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Absolute Application Security

Permeo Security Driver
User's Guide
for Windows Systems

Version 4.1

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Permeo Security Driver
User's Guide for Windows Systems

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Table of Contents

Permeo Security Driver User's Guide for Windows Systems

1 Getting Started

Welcome to the **Permeo Security Driver** for Windows systems – the most efficient way to SOCKS-enable and secure applications working with the **Permeo Security Server**. The Security Server and Security Driver are part of the **Permeo Application Security Platform (PASP)**. To learn more about PASP, visit the Permeo Web site at: www.permeo.com.

Conventions

The User's Guide uses these text formats and symbols:

Italic	Indicates that the text is a place holder for information or parameters that you provide. For example, \INSTALLDIR\\ refers to the directory into which you install the Security Server software, *number* is a parameter to an option that refers to a numeric value you must supply.
[ ]	Indicates an optional value. When you omit an optional value, the Server uses a default value.
`monospace`	Indicates text you must type exactly as it appears, such as in policy rules.

Note: This document uses *INSTALLDIR* to indicate the directory into which you installed the Security Server software.

Throughout this document, the **Permeo Security Server** and **Permeo Security Driver** are referred to as Security Server and Security Driver, and Server and Driver, respectively.

Before you begin...

We recommend that you read these documents before running the Permeo Security Server:

- This document
- Product copyright and license agreement
- The Driver's readme file
- Release Notes, when included

Note: Use the **readme** option on the Security Driver submenu to open the Driver’s readme file.

2 Introduction to Permeo Security Driver

The **Permeo Security Driver** is a core component of the **Permeo Application Security Platform**. The following explains the purpose of PASP, its key components, and how the Security Driver works within the Platform.

The Platform enables an organization to secure all of its applications – both those deployed internally and those extending beyond the enterprise network. By establishing a virtual application circuit between each application and its user, the Platform provides privacy and data integrity, enforces authentication and access policies, protects the application infrastructure from attack, and includes detailed auditing and logging capabilities. The Platform can be deployed within a LAN, across a WAN or the Internet, or over wireless networks.

The **Permeo Security Server** is a proxy server that allows hosts behind a firewall to gain full access to the Internet without requiring direct IP-reachability. As a proxy server, the Security Server authenticates, authorizes, and processes network requests for Security Server clients.

The Security Server communicates with a client-based **Permeo Security Driver**. The Security Driver sends client network requests to the Security Server, and the Security Server establishes network connections for the client. The Security Server executes the request for the client, and returns data resulting from the request to the client.

The Security Driver includes Username/Password authentication, while support for other authentication methods must be obtained through the **Permeo Secure Access** package.

3 Security Driver Installation

This section describes the basic installation procedure for the **Permeo Security Driver**. After installing the Security Driver, it is recommended that you install the **Driver Secure Access** package to install any additional authentication plug-ins required by your server.

Note: You must have administrator privileges to install the Security Driver on Windows NT®, Windows® 2000, and Windows® XP.

