional Disks

SafeSync automatically mounts only one disk by default. Additional disks need to be manually mounted to SafeSync.

The example below assumes that SafeSync is deployed as a set of paired appliances, and the primary server already has one disk installed. This example describes how to add a new disk to the primary server.



Note

You have to do these steps only if you want to use more than one disk.

Procedure

1. Log on to SafeSync.
2. Obtain the root permission:

```
sudo -i
```

3. Specify the root password.
4. Format the disk before mounting it to SafeSync:

This example uses **sdb** as the name of the new disk.

```
dmesg | grep sdb
```

```
fdisk /dev/sdb
```

5. Mount the disk:

```
mkfs.ext3 /dev/sdb1
```

```
mkdir /storage/mogdata/dev12
```

```
mount /dev/sdb1 -t ext3 /storage/mogdata/dev12
```

6. Add the disk to the mogile system:

```
chown www-data:mogstored /storage/mogdata/dev12
```

```
chmod g+w /storage/mogdata/dev12
```

```
mogadm --trackers=tracker1:6001 device add osdp-store1 12  
--status=alive
```

7. Save the settings:

```
vi /etc/fstab
```

```
/dev/sdb1 /storage/mogdata/dev11 ext3  
defaults,user_xattr,_netdev 1 2
```

Chapter 7

Verifying Installation

After installing SafeSync, Trend Micro recommends testing the installation.

Procedure

1. Open the SafeSync web console using the following address: `https://www.example.com/`



Note

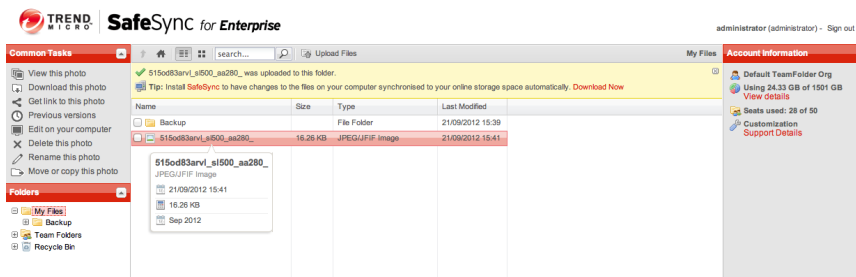
The actual address may vary according to your DNS settings.

2. Log on into the SafeSync web console using the default account credentials:
 - User name: `administrator`
 - Password: `safesync`
3. Click **Upload Files** to upload files to SafeSync.

The **Upload Files** screen appears.
4. Select the files you want to upload and click **Add Files**.

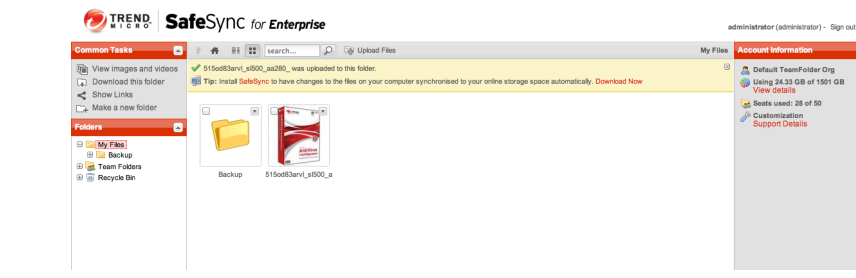
Select at least one photo to upload.
5. Click **Start Upload**.

The files you select upload to SafeSync.



Note

The photos you upload to SafeSync, display as a thumbnail in the content area.



6. Select the files that were just uploaded and click **Download the selected items**.

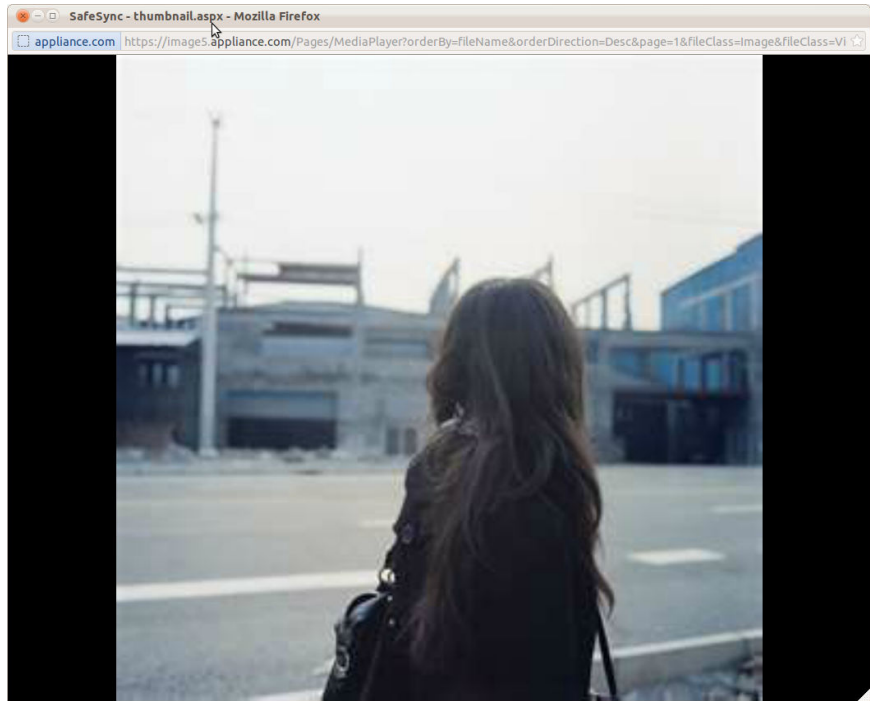
A dialog box appears.

7. Specify where to download the selected files and click **OK**.

The selected files download to the location you specify.


8. Select a photo you uploaded and click **View this photo**.

The photo appears in its original size.



9. Share your files by selecting a file and clicking **Get link to this file**.









SafeSync creates a shareable link to that file. People you send that link are able to access the files by clicking the link.



Share this photo

SafeSync provides security for any link you share. For additional protection, use any or all of the options below. Move your mouse cursor over an option to learn more about it.

Shareable link



Enable Extra Protection

Password

Link expires on

Single-use link

☐

Copy Link

Save

Close

Chapter 8

Contacting 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.

- Get a list of the worldwide support offices at <http://esupport.trendmicro.com>
- Get the latest Trend Micro product documentation at <http://docs.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
```


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