WEB FILTER MOBILE SECURITY CLIENT GUIDE
VERSION 5.1.30

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Part# WF-MSC-UG-150601

Formatting Conventions

This manual uses the following formatting conventions to denote specific information.

Format and Symbols	Meaning
Blue Underline	A blue underline indicates a Web site or email address.
Bold	Bold text denotes UI control and names such as commands, menu items, tab and field names, button and check box names, window and dialog box names, and areas of windows or dialog boxes.
`Code`	Text in this format indicates computer code or information at a command line.
Italics	Italics are used to denote the name of a published work, the current document, or another document; for text emphasis; or to introduce a new term. In code examples italics indicate a placeholder for values and expressions.
[Square brackets]	In code examples, square brackets indicate optional sections or entries.
	Note: This symbol indicates information that applies to the task at hand.
	Tip: This symbol denotes a suggestion for a better or more productive way to use the product.
	Caution: This symbol highlights a warning against using the product in an unintended manner.

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1 Introduction

1.1 Mobile Security Client

Trustwave Mobile Security Client (MSC) performs Internet filtering and blocking on mobile workstations physically located outside your organization. This product uses a Web Filter configured in the mobile mode, certificates for authentication purposes, and the MSC client installed on each mobile workstation.

MSC ensures Internet activity of all end users located outside the organization will be tracked and filtered in the same manner as end users located on the premises, thereby giving you, the administrator, assurance that your organization will be protected against lost productivity, network bandwidth issues, Internet security threats, and possible legal problems that can result from the misuse of Internet resources on an unfiltered, remote, workstation.

1.2 About this User Guide

This user guide addresses the network administrator designated to configure and manage the mobile Web Filter server on the network. The manual is organized into the following sections:

- Introduction - Overview of this product and how it functions in the environment.
- Preliminary Setup - How to set this server to operate as a mobile Web Filter and specify whether certificates will be generated and stored on this server or another device.
- Internal Certificate Management - How to create the MSC client and configure the mobile Web Filter to issue, store, and manage server and user certificates.
- Enterprise PKI - How to create the MSC client and configure the mobile Web Filter to communicate with the external device designated to issue, store, and manage server and user certificates.
- Customize Emails - How to customize instructional emails to be sent to mobile end users for installing MSC certificates on their mobile workstations.
- Troubleshoot Filtering - How to troubleshoot mobile server filtering.
- Appendices - Appendix A features a chart containing Performance Statistics. Appendix B provides a Glossary of technical terminology used in this user guide.
- Index - Subjects and the first page numbers where they appear in this user guide.

1.3 Environment Requirements

The following requirements must be met in the environment in order to use MSC:

1.3.1 Workstation Requirements

1.3.1.1 Administrator

For administrator access to the Web Filter interface, use a recent version of one of the following browsers:

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- Internet Explorer
- Firefox
- Chrome
- Safari

In addition, verify the following configuration:

- Session cookies from the Web Filter must be allowed in order for the Administrator console to function properly
- Pop-up blocking software, if installed, must be disabled
- JavaScript enabled
- Java Virtual Machine
- Java Plug-in (use the version specified for the Web Filter software version)

Note: Web Filter administrators must be set up with software installation privileges in order to install Java used for accessing the user interface.

1.3.1.2 End User

Tested and supported browsers for the end user include the following:

Client OS	IE version	Firefox version	Chrome version	Safari version
Windows XP	8	16	23	N/A
Windows Vista	9	16	23	N/A
Windows 7	9	16	23	N/A
Windows 8	10	38	43	N/A
Windows 8.1	11	38	43	N/A
Macintosh 10.6 (Snow Leopard)	N/A	17	23	5
Macintosh 10.7 (Lion)	N/A	17	23	6
Macintosh 10.8 (Mountain Lion)	N/A	16	23	6
Macintosh 10.9 (Mavericks)	N/A	38	43	7
Macintosh 10.10 (Yosemite)	N/A	38	43	8

- JavaScript enabled
- Java Runtime Environment, if using Tier 3 authentication
- Pop-up blocking software, if installed, must be disabled

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1.3.2 Network Requirements

To use MSC, the following minimal network requirements must be met:

- Web Filter with Mobile mode enabled, either:
  - Web Filter Appliance - 64-bit platform models 300, 500, 700

    or
  - Web Filter Virtual - Web Filter image downloaded to your appliance running in an environment that supports Virtualization Technology

Notes:

- WFR (models 350 and 550) appliances cannot be used as mobile servers.
- See Section 1.3.4 for information on using MSC in a synchronization environment with a Web Filter and/or WFR.
- See Appendix A for a chart containing performance statistics on each appliance type running MSC.

- Server designated for generating and issuing certificates, either:
  - the mobile Web Filter (if using the internal certification mode)

    or
  - a server on the network (such as LDAP) that can communicate with the mobile Web Filter and mobile workstations via an external Public Key Infrastructure (if using the Enterprise PKI certification mode)
- High speed connection from the mobile Web Filter to mobile PCs and pertinent devices on the network, such as an LDAP server, if applicable

Note: Multiple mobile Web Filters can be set up for use in a failover situation.

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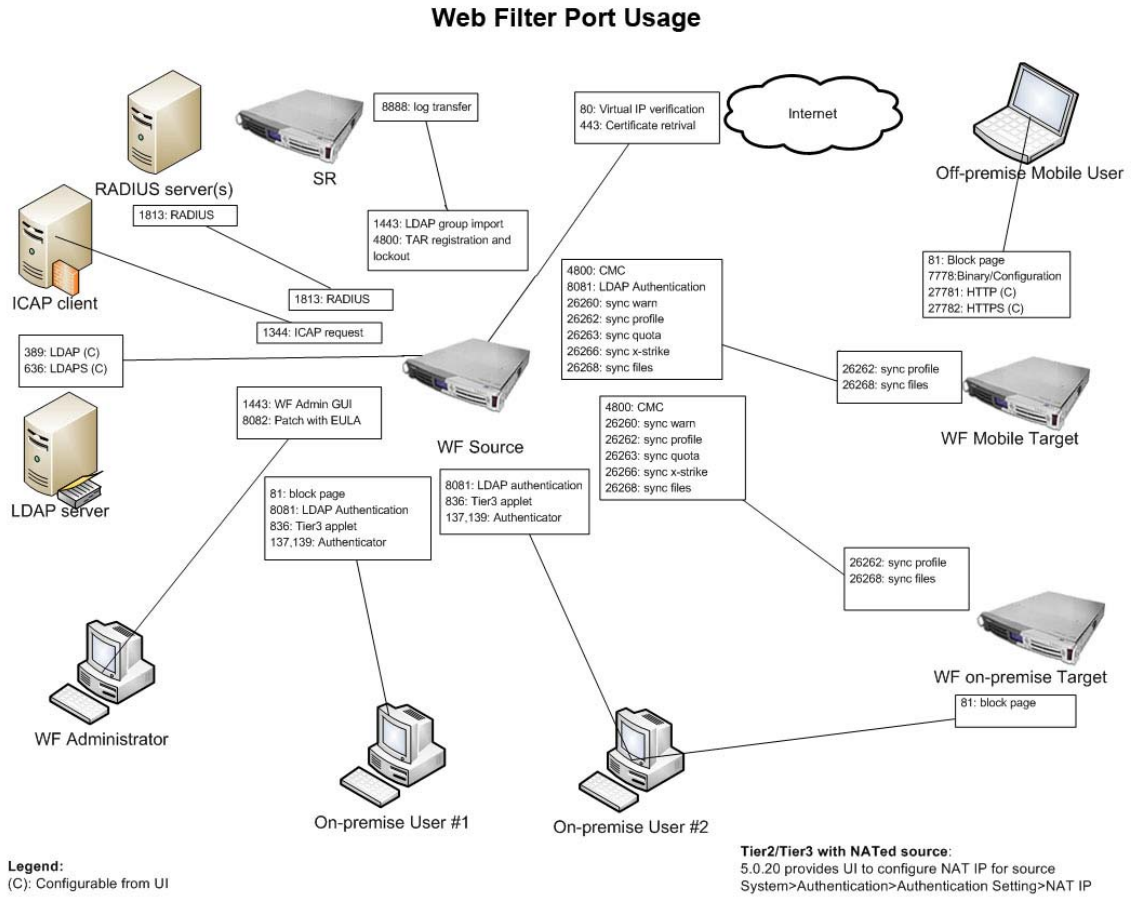
1.3.3 Port Usage

This diagram shows which ports are used in an environment with MSC deployed:

Figure 1: Port Usage diagram



For a larger image of this diagram, see http://www.trustwave.com/software/8e6/hlp/r3000/images/diagram/wf-ports-diagram-5.0.20.jpg

1.3.4 Synchronization

If using MSC in a synchronization environment:

- All settings and libraries are synchronized.
- Only the source server—WF or WFR—features Mobile and Certificate Management menus.
- A WFR can function as a source or target server, but cannot be used as a mobile server.

The chart below explains which features in the user interface are available on source and target servers if using MSC in a synchronization environment:

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Server Type	Features Available
WF or WFR **source** server:	All MSC-related menus are available, but a WFR cannot be set in Mobile mode.
WF or WFR **target** server:	No MSC-related menus are available. A WFR cannot be set in Mobile mode.

Caution: If a standalone Web Filter is made to serve as a Target server, all settings previously saved on that server—including MSC settings—will be removed.

Note: Port 8081 must be open on the source server in order to access LDAP profiles.

1.3.5 Remote Filtering Components

Remote filtering components for using MSC include:

- Web Filter configured to use the Mobile mode for filtering mobile workstations, and the following setup:
  - Authentication enabled on the mobile Web Filter
  - IP group/user profiles and/or LDAP domain group/user profiles set up on the mobile Web Filter

    These settings ensure the mobile user's activity is logged by username and not by IP group/LDAP domain name. Without these settings, mobile user traffic will be logged under the "IPGROUP" or "DEFAULT" (Global Group) profile.

Tip: Multiple mobile Web Filters can be set up for use in a failover situation.

- MSC client software installed on each end user's mobile workstation

1.3.6 Reporting Options

As with the standalone Web Filter on the intranet, end user Internet traffic captured by the mobile Web Filter can be submitted to the local Trustwave Security Reporter (SR) or Trustwave Enterprise Reporter (ER) for processing.

Using the SR Report Manager or ER Web Client, within minutes an administrator can generate customized reports showing the mobile user's online activity.

1.4 Network Server, Client Communications

MSC mobile filtering requires the authentication of end user credentials—via a validation of certificates on the mobile workstation and mobile Web Filter—in order for the user's filtering profile to be obtained for his/her Internet usage.

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Prior to enabling the MSC feature, the administrator determines whether to solely use the mobile Web Filter to communicate with mobile workstations located off premises in the certificate issuance and validation process, or to use a network device (e.g. LDAP server) along with the mobile Web Filter to communicate with mobile workstations.

Use of the mobile Web Filter without the aid of an external device in the communication process requires the internal mode configuration setup, in which the Web Filter signs and issues certificates to mobile workstations.

Use of an external server with the mobile Web Filter in the communication process requires the Enterprise PKI mode setup, in which the designated external device signs and issues certificates to the mobile Web Filter and mobile workstations.

1.4.1 Types of Certificates Used

The certificate issuance and validation process utilizes the following types of certificates:

- Certification Authority (CA) - This certificate is generated and signed by the device authorized to issue digital certificates to the mobile Web Filter and mobile workstations. In the internal mode, the CA certificate would be signed by the mobile Web Filter and issued to itself and mobile workstations.

  If a root CA certificate and intermediate CA certificate are used for signing certificates, both of these CA certificates must be imported into the mobile Web Filter.

- Server certificate - This certificate validates the mobile Web Filter's internal SSL traffic redirector component that communicates with MSC clients. The server certificate is generated on the mobile Web Filter and signed by the device authorized to issue certificates to the mobile Web Filter. This certificate is used along with the CA certificate(s) in the validation process between the mobile Web Filter and mobile workstations.

Tip: A signed server certificate can be uploaded to the mobile Web Filter along with the private key .pem (privacy enhanced mail) file and password.

- User certificate - This certificate validates the end user on his/her workstation. The user certificate is generated by the device authorized to issue certificates to the mobile Web Filter and mobile workstations.

1.4.2 PAC File Configuration, Deployment

The Proxy Auto-Configuration (PAC) file configured on the mobile Web Filter is the client component that communicates with the end user's browser and the component that redirects SSL traffic. The configured PAC file is packaged in the client installer file, ready to be downloaded and deployed to mobile workstations. When installed on end user mobile workstations, the client checks for new configuration updates every 60 minutes.

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The configured PAC file is also available for downloading as a standalone file for review and customization prior to deployment to mobile workstations.

Note: If the PAC file is customized, the PAC file packaged inside the client will not be used. In this scenario, provisions must be made for the customized PAC file to perform the same functions executed by the PAC file packaged inside the client. Additionally, a customized PAC file will not be automatically updated by the mobile Web Filter.

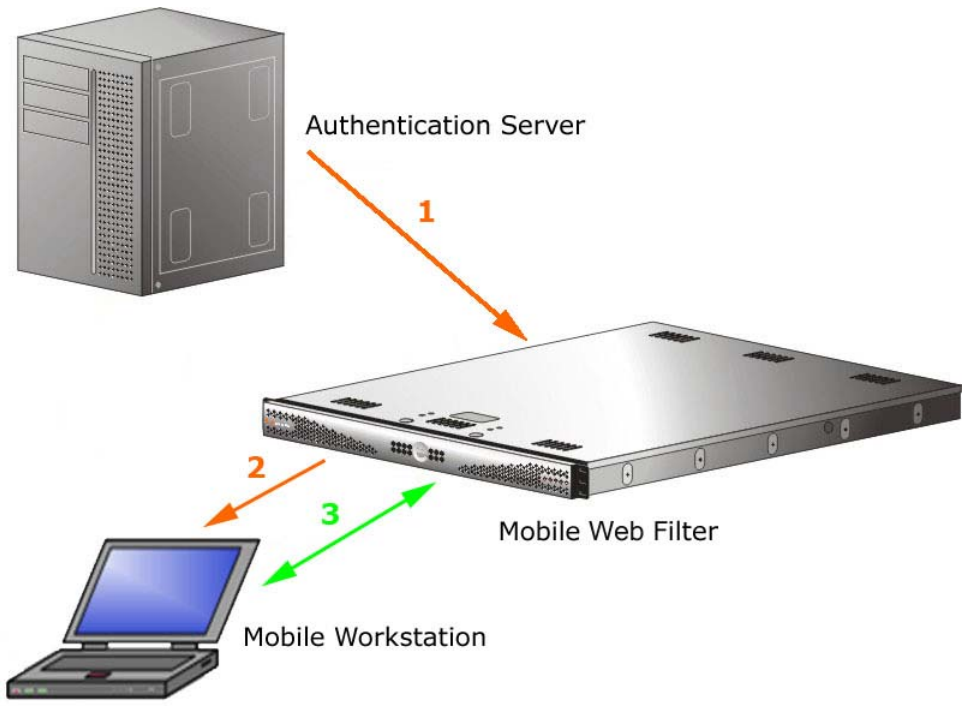
1.5 Work Flow Overview

1.5.1 Internal Mode Server Flow

In the internal mode, the following occurs in the environment:

1. The authentication server—containing IP group/user profiles and/or LDAP domain group/user profiles—gives the mobile Web Filter the group/domain and user profiles.
2. The mobile Web Filter generates certificates for itself and end user mobile workstations, and issues these certificates to mobile workstations.
3. When a request is made from a mobile workstation off the organization's premises, certificates between that workstation and the mobile Web Filter are verified before the request is handled by the client, and then processed by the mobile Web Filter.

Figure 2: Internal mode server flow



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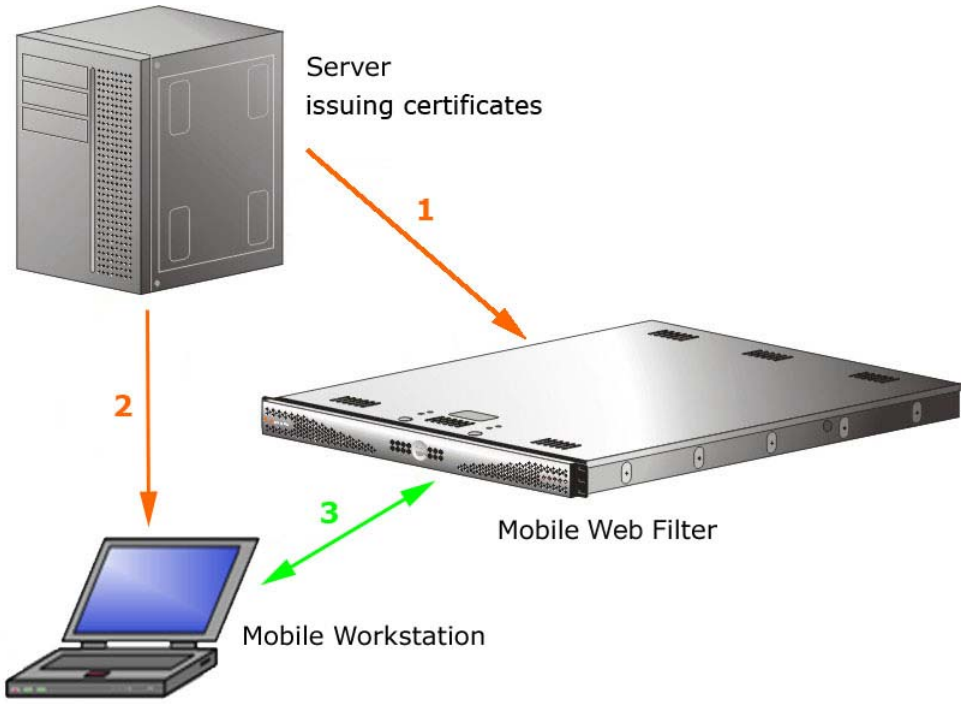
1.5.2 Enterprise PKI Mode Server Flow

In the Enterprise PKI mode, the following occurs in an environment with an authentication server designated to sign certificates:

1. The authentication server that stores group and user profiles generates and signs certificates that are imported into the mobile Web Filter.
2. The authentication server generates and signs certificates that are issued to end user mobile workstations.
3. When a request is made from a mobile workstation off the organization's premises, certificates between that workstation and the mobile Web Filter are verified before the request is handled by the client, and then processed by the mobile Web Filter.

