# Installation Instructions: Web Security and Web Filter

Installation Instructions | Web Filter and Web Security | Version 7.8.x

Use the steps to complete a typical installation of Websense<sup>®</sup> Web Filter or Web Security. In this configuration:

- The policy source (the standalone or primary Policy Broker and its Policy Server) resides on the TRITON management server machine.
- Websense Log Server resides on a dedicated Windows server.
- The reporting databases are hosted on a full version (not Express) of Microsoft SQL Server 2008, 2008 R2, or 2012 with the latest service pack from Microsoft.

An end user who uses the Filtering Service has no direct or indirect influence over the database. Thus, although the log entry is stored in the MSSQL database, the user did not direct its storage and cannot retrieve it.

The only interface to the database itself is from the Log Server, the Reporting services, and the Manager. Filtering Service and Websense Content Gateway do not access the database, but instead send information via the Log Server.

This installation procedure includes the following steps:

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### **Step 1: Prepare for installation**

Make sure that a supported version of Microsoft SQL Server (not Express) is installed and running in your network, and that:

- The SQL Server Agent service is running on the database host.
- The database host can be reached from the machine that will host the management server.
- You have identified a SQL Server or Windows Trusted account with appropriate permissions to create the database and run SQL Agent jobs.

If you will be integrating your Web Security solution with a third-party proxy, cache, firewall, or network appliance:

- Verify that you have selected a supported integration product.
  - Cisco Adaptive Security Appliance (ASA) v8.0 and later, or Cisco IOS routers v15 and later
    - See <u>Integrating Web Security with Cisco</u> for more information.
  - Citrix XenApp 5.0, 6.0, and 6.5
    - See Integrating Web Security with Citrix for more information.
  - Microsoft Forefront Threat Management Gateway (TMG)
     See <u>Integrating Web Security with Microsoft Products</u> for more information.
  - Blue Coat appliances via ICAP
     See <u>Integrating Web Security using ICAP Service</u> for more information.

Other third-party products are supported using the "universal integrations" option.

- See <u>www.websense.com/content/websense-triton-security-alliance-partners.aspx</u> for a list of supported vendors.
- See Installing Web Security for Universal Integrations for more information.
- Make sure that the integration product is installed and running before you begin.

### Step 2: Prepare the management server

In a typical installation, the TRITON management server hosts management components, Policy Broker, and Policy Server.

- 1. On the Windows machine that will host the TRITON management server:
  - a. Make sure there are no underscores in the machine's fully-qualified domain name (FQDN). The use of an underscore character in an FQDN is inconsistent with Internet Engineering Task Force (IETF) standards.



#### Note

Further details of this limitation can be found in the IETF specifications RFC-952 and RFC-1123.

- b. Make sure all Microsoft updates have been applied. There should be no pending updates, especially any requiring a restart of the system.
- c. Verify that there is sufficient disk space to download the installer, extract temporary installation files, and install the management components on the Windows installation drive (typically C).
- d. Make sure that the appropriate version of .NET Framework is installed. You can use Server Manager to install the appropriate version of .NET Framework.
  - Windows Server 2008 R2: Use version 2.0 or higher.
  - Windows Server 2012 or 2012 R2 (v7.8.2 or later): Version 3.5 is required. Note that .NET Framework 3.5 must be installed before adding any language packs to the operating system (as noted in the following article from Microsoft: http://download.microsoft.com/download/D/1/0/ D105DCF6-AC6C-439D-8046-50C5777F3E2F/microsoft-.net-3.5deployment-considerations.docx).
- e. Synchronize the clocks on all machines (including appliances) where a Websense component will be installed. It is a good practice to point the machines to the same Network Time Protocol server.
- f. Disable the antivirus software on the machine before installation. After installation, before restarting your antivirus software, see Excluding Websense software from antivirus scans.
- g. Disable any firewall on the machine before starting the Websense installer and then re-enable it after installation. Open ports as required by the Websense components you have installed, and make sure that required ports are not being used by other local services on the machine.
  - Some ports are used only during installation and can be closed once installation is complete.
  - See Web Security Default Ports for more information about ports.
- h. Disable User Account Control (UAC) and Data Execution Prevention (DEP) settings, and make sure that no Software Restriction Policies will block the installation.
- 2. Log on to the machine with domain admin privileges.
- 3. Download the TRITON Unified Installer (WebsenseTRITON782Setup.exe) from mywebsense.com.

### Step 3: Select management server components

Use the TRITON Unified Installer to install components on the management server machine.

- 1. Right-click WebsenseTRITON78xSetup.exe and select Run as administrator to launch the installer. After a few seconds, a progress dialog box appears, as files are extracted.
- 2. On the Welcome screen, click **Start**.

- 3. On the Subscription Agreement screen, select **I accept this agreement**, then click **Next**.
- 4. On the Installation Type screen, select **TRITON Unified Security Center**, then mark the **Web Security** check box and click **Next**.
- 5. On the **Summary** screen, click **Next** to continue the installation. TRITON Infrastructure Setup launches.

### Step 4: Install the TRITON infrastructure

The TRITON infrastructure includes data storage and common components for the management modules of the TRITON console.

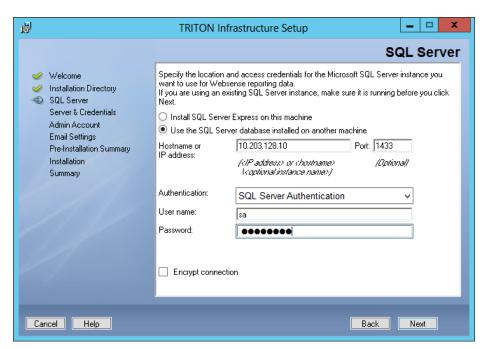
- 1. On the TRITON Infrastructure Setup Welcome screen, click **Next**.
- 2. On the Installation Directory screen, specify the location where you want TRITON Infrastructure to be installed and then click **Next**.
  - To accept the default location (recommended), simply click **Next**.
  - To specify a different location, click Browse.



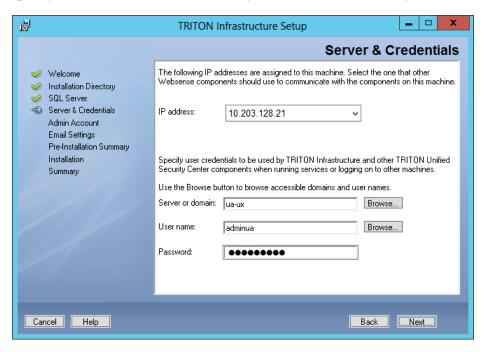
#### **Important**

The full installation path must use only ASCII characters. Do not use extended ASCII or double-byte characters.