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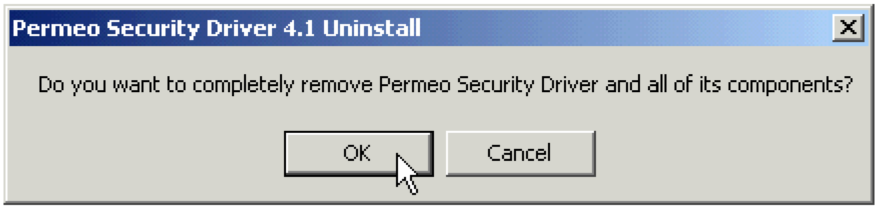
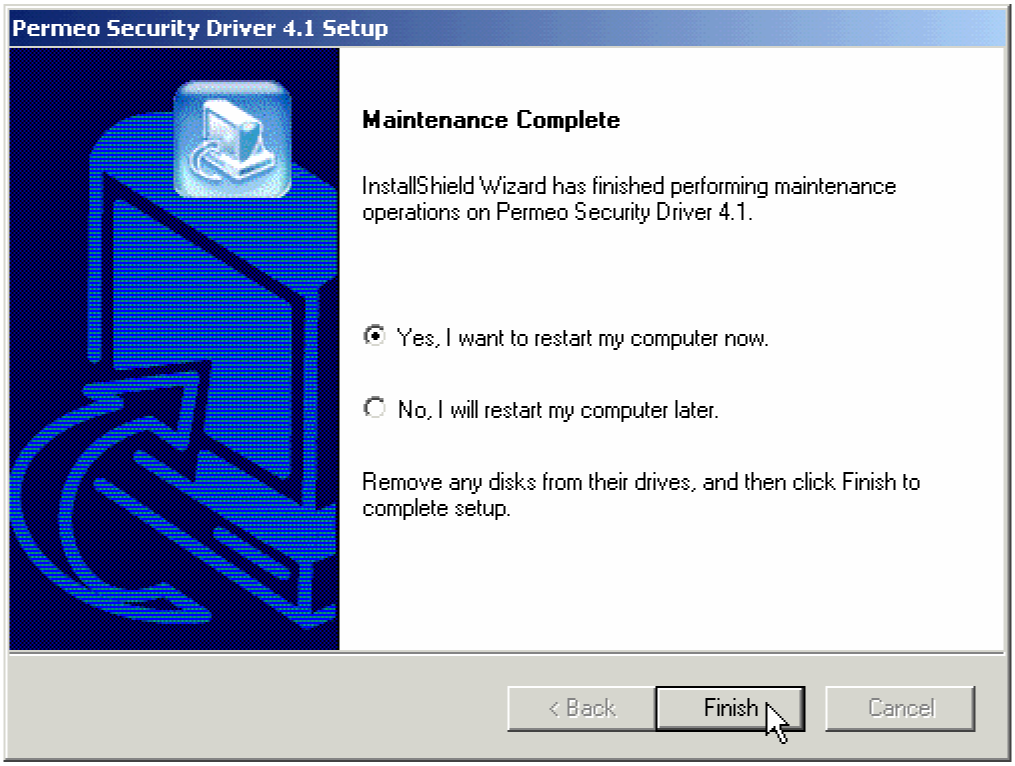
1. Run the Security Driver install executable program.

2. If you have previously installed the 4.0 version, you can click **OK** at the following prompt to remove the existing components. If this is the first time you have installed the Security Driver 4.x on this machine, proceed to step 3.


Permeo Security Driver 4.1 Uninstall

Do you want to completely remove Permeo Security Driver and all of its components?

3. When prompted to restart your computer, answer **Yes**, and click **Finish**. Your machine will reboot. It is highly recommended that you restart your machine at this step to ensure a smooth Security Driver installation.



Permeo Security Driver 4.1 Setup

Maintenance Complete

InstallShield Wizard has finished performing maintenance operations on Permeo Security Driver 4.1.

● Yes, I want to restart my computer now.