Figure 3: Enterprise PKI mode server flow



1.5.3 Client Request Flow to the Mobile Filter

With the client installed on a mobile workstation located outside of the organization, the following events occur on the workstation when the end user makes a URL request:

1. The browser consults the PAC file to determine which port to use for submitting the URL request to the SSL traffic redirector component.
2. The HTTP/HTTPS request is submitted to the SSL traffic redirector.
3. Certificates stored on the workstation are used for validating communications between the workstation, mobile Web Filter, SSL traffic redirector, and certificate authority.

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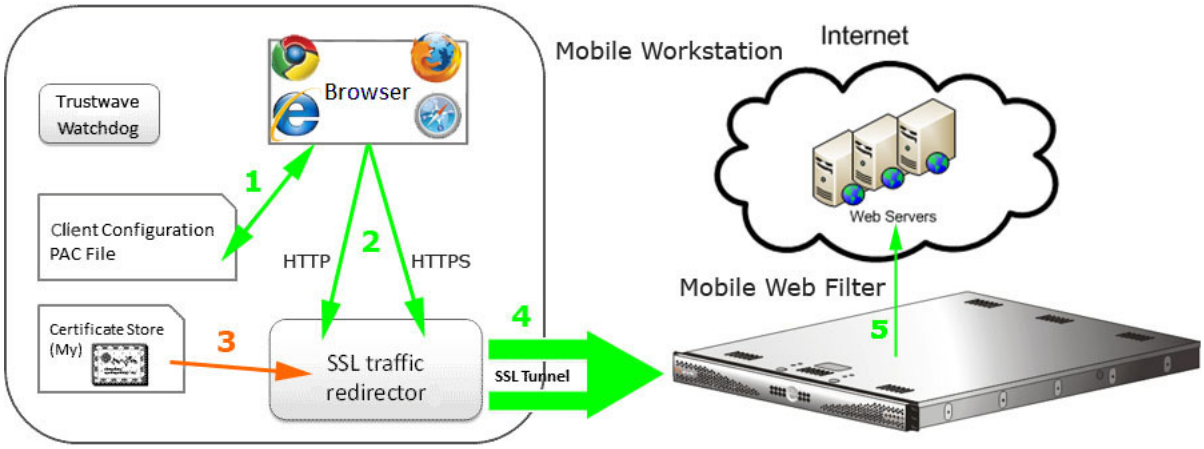
4. The request is submitted to the mobile Web Filter.
5. The mobile Web Filter determines if the request should pass to the Internet, based on the end user's profile.

Figure 4: Mobile workstation flow to mobile Web Filter (internal PAC file)



Note: Trustwave Watchdog is a service in the client that builds and updates configuration files, performs keep alive checks, and enforces IE, Firefox, and Google browser types. Every two minutes the client informs the mobile Web Filter who is logged in on the mobile workstation.

1.5.4 Client Request Flow to On/Off Site Filters

When the end user submits a URL request, the client determines whether the mobile workstation is presently located on or off the organization's premises, based on whether or not it is able to communicate with the Web Filter on the premises.

If the client cannot reach the intranet Web Filter, the following scenario occurs:

1. The client submits the URL request to the mobile Web Filter in the DMZ.
2. The mobile Web Filter checks the end user's filtering profile to see whether the end user should access the requested content, or receive a warning or block page instead.

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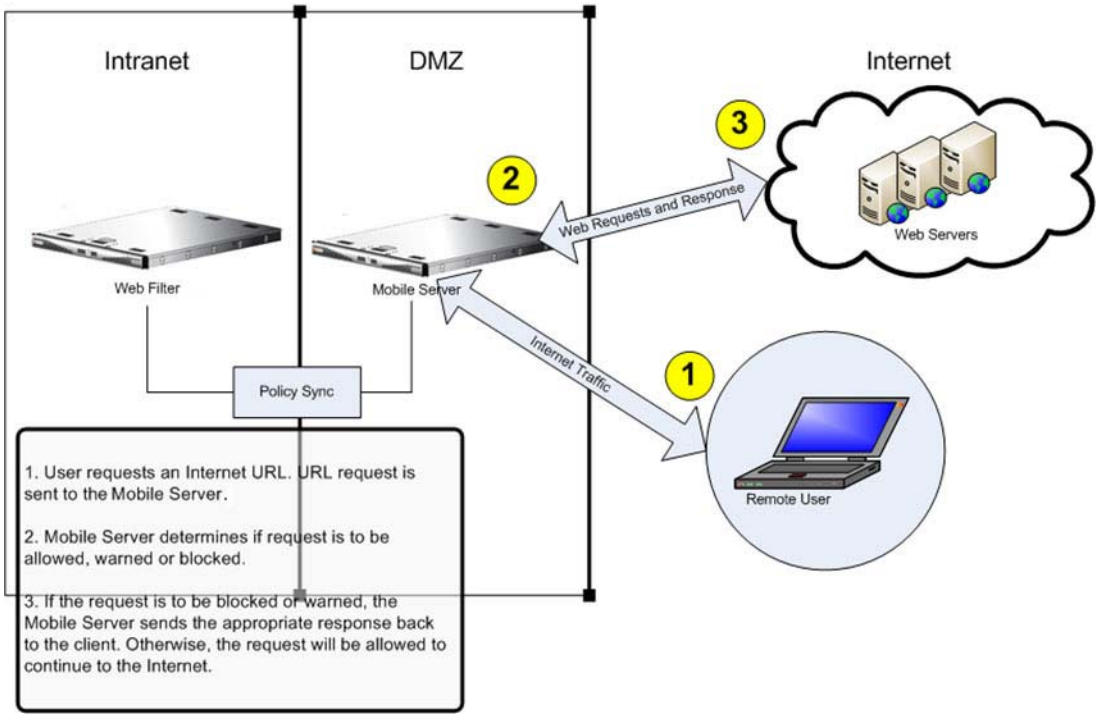
3. If the URL request is allowed, the mobile Web Filter passes the request to the Internet. If the request is disallowed, the appropriate response is returned to the workstation.

Figure 5: Web Filters on and off premises, and workstation URL request



If the end user comes into the organization, logs into his/her workstation and is authenticated on the internal network, the client detects that the workstation is now located on the premises, and the end user is then filtered by the Web Filter on the intranet, and not by the mobile Web Filter.

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2 Preliminary Setup

This portion of the user guide contains information on:

- Network setup information for using the mobile Web Filter.
- Mobile operation settings to specify the server will function as a mobile Filter.
- Enabling authentication and configuring pertinent settings.
- Specifying which device will create the MSC client, and issue, store, and manage certificates.

2.1 Network Setup Information

Basic requirements for preliminary network setup are as follows:

- Port 81 must be open on the network for block page requests.
- At your option, set up the mobile Web Filter in the WAN network's DMZ for extra security purposes.
- A server other than the mobile Web Filter can be designated to serve block pages to mobile users.
- In the Enterprise PKI mode, a dedicated external device (e.g. LDAP server) must be established for generating, issuing, and storing certificates.

2.2 Set the Mobile Operation Mode

If using a non-WFR Web Filter, the Operation Mode window is used for setting the Web Filter to use the mobile mode for filtering mobile workstations.

1. Navigate to System > Mode > Operation Mode.

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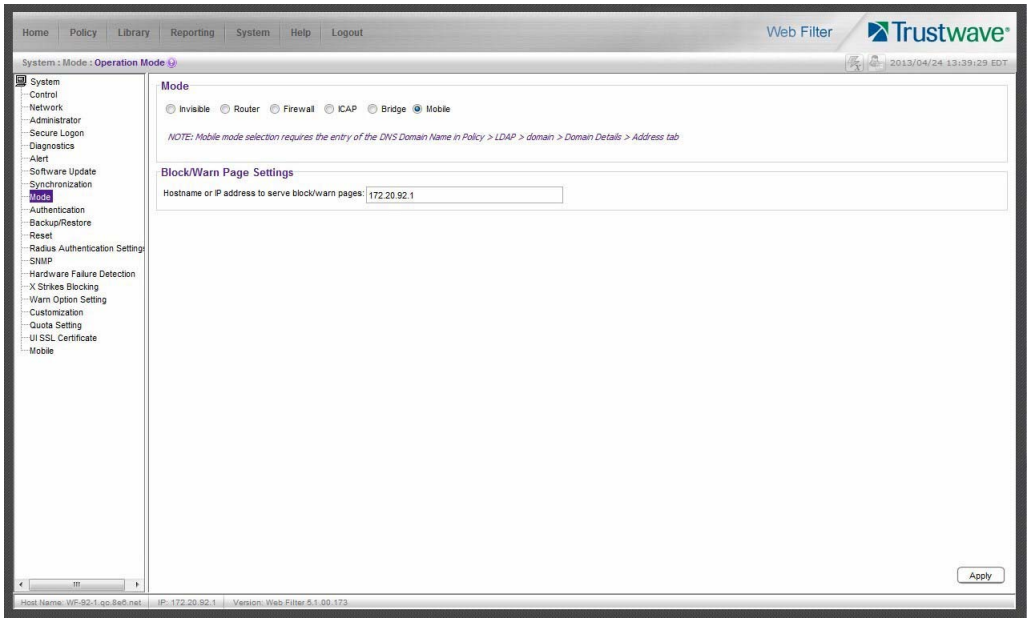
2. In the Mode frame, choose “Mobile”:

Figure 6: Operation Mode window, Mobile mode



3. In the **Hostname or IP address to serve block/warn pages** field, the LAN1 IP address displays by default. This entry should be edited if a server other than the mobile Web Filter will serve warn pages and/or block pages to mobile users.

4. Click **Apply** to set the mobile mode and IP address; this action displays the Mobile menu topic in the System tree, with Certificate Management and Configuration sub-topics, and the Certificate Management menu for IP groups and/or LDAP domains in the Policy tree.

Notes:

- MSC-related menus in the System and Policy tree automatically display on a source server, whether or not that server is set in mobile mode.
- Enabling the mobile mode feature disables Policy > Global Group > Range to Detect, since a mobile Web Filter does not use this feature to identify and filter end users.
- Mobile users who receive a block page will not have the options link which displays the Options page, since Web-based authentication and override accounts are not supported in mobile filtering.

2.3 Enable Authentication, Configure Settings

2.3.1 Enable Authentication

In order for mobile user activity to be logged by profile name, the authentication feature must be enabled on the mobile Web Filter.

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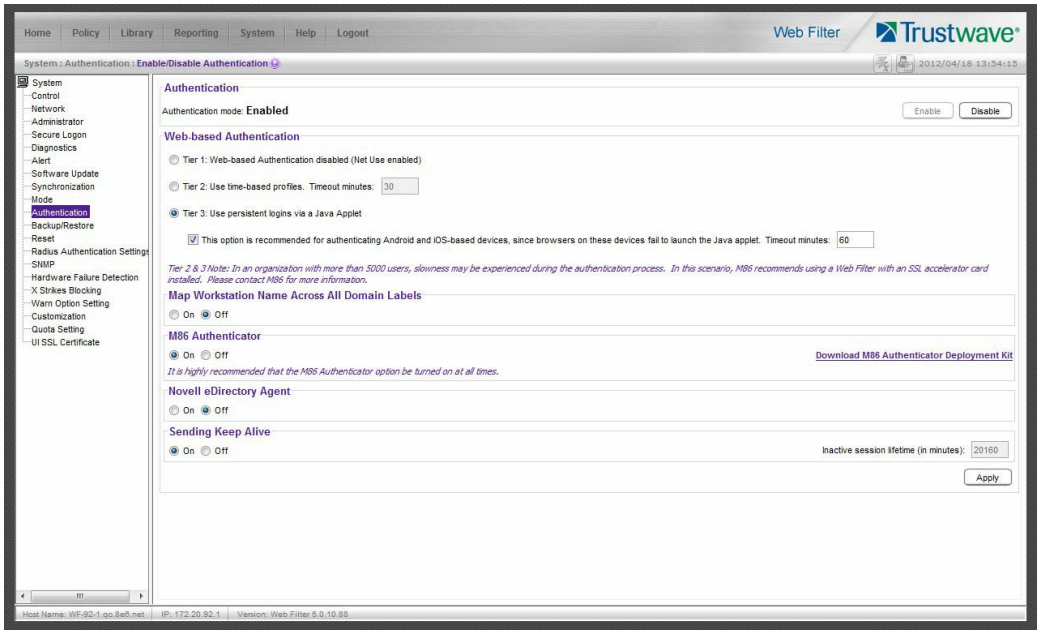
1. Navigate to System > Authentication > Enable/Disable Authentication:

Figure 7: Enable/Disable Authentication window



2. In the Authentication frame, click **Enable**.

Notes:

- Users are authenticated based on the type of group in which their profile is stored: IP group or LDAP domain group.
- Refer to the Trustwave Web Filter User Guide for Authentication for information on configuring and deploying authentication in your environment.

2.3.2 Set the DNS Domain Name

If using an LDAP server in the authentication process, and the Web Filter will be generating, issuing, and managing all certificates, the fully qualified domain name must be set for the LDAP domain.

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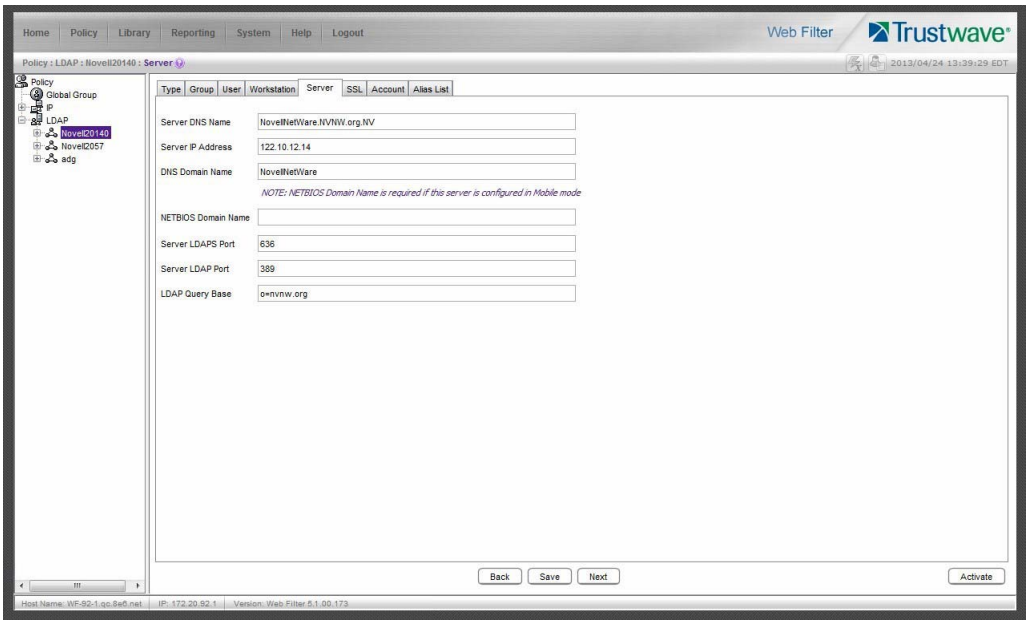
1. Navigate to Policy > LDAP > domain > Domain Details > Server tab:

Figure 8: LDAP Domain Details window, Server tab



2. Enter the **DNS Domain Name** of the LDAP server—if this field is not already populated—and then click **Save** and **Activate**.

Note: Refer to the Trustwave Web Filter User Guide for Authentication for information on configuring and deploying authentication in your environment.

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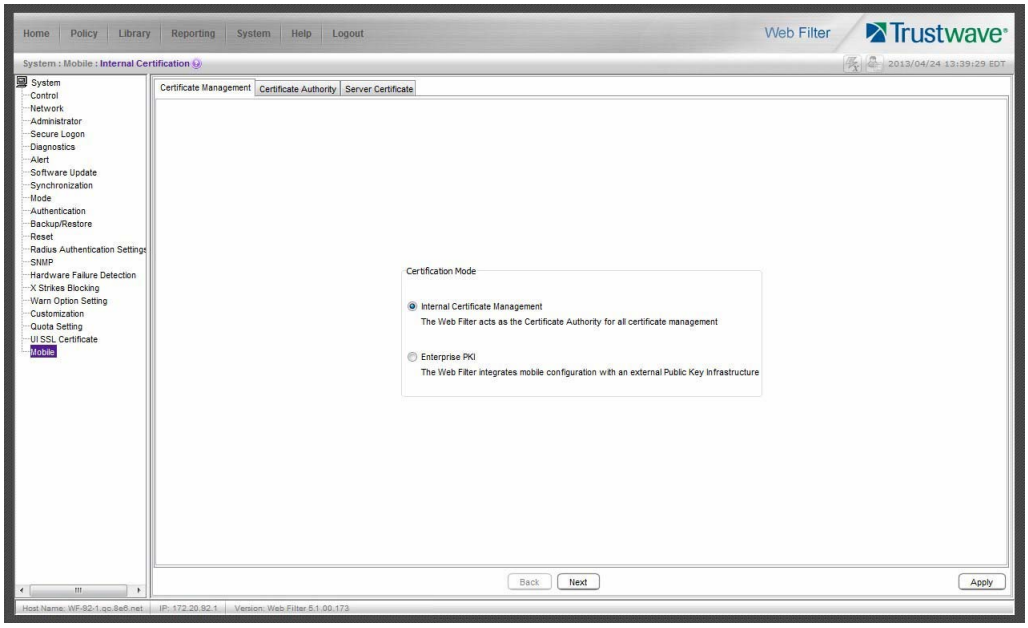
2.4 Set the Certification Mode

On the mobile server—or the source server, in a synchronization environment with MSC—navigate to System > Mobile > Certificate Management to display the Certificate Management window:

Figure 9: Certificate Management window



Select the Certification Mode by choosing either the default “Internal Certificate Management” mode—if the Web Filter will issue and store certificates, or the “Enterprise PKI” mode—if an external device will issue and store certificates.

Based on this selection, different tabs display in this window. Proceed to instructions in the section of this user guide for the selected Certification Mode:

- Internal Certificate Management
- Enterprise PKI

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3 Internal Certificate Management

This portion of the user guide contains information on how to configure the mobile Web Filter user interface in the internal mode to generate and use certificates for devices employed in the authentication process, and to prepare the client for deployment to end user mobile workstations.