3. On the SQL Server screen, select **Use existing SQL Server on another machine**, then specify the location and connection credentials for a database server located elsewhere in the network.



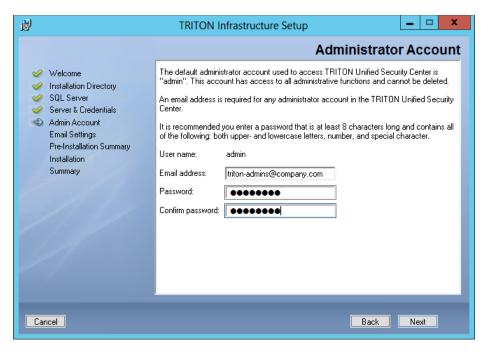
- a. Enter the Hostname or IP address of the SQL Server machine, including the instance name, if any, and the Port to use for SQL Server communication.
   If you are using a named instance, the instance must already exist.
   If you are using SQL Server clustering, enter the virtual IP address of the cluster.
- b. Specify whether to use **SQL Server Authentication** (a SQL Server account) or **Windows Authentication** (a Windows trusted connection), then provide the **User Name** or **Account** and its **Password**.
  - If you use a trusted account, an additional configuration step is required after installation to ensure that reporting data can be displayed in the Web Security manager. See <u>Configuring Websense Apache services to use a trusted connection</u>.
- c. Click **Next**. The installer verifies the connection to the database engine. If the connection test is successful, the next installer screen appears.
  - If the test is unsuccessful, the following message appears:
  - Unable to connect to SQL
  - Make sure the SQL Server you specified is currently running. If it is running, verify the access credentials you supplied.
  - Click **OK** to dismiss the message, verify the information you entered, and click **Next** to try again.
- 4. On the Server & Credentials screen, select the IP address of this machine and specify network credentials to be used by TRITON Unified Security Center.



• Select an **IP address** for this machine. If this machine has a single network interface card (NIC), only one address is listed.

Administrators will use this address to access the TRITON console (via a web browser), and Websense component on other machines will use the address to connect to the TRITON management server.

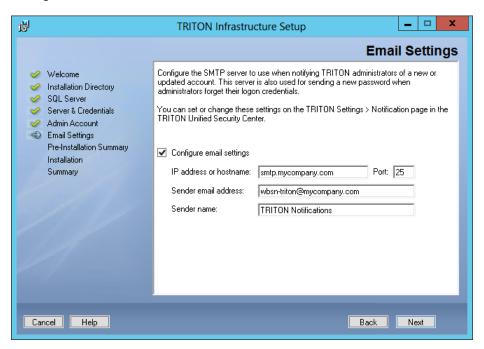
- Specify the Server or domain of the user account to be used by TRITON Infrastructure and TRITON Unified Security Center. The name cannot exceed 15 characters.
- Specify the User name of the account to be used by TRITON Unified Security Center.
- Enter the **Password** for the specified account.
- On the Administrator Account screen, enter an email address and password for the default TRITON console administration account: admin. When you are finished, click Next.



System notification and password reset information is sent to the email address specified (once SMTP configuration is done; see next step).

It is a best practice to use a strong password as described on screen.

6. On the **Email Settings** screen, enter information about the SMTP server to be used for system notifications and then click **Next**. You can also configure these settings after installation in the TRITON console.





### **Important**

If you do not configure an SMTP server now and you lose the **admin** account password (set on previous screen) before the setup is done in the TRITON console, the "Forgot my password" link on the logon page does not provide password recovery information. SMTP server configuration must be completed before password recovery email can be sent.

- IP address or hostname: IP address or host name of the SMTP server through which email alerts should be sent. In most cases, the default Port (25) should be used. If the specified SMTP server is configured to use a different port, enter it here.
- Sender email address: Originator email address appearing in notification email.
- Sender name: Optional descriptive name that can appear in notification email. This is can help recipients identify this as a notification email from the TRITON Unified Security Center.
- 7. On the Pre-Installation Summary screen, verify the information and then click **Next** to begin the installation.
- 8. The Installation screen appears, showing installation progress. Wait until all files have been installed.

If the following message appears, check to see if port 9443 is already in use on this machine:

Error 1920. Server 'Websense TRITON Central Access' (EIPManagerProxy) failed to start. Verify that you have sufficient privileges to start system services.

If port 9443 is in use, release it and then click **Retry** to continue installation.

9. On the Installation Complete screen, click **Finish**.

You are returned to the Installer Dashboard and, after a few seconds, the Web Security component installer launches.

## Step 5: Install the Web Security management components

In a typical deployment, the Web Security manager, the standalone or primary Policy Broker, and the central Policy Server reside on the TRITON management server.

- 1. On the Select Components screen, select:
  - TRITON Web Security (selected by default)
  - Real-Time Monitor
  - Policy Broker and Policy Server
- 2. On the Policy Broker Replication screen, indicate which Policy Broker mode to
  - Select **Standalone** if this will be the only Policy Broker instance in your deployment.
  - Select Primary, then create a Synchronization password if you will later install additional, replica instances of Policy Broker.

The password may include between 4 and 300 alphanumeric characters.



#### **Important**

If you are installing the primary Policy Broker, be sure to record the synchronization password. You must provide this password each time you create a Policy Broker replica.

■ Do **not** select Replica at this stage. You must install a standalone or primary Policy Broker before you can install a replica.

If you are not sure about which Policy Broker mode to choose, see <u>Managing</u> Policy Broker Replication.

- 3. If the management server machine does not include a supported version of the Microsoft SQL Server Native Client and related tools, you are prompted to install the required components. Follow the on-screen prompts to complete this process.
- 4. On the Pre-Installation Summary screen, verify the information shown, then click **Next**.

- 5. A progress screen is displayed. Wait for installation to complete.
- 6. On the Installation Complete screen, click Next.

### Step 6: Install an instance of Filtering Service

When the standalone or primary Policy Broker and the central Policy Server reside on the TRITON management server, you must install at least one instance of Websense Filtering Service that connects to the central Policy Server.

This instance of Filtering Service may reside:

- ◆ On a supported Linux server
- On a supported Windows server
- ◆ On a **filtering only** appliance

Note that using a software installation for this instance of Filtering Service may make for a more convenient deployment. A software deployment allows you to also install components like User Service and Usage Monitor for the central Policy Server. (These components don't reside on a filtering only appliance.)