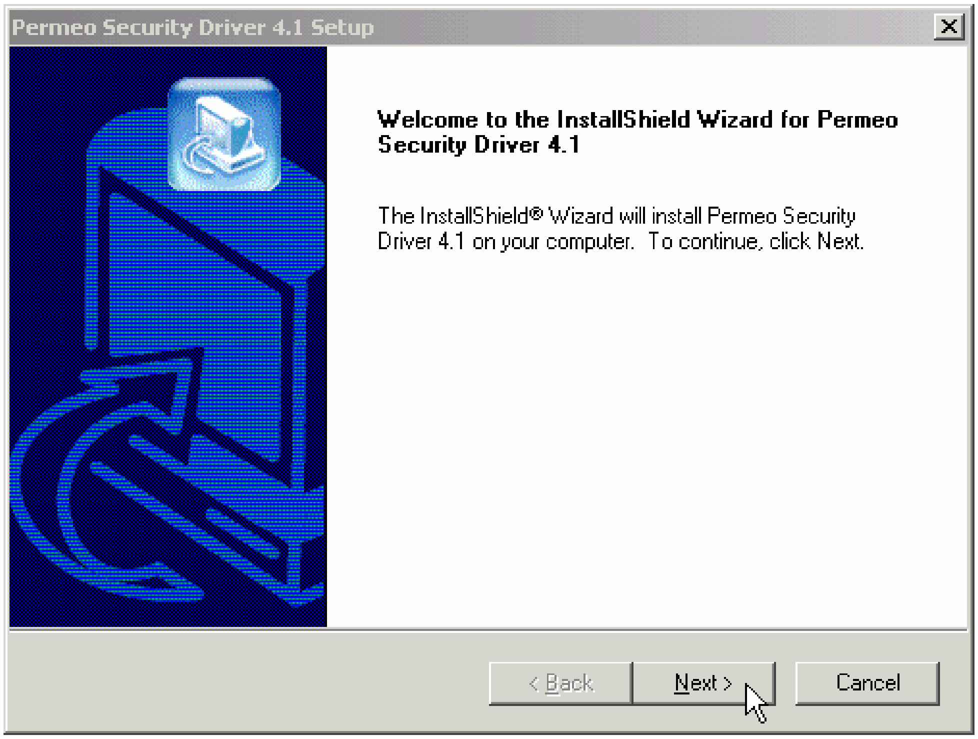
○ No, I will restart my computer later.

Remove any disks from their drives, and then click Finish to complete setup.

4. Log back into your computer.

   Note: If you are installing version 4.1 over version 3.x of the Driver, you will see an error message that states the previous version of the plug-ins are not compatible with the current version of the Security Driver. Click **OK** to remove all previous plug-ins or press **Cancel** to **Exit**.