3.1 Configure Mobile Server, Client Settings

The first step in setting up MSC in the internal mode is to use the Certificate Management wizard to generate certificates to be stored on this mobile Web Filter.

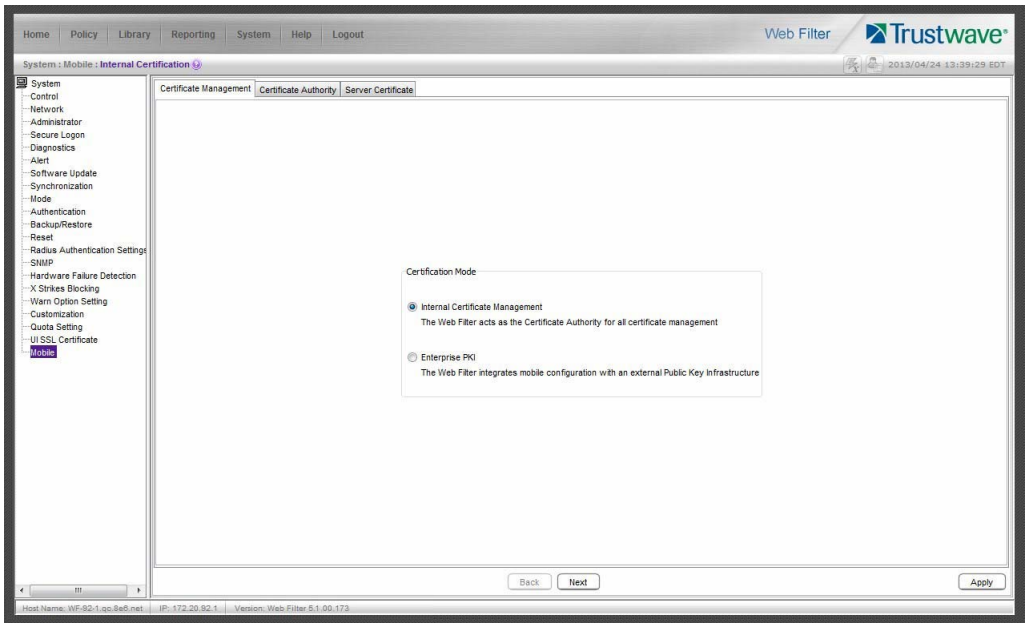
The second step is to use the Configuration wizard to create the Proxy Auto-Configuration (PAC) file that tells the client how to communicate with pertinent devices on the network. The PAC file can then be downloaded for review and modification, or packaged in the client within the installer file—which also contains a generic client certificate—for ready deployment to end user mobile workstations.

A third step is required only if any mobile user will be issued a unique user certificate. For this step, mobile IP group and/or LDAP domain users are set up receive unique certificates and to have these certificates managed by the mobile Web Filter.

3.1.1 Generate Certificates

In System > Mobile > Certificate Management window, the “Internal Certificate Management” option should have been selected:

Figure 10: Certificate Management window, internal option



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Certificate criteria is set up using the remaining tabs in the Certificate Management wizard.

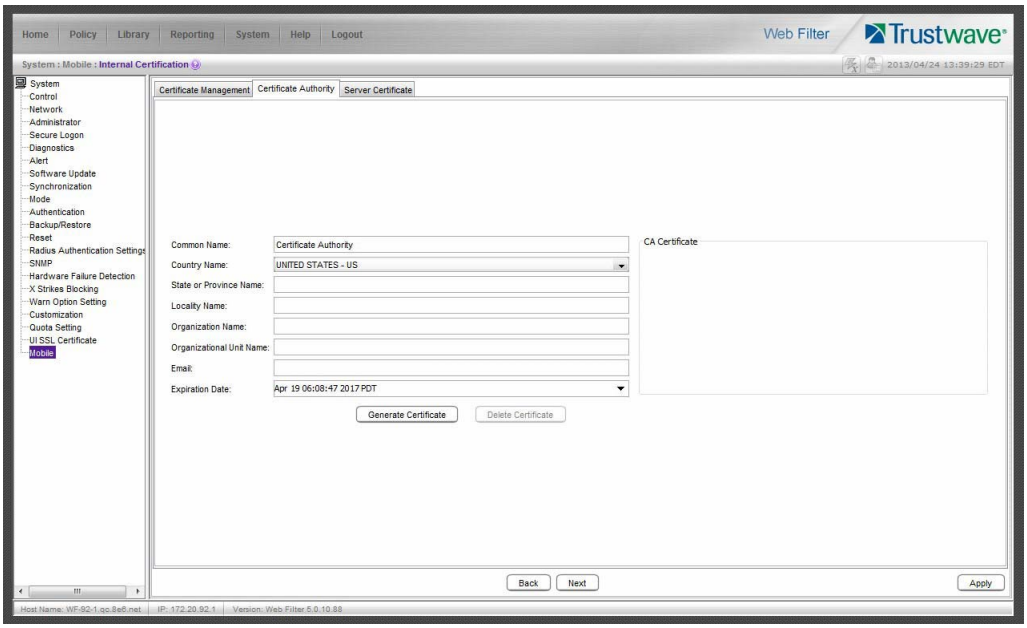
Note: At any point in the wizard, settings can be saved by clicking **Apply**.

Click **Next** to go to the Certificate Authority tab.

3.1.1.1 Generate the CA Certificate

The Certificate Authority tab is used for generating the CA certificate for this mobile Web Filter designated to generate and issue certificates to mobile users.

Figure 11: Certificate Authority tab



By default, the only populated fields include Common Name, Country Name (2 letter code), and Expiration Date—defaulted to five years from this point in time. Filling in the rest of the fields is optional.

1. At your option, edit or type in your entries in the following fields:
   a. **Common Name**: “Certificate Authority” displays by default.
   b. **Country Name**: Your country name and two-character country code display by default.
   c. **State or Province Name**: Full name or code identifying your state or province, such as `CA` or `California`.
   d. **Locality Name**: Name of your organization’s city or principality, such as `Irvine`.
   e. **Organization Name**: Name of your organization, such as `Logo Corporation`.
   f. **Organizational Unit Name**: Name of your department, such as `Administration`.
   g. **Email**: Your email address.

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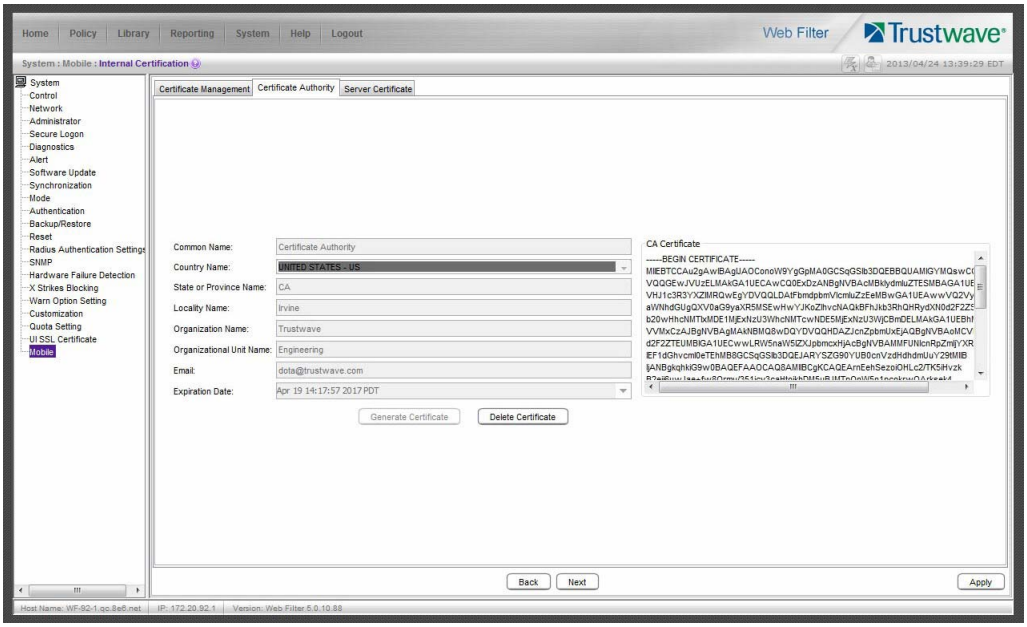
2. The **Expiration Date** field displays the date and time five years from the moment this window was last refreshed, using the following format: abbreviated name of this month, number of the day within this month, time (HH:MM:SS), coming year (YYYY), and time zone code.

   The date can be changed by clicking the down arrow at the far right of this field to open the calendar, navigating to the selected date, and then double-clicking it to close the calendar and populate this field with the new date.

3. Click **Generate Certificate** to generate the server certificate. The successfully generated certificate populates the CA Certificate box to the right with the contents of the certificate:

Figure 12: Generated CA Certificate



Tip: Click **Delete Certificate** if any criteria previously specified in this tab has changed and you need to generate a new certificate.

4. Click **Next** to go to the Server Certificate tab to generate the server certificate.

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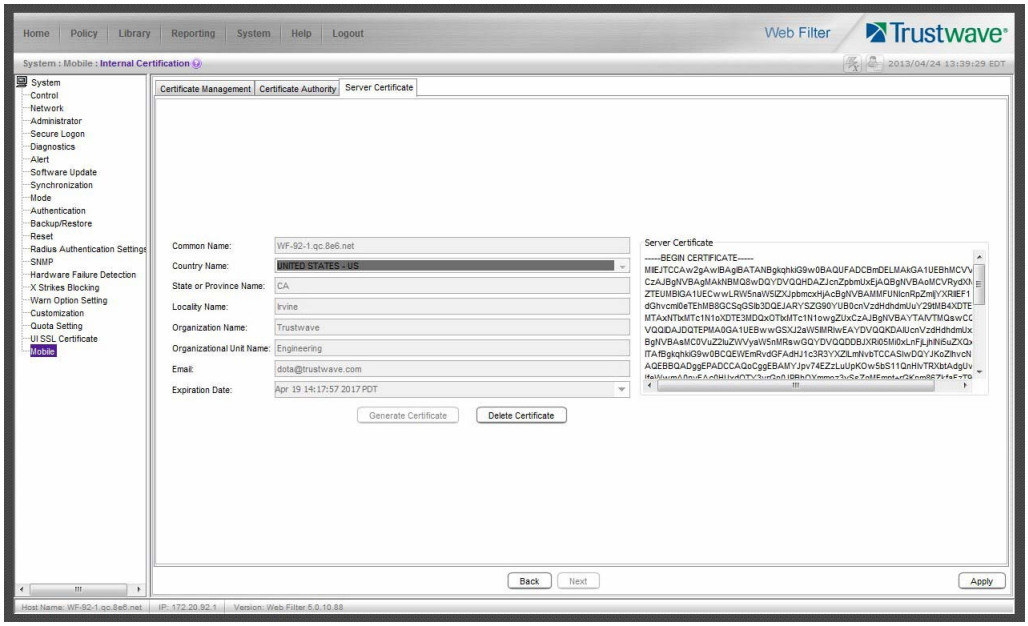
3.1.1.2 Generate, Sign the Server Certificate

The Certificate Signing Request tab is used for generating the SSL traffic redirector component server certificate that the client will use for communicating with this mobile Web Filter.

Figure 13: Server Certificate tab



By default, entries from the fields in the Certificate Authority tab populate the fields by the same name in the Server Certificate name tab and display grayed-out.

Tip: By default, the Generate Certificate button displays greyed-out. Click **Delete Certificate** if any criteria previously specified in this tab has changed and you need to generate a new certificate.

Click **Apply** to save your settings.

3.1.1.2.1 Re-Generate a Server Certificate

1. If you need to re-generate the Server Certificate, populate these fields with the following entries/selections:
   a. **Common Name**: Full DNS hostname of this server, as entered in Network > LAN Settings > Host Name field, such as `logo.server.com`.
   b. **Country Name**: Country name and two-character country code.
   c. **State or Province Name**: Full name or code identifying your state or province, such as `CA` or `California`.
   d. **Locality Name**: Name of your organization's city or principality, such as `Irvine.`
   e. **Organization Name**: Name of your organization, such as `Logo Corporation`.
   f. **Organizational Unit Name**: Name of your department, such as `Administration`.

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g. **Email**: Your email address.

2. The **Expiration Date** field displays the date and time five years from the moment this window was last refreshed, using the following format: abbreviated name of this month, number of the day within this month, time (HH:MM:SS), coming year (YYYY), and time zone code.

   The date can be changed by clicking the down arrow at the far right of this field to open the calendar, navigating to the selected date, and then double-clicking it to close the calendar and populate this field with the new date.

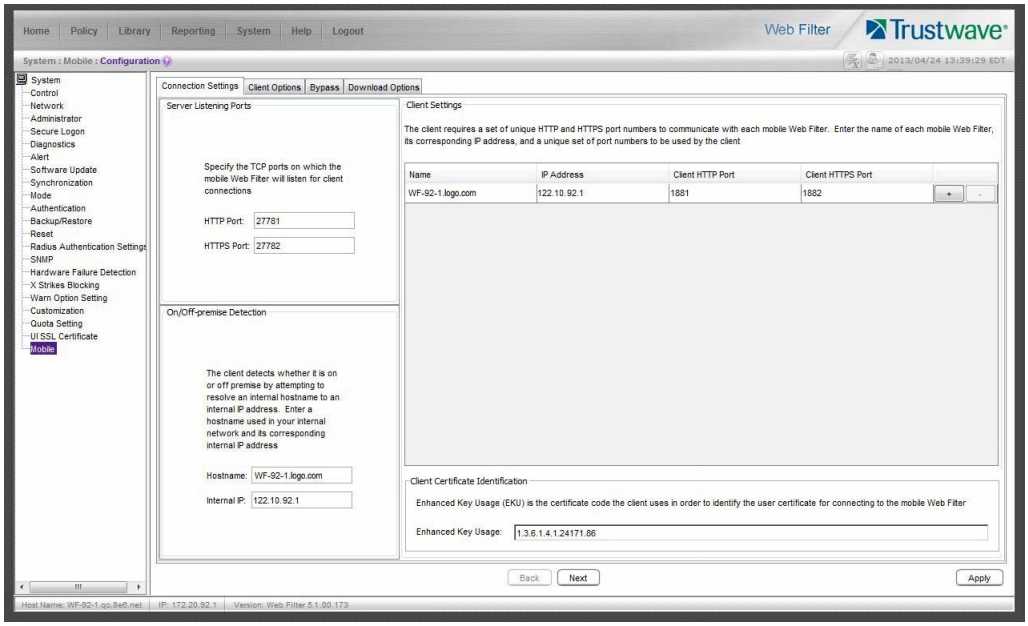
3. Click **Generate Certificate** to generate the server certificate. The successfully generated certificate populates the Certificate Signing Request box to the right with the contents of the certificate:

4. Click **Apply** to save your settings.

3.1.2 Configure the Client

Navigate to System > Mobile > Configuration to display the Configuration window:

Figure 14: Configuration window, Connection Settings tab



Use tabs in the Configuration wizard to create the MSC client. The completed client can be downloaded within the installer file for ready deployment, or its Proxy Auto-Configuration (PAC) file can be downloaded for review and modification before deployment to end user workstations.

Tip: At any point in the wizard, settings can be saved by clicking **Apply**.

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3.1.2.1 Specify Connection Settings

The Connection Settings tab is used for specifying ports the client will use to communicate with pertinent devices on the network, and for entering the server certificate EKU so the client will recognize the mobile server.

1. In the Server Listening Ports frame, enter the **HTTP Port** this mobile Web Filter will use when listening for connections from the client. The default is `27781`.
2. Enter the **HTTPS Port** this mobile Web Filter will use when listening for connections from the client. The default is `27782`.
3. In the On/Off-premise Detection frame, enter the **Hostname** of a device on the internal network, and its corresponding **Internal IP** address. The client will use this criteria to determine whether the mobile workstation is currently on site or off site.
4. The Client Settings frame includes a table for specifying mobile Web Filters, the Local Configuration Port frame, and the Client Certificate Identification frame.

   In the table, enter the following information for each mobile Web Filter to be used:

   a. **Name** of the mobile Web Filter.

   b. **IP Address** of the mobile Web Filter.

   c. Unique **Client HTTP Port** number to be used by mobile workstations to send traffic to the mobile Web Filter.

   d. Unique **Client HTTPS Port** number to be used by mobile workstations to send traffic to the mobile Web Filter.

Tip: Click the “+” at the end of the row to add another row in the table. Click the “-” at the end of the row to remove the current row from the table.

5. In the Local Configuration Port frame, by default the **Port** number is `27778`. This port number, which can be modified, is used by the SSL traffic redirector to check for client configuration updates, and to communicate with the mobile Web Filter that the client should still be connected to that server.
6. In the Client Certificate Identification frame, the default **Enhanced Key Usage** number displays. If necessary, modify this code the MSC client will use in order to identify the user certificate for connecting to the mobile Web Filter.
7. Click **Next** to go to the Client Options tab.

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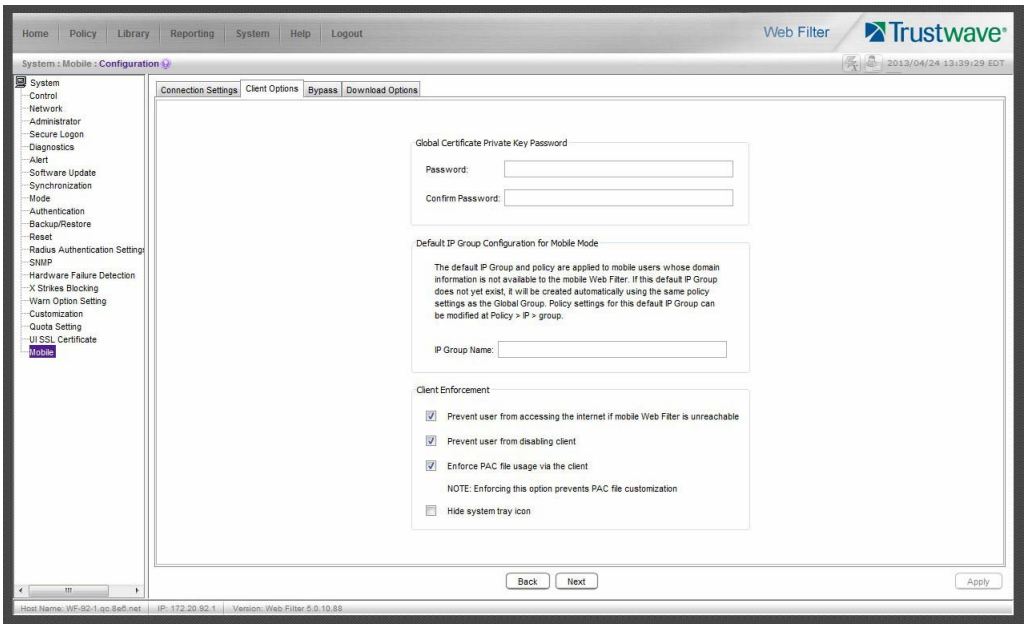
3.1.2.2 Set Global Password, Client Options

The Client Options tab is used for setting the global password for unique client certificates, specifying the name of the default IP group to be applied to clients that cannot obtain domain information from the server, and indicating which optional features will be included in the client.