Although other components (like Network Agent or a transparent identification agent) may be installed with Filtering Service, a second instance of Policy Server may **not** reside on this machine. This Filtering Service instance **must** connect to the central Policy Server on the TRITON management server machine.

### Using a filtering only appliance

The instructions that follow assume that you have already set up your appliance hardware as directed on the in-box Quick Start poster for your appliance.

### Gather the data

Gather the following information before running the firstboot configuration script. Some of this information may have been written down on the Quick Start poster during hardware setup.

Security mode	Web
Which Web Security subscription? (if prompted)	Websense Web Security
Hostname (example: appliance.domain.com)	
1 - 60 characters long.	
The first character must be a letter.	
Allowed: letters, numbers, dashes, or periods.	
The name cannot end with a period.	
IP address for network interface C	

Subnet mask for network interface C	
Default gateway for network interface C (IP address) <i>Optional</i>	
NOTE: If you do not provide access to the Internet for interface C, use the Web Security manager to configure P1 to download Master Database updates from Websense servers.	
See the Appliance Manager Help for information about configuring the interfaces. See the Web Security Help for information about configuring database downloads.	
Primary DNS server for network interface C (IP address)	
Secondary DNS server for network interface C (IP address) <i>Optional</i>	
Tertiary DNS server for network interface C (IP address) <i>Optional</i>	
Unified password (8 to 15 characters, at least 1 letter and 1 number)  This password is for the following:  • Appliance manager  • Web Security manager	
Integration method for this appliance (Choose one):  • Standalone (Network Agent only)  • Microsoft TMG  • Cisco ASA  • Citrix	Choose your third-party integration product (if any).
Send usage statistics?	Usage statistics from appliance modules can optionally be sent to Websense to help improve the accuracy of categorization.

### Run the firstboot script

Run the initial command-line configuration script (firstboot) as follows.

1. Access the appliance through a USB keyboard and monitor, or a serial port connection.



#### Note

To configure the appliance, connect through the serial port or the keyboard/video ports and complete the firstboot script. For serial port activation, use:

- 9600 baud rate
- 8 data bits
- no parity
- 2. Accept the subscription agreement when prompted.
- 3. When asked if you want to begin, enter **yes** to launch the **firstboot** activation script.

To rerun the script manually, enter the following command:

firstboot

- 4. At the first prompt, select the a security mode **Web**, then select **Websense Web** Security.
- 5. Follow the on-screen instructions to provide the information collected above.

After the activation script has been completed successfully, you can access Appliance manager by opening a supported browser and entering this URL in the address bar:

Use the Appliance manager to configure your appliance network interfaces and policy source mode (filtering only). See your appliance Getting Started guide for details.

### **Installing Filtering Service on Windows**

To install Filtering Service on a supported Windows platform:

- 1. On the Windows machine that will host the first instance of Filtering Service:
  - Make sure there are no underscores in the machine's fully-qualified domain name (FQDN). The use of an underscore character in an FQDN is inconsistent with Internet Engineering Task Force (IETF) standards.



### Note

Further details of this limitation can be found in the IETF specifications RFC-952 and RFC-1123.

b. Make sure all Microsoft updates have been applied. There should be no pending updates, especially any requiring a restart of the system.

- c. Verify that there is sufficient disk space to download the installer, extract temporary installation files, and install the management components on the Windows installation drive (typically C).
- d. Make sure that the appropriate version of .NET Framework is installed. You can use Server Manager to install the appropriate version of .NET Framework.
  - Windows Server 2008 R2: Use version 2.0 or higher.
  - Windows Server 2012 or 2012 R2 (v7.8.2 and later): Version 3.5 is required.

Note that .NET Framework 3.5 must be installed before adding any language packs to the operating system (as noted in the following article from Microsoft: http://download.microsoft.com/download/D/1/0/D105DCF6-AC6C-439D-8046-50C5777F3E2F/microsoft-.net-3.5-deployment-considerations.docx).

- e. Synchronize the clocks on all machines (including appliances) where a Websense component will be installed. It is a good practice to point the machines to the same Network Time Protocol server.
- f. Disable the antivirus software on the machine before installation. After installation, before restarting your antivirus software, see <u>Excluding</u> <u>Websense software from antivirus scans</u>.
- g. Disable any firewall on the machine before starting the Websense installer and then re-enable it after installation. Open ports as required by the Websense components you have installed, and make sure that required ports are not being used by other local services on the machine.
  - Some ports are used only during installation and can be closed once installation is complete.
  - See Web Security Default Ports for more information about ports.
- h. Disable User Account Control (UAC) and Data Execution Prevention (DEP) settings, and make sure that no Software Restriction Policies will block the installation.
- 2. Log on to the machine with domain admin privileges.
- 3. Download the TRITON Unified Installer (**WebsenseTRITON78xSetup.exe**) from mywebsense.com.
- 4. Right-click **WebsenseTRITON78xSetup.exe** and select **Run as administrator** to launch the installer. After a few seconds, a progress dialog box appears, as files are extracted.
- 5. On the Welcome screen, click **Start**.
- 6. On the Subscription Agreement screen, select **I accept this agreement**, then click **Next**.
- 7. On the Installation Type screen, select **Custom** and then click **Next**.
- 8. On the Custom Installation screen, click the **Install** link next to Web Security or RiskVision.

- 9. If the machine has multiple NICs, on the Multiple Network Interfaces screen, select the IP address of the NIC that Web Security components should use for communication, then click **Next**. (Prior to 7.8.2, this screen appears after the Policy Server Connection screen in step 11 below.)
- 10. On the Select Components screen, select the following components, then click **Next**:
  - Filtering Service
  - User Service
  - Usage Monitor

Optionally, you may also select:

- Network Agent
- State Server
- Multiplexer
- DC Agent, Logon Agent, eDirectory Agent, or RADIUS Agent
- 11. On the Policy Server Connection screen, enter the TRITON management server IP address and the Policy Server communication port (55806, by default), then click **Next**.
- 12. On the Active Directory screen, indicate whether you are using Windows Active Directory to authenticate users in your network, then click **Next**.
- 13. On the Computer Browser screen, indicate that the installer should attempt to start the service, then click **Next**.
- 14. On the Integration Option screen, make a selection as described below, then click **Next**:
  - If you intend to integrate Websense Web Filter or Web Security with a third-party proxy, firewall, or similar product, select **Integrated with another application or device**.
  - To use Websense Network Agent to monitor Internet activity and enable policy enforcement, select **Stand-Alone**.

See <u>Understanding Web Security standalone and integrated modes</u> if you aren't sure which option to pick.