5. Upon successful login, the **Permeo Security Driver 4.1 Setup** screen appears. Click **Next**.

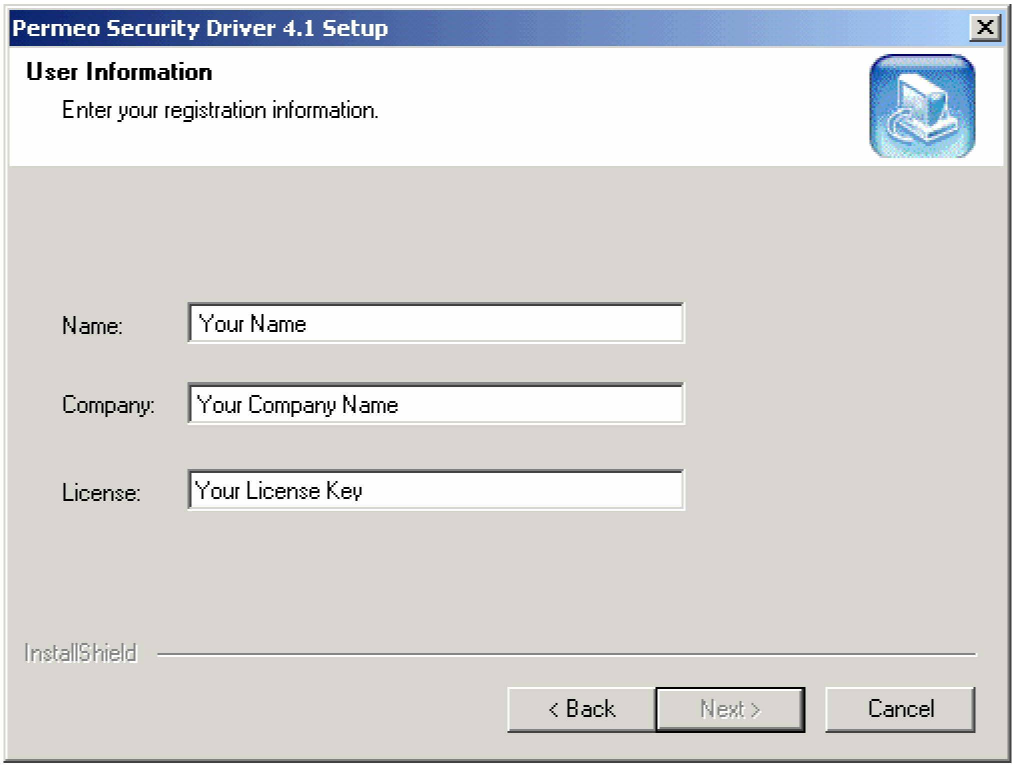


Permeo Security Driver 4.1 Setup

Welcome to the InstallShield Wizard for Permeo Security Driver 4.1

The InstallShield® Wizard will install Permeo Security Driver 4.1 on your computer. To continue, click Next.

6. Enter your **User Name**, **Company Name**, and product **License** into the **User Information** screen. If the License is accepted, click **Next**.



Permeo Security Driver 4.1 Setup

User Information

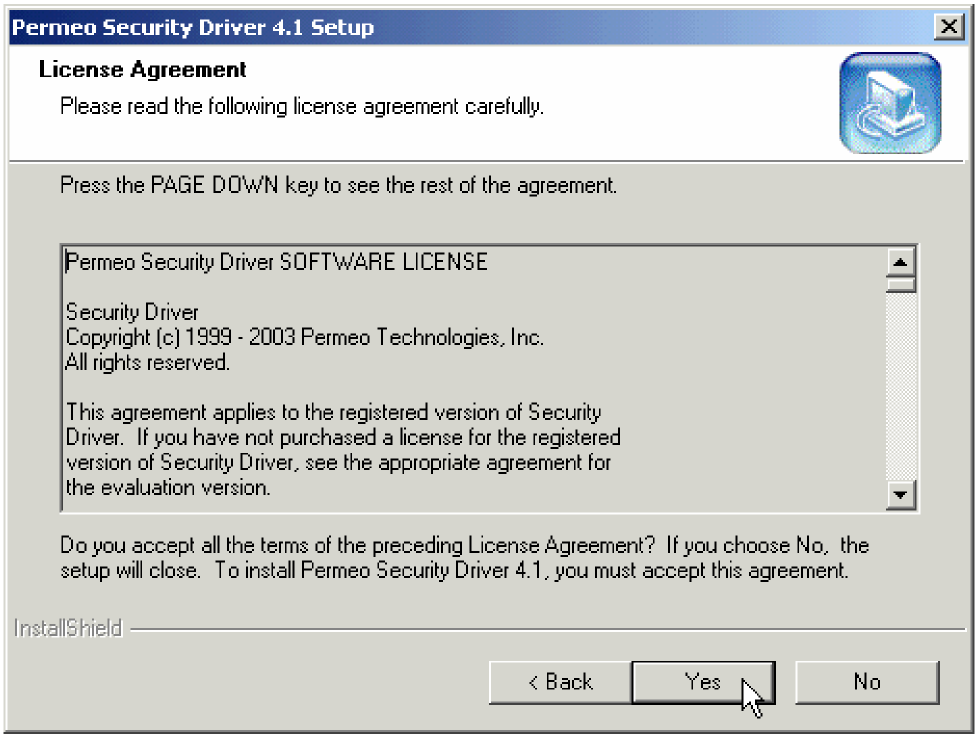
Enter your registration information.

Name: Your Name

Company: Your Company Name

License: Your License Key

7. The **License Agreement** screen appears. Upon accepting the terms of the license agreement, click **Yes** to continue.



Please read the following license agreement carefully.

Press the PAGE DOWN key to see the rest of the agreement.