Figure 15: Client Options tab



1. In the Global Certificate Private Key Password frame, make the same entry in the **Password** and **Confirm Password** fields for the password mobile users will use if installing unique client certificates issued to them.

Note: The Global Certificate Private Key Password feature is only used for unique, non-generic user certificates.

2. In the Default IP Group Configuration for Mobile Mode frame, enter the **IP Group Name** of the group which will have its policy applied to mobile users whose clients cannot obtain the server's domain information.

Note: If the default IP group does not yet exist, it will be created automatically and added in the IP branch of the Policy tree using the Global Group's policy settings.

3. In the Client Enforcement frame, indicate whether to include the following options:
   a. **Prevent user from accessing the internet if mobile Web Filter is unreachable**: By default this option is enabled, indicating the end user will not be able to access the Internet if the client cannot communicate with the mobile Web Filter.
   b. **Prevent user from disabling client**: By default this option is enabled, indicating the end user will not be able to disable the client from running on the mobile workstation. If a particular service

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needs to run that the client is blocking the administrator will need to disable the client to run that service on the workstation.

c. **Enforce PAC file usage via the client**: By default this option is enabled, indicating settings saved in these tabs will be used by the PAC file on mobile workstations. If the PAC file is downloaded and modified, it will not be used by mobile workstations.

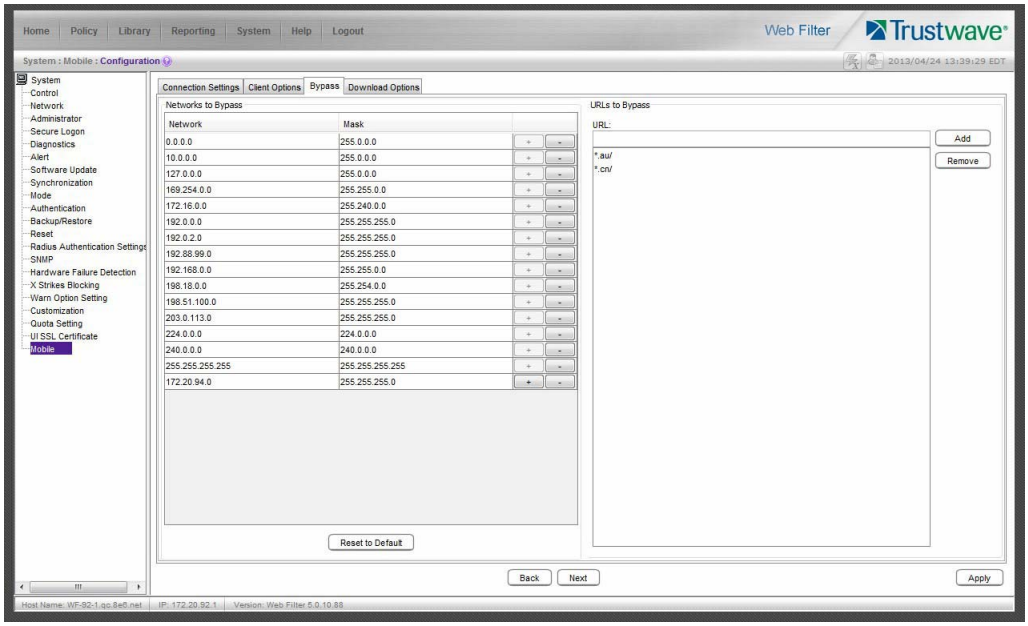
d. **Hide system tray icon**: Enabling this option will hide the client icon from displaying in the mobile workstation task bar.

4. Click **Next** to go to the Bypass tab.

3.1.2.3 Specify IPs and URLs to be Bypassed

The Bypass tab is used for specifying which domains the client should ignore, and which URLs should be whitelisted.

Figure 16: Bypass tab



1. By default, the Networks to Bypass table includes rows of Network IP addresses the client should bypass when filtering, and for each domain, its corresponding net Mask. Any of these networks can be removed, but the table must include at least one network.

   To add a row to this table, click the “+” at the end of the row, and enter the **Network** IP address and its net **Mask**.

Tip: Click the “-” at the end of an added row to remove that row from the table.

2. In the URLs to Bypass frame, enter a URL to be whitelisted for the client and then click **Add** to include that URL in the list box.

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Wildcards can be used in this entry. For example: *.usatoday.com, or top level domain entries such as *.au, *.edu, or *.gov

Tips:

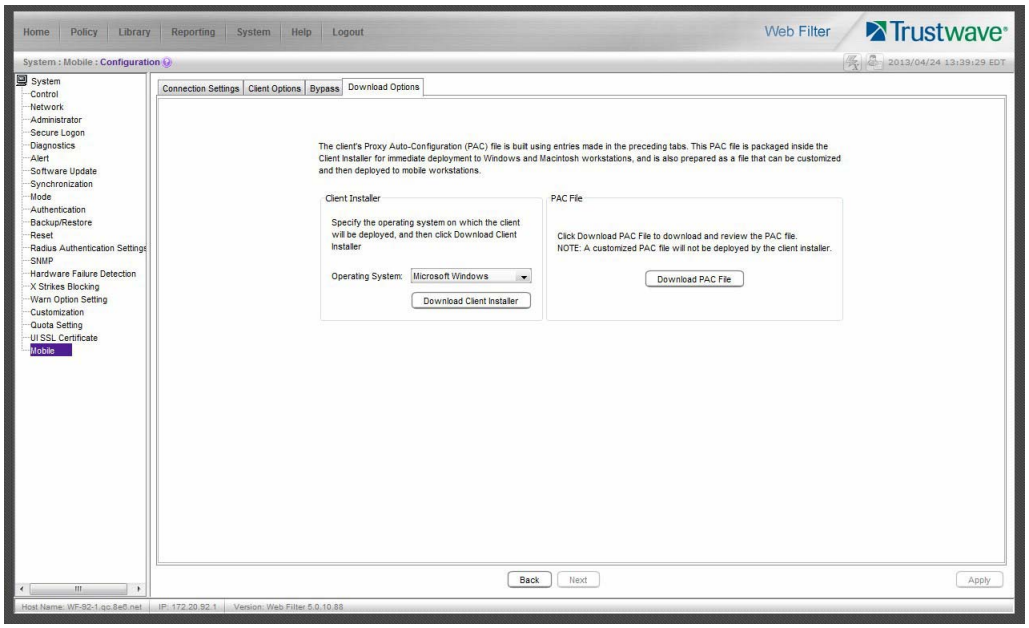
- To remove a URL from the list box, select the URL and then click **Remove**.
- Click **Reset to Default** restore the original rows of IPs and corresponding net Masks in the table.

3. After all settings are made, click **Apply** to create the client installer and PAC file.
4. Click **Next** to go to the Download Options tab.

3.1.2.4 Download the Client Installer or PAC File

The Download Options tab is used for either downloading the client installer or the PAC file.

Figure 17: Download Options tab



3.1.2.4.1 Download the Client Installer

1. In the Client Installer frame, select the type of **Operating System** (“Microsoft Windows” or “Mac OS X”) on which the client will be deployed.
2. Click **Download Client Installer** to download that file to your workstation.

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3.1.2.4.2 PAC File

In the PAC File frame, click **Download PAC File** if you wish to download the PAC file for review and/or customization prior to deployment to mobile workstations.

Note: A customized PAC file can only be deployed outside of the client. If using a customized PAC file, any settings made in the PAC file inside the client will not be used by the client. Additionally, any client updates will not be automatically deployed to mobile workstations via the mobile Web Filter.

3.2 Set Up, Manage Unique User Certificates

Note: Instructions in this sub-section need to be followed only if issuing unique, non-generic user certificates to mobile users. This sub-section can be skipped if all mobile users will be using the generic mobile user certificate.

The process of setting up unique, non-generic mobile user certificates differs between IP groups and LDAP domains.

Before user certificates can be issued to mobile users in IP groups, these users must first be added to the IP group's Certificate Management table. For LDAP domains, users must be imported from the LDAP server into the LDAP domain's Certificate Management table.

Once mobile users are included in the Certificate Management table, certificates for these users can be issued or re-issued, emailed, exported or revoked.

Note: Customized emails can be created for end users. Refer to Customize Emails in this user guide for instructions.

This sub-section describes certificate setup for IP groups and LDAP domains, followed by certificate management for both IP groups and LDAP domains.

3.2.1 Certificate Management Setup

Proceed to the appropriate section to set up user certificates for management: IP Group, or LDAP Domain.

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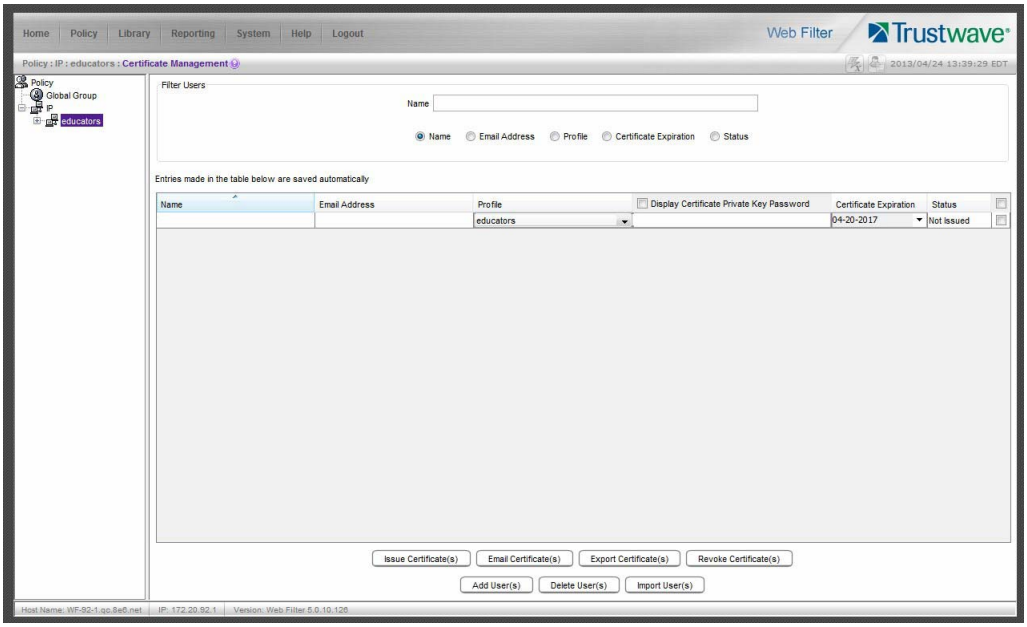
3.2.1.1 Certificate Management window for IP group

Navigate to Policy > IP group and select Certificate Management from the menu to display the Certificate Management window:

Figure 18: Certificate Management for IP group, row of users added



This window is used for adding IP group mobile users for certificate management, and contains the Filter Users frame for filtering a user search, a table below for managing user certificates, and a row of buttons at the bottom for executing tasks.

Users can be added manually in the table, or imported into the table from a file.

Note: Entries made in the table are saved automatically.

3.2.1.1.1 Manually enter users in the table

To manually add a user in the table:

1. Click **Add User(s)** to add a row of IP group users to the table. This entry displays a name in the Profile column (either a user name or the IP group name), a Certificate Expiration date five years from this point in time, and a “Not Issued” Status.

Note: See Manage Certificates: Issue Certificates in this section for instructions on issuing mobile user certificates.

2. In the Profile column, use the pull-down menu to select the user to be issued a mobile user certificate, or use the IP group profile if the user profile has not been set up in that node.
3. For that user:

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a. Enter the user's **Name** as it will appear in the salutation of the certificate installation instructions of the email message. The user's Name can be edited as long as the certificate has not yet been issued.

Tip: The Name should contain no breaks; use the underscore "_" character to add a space between first and last name.

b. Enter the user's **Email Address**.

c. Entering a password is optional. By default, passwords display encrypted in this column, but can be made visible by clicking "Display Certificate Private Key Password" above this column. A password can be edited as long as the certificate has not yet been issued. If no password is entered, the user will use the global password set up in the Global Certificate Private Key Password fields in System > Mobile > Configuration > Client Options tab.

d. By default, **Certificate Expiration** displays a date five years from this point in time using the MM-DD-YYYY format. This date can be changed by clicking the down arrow and choosing a new future date—at least a day from today—in the pop-up calendar. The expiration date can be modified as long as the certificate has not yet been issued.

e. By default, "Not Issued" displays for the certificate **Status**. This status changes when the certificate is issued, emailed, expired, or revoked.

Notes:

- To delete any user(s) from the table, click the check box(es) in the far right column at the end of the row, and then click **Delete User(s)**.
- Follow the instructions in this sub-section for each user to be added to the Certificate Management table.

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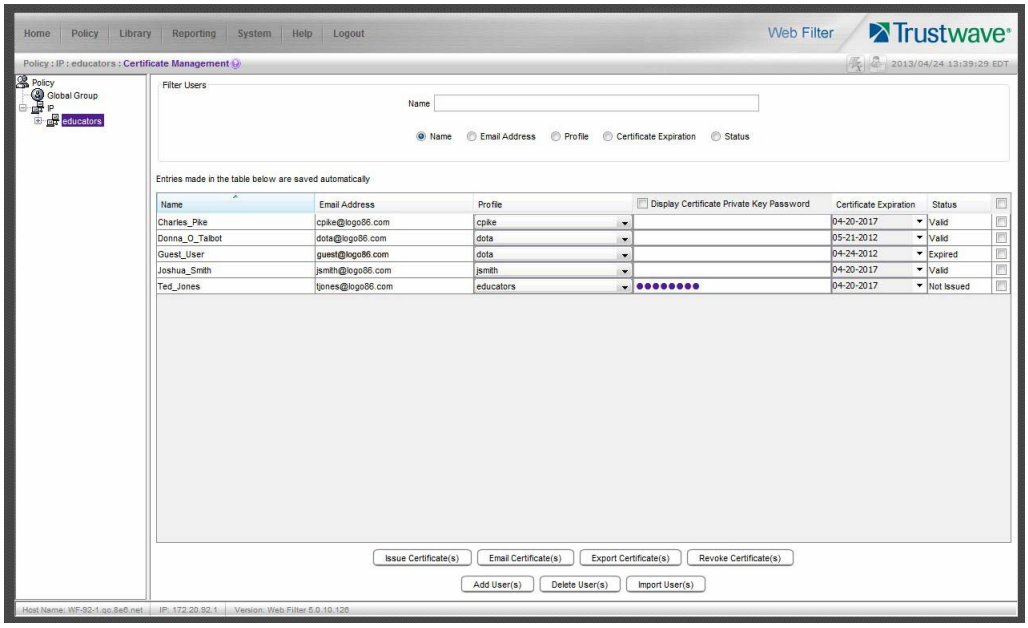
Proceed to Manage Users in the table.

Figure 19: Certificate Management window, IP group users added



3.2.1.1.2 Import a file of users into the table

To import a file of users into the table, you must first prepare the file using the following rules and format:

- profile string must contain the user's name, email address, profile name—or '{}' if the profile name is not specified—and password
- each component of the profile string cannot contain spaces—the underscore character '_' can be used to separate the first and last name
- each component of the profile string must be separated by a comma
- each profile string in the file must be entered on a separate line, as in these examples:

```
John_Jones,jjones@company.com,mobilegroup,pass1@word
Jane_Smith,jsmith@company.com,mobilegroup,adminuser25%
admin,admin15@company.com,{},1admin15$
```

When you have the file prepared, click **Import User(s)** to browse for the file and then upload it.

Any user profile correctly formatted in the file and not currently in the table will be uploaded to the table, displayed in alphabetical order by the Name column.

Proceed to Manage Users in the table.

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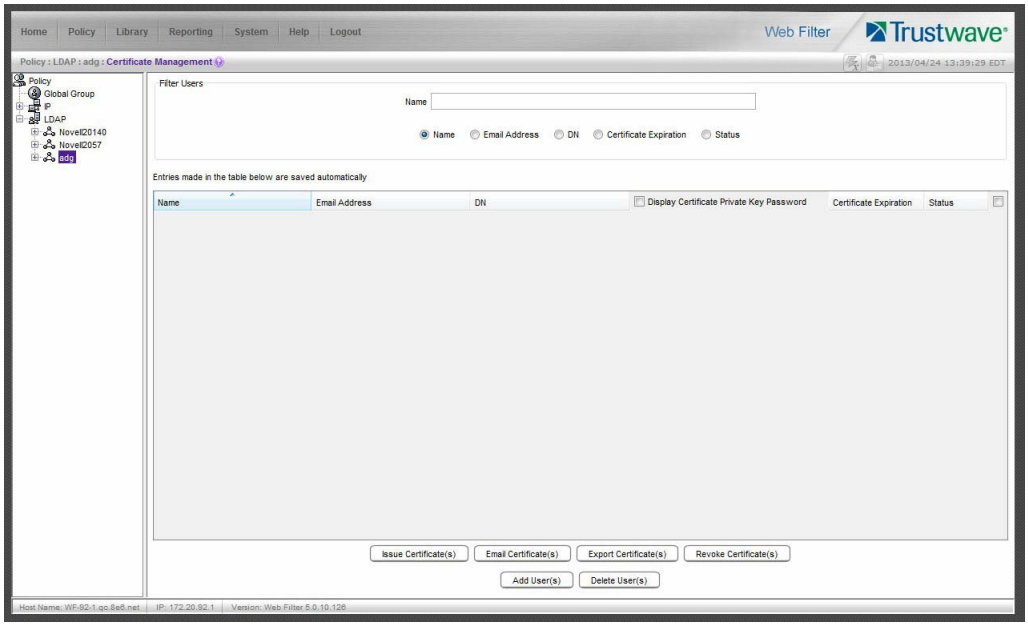
3.2.1.2 Certificate Management window for LDAP domain

Navigate to Policy > LDAP domain and select Certificate Management from the menu to display the Certificate Management window:

Figure 20: Certificate Management window for LDAP domain



This window is used for managing LDAP domain mobile user certificates imported into this mobile Web Filter, and contains the Filter Users frame for filtering a user search, a table below that lists imported user certificates, and a row of buttons at the bottom for executing tasks. Though similar to the IP group window of the same name, the Profile radio button and column for IP groups are replaced by the DN (Distinguished Name) radio button and column for LDAP domains, and the Import User(s) button is not included since LDAP users are imported into this window via the LDAP Browser window.