- 15. If you selected the Integrated option, on the Select Integration screen, select your integration product or method, then click **Next**.
- 16. If you are installing Network Agent, on the Network Card Selection screen, select the NIC that Network Agent should use to communicate with other Web Security components, then click **Next**.
- 17. On the Filtering Feedback screen, indicate whether you want Websense software to send feedback to Websense, Inc., then click **Next**.
- 18. On the Directory Service Access screen, enter the domain, user name, and password of an account that is a member of the Domain Admins group on the domain controller, then click **Next**.
  - User Service, DC Agent, and Logon Agent use this information to query the domain controller for user and group information.

19. On the Installation Directory screen, accept the default installation path, or click or select **Choose** to specify another path, and then click **Next**.

The installation path must be absolute (not relative). The default installation path is C:\Program Files\Websense\Web Security\.

The installer creates this directory if it does not exist.



#### **Important**

The full installation path must use only ASCII characters. Do not use extended ASCII or double-byte characters.

20. On the Pre-Installation Summary screen, verify the information shown, then click **Next**.

The summary shows the installation path and size, and the components to be installed.

- 21. A progress screen is displayed. Wait for the installation to complete.
- 22. On the Installation Complete screen, click **Next**.

### **Installing Filtering Service on Linux**

### **Prepare the Linux server**

To install Filtering Service on a supported Linux platform:

- 1. On the Linux machine that will host Filtering Service:
  - a. If SELinux is enabled, disable it or set it to permissive.
  - b. If a firewall is active, open a command shell and use the **service iptables stop** command to shut down the firewall before running the installation.

After installation, restart the firewall. In the firewall, be sure to open the ports used by Websense components installed on this machine. See <u>Web Security</u> <u>Default Ports</u> for more information about ports.



#### **Important**

Do **not** install Websense Network Agent on a machine running a firewall. Network Agent uses packet capturing that may conflict with the firewall software.

c. For v7.8.2 and later, if you receive an error during installation regarding the / etc/hosts file, use the following information to correct the problem. For v7.8.1, use this information to edit your /etc/hosts file prior to running the installer.

Make sure the **hosts** file (by default, in /etc) contains a hostname entry for the machine, in addition to the loopback address. (Note: you can check whether a hostname has been specified in the **hosts** file by using the **hostname -f** command.) To configure hostname, first use the following command:

```
hostname <host>
```

Also update the HOSTNAME entry in the /etc/sysconfig/network file:

```
HOSTNAME=<host>
```

In the /etc/hosts file, specify the IP address to associate with the hostname. This should be static, and not served by DHCP. Do not delete the second line in the file, the one that begins with 127.0.0.1 (the IPv4 loopback address). And do not delete the third line in the file, the one that begins ::1 (the IPv6 loopback address).

Here, <FQDN> is the fully-qualified domain name of this machine (i.e., <host>.<subdomains>.<top-level domain>)—for example, myhost.example.com—and <host> is the name assigned to the machine.



#### **Important**

The hostname entry you create in the **hosts** file must be the first entry in the file.

- d. Websense software supports only TCP/IP-based networks. If your network uses both TCP/IP- and non-IP-based network protocols, only users in the TCP/IP portion of the network are filtered.
- 2. Log on to the installation machine with full administrative privileges (typically, **root**).
- 3. Create a setup directory for the installer files. For example:

```
/root/Websense setup
```

4. Download the Web Security Linux installer package from <a href="mywebsense.com">mywebsense.com</a>. The installer package is called WebsenseWeb78xSetup\_Lnx.tar.

Place the installer archive in the setup directory you created.

5. In the setup directory, enter the following commands to uncompress and extract files:

```
gunzip WebsenseWeb78xSetup_Lnx.tar.gz
tar xvf WebsenseWeb78xSetup Lnx.tar
```

6. Launch the installer using the following command (from the setup directory):

```
./install.sh -q
```

This launches a GUI-based installer and is available on English versions of Linux only. A text-only, command-line version can be launched by omitting the -g switch:

```
./install.sh
```

### Use the graphical installer to install Filtering Service

1. On the Introduction screen, click or select **Next**.

- 2. On the Subscription Agreement screen, choose to accept the terms of the agreement and then click **Next**.
- 3. If the machine has multiple NICs, on the Multiple Network Interfaces screen, select the IP address of the NIC that Web Security components should use for communication, and then click **Next**. (Prior to 7.8.2, this screen appears after the Policy Server Connection screen in step 7 below.)
- 4. On the Installation Type screen, select **Custom** and then click or select **Next**.
- 5. On the Select Components screen, select the following components, then click or select **Next**:
  - Filtering Service
  - User Service

Note that if User Service is installed on Linux, and use Windows Active Directory as your user directory, you must configure a WINS server to enable User Service to retrieve user and group information.

Usage Monitor

Optionally, you may also select:

- Network Agent
- State Server
- Multiplexer
- Logon Agent, eDirectory Agent, or RADIUS Agent
- 6. On the Policy Server Connection screen, enter the TRITON management server IP address and the Policy Server communication port (55806, by default).
- 7. On the Integration Option screen, make a selection as described below, then click **Next**:
  - If you intend to integrate Websense Web Filter or Web Security with a third-party proxy, firewall, or similar product, select **Integrated with another application or device**.
  - To use Websense Network Agent to monitor Internet activity and enable policy enforcement, select **Stand-Alone**.

See <u>Understanding Web Security standalone and integrated modes</u> if you aren't sure which option to pick.

- 8. If you selected the Integrated option, on the Select Integration screen, select your integration product or method, then click **Next**.
- 9. If you are installing Network Agent, on the Network Card Selection screen, select the NIC that Network Agent should use to communicate with other Web Security components, then click or select **Next**.
- 10. On the Filtering Feedback screen, indicate whether you want Websense software to send feedback to Websense, Inc., then click or select **Next**.
- 11. On the Installation Directory screen, accept the default installation path, or click or select **Choose** to specify another path, and then click or select **Next**.

The installation path must be absolute (not relative). The default installation path is: /opt/Websense/

The installer creates this directory if it does not exist.



### **Important**

The full installation path must use only ASCII characters. Do not use extended ASCII or double-byte characters.

The installer compares the installation's system requirements with the machine's resources.

- Insufficient disk space prompts an error message. The installer closes when you click or select **OK**.
- Insufficient RAM prompts a warning message. The installation continues when you click or select **OK**. To ensure optimal performance, increase your memory to the recommended amount.
- 12. On the Pre-Installation Summary screen, verify the information shown, then click or select Next.
  - The summary shows the installation path and size, and the components to be installed.
- 13. An Installing progress screen is displayed. Wait for the installation to complete.