Permeo Security Driver SOFTWARE LICENSE

Security Driver
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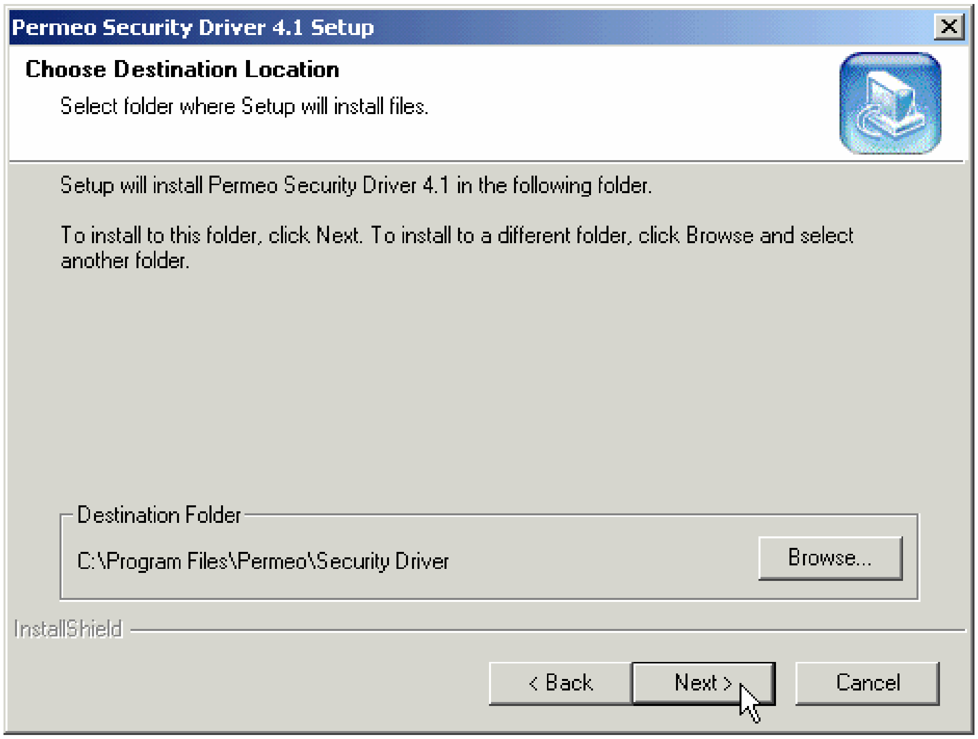
All rights reserved.

This agreement applies to the registered version of Security Driver. If you have not purchased a license for the registered version of Security Driver, see the appropriate agreement for the evaluation version.

Do you accept all the terms of the preceding License Agreement? If you choose No, the setup will close. To install Permeo Security Driver 4.1, you must accept this agreement.

8. At the **Choose Destination Location** screen, browse to a different **Destination Folder**, or accept the default path. Click **Next** to continue.



Select folder where Setup will install files.

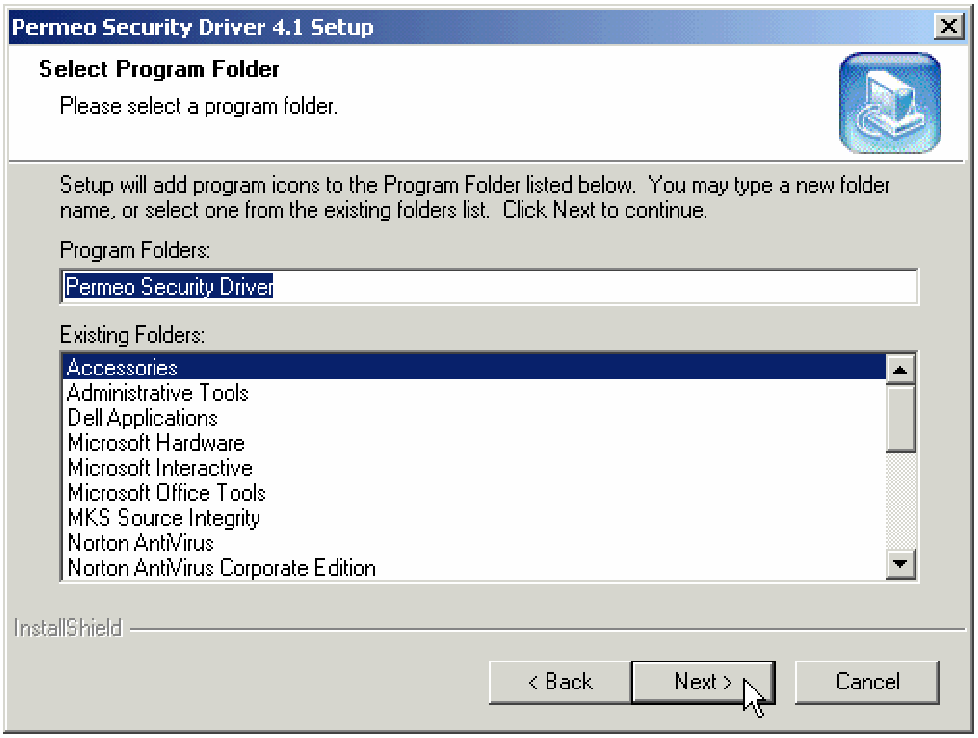
Setup will install Permeo Security Driver 4.1 in the following folder.