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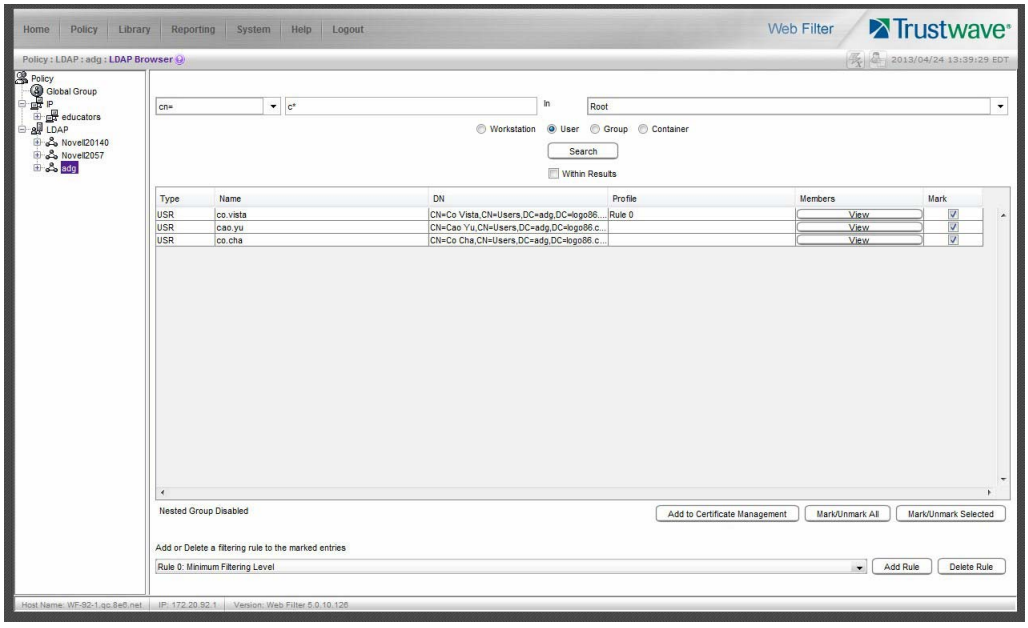
3.2.1.2.1 Import Users for Certificate Management

Click **Add User(s)** to go to the LDAP Browser window where you query the domain for users to be imported to the Certificate Management table:

Figure 21: LDAP Browser window



To perform a basic search:

1. Select “User” and choose either “cn=” (common name) or “uid=” (user ID) from the pull-down menu for the attribute type used in the LDAP directory.
2. In the input field that follows the pull-down menu, type in the username exactly as it was entered on the LDAP server, or enter a partial name followed by the asterisk (*) wildcard.
3. Make a selection from the **In** pull-down menu to specify the section of the server to search.
4. Click **Search** to display rows of results in the table below. The following information is included for each entity: Type (USR), Name (as entered on the LDAP server), DN (Distinguished Name) string, Profile (Rule number, if assigned), View button in Members column, and Mark check box.

The following options are available for search results:

- To narrow the number of records returned by your initial query, click the “Within Results” check box, modify your search criteria in the input field, and then click **Search**.
- To query either the list of groups in which a user is a member, or the list of users who are members of a Group Record, click the **View** button in the Members column to display the results in the table.
- To select or deselect all records in the table, click **Mark/Unmark All**.
- To select or deselect all highlighted records in the table, click **Mark/Unmark Selected**. This feature works only if records are first selected in the table by clicking on them.

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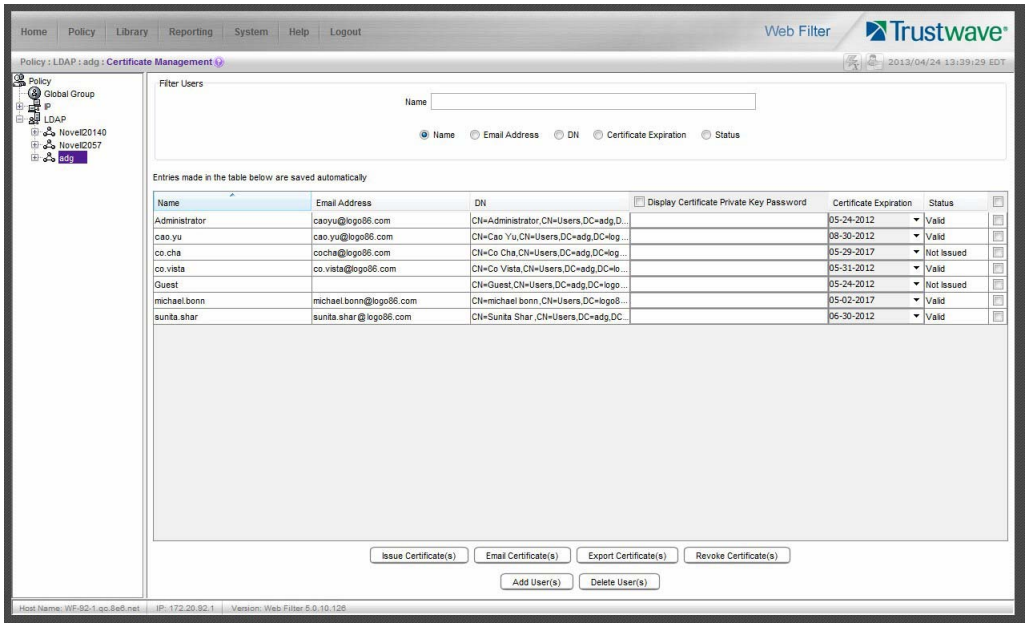
- Multiple records are selected by clicking one record, and then pressing the **Ctrl** key on your keyboard and clicking another record.
- A block of multiple records is selected by clicking the first record in the block, then pressing the **Shift** key on your keyboard, and then clicking the last record in the block.

To add the user(s) to the Certificate Management table:

1. Go to the Mark column and click the check box(es) for the selected user(s).
2. Click **Add to Certificate Management**.
3. Go to the Certificate Management window to view the users imported into the Certificate Management table:

Figure 22: Certificate Management window with LDAP users imported



Tip: To delete any user(s) from the table, click the check box(es) in the far right column at the end of the row, and then click **Delete User(s)**.

Proceed to Manage Users in the table.

3.2.2 Manage Users in the table

Once users are added to the Certificate Management table, certificates can be issued, re-issued, or revoked, as necessary. Proper maintenance on this table ensures that only valid mobile users have online access via their mobile workstations.

To help you manage user certificates, the table can be sorted by various columns, and/or filtered.

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3.2.2.1 Sort the Certificate Management table

By default, the table is sorted in ascending order by the Name column, but can be re-sorted in descending order by clicking the Name column header. To sort the table by another column, click the column header in this same manner for Email Address, Profile (for IP groups only) or DN (for LDAP domains only), Certificate Expiration, or Status.

3.2.2.2 Filter Users frame and Certificate Management table

In the Filter Users frame, by default the “Name” radio button is enabled and the Name field displays along with all users in the table. Use a radio button and fields to display query results in the table as follows:

- Name - If not enabled, click the “Name” radio button to display the **Name** field in which characters for a user’s name are input. Results immediately display in the table based on consecutive, matching character entries found among all names set up for this node. For IP group users, the user’s Name can be edited as long as a certificate has not yet been issued.
- Email Address - Click the “Email Address” radio button to display the **Email Address** field in which characters for a user’s email address are input. Results immediately display in the table based on consecutive, matching character entries found among all email addresses set up for this node. The user’s Email Address is editable in the event it has changed since the last time a certificate was issued.
- Profile (for IP groups only) - For the IP group, click the “Profile” radio button to display the **Profile** field from which the user’s profile is selected from the pull-down menu. By default “All Profiles” displays.
- DN (for LDAP domains only) - For the LDAP domain, click the “DN” radio button to display the **DN** field in which characters for a user’s Distinguished Name are input. Results immediately display in the table based on consecutive, matching DN character entries found among all users set up for this node.
- Certificate Expiration - Click “Certificate Expiration” to display the range of certificate expiration dates (using the MM-DD-YYYY format) **From** five years prior **To** five years from today. Calendar dates are modified by clicking the down arrow to open the calendar pop-up box and selecting another date. Results immediately display in the table based on all user certificates set up for this node found to have expiration dates that fall within the specified date range. The Certificate Expiration date can only be modified if the certificate has not yet been issued.
- Status - Click the “Status” radio button to display the **Status** field from which the user’s certificate status is selected from the pull-down menu. By default “All Status” displays. Selecting the following certificate status type displays all users set up for this node found to have the corresponding certificate status: "Not Issued", "Valid", "Expired", or "Revoked".

3.2.2.3 Update Users in the table

3.2.2.3.1 IP group user updates

For IP group mobile users added to the Certificate Management table, updates to all fields except Status (Name, Email Address, Profile, password, Certificate Expiration—see Set up Users for Certificate Management) can be made as long as certificates have not yet been issued.

Once a certificate is issued, only the following fields can be modified:

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- **Email Address** - Enter the updated email address.
- **Profile** - Select the Profile from the pull-down menu.

To delete the user(s), click the check box at the end of the row, and then click the **Delete User(s)** button beneath the table.

3.2.2.3.2 LDAP domain user updates

For LDAP domain mobile users imported into the Certificate Management table, edits can only be made to the following fields:

- **Email Address** - Enter the user's email address.
- password - This entry is optional. By default, passwords display encrypted in this column, but can be made visible by clicking "Display Certificate Private Key Password" above this column. A password can be edited as long as the certificate has not yet been issued. If no password is entered, the user will use the global password set up in the Global Certificate Private Key Password fields in System > Mobile > Configuration > Client Options tab.
- **Certificate Expiration** - By default, this field displays a date five years from this point in time using the MM-DD-YYYY format. This date can be changed by clicking the down arrow and choosing a new future date—at least a day from today—in the pop-up calendar. The expiration date can be modified as long as the certificate has not yet been issued.

Once a certificate is issued, only the Email Address field can be edited.

To delete the user(s), click the check box at the end of the row, and then click the **Delete User(s)** button beneath the table.

3.2.2.4 Manage Certificates

This sub-section describes the certificate Status types and actions to perform when managing mobile user certificates.

3.2.2.4.1 Certificate Status types

The following Status types display for certificates meeting that criterion:

- Not Issued - This certificate Status type displays for a certificate that has not yet been issued to the mobile user. A certificate with this status will not expire even if the Certificate Expiration date has passed.
- Valid - This certificate Status type displays for a certificate that has been issued to the mobile user and the Certificate Expiration date has not yet passed.
- Expired - This certificate Status type displays for a certi-ficate that has been issued to a mobile user but has now expired, denoted by a past date in the Certificate Expiration column. A certificate with this status can be re-issued.
- Revoked - This certificate Status type displays for a certificate that had been issued to a mobile user but subsequently needed to be de-activated. A certificate with this status can be re-issued.

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3.2.2.4.2 Validate a Mobile User, Issue a Certificate

To issue a certificate to a valid mobile user with a “Not Issued”, “Expired”, or “Revoked” Status:

1. Specify the **Certificate Expiration** date by clicking the down arrow and choosing a new future date—at least a full day and 24 hours from this point in time—in the pop-up calendar.
2. Click the check box at the end of the row.
3. Click **Issue Certificate(s)** beneath the table to change the certificate Status to “Valid.”

3.2.2.4.3 Provide the Certificate for Installation

A valid certificate can be emailed to the user to install on the mobile workstation, or downloaded by the administrator for installation on the user’s mobile workstation.

3.2.2.4.4 Email the Certificate to the Mobile User

For each “Valid” mobile user to be emailed the certificate to install on his/her mobile workstation:

1. Click the check box in the far right column.
2. Click **Email Certificate(s)** beneath the table to send the user two emails:
   - an email with the certificate attached contains instructions for installing the certificate
   - another email containing the private key password to use during the certificate installation process

Note: This private key password comes from the mobile user’s password field in the Certificate Management table, or the Global Certificate Private Key Password from the System > Mobile > Configuration > Client Options tab—the latter if no password was entered for the mobile user.

3.2.2.4.5 Download Certificates for Administrator Installation

If the administrator will be installing certificates on mobile workstations, he/she should do the following:

1. Click the check box(es) at the far right column for each “Valid” mobile user who needs a certificate installed on his/her mobile workstation.
2. Click **Export Certificate(s)** to download a .zip file containing the certificate(s) for the selected mobile user(s).
3. Extract the certificate(s) from this file.
4. Install the certificate(s) on the mobile user workstation(s) using the private key password for that mobile user.

Note: This private key password comes from the mobile user’s password field in the Certificate Management table, or the Global Certificate Private Key Password from the System > Mobile > Configuration > Client Options tab—the latter if no password was entered for the mobile user.

3.2.2.4.6 Revoke Certificates

To change the status of a mobile user certificate so that it is no longer “Valid”, the certificate needs to be revoked. To revoke a “Valid” certificate:

1. Click the check box at the far right column for each mobile user certificate to be revoked.

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2. Click **Revoke Certificate(s)** to change the mobile user certificate status to “Revoked”.

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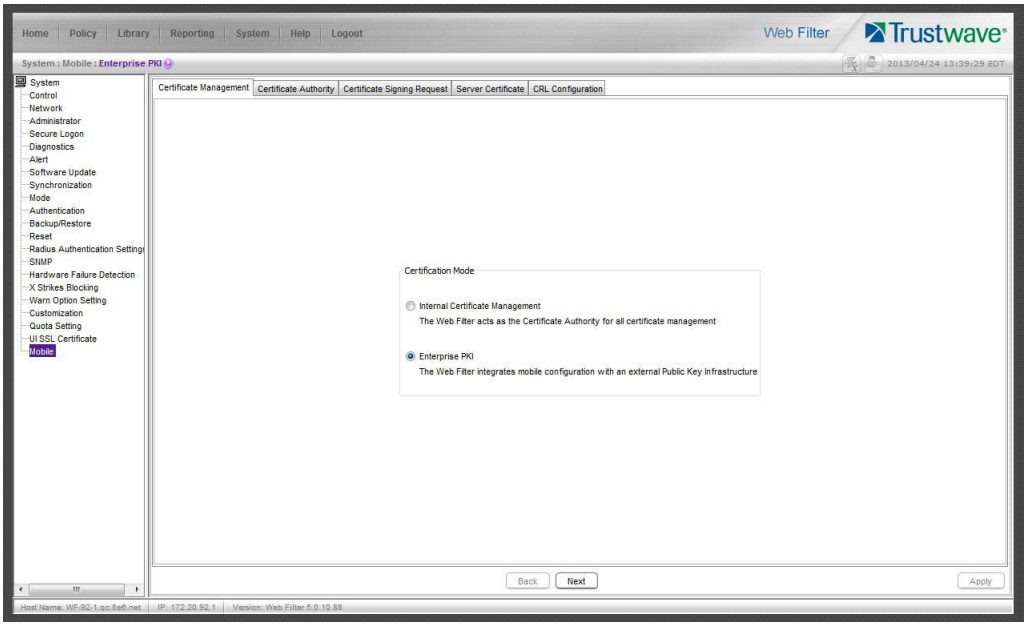
4 Enterprise PKI

4.1 Configure Mobile Server, Client Settings

Note: On a Windows machine, downloaded certificates are named certnew.cer by default. Since you will be downloading two different signed certificates to be installed on the mobile Web Filter, Trustwave recommends renaming each certificate—immediately after it is downloaded—for its associated usage. For example, the CA certificate might be renamed "ca.cer" and the SSL traffic redirector server certificate you download next might be renamed "server.cer".

4.1.1 Generate Certificates, Retrieve CRL

Figure 23: Certificate Management window, Enterprise PKI option



Tip: At any point in the wizard, settings can be saved by clicking **Apply**.