#### Note

Do **not** click the Cancel button (GUI) or press Ctrl-C (command-line) after the Pre-Installation Summary, as it is installing components. In this case, allow the installation to complete and then uninstall the unwanted components.

14. On the Installation Complete screen, click or select **Done**. (In the graphical installer, be careful not to click Cancel.)

### Step 7: Install Log Server

Log Server enables most reporting components, and must reside on a Windows machine.

- 1. On the Windows machine that will host Log Server:
  - a. Make sure there are no underscores in the machine's fully-qualified domain name (FQDN). The use of an underscore character in an FQDN is inconsistent with Internet Engineering Task Force (IETF) standards.



#### **Note**

Further details of this limitation can be found in the IETF specifications RFC-952 and RFC-1123.

- b. Make sure all Microsoft updates have been applied. There should be no pending updates, especially any requiring a restart of the system.
- c. Verify that there is sufficient disk space to download the installer, extract temporary installation files, and install the management components on the Windows installation drive (typically C).
- d. Make sure that the appropriate version of .NET Framework is installed. You can use Server Manager to install the appropriate version of .NET Framework.
  - Windows Server 2008 R2: Use version 2.0 or higher.
  - Windows Server 2012 or 2012 R2 (v7.8.2 and later): Version 3.5 is required.
    - Note that .NET Framework 3.5 must be installed before adding any language packs to the operating system (as noted in the following article from Microsoft: http://download.microsoft.com/download/D/1/0/D105DCF6-AC6C-439D-8046-50C5777F3E2F/microsoft-.net-3.5-deployment-considerations.docx).
- e. Synchronize the clocks on all machines (including appliances) where a Websense component will be installed. It is a good practice to point the machines to the same Network Time Protocol server.
- f. Disable the antivirus software on the machine before installation. After installation, before restarting your antivirus software, see <a href="Excluding Websense software from antivirus scans">Excluding Websense software from antivirus scans</a>.
- g. Disable any firewall on the machine before starting the Websense installer and then re-enable it after installation. Open ports as required by the Websense components you have installed, and make sure that required ports are not being used by other local services on the machine.
  - Some ports are used only during installation and can be closed once installation is complete.
  - See Web Security Default Ports for more information about ports.

- h. Disable User Account Control (UAC) and Data Execution Prevention (DEP) settings, and make sure that no Software Restriction Policies will block the installation.
- 2. Log on to the machine with domain admin privileges.
- 3. Download the TRITON Unified Installer (**WebsenseTRITON783Setup.exe**) from mywebsense.com.
- 4. Right-click **WebsenseTRITON783Setup.exe** and select **Run as administrator** to launch the installer. After a few seconds, a progress dialog box appears, as files are extracted.
- 5. On the Welcome screen, click **Start**.
- 6. On the Subscription Agreement screen, select **I accept this agreement**, then click **Next**.
- 7. On the Installation Type screen, select **Custom** and then click **Next**.
- 8. On the Custom Installation screen, click the **Install** link next to Web Security or RiskVision.
- 9. If the machine has multiple NICs, on the Multiple Network Interfaces screen, select the IP address of the NIC that Web Security components should use for communication, and then click **Next**. (Prior to 7.8.2, this screen appears after the Policy Server Connection screen in step 11 below.)
- 10. On the Select Components screen, select **Log Server**, then click **Next**:
- 11. On the Policy Server Connection screen, enter the TRITON management server IP address and the Policy Server communication port (55806, by default), and then click **Next**.
- 12. If the Log Server machine does not include a supported version of the Microsoft SQL Server Native Client and related tools, you are prompted to install the required components. Follow the on-screen prompts to complete this process.
- 13. On the Database Information screen, enter the hostname or IP address of the machine on which a supported database engine is running. If you are using SQL Server clustering, enter the virtual IP address of the cluster. Also indicate how to connect to the database engine:
  - Select Trusted connection to use a Windows account to connect to the database. Enter the user name and password of a trusted account with local administration privileges on the database machine. Note that the trusted account you specify here should be the same as that with which you logged onto this machine before starting the Websense installer.
    - If you use a trusted account, an additional configuration step is required after installation to ensure that reporting data can be displayed in the Web Security manager. See <u>Configuring Websense Apache services to use a trusted connection</u>.
  - Select **Database account** to use a SQL Server account to connect to the database. Enter the user name and password for a SQL Server account that has administrative access to the database. The SQL Server password cannot be blank, or begin or end with a hyphen (-).

Note that some fields may be pre-filled on this screen. Be sure to replace the pre-filled content with correct connection information for your deployment.

14. On the Log Database Location screen, accept the default location for the Log Database files, or select a different location, then click **Next**.

The default location is C:\Program Files\Microsoft SQL Server on the SQL Server machine.

Note that if you specify a custom directory, that directory must already exist. The installer cannot create a new directory on the SQL Server machine.

- 15. On the Optimize Log Database Size screen, select either or both of the following options, and then click **Next**.
  - (Recommended) Log Web page visits: Enable this option to log one record (or a few records) with combined hits and bandwidth data for each requested website, rather than a record for each separate file included in the request. This results in fewer records and therefore smaller databases, allowing for potentially faster report generation and longer storage capacities.
  - Consolidate requests: Enable this option to combine Internet requests that share the same value for all of the following elements, within a certain interval of time (1 minute, by default):
    - Domain name (for example: www.websense.com)
    - Category
    - Keyword
    - Action (for example: Category Blocked)
    - User/workstation
- 16. On the Installation Directory screen, accept the default installation path, or click or select **Choose** to specify another path, and then click **Next**.

The installation path must be absolute (not relative). The default installation path is C:\Program Files\Websense\Web Security\.

The installer creates this directory if it does not exist.



#### **Important**

The full installation path must use only ASCII characters. Do not use extended ASCII or double-byte characters.

17. On the Pre-Installation Summary screen, verify the information shown, then click **Next**.

The summary shows the installation path and size, and the components to be installed.

- 18. A progress screen is displayed. Wait for the installation to complete.
- 19. On the Installation Complete screen, click **Next**.
- 20. After installing Log Server, restart the follow services on the TRITON management server machine:
  - Websense TRITON Web Security
  - Websense Web Reporting Tools

This step is required to ensure that reporting tools operate properly, and that any scheduled reports that you create are saved properly.

### **Step 8: Install additional components**

Depending on your network configuration and size, you may need to install multiple instances of several policy enforcement and user identification components.

- All Web Filter and Web Security components can reside on Windows servers.
- Most components can reside on Linux servers.
- Most components can reside on Websense appliances as follows:
  - There can be a maximum of one **full policy source** appliance.