To install to this folder, click Next. To install to a different folder, click Browse and select another folder.

Destination Folder

C:\Program Files\Permeo\Security Driver

9. At the **Select Program Folder** screen, browse to a different **Program Folder**, or accept the default folder. Click **Next** to continue.



Permeo Security Driver 4.1 Setup

Select Program Folder

Please select a program folder.

Setup will add program icons to the Program Folder listed below. You may type a new folder name, or select one from the existing folders list. Click Next to continue.

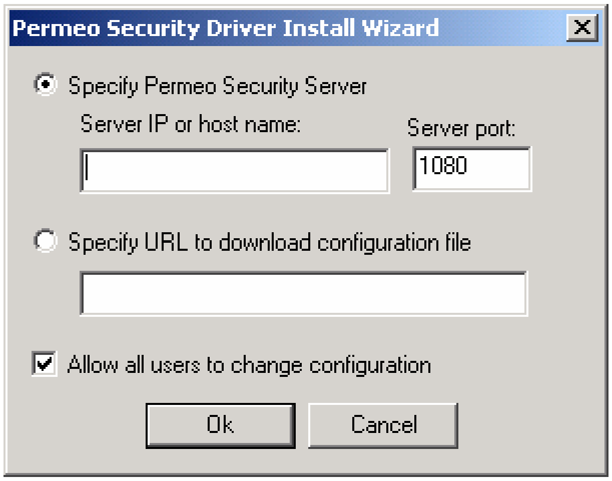
Program Folders:

Permeo Security Driver

Existing Folders:

- Accessories
- Administrative Tools
- Dell Applications
- Microsoft Hardware
- Microsoft Interactive
- Microsoft Office Tools
- MKS Source Integrity
- Norton AntiVirus
- Norton AntiVirus Corporate Edition

10. If this is the first time you have installed version 4.x of the Security Driver, or you are reinstalling version 4.x and there are no previous configuration files found, the following dialog box appears:



Permeo Security Driver Install Wizard

● Specify Permeo Security Server

Server IP or host name:

Server port: 1080

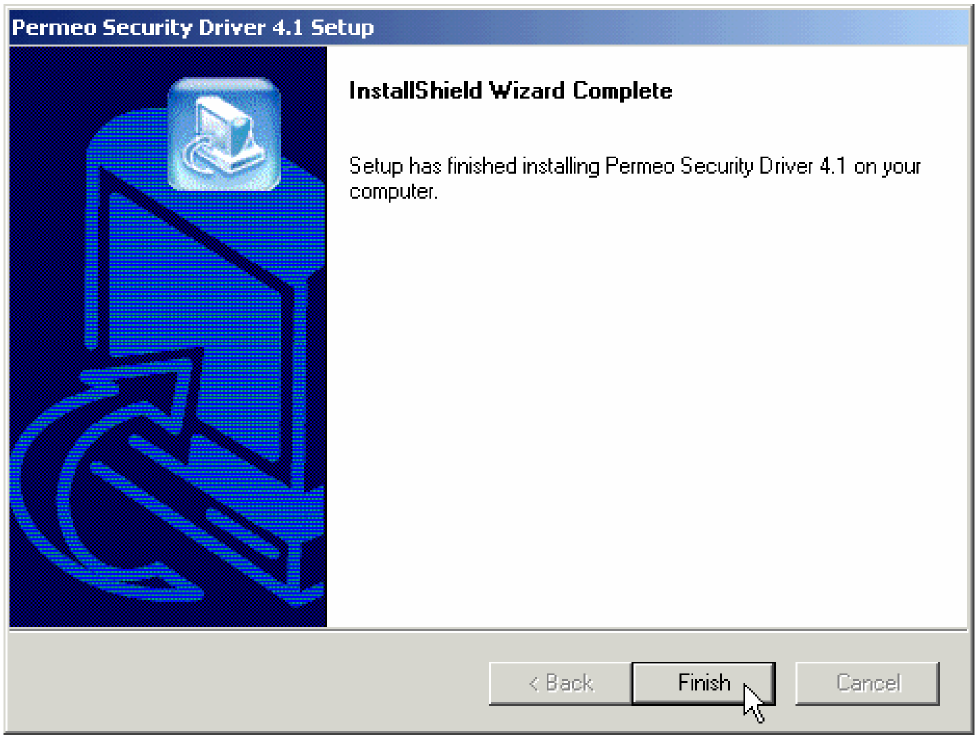
○ Specify URL to download configuration file

☑ Allow all users to change configuration

To simplify initial setup, the Install Wizard allows you to specify the name or IP address of the Permeo Security Server you will be using, or a URL of a Security Driver configuration file that contains settings pre-configured by your network administrator. Your network administrator will supply this information.

Note to Administrators: For information on deploying the **Remote Configuration Download** feature, please refer to the ***Remote Configuration Download*** section under ***Advanced Configuration Options for Administrators*** later in this document.

11. When the Driver 4.1 Setup is complete, the following screen appears. Click **Finish**.



Permeo Security Driver 4.1 Setup

InstallShield Wizard Complete

Setup has finished installing Permeo Security Driver 4.1 on your computer.

12. If required, proceed to install the **Driver Secure Access** package to implement the authentication method(s) required by your server(s). For more information on Secure Access authentication plug-ins, please refer to the next section entitled ***Secure Access Plug-ins***.

4 Secure Access Plug-ins

The **Permeo Security Driver** supports multiple authentication methods through the use of plug-ins. The Security Driver includes the Username/Password authentication plug-in.

The following plug-ins are available in the **Permeo Secure Access** package for Windows systems:

- **LDAP** (Lightweight Directory Authentication Protocol): The LDAP plug-in enables the Server to authenticate a user with an LDAP Server.
- **RADIUS** (Remote Access Dial-In User Services): The RADIUS plug-in enables the Server to authenticate a user with a RADIUS Server.
- **Secure Token for RSA SecurID®**: The Secure Token for RSA SecurID® authentication plug-in enables the **Permeo Security Server** to authenticate users with an RSA ACE/Server®.
- **TACACS+** (Terminal Access Controller Access Control System): The TACACS+ plug-in enables the Server to authenticate a user with a TACACS+ Server.
- **Windows Domain Authentication:** The Windows Domain plug-in allows users to authenticate to the **Permeo Security Server** using the Windows NTLM security service provider.

Microsoft Networking Services support is also provided through the **Permeo Secure Access** package. It enables remote file and printer sharing capabilities when a valid WINS server is properly configured. For information on enabling and configuring this feature, please refer to the section entitled ***Configuring Remote File and Printer Sharing for Administrators***.

The **SSL Plug-in** is available separately in the **Permeo Encrypt** package. The **SSL Plug-in** enables the **Permeo Security Server** and **Security Driver** to establish an encrypted channel and authenticate Server hosts and users using public key technology.