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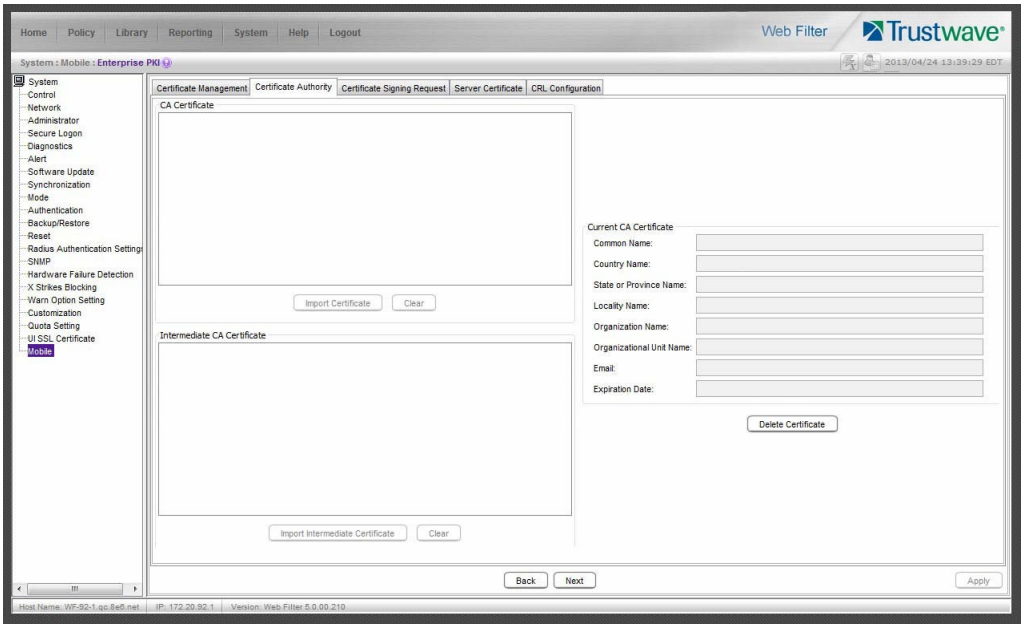
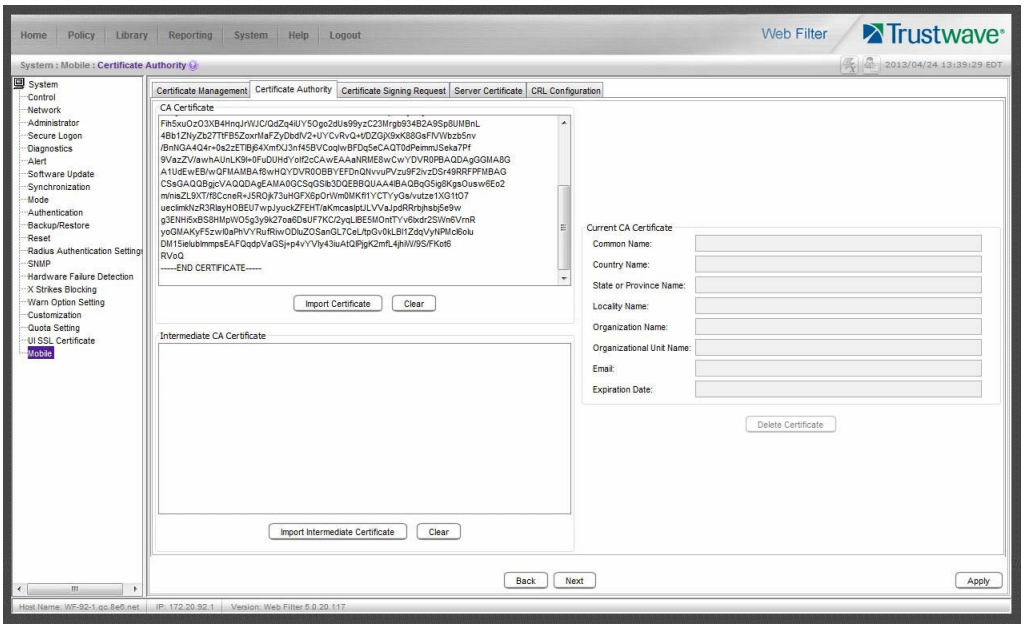
4.1.1.1 Download, Import the CA Certificate

Figure 24: Certificate Authority tab



1. Under CA Certificate, do one of the following to import the certificate into this mobile Web Filter:
   - drag and drop the certificate into this frame
   - click **Import Certificate** to browse for the root CA certificate that was generated on the server designated to sign certificates, and then import it:

Figure 25: CA Certificate imported



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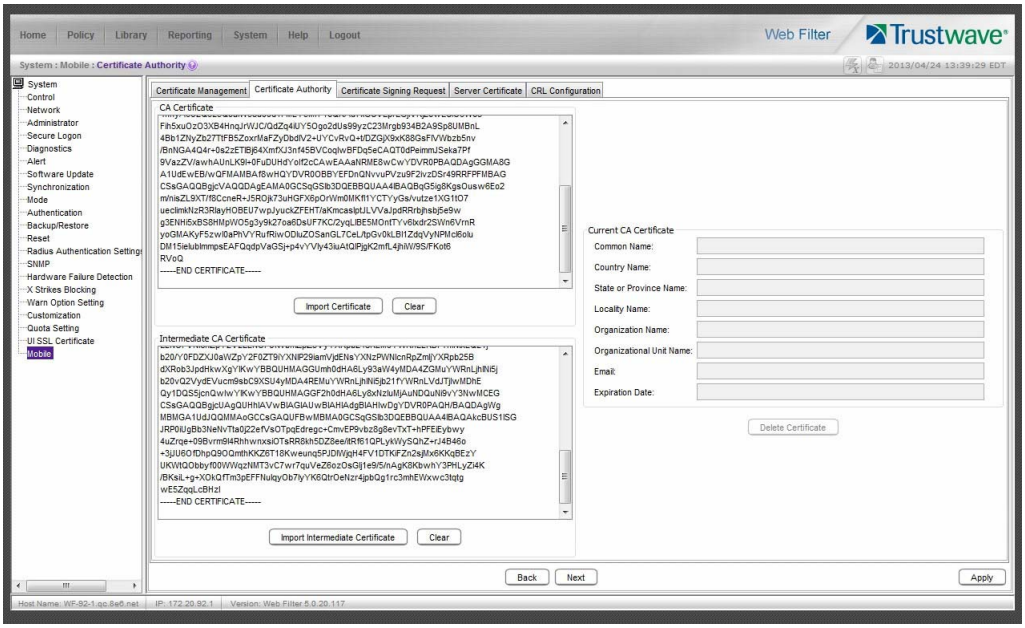
If this is the only CA certificate that needs to be uploaded, proceed to step 3. Otherwise, proceed to step 2.

1. Under Intermediate CA Certificate, do one of the following to import the certificate into this mobile Web Filter:
   - drag and drop the certificate into this frame
   - click **Import Intermediate Certificate** to browse for the downloaded intermediate certificate, and then import it:

Figure 26: Intermediate Certificate imported



Tip: Click **Clear** to remove the contents of the certificate from the Web Filter.

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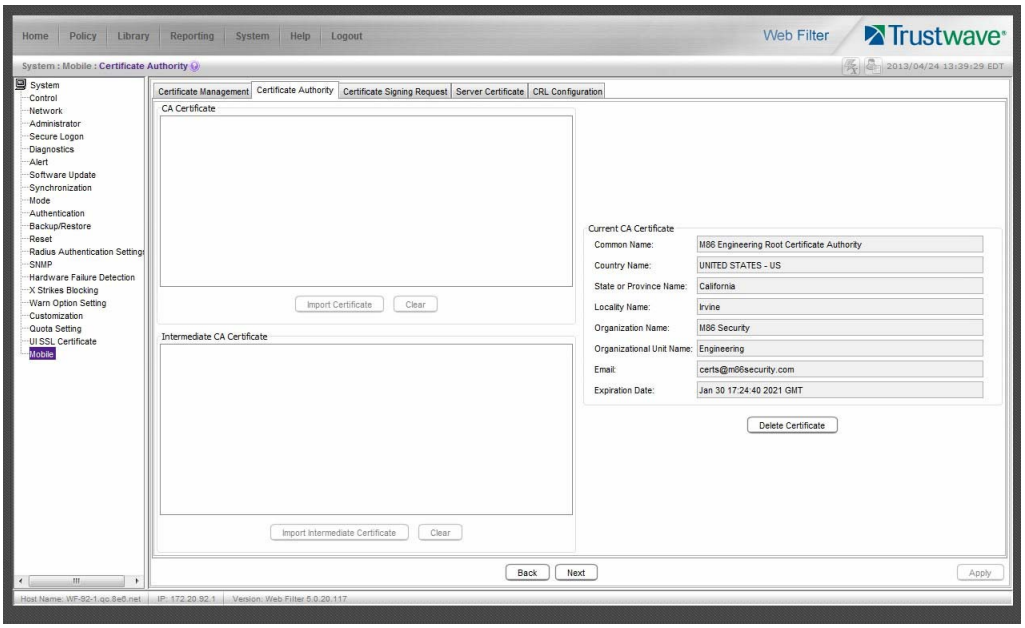
After completing the wizard, the Current CA Certificate frame will be populated with the information from the CA certificate, the frames to the left become blank and grayed out, and the Delete Certificate button becomes activated:

Figure 27: Current CA Certificate frame populated



2. Click **Next** to go to the Certificate Signing Request tab to generate the server certificate.

   If the server certificate was generated without using the Certificate Signing Request tab, or was already generated and signed in a prior session using this tab, advance to Section 4.1.1.3, Import the Server Certificate for instructions on using the Server Certificate tab to import the signed server certificate into this mobile Web Filter along with the .pem private key file and password.

Note: The Delete Certificate button is activated when the window is refreshed. Click **Delete Certificate** if you need to import a new certificate.

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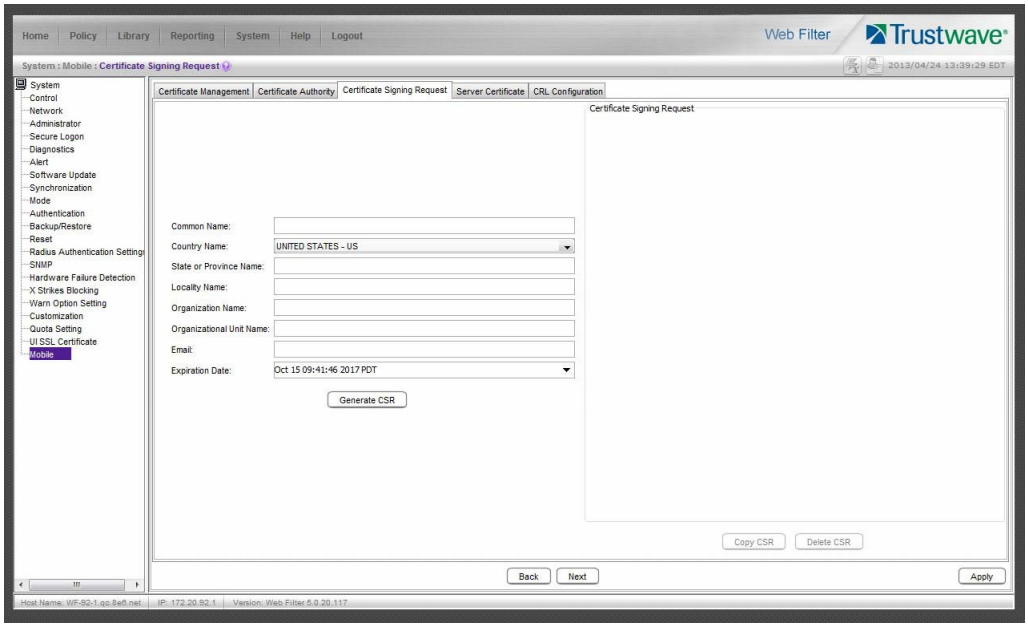
4.1.1.2 Generate, Sign the Server Certificate

Figure 28: Certificate Signing Request tab



1. Edit or type in your entries in the following fields:
   a. **Common Name**: Full DNS hostname of this server, as entered in Network > LAN Settings > Host Name field, such as `logo.server.com`.
   b. **Country Name**: Your country name and two-character country code display by default.
   c. **State or Province Name**: Full name or code identifying your state or province, such as `CA` or `California`.
   d. **Locality Name**: Name of your organization's city or principality, such as `Irvine`.
   e. **Organization Name**: Name of your organization, such as `Logo Corporation`.
   f. **Organizational Unit Name**: Name of your department, such as `Administration`.
   g. **Email**: Your email address.
2. The **Expiration Date** field displays a date and time five years from the moment this window was last refreshed, using the following format: abbreviated name of this month, number of the day within this month, time (HH:MM:SS), the year which is five years from the current year (YYYY), and time zone code.

   The date can be changed by clicking the down arrow at the far right of this field to open the calendar, navigating to the selected date, and then double-clicking it to close the calendar and populate this field with the new date.

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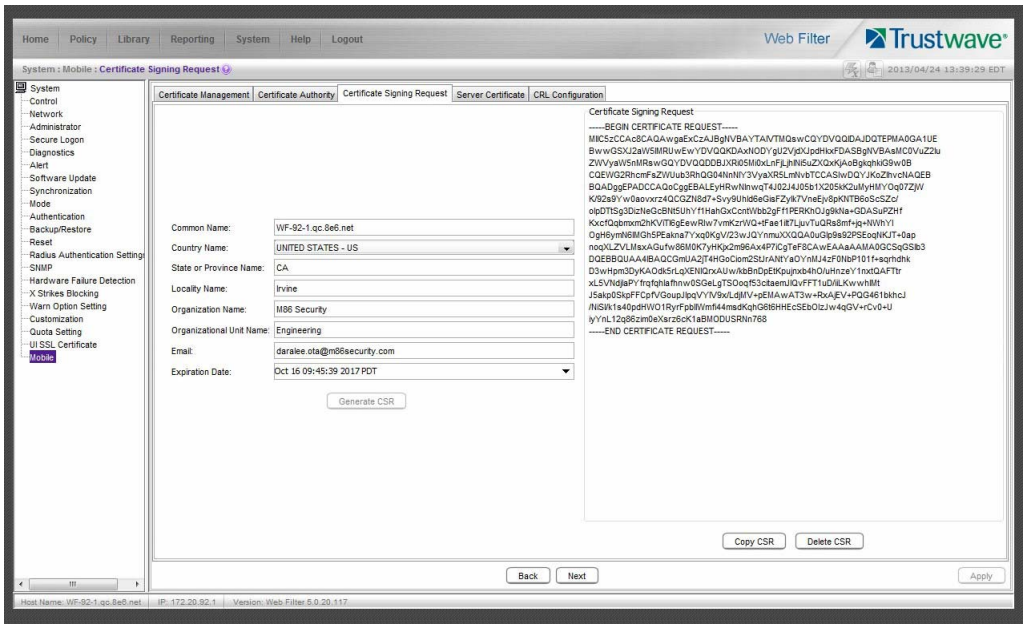
3. Click **Generate CSR** to generate the server certificate. The successfully generated certificate populates the Certificate Signing Request box to the right with the contents of the certificate:

Figure 29: Generated Certificate Signing Request



Tip: Click **Delete CSR** if any criteria previously specified in this tab has changed and you need to generate a new certificate.

4. Click **Copy CSR** to copy the contents of the server certificate to the clipboard. These contents need to be pasted in the external server's certificate request page so that the server certificate can be signed.
5. After the signed server certificate is downloaded to your workstation, click **Next** to go to the Server Certificate tab.

4.1.1.3 Import the Server Certificate

The Server Certificate tab is used for importing the server certificate into this mobile Web Filter. The import button and import process differ depending on whether or not the server certificate was generated during this session by using the Certificate Signing Request tab.

If the server certificate was generated in this session using the Certificate Signing Request tab and has been signed, proceed to Section 4.1.1.3.1.

If the server certificate was previously generated and signed, and is ready to be imported with a server-key.pem file and .PEM password, proceed to Section 4.1.1.3.2.

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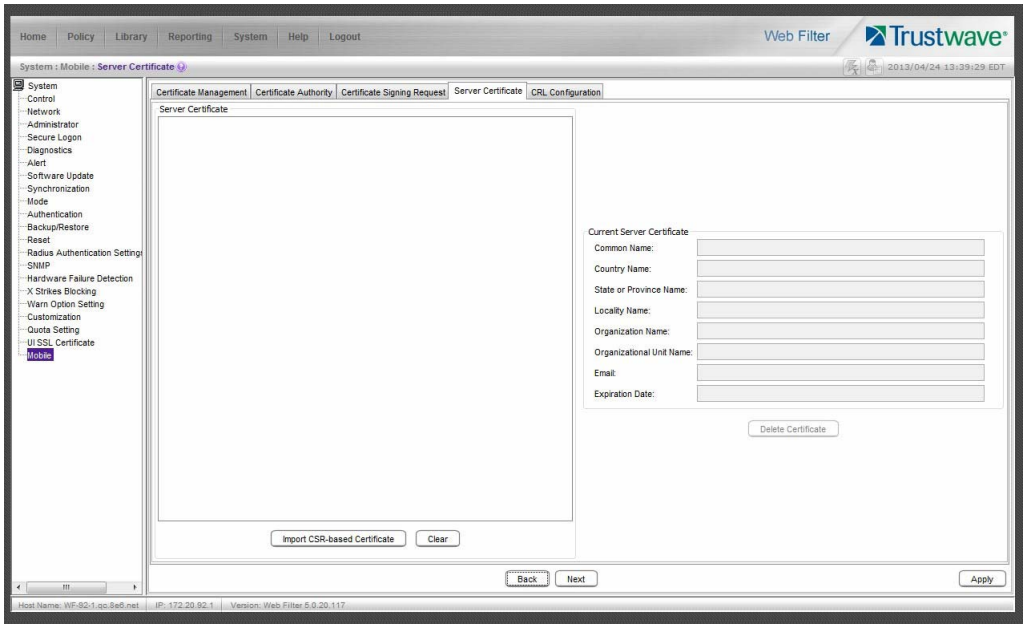
4.1.1.3.1 Import a CSR-based Certificate

1. Go to the Server Certificate tab:

Figure 30: Server Certificate tab for importing CSR-based certificate



2. Do one of the following to import the certificate into this mobile Web Filter:
   - drag and drop the certificate into this frame

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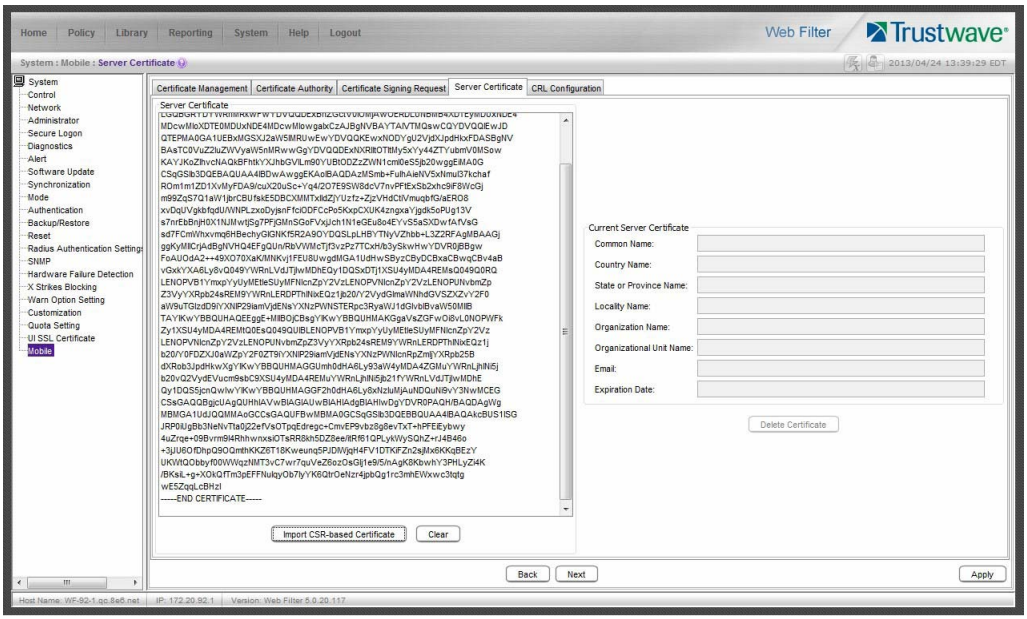
- click **Import CSR-based Certificate** to browse for the downloaded intermediate certificate, and then import it:

Figure 31: CSR Certificate imported



Tip: Click **Clear** to remove the contents of the certificate from the Web Filter.