    When you set up a full policy source appliance, it includes a standalone instance of Policy Broker, plus Policy Server, Filtering Service, Usage Monitor, Network Agent, and Content Gateway. Multiplexer can also be enabled on this appliance.
  - There can be multiple **user directory and filtering** appliances.

    Each user directory and filtering appliance includes Policy Server, plus Filtering Service, User Service, Usage Monitor, Network Agent, and Content Gateway. Multiplexer can also be enabled on these appliances. During setup, you are prompted to connect to Policy Broker.
  - There can be multiple **filtering only** appliances.
    Each filtering only appliance includes Filtering Service, Network Agent, and Content Gateway. During setup, you are prompted to connect to a Policy Server instance.

### Installing components on appliances

The instructions that follow assume that you have already set up your appliance hardware as directed on the in-box Quick Start poster for your appliance.

### Gather the data

Gather the following information before running the firstboot configuration script. Some of this information may have been written down on the Quick Start poster during hardware setup.

Security mode	Web
Which Web Security subscription? (if prompted)	Websense Web Security
Hostname (example: appliance.domain.com)	
<ul><li>1 - 60 characters long.</li><li>The first character must be a letter.</li><li>Allowed: letters, numbers, dashes, or periods.</li><li>The name cannot end with a period.</li></ul>	
IP address for network interface C	

Subnet mask for network interface C	
Default gateway for network interface C (IP address) <i>Optional</i>	
NOTE: If you do not provide access to the Internet for interface C, use the Web Security manager to configure P1 to download Master Database updates from Websense servers.	
See the Appliance Manager Help for information about configuring the interfaces. See the Web Security Help for information about configuring database downloads.	
Primary DNS server for network interface C (IP address)	
Secondary DNS server for network interface C (IP address) <i>Optional</i>	
Tertiary DNS server for network interface C (IP address) <i>Optional</i>	
Unified password (8 to 15 characters, at least 1 letter and 1 number)  This password is for the following:  • Appliance manager  • Web Security manager	
Integration method for this appliance (Choose one):  • Standalone (Network Agent only)  • Microsoft TMG  • Cisco ASA  • Citrix	Choose your third-party integration product (if any).
Send usage statistics?	Usage statistics from appliance modules can optionally be sent to Websense to help improve the accuracy of categorization.

### Run the firstboot script

Run the initial command-line configuration script (firstboot) as follows.

1. Access the appliance through a USB keyboard and monitor, or a serial port connection.



#### Note

To configure the appliance, connect through the serial port or the keyboard/video ports and complete the firstboot script. For serial port activation, use:

- ◆ 9600 baud rate
- 8 data bits
- no parity
- 2. Accept the subscription agreement when prompted.
- 3. When asked if you want to begin, enter **yes** to launch the **firstboot** activation script.

To rerun the script manually, enter the following command:

firstboot

- 4. At the first prompt, select the a security mode **Web**, then select **Websense Web Security**.
- 5. Follow the on-screen instructions to provide the information collected above.

After the activation script has been completed successfully, you can access Appliance manager by opening a supported browser and entering this URL in the address bar:

Use the Appliance manager to configure your appliance network interfaces and policy source mode (**user directory and filtering** or **filtering only**). See your appliance <u>Getting Started</u> guide for details.

### **Installing components on Windows**

- 1. Prepare the machine and download the installer as described in *Step 2: Prepare the management server*, page 2.
- 2. Right-click **WebsenseTRITON783Setup.exe** and select **Run as administrator** to launch the installer. After a few seconds, a progress dialog box appears, as files are extracted.
- 3. On the Welcome screen, click **Start**.
- 4. On the Subscription Agreement screen, select **I accept this agreement**, then click **Next**.
- 5. On the Installation Type screen, select **Custom**.
- 6. On the Custom Installation screen, click the **Install** link next to Web Security or RiskVision.
- 7. Select the components that you want to install, keeping in mind that:

 Policy Server must always be installed before or with its dependent components.

You will be prompted to provide the Policy Server IP address during installation of most components if Policy Server resides on a different machine.

• Filtering Service must always be installed before or with dependent instances of Network Agent.

You will be prompted for the Filtering Service IP address during Network Agent installation if Filtering Service resides on another machine.

• Unlike the primary or standalone Policy Broker, which must always be installed first, replica Policy Brokers may be added at any time.

You can configure which Policy Broker instance any Policy Server (and its dependent components) connects to after installation (go to the Settings > General > Policy Brokers page in the Web Security manager).

8. Click **Next** to configure your installation.

Many of the screens that display depend on which components you have selected. If you are not clear about what information to provide, click **Help** in the installer for context and instructions.

9. On the Installation Directory screen, accept the default installation path, or click or select **Choose** to specify another path, and then click **Next**.

The installation path must be absolute (not relative). The default installation path is C:\Program Files\Websense\Web Security\.

The installer creates this directory if it does not exist.



### **Important**

The full installation path must use only ASCII characters. Do not use extended ASCII or double-byte characters.

10. On the Pre-Installation Summary screen, verify the information shown, then click **Next**.

The summary shows the installation path and size, and the components to be installed.

- 11. A progress screen is displayed. Wait for the installation to complete.
- 12. On the Installation Complete screen, click **Next**.

### Installing components on Linux

- 1. Prepare the machine and download and launch the installer as described in *Prepare the Linux server*, page 14.
- 2. On the Introduction screen, click or select **Next**.
- 3. On the Subscription Agreement screen, choose to accept the terms of the agreement and then click **Next**.
- 4. On the Installation Type screen, select **Custom** and then click or select **Next**.

- 5. On the Select Components screen, select the components that you want to install:
  - Policy Server must always be installed before or with its dependent components.
    - You **will** be prompted to provide the Policy Server IP address during installation of most components if Policy Server resides on a different machine.
  - Filtering Service must always be installed before or with dependent instances of Network Agent.
    - You will be prompted for the Filtering Service IP address during Network Agent installation if Filtering Service resides on another machine.
  - Unlike the primary or standalone Policy Broker, which must always be installed first, replica Policy Brokers may be added at any time.
    - You can configure which Policy Broker instance any Policy Server (and its dependent components) connects to after installation (go to the Settings > General > Policy Brokers page in the Web Security manager).
- 6. Click or select **Next** to configure your installation.
  - Many of the screens that display depend on which components you have selected. If you are not clear about what information to provide, click or select **Help** in the installer for context and instructions.
- 7. On the Installation Directory screen, accept the default installation path, or click or select **Choose** to specify another path, and then click or select **Next**.
  - The installation path must be absolute (not relative). The default installation path is: /opt/Websense/

The installer creates this directory if it does not exist.