4.1 Plug-in set-up requirements

1. **Server Secure Access** plug-ins must be installed on your **Permeo Security Server** by a network administrator.

2. **Driver Secure Access** plug-ins must be installed on the client, and enabled in the **System Properties** window.

   ➢ Access the Security Driver **System Properties** window through the Windows® Control Panel: Click **Start > Settings > Control Panel > Permeo Security Driver**

   ➢ Use the **Plug-ins** tab to enable, disable, or change plug-in settings.

   - Double-click on a selected plug-in row
     -or-
   - Select a plug-in and click the **Edit** 📝 button.

3. **Credentials** and other options must be entered by the user in the **User Properties** window.

   ➢ Access the Security Driver **User Properties** window:
   Click **Start > Permeo Security Driver > User Properties**

   ➢ Instruct users to access the **Credential** tab to allow them to view, add, delete, and update their credential information. See the ***User Properties Window – Credential Tab*** section.

5 Security Driver Features

The **Permeo Security Driver** maintains policy configuration information that enables the Driver to control and manage connection requests based on application, service, and network settings. The Security Driver provides the ability to specify:

- **Multiple Security Servers to proxy requests.** The Security Driver can help to achieve load-balancing automatically, or based on policy. The Driver can direct proxy requests to a specific Server based on destination address, destination port, or it can randomly choose a Server from a list of Permeo Security Servers.
- **Local or remote DNS management through multiple domain lists.** You can specify a domain list the Driver resolves, a domain list the Server resolves, and specify when the Driver or Server should resolve domains not included in the lists.
- **A list of destination addresses that do not require a proxy server**. This allows the Driver to connect directly to those addresses specified.
- **Specific Servers for different applications.** With many applications, specifying the port is the same as specifying the application, because those applications use well-known ports. For example, Web applications, HTTP, use port 80. Some applications, including FTP, use multiple ports. Many applications, for example streaming and UDP applications, use multiple ports that get allocated dynamically. When you define the Server and set the port, you define the applications that use that Server.
- **The priority for choosing each Server when using multiple Servers.** When you define proxy rules for multiple Servers, you can prioritize the order in which the Driver attempts to connect to the Servers.
- **Authentication requirements to use the Server.** Some Servers require the Security Driver to use Username/Password, LDAP, RADIUS, RSA SecurID®, TACACS+, or SSL sub-authentication to authenticate with the Server to gain access. The Driver also includes a setting that allows users to save their credentials to disk for automatic retrieval.
- **A list of applications to proxy, a list of applications not to proxy, or choose to proxy all network applications.** The Security Driver provides an easy way to include or exclude selected Internet applications to proxy.
- **Dual configuration settings.** The Security Driver allows users and/or administrators to create and select between two different configurations for two different types of access, i.e. “in office” and “out of office.”
- **Centralized configuration files**. The Security Driver allows users to import a pre-configured Driver configuration file, or download a remote configuration file from a Web server or Security Server. In addition, the remote configuration file can be set to automatically download upon every user logon. The **Remote Configuration Download** feature ensures uniformity of settings amongst groups of distributed users.

- **Shared system configuration**. The Security Driver provides a System Properties interface that allows administrators to create a shared system configuration that ensures uniformity of settings for multiple users on one machine.
- **Temporarily disable proxy services.** A user can easily disable, then re-enable the Security Driver when necessary.
- **Enable Microsoft Networking Services.** This feature, available through the **Permeo Secure Access** package, enables remote file and printer sharing capabilities on Windows® 2000 and XP systems, when a valid WINS server is properly configured.
- **Wireless LAN solution.** In addition to the "in office" and "out of office" configurations, users can choose to create a "wireless" configuration on the client to ensure secure wireless connections between the Security Driver and Security Server.

6 Security Driver Components

The Security Driver consists of four components that provide an easy interface for configuring Driver settings.