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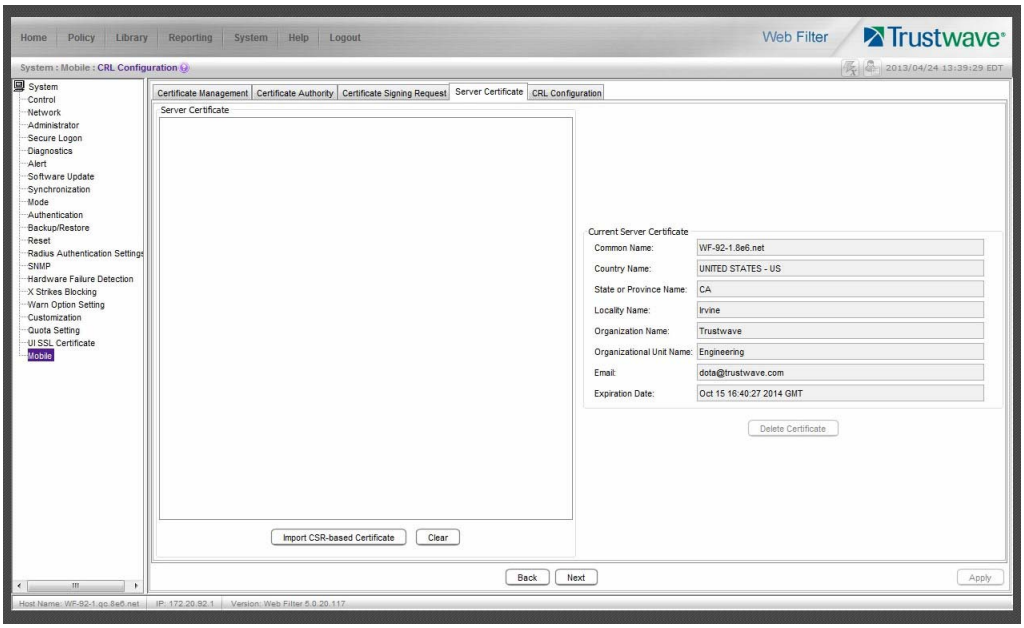
After completing the wizard, the Current Server Certificate frame will be populated with the information from the CSR-based certificate, the frames to the left become blank and grayed out, and the **Delete Certificate** button becomes activated:

Figure 32: Current Server Certificate frame populated



3. Click **Next** to go to the CRL Configuration tab.

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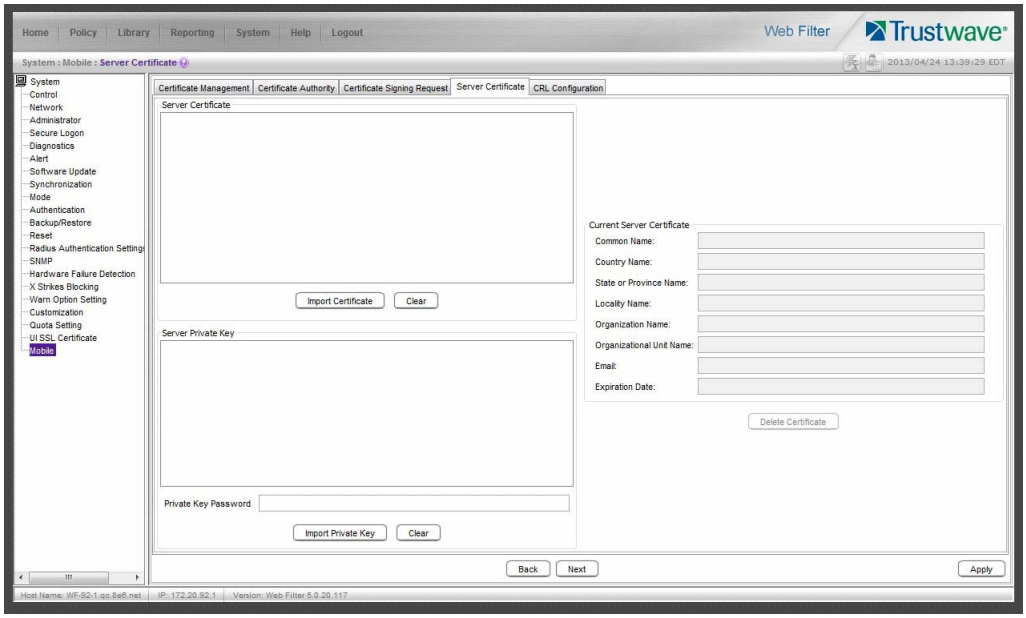
4.1.1.3.2 Import a Server Certificate

1. Go to the Server Certificate tab:

Figure 33: Server Certificate tab for importing non-CSR certificate



2. Do one of the following to import the server certificate into this mobile Web Filter:
   - drag and drop the certificate into this frame

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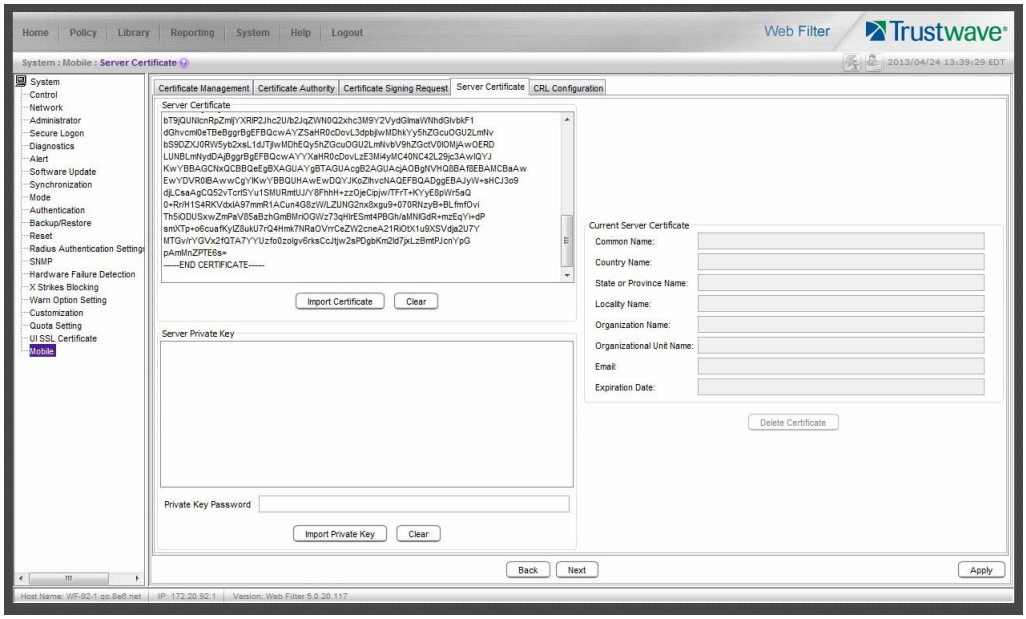
- click **Import Certificate** to browse for the downloaded server certificate, and then import it:

Figure 34: Server Certificate imported



3. Under Server Private Key, do one of the following to import the .PEM file into this mobile Web Filter:
   - drag and drop the .PEM file into this frame
   - click **Server Private Key** to browse for the downloaded .PEM file, and then import it

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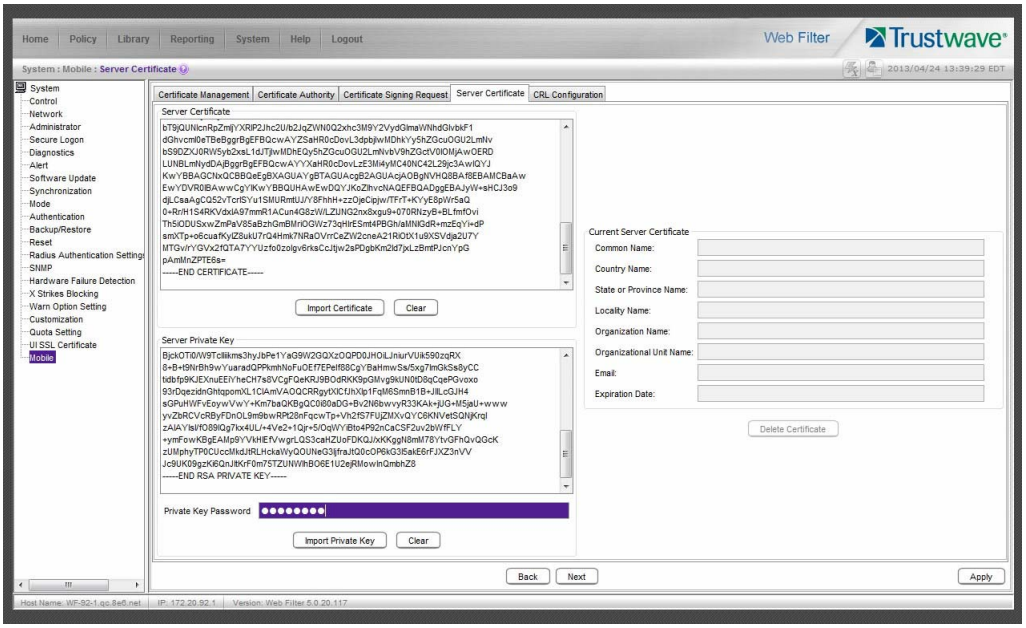
4. In the **Private Key Password** field, enter the password that was created for the .PEM file:

Figure 35: Server Certificate and Private Key entered



5. Click **Next** to go to the CRL Configuration tab.

Tip: Click **Clear** to remove the contents of the certificate from the Web Filter.

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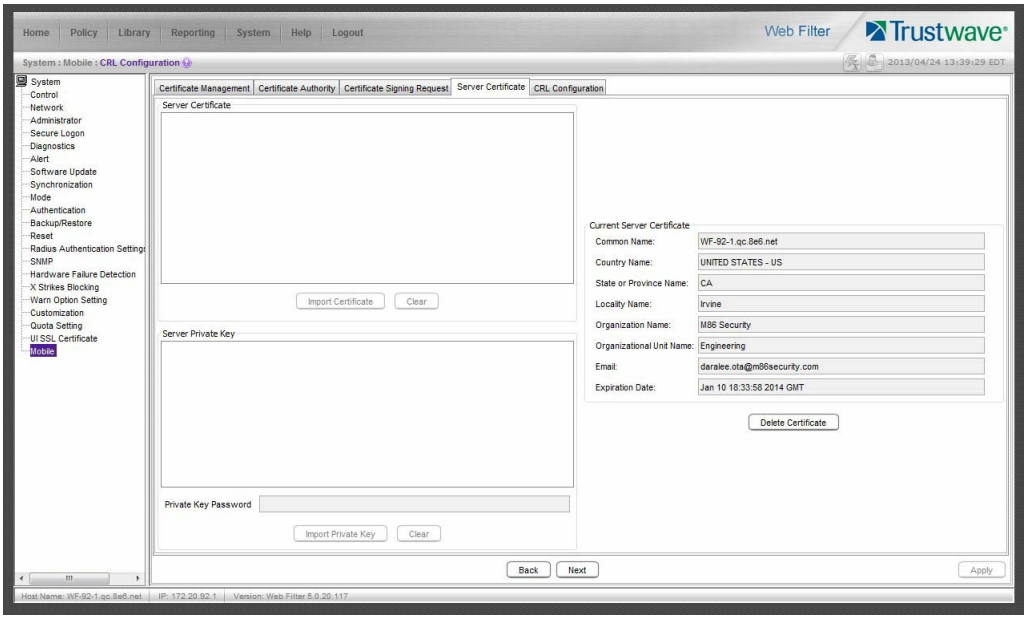
After completing the wizard, the Current Server Certificate frame will be populated with the information from the server certificate, the frames to the left become blank and grayed out, and the **Delete Certificate** button becomes activated:

Figure 36: Current Server Certificate frame populated



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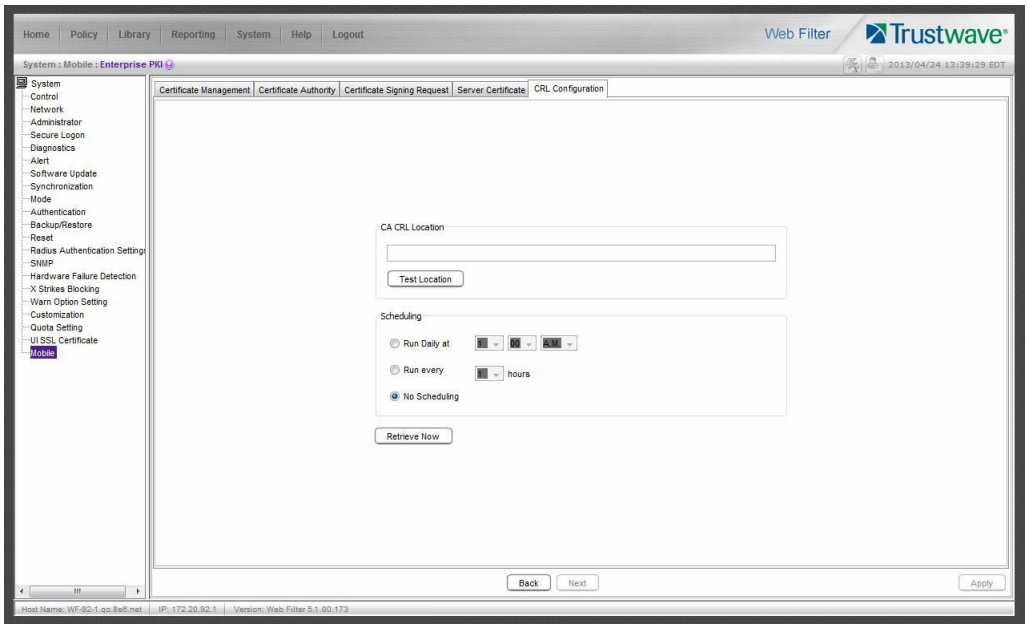
4.1.1.4 Retrieve the CRL File

The CRL Configuration tab is used for retrieving the Certification Revocation List file stored on the device that issues and stores certificates. The path where the CRL is stored can be tested for verification of file retrieval; a schedule can be set for retrieving the file; and the file can be retrieved on demand.

Figure 37: CRL Configuration tab



4.1.1.4.1 Test CRL Location

1. In the CA CRL Location frame, type in the URL of the server where certificates are stored.
2. Click **Test Location** to verify that the server can be accessed from this mobile Web Filter.

4.1.1.4.2 Retrieve CRL On Demand

To download the CRL now:

1. In the CA CRL Location frame, enter the URL of the certificate storage server.
2. Click **Apply** to save the location.
3. Click **Retrieve Now**.

Caution: Clicking **Retrieve Now** restarts the SSL traffic redirector component, and any end users logged into their mobile workstations running the MSC client will momentarily lose their Internet connections. Such an action may in particular affect end users taking online tests or submitting online forms.

4.1.1.4.3 Schedule CRL Retrieval

1. In the Scheduling frame, set the schedule for retrieving the CRL from the server where certificates are stored by choosing one of three options:

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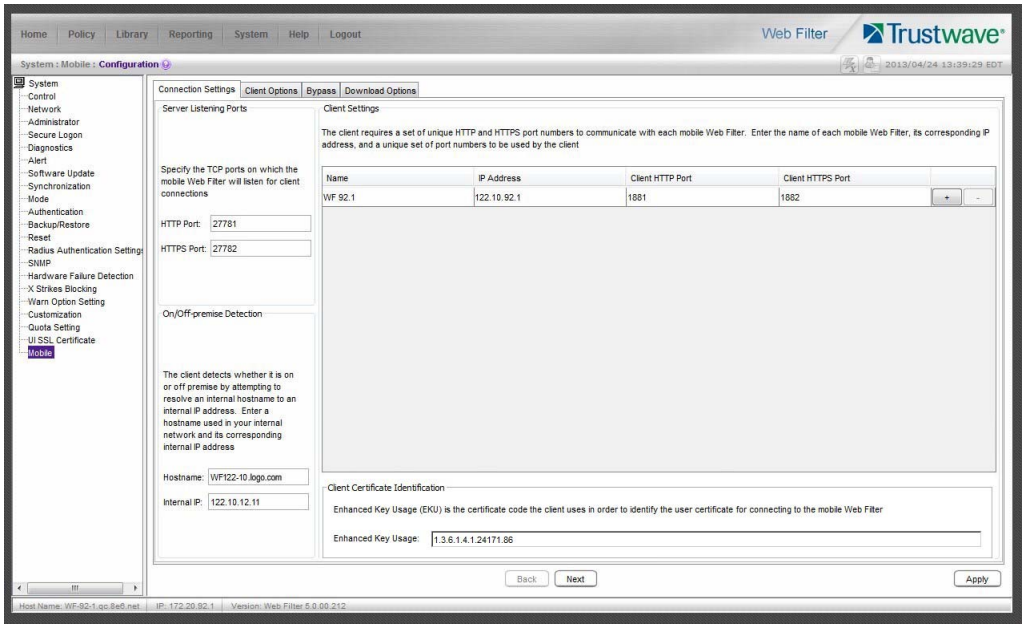
- **Run Daily at** - If choosing this option, specify the hour (1 - 12), minutes (1 - 59), and "A.M." or "P.M."
- **Run every** - If choosing this option, specify the hours (1 - 12) between intervals from the moment **Retrieve Now** is clicked.
- **No Scheduling** - If using this default option, you can click **Retrieve Now** at any time to download the CRL on demand.

2. Click **Apply** to save your settings.

4.1.2 Configure the Client

Navigate to System > Mobile > Configuration to display the Configuration window:

Figure 38: Configuration window, Connection Settings tab



Use tabs in the Configuration wizard to create the MSC client. The completed client can be downloaded within the installer file for ready deployment, or its Proxy Auto-Configuration (PAC) file can be downloaded for review and modification before deployment to end user workstations.

Tip: At any point in the wizard, settings can be saved by clicking **Apply**.