#### **Important**

The full installation path must use only ASCII characters. Do not use extended ASCII or double-byte characters.

The installer compares the installation's system requirements with the machine's resources.

- Insufficient disk space prompts an error message. The installer closes when you click or select **OK**.
- Insufficient RAM prompts a warning message. The installation continues when you click or select **OK**. To ensure optimal performance, increase your memory to the recommended amount.
- 8. On the Pre-Installation Summary screen, verify the information shown, then click or select **Next**.

The summary shows the installation path and size, and the components to be installed.

9. An Installing progress screen is displayed. Wait for the installation to complete.



#### Note

Do **not** click the Cancel button (GUI) or press Ctrl-C (command-line) after the **Pre-Installation Summary**, as it is installing components. In this case, allow the installation to complete and then uninstall the unwanted components.

10. On the Installation Complete screen, click or select **Done**. (In the graphical installer, be careful not to click Cancel.)

### **Step 9: Install Integration Plug-in (if applicable)**

If you have configured Filtering Service to integrate with Citrix, or with Microsoft Forefront TMG, an additional component must be installed to enable the integration.

#### See:

- ◆ Install the Citrix Integration Service, page 26
- Install the ISAPI Filter plug-in for Microsoft Forefront TMG, page 30

### **Install the Citrix Integration Service**

### **Obtain the Citrix configuration package**

Everything you need to configure and install Websense Citrix Integration Service is contained in a self-extracting archive (the Citrix configuration package) on the TRITON management server or Log Server machine. It can be found in the following directory:

C:\Program Files or Program Files (x86)\Websense\Web Security\Citrix Plugin\

Note that there are separate 32-bit and 64-bit configuration packages. Select the appropriate one for the **target** operating system (the Citrix server operating system).

You can copy the configuration package to any machine to create your Citrix Integration Service installer.

### **Configure the Citrix Integration Service installer**

Extract the contents of the Citrix configuration package and run the configuration utility to create a Citrix Integration Service installer to deploy to Citrix servers.

- 1. Double-click the configuration package executable, then click **Extract**. The package name is either:
  - WCISUtil Win32 *nnnn*.exe (32-bit)
  - WCISUtil x64 nnnn.exe (64-bit)

2. Double-click **Websense Citrix Integration Service Configuration.exe** to start the configuration utility.



### **Important**

The 32- and 64-bit versions of the configuration utility have the same name. Make sure you are launching the correct version.

3. In the **Profile Source** screen, click **Browse** and select the folder containing either the default Citrix installation package template or an existing installation package that you want to modify, then click **Next**.

If the following message appears, make sure all necessary files are present in the folder you specified:

The selected installation package does not include all of the necessary files.

The folder you specify must contain all of the files extracted from the Citrix configuration package in step 1.

- 4. In the **Connections** screen, configure Filtering Service connection behavior for Citrix Integration Service as described below. When you are finished, click **Next**.
  - a. If 127.0.0.1:15868 appears, select it and then click Remove.
     Filtering Service should never be installed on the Citrix server machine itself.
  - b. Under **Connection Details**, enter the IP address or hostname of a Filtering Service machine, then enter the connection port (15868 by default).



#### Note

The Filtering Service port must be in the range 1024-65535. To determine what port is used by Filtering Service, check the **eimserver.ini** file—located in C:\Program Files\Websense\Web Security\bin or /opt/ Websense/bin/—on the Filtering Service machine. In this file, look for the **WebsenseServerPort** value.

Important: Do not modify the eimserver.ini file.

- c. Click the right arrow (>) to add the IP address/hostname and port entry to the list to the right.
- d. Repeat the previous 2 steps for each Filtering Service instance you want used by the Citrix server.

When multiple Filtering Service instances are specified, if the first instance is unavailable, Citrix Integration Service attempts communication with the next instance in the list.

If no Filtering Service instances are available, Citrix Integration Service continues to attempt communication in the background every 1 minute. Until communication is established, Citrix Integration Service fails open (permits all requests) or fails closed (blocks all requests) depending on your select in **step f** (below).



#### Note

Each Filtering Service instance tracks continue, quota, and password override information independently. If the Citrix Integration Service fails over from one Filtering Service instance to another, usage quotas may be different and override passwords may need to be entered again.

- e. Enable or disable the **Do not send user name information to Filtering Service** option. If this option is selected (enabled), user name information for Citrix users is not included in reports.
  - The setting applies to all Filtering Service instances listed.
- f. Enable or disable the **Block all HTTP/HTTPS/FTP traffic if unable to connect to a Filtering Server** option to determine whether Citrix Integration
  Service blocks or permits all requests when it cannot communicate with
  Filtering Service.
- 5. In the **Client Settings** screen, select options as described below. When you are finished, click **Next**.
  - Notify users when HTTPS or FTP traffic is blocked: Determine whether users see a browser pop-up message when HTTPS or FTP traffic is blocked. If so, also specify the how long the pop-up message remains visible.
  - **Protect installation directory from modification or deletion**: This option prevents tampering with the Citrix Integration Service on the Citrix server. Attempts to delete it, replace files, or modify registry entries are stopped.
- 6. On the **Trusted Sites** screen, specify any URLs or domains that should be ignored (not forwarded for policy enforcement). When you are finished, click **Next**.
  - To add a URL or regular expression, click **Add**, then enter either a URL or a regular expression specifying a set of URLs. Any regular expression adhering to ISO/IEC TR 19768 (within the character-number limit) is valid. When you are finished, click **OK**.
  - To edit a URL or regular expression, select it and then click **Edit**.
  - To remove a URL or regular expression, select it and then click **Remove**.

The URLs you specify here are trusted by any Citrix server on which this Citrix Integration Service is install. It has no bearing on how Filtering Service instances filter requests from non-Citrix users and other Citrix servers that use a different Citrix Integration Service configuration.

- 7. On the **Save** screen, specify how you want the customized installation package saved. When you are finished, click **Finish**.
  - Select **Overwrite the existing installation** to overwrite the Citrix installation package you used as a template.

■ Select Save the customized installation package to a new location to save the customized installation package to a different location. Click **Browse**, and specify a folder. It is a best practice to save to an empty folder. Then, you can be certain that all files in that folder are part of the installation package.

The installation package is now ready for use.

If you have multiple Citrix servers for which you want different customized settings, repeat this procedure to create an installation package for each. Save each customized installation package to different folders.