4.1.2.1 Specify Connection Settings

The Connection Settings tab is used for specifying ports the client will use to communicate with pertinent devices on the network, and for entering the server certificate EKU so the client will recognize the mobile server.

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1. In the Server Listening Ports frame, enter the **HTTP Port** this mobile Web Filter will use when listening for connections from the client. The default is 27781.
2. Enter the **HTTPS Port** this mobile Web Filter will use when listening for connections from the client. The default is 27782.
3. In the On/Off-premise Detection frame, enter the **Hostname** of a device on the internal network, and its corresponding **Internal IP** address. The client will use this criteria to determine whether the mobile workstation is currently on site or off site.
4. The Client Settings frame includes a table for specifying mobile Web Filters, the Local Configuration Port frame, and the Client Certificate Identification frame.

   In the table, enter the following information for each mobile Web Filter to be used:

   a. **Name** of the mobile Web Filter.

   b. **IP Address** of the mobile Web Filter.

   c. Unique **Client HTTP Port** number to be used by mobile workstations to send traffic to the mobile Web Filter.

   d. Unique **Client HTTPS Port** number to be used by mobile workstations to send traffic to the mobile Web Filter.

Tip: Click the “+” at the end of the row to add another row in the table. Click the “-” at the end of the row to remove the current row from the table.

5. In the Local Configuration Port frame, by default the **Port** number is 27778. This port number, which can be modified, is used by the SSL traffic redirector to check for client configuration updates, and to communicate with the mobile Web Filter that the client should still be connected to that server.
6. In the Client Certificate Identification frame, enter the **Enhanced Key Usage** number from the end user’s certificate. The MSC client uses the EKU code to identify the user certificate to use for connecting to the mobile Web Filter.
7. Click **Next** to go to the Client Options tab.

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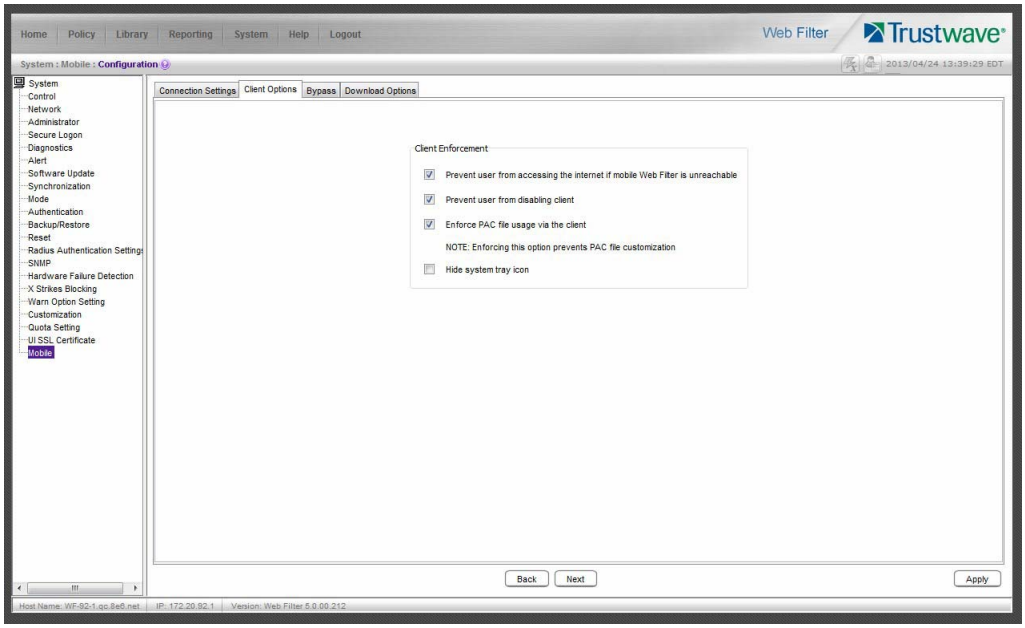
4.1.2.2 Specify Client Options

The Client Options tab is used for indicating which optional features will be included in the client.

Figure 39: Client Options tab



1. In the Client Options tab, indicate whether to include the following options:
   a. **Prevent user from accessing the internet if mobile Web Filter is unreachable**: By default this option is enabled, indicating the end user will not be able to access the Internet if the client cannot communicate with the mobile Web Filter.
   b. **Prevent user from disabling client**: By default this option is enabled, indicating the end user will not be able to disable the client from running on the mobile workstation. If a particular service needs to run that the client is blocking the administrator will need to disable the client to run that service on the workstation.
   c. **Enforce PAC file usage via the client**: By default this option is enabled, indicating settings saved in these tabs will be used by the PAC file on mobile workstations. If the PAC file is downloaded and modified, it will not be used by mobile workstations.
   d. **Hide system tray icon**: Enabling this option will hide the client icon from displaying in the mobile workstation task bar.
2. Click **Next** to go to the Bypass tab.

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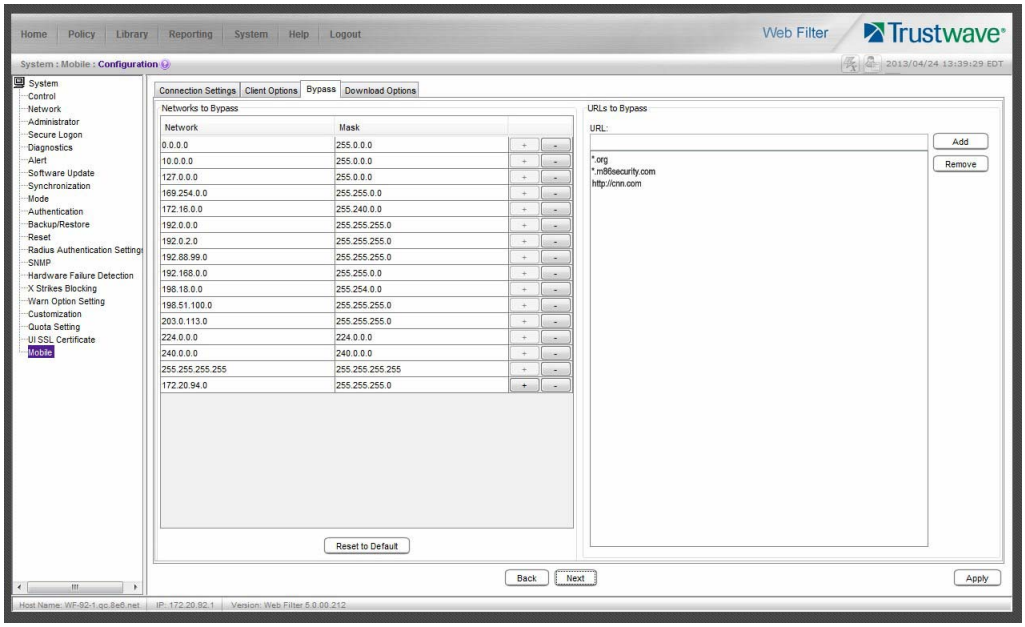
4.1.2.3 Specify IPs and URLs to be Bypassed

The Bypass tab is used for specifying which domains the client should ignore, and which URLs should be whitelisted.

Figure 40: Bypass tab



1. By default, the Networks to Bypass table includes rows of Network IP addresses the client should bypass when filtering, and for each domain, its corresponding net Mask. Any of these networks can be removed, but the table must include at least one network.

   To add a row to this table, click the “+” at the end of the row, and enter the **Network** IP address and its net **Mask**.

Tip: Click the “-” at the end of an added row to remove that row from the table.

2. In the URLs to Bypass frame, enter a URL to be whitelisted for the client and then click **Add** to include that URL in the list box.

   Wildcards can be used in this entry. For example: *.usatoday.com, or top level domain entries such as *.au, *.edu, or *.gov

Tips:

- To remove a URL from the list box, select the URL and then click **Remove**.
- Click **Reset to Default** restore the original rows of IPs and corresponding net Masks in the table.

3. After all settings are made, click **Apply** to create the client installer and PAC file.
4. Click **Next** to go to the Download Options tab.

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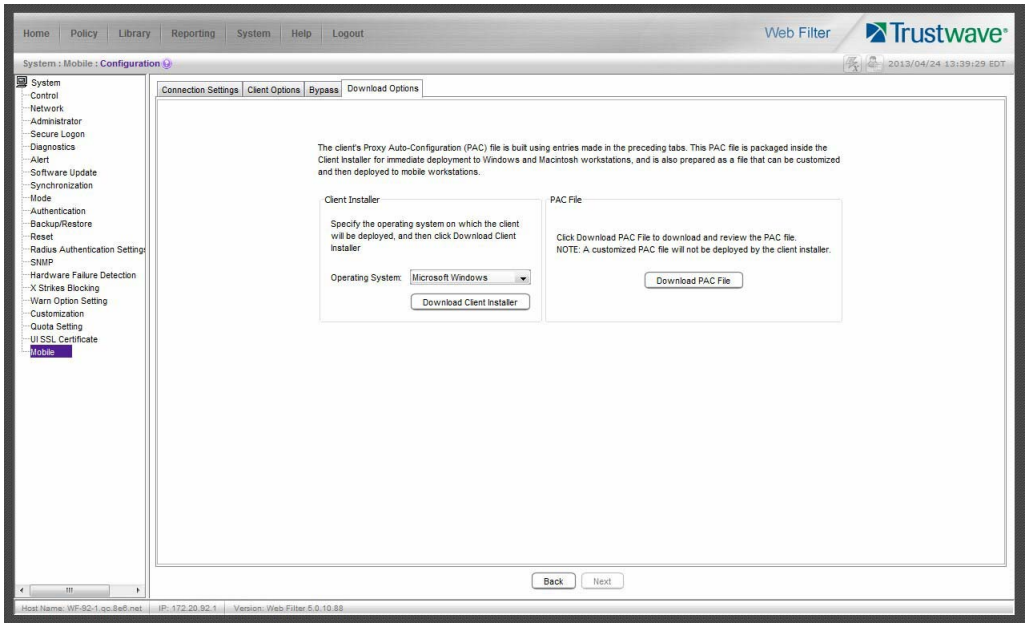
4.1.2.4 Download the Client Installer or PAC File

The Download Options tab is used for either downloading the client installer or the PAC file.

Figure 41: Download Options tab



4.1.2.4.1 Download the Client Installer

1. In the Client Installer frame, select the type of **Operating System** (“Microsoft Windows” or “Mac OS X”) on which the client will be deployed.
2. Click **Download Client Installer** to download that file to your workstation.

4.1.2.4.2 PAC File

In the PAC File frame, click **Download PAC File** if you wish to download the PAC file for review and/or customization prior to deployment to mobile workstations.

Note: A customized PAC file can only be deployed outside of the client. If using a customized PAC file, any settings made in the PAC file inside the client will not be used by the client. Additionally, any client updates will not be automatically deployed to mobile workstations via the mobile Web Filter.

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5 Customize Emails

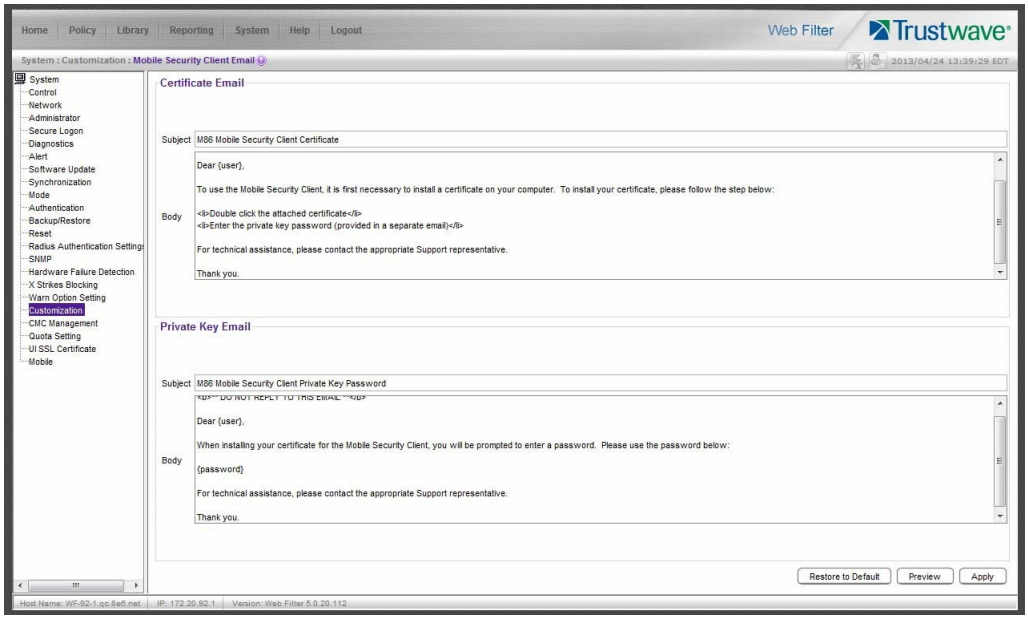
This portion of the user guide provides information on creating customized emails to be sent to end users who need to install the MSC client on their mobile workstations.

5.1 Create Customized Emails

The Mobile Security Client Email window is used for creating customized emails containing pertinent criteria to aid mobile end users in installing the MSC client on their mobile workstations.

Navigate to System > Customization > Mobile Security Client Email:

Figure 42: Mobile Security Client Email window



Customized emails can be created for certificate installation instructions and/or the private key password to use during the installation process.

Tip: An entry in any of the fields in this window is optional.

5.1.1 Edit Entries

1. Make an entry in any of the following fields in the Certificate Email and/or Private Key Email frame(s):
   - In the **Subject** field, enter a subject to display in the email header.
   - In the **Body** field, enter text to be used in the message.

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2. Click **Apply**.

Tip: Click **Restore Default** and then click **Apply** to revert to the default settings in this window.

5.1.1.1 Preview Sample Customized Emails Page

1. Click **Preview** to launch a separate browser window containing a sample of the customized email(s), based on entries saved in this window.
2. Click the “X” in the upper right corner of the window to close the sample customized email(s) page.

Tip: If necessary, make edits in the Mobile Security Client Emails window, and then click **Preview** in this window again to view a sample of the email(s).

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6 Troubleshoot Filtering

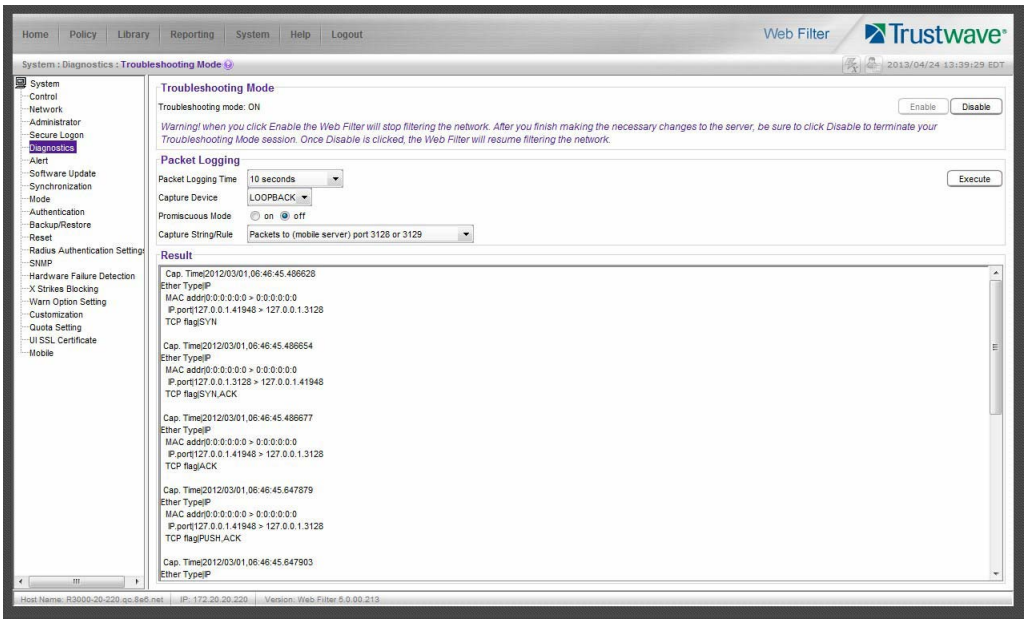
This portion of the user guide provides information on how to access and set the mode in the Web Filter to troubleshoot mobile server filtering.

6.1 Set the Troubleshooting Mode

The Troubleshooting Mode window is used for setting the mobile Web Filter to use the troubleshooting mode to analyze and/or verify mobile workstation filtering by this server.

1. Navigate to System > Diagnostics > Troubleshooting Mode:

Figure 43: Troubleshooting Mode window



2. Specify the **Packet Logging Time** by making a selection from the pull-down menu for one of the following choices: “10 seconds”, “30 seconds”, “60 seconds”.
3. By default, this Web Filter set in the mobile mode displays “LOOPBACK” as the **Capture Device**.
4. Click **Enable** to set the troubleshooting mode and to disable filtering.
5. From the **Capture String/Rule** pull-down menu, choose “Packets to (mobile server) port 3128 or 3129”.
6. Click **Execute** to display results in the Result frame.

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Appendices

Appendix A: Performance Statistics

The chart below provides statistics for each supported appliance type running MSC:

Appliance models (mobile servers)	Maximum Users	Maximum hits/sec.
300 (64-bit model)	1,000	75
500 (64-bit model, SSL card)	2,000	150
700 (64-bit model, SSL card)	3,000	250

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Glossary

Certification Revocation List (CRL)
A list of valid and revoked user certificates housed on the server that stores these certificates.

Enhanced Key Usage (EKU)
In the Enterprise PKI mode, this code identifies the user certificate the MSC client should use for mobile filtering.

Enterprise PKI
One of two options available for the mobile mode, this setting indicates the mobile Web Filter will use an external server for storing certificates used in the authentication process.

Internal Mode
One of two options available for the mobile mode, this setting indicates the mobile Web Filter will store all certificates used in the authentication process.

Local Configuration Port
Used by the SSL traffic redirector to check for client configuration updates and to communicate with the mobile Web Filter that the client connection should be kept alive.

Proxy Auto-Configuration (PAC)
This file configured on the mobile Web Filter is the component in the client that communicates with the end user's browser and the component that redirects SSL traffic.

Trustwave Watchdog
A service running in the client that builds and updates configuration files, performs keep alive checks, and enforces IE, Firefox, and Google browser types.

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