### Install the Citrix Integration Service on the Citrix server

A Citrix installation package includes the following files:

- 0x0409.ini
- CI.cab
- CIClientConfig.hsw
- CIClientMessage.hsw
- DLP.cab
- GClientConfig.hsw
- setup.exe
- Setup.ini
- Websense Citrix Integration Service.msi
- WEP.cab

All of the files must be present to install Citrix Integration Service.



#### Note

If you want to use the same Citrix Integration Service configuration on multiple Citrix servers, use the same Citrix installation package for them. Repeat the procedure, below, on each Citrix server.

- 1. Log on with **local** administrator privileges to the Citrix server.
- 2. Close all applications and stop any antivirus software.
- 3. Copy the Citrix installation package (all files listed above) to the Citrix server. Keep the files in the same folder.
  - If you installed the Citrix configuration package to the Citrix server itself, and customized the installation package there, skip this step.
- 4. Double-click **setup.exe** to start the Citrix Integration Service installer. It may take a few seconds for the program to begin to run.
  - When the Welcome screen appears, click Next.
- 5. Accept the subscription agreement, then click **Next**.

- 6. On the **Destination Folder** screen, accept the default location shown or click **Change** to choose a different location, then click **Next**.
- 7. On the **Ready to Install the Program** screen, click **Install** to install the Citrix Integration Service.
- 8. Wait until the **InstallShield Wizard Completed** screen appears, then click **Finish**
- 9. If you stopped your antivirus software, be sure to start it again.

### Install the ISAPI Filter plug-in for Microsoft Forefront TMG

To enable integration with Microsoft Forefront TMG, use the TRITON Unified Installer to install the ISAPI Filter plug-in on the TMG machine.

The only Websense components installed on the Forefront TMG machine are the ISAPI Filter plug-in and Websense Control Service (which manages installation and removal of Websense software components).



### **Important**

- ◆ As part of the installation process, you must stop the Microsoft Forefront TMG Firewall service (Firewall service). Because this may stop network traffic, perform the installation during a time when a stoppage will least affect your organization. Do not stop the Firewall service until prompted by the installer.
- Port 55933 (Websense Control Service communication port) must be open locally for the ISAPI Filter plug-in to be installed successfully.

Before beginning the installation process:

- Download or copy the TRITON Unified Installer to the TMG machine. This installer is available at mywebsense.com.
- Close all applications and stop any antivirus software.

To perform the installation:

- 1. Log on to the machine with domain admin privileges.
- 2. Download the TRITON Unified Installer (**WebsenseTRITON78xSetup.exe**) from mywebsense.com.
- 3. Right-click **WebsenseTRITON78xSetup.exe** and select **Run as administrator** to launch the installer. After a few seconds, a progress dialog box appears, as files are extracted.
- 4. On the Welcome screen, click **Start**.
- 5. On the Subscription Agreement screen, select **I accept this agreement**, then click **Next**.
- 6. On the Installation Type screen, select **Custom** and then click **Next**.

- 7. On the Custom Installation screen, click the **Install** link next to Web Security or RiskVision.
- 8. On the Select Components screen, select **Filtering Plug-in**, then click **Next**.
- 9. On the **Filtering Service Communication** screen, enter the IP address of the machine on which Filtering Service is installed and the port Filtering Service uses to communicate with integration products and Network Agent (default is 15868). Then click **Next**.
  - The port used by Filtering Service to communicate with integration products and Network Agent must be in the range 1024-65535.
  - To verify the Filtering Service port, check the WebsenseServerPort value in the eimserver.ini file, located in the Websense bin directory on the Filtering Service machine.
- 10. On the **Installation Directory** screen, accept the default location and click **Next**.
- 11. On the **Pre-Installation Summary** screen, verify that **Filtering Plug-in** is the only component selected for installation, then click **Install**.
  - An **Installing** progress screen is displayed. Wait for the installation to complete.
- 12. When the **Stop Microsoft Forefront TMG Firewall Service** screen appears, stop the Microsoft Forefront TMG Firewall service (Firewall service) and then click **Next**.



#### Note

Leave the Websense installer running as you stop the Firewall service, and then return to the installer to continue installation.

To stop the Firewall service, go to the Windows Services management console (**Administrative Tools > Services**). Right-click Microsoft Forefront TMG Firewall, and then select **Stop**. When the service has stopped, return to the Websense installer and continue the installation process. The Firewall service may also be stopped from the Forefront TMG management console. See the Microsoft documentation for more information.



### **Important**

When the Firewall service is stopped, Forefront TMG goes into lockdown mode. Network traffic may be stopped. Typically, the Firewall service must be stopped for only a few minutes.

13. When the following message appears, start the Firewall service and click **OK**:

The Websense ISAPI Filter has been configured, you can now start the Microsoft Firewall Service.



#### **Note**

Leave the Websense installer running as you start the Firewall service, and then return to the installer to continue installation.

To start the Firewall service, go to the Windows Services management console (Administrative Tools > Services). Right-click Microsoft Forefront TMG Firewall, and then select Start. The Firewall Service may also be started from the Forefront TMG management console. See the Microsoft documentation for more information.

- 14. On the **Installation Complete** screen, click **Next**.
- 15. If you stopped antivirus software on this machine, restart it now.

You can verify successful installation of the ISAPI Filter plug-in by logging into the Forefront TMG management console. Navigate to **System** > **Web Filters** and verify that WsISAFilter is present in the list of Web Filters.

### **Step 10: Initial Configuration**



#### Tip

All Websense tools and utilities installed on Windows Server platforms (such as wsbackup.exe and websenseping.exe), as well as text editors used to modify Websense configuration files (such as websense.ini), **must** be run as the local administrator. Otherwise, you may be prevented from running the tool or the changes you make may not be implemented.

After installation is complete, log on to the TRITON Unified Security Center (TRITON console) and enter your subscription key. Entering the key:

- Allows your product to be verified
- Initiates database downloads that activate your solution
- Enables several management console features.

#### To get started:

- 1. If administrators use Internet Explorer to access the TRITON Unified Security Center (management console), make sure that Enhanced Security Configuration (IE ESC) is disabled on their machines.
- 2. Use a supported browser to launch the TRITON console and log on using the default account (admin) and the password created during installation.

### The TRITON console URL is:

https://<IP\_address>:9443/triton/

Here, <IP\_address> is the IP address of the TRITON management server.

- 3. Enter your subscription key. At first startup, the Web Security manager prompts for a subscription key in the Initial Setup Checklist.
- 4. If you did not provide SMTP server details during installation, use the **TRITON Settings** > **Notifications** page to specify the SMTP server used to enable administrator password reset functionality and account change notifications.
- 5. Use the Initial Setup Checklist to start configuring your system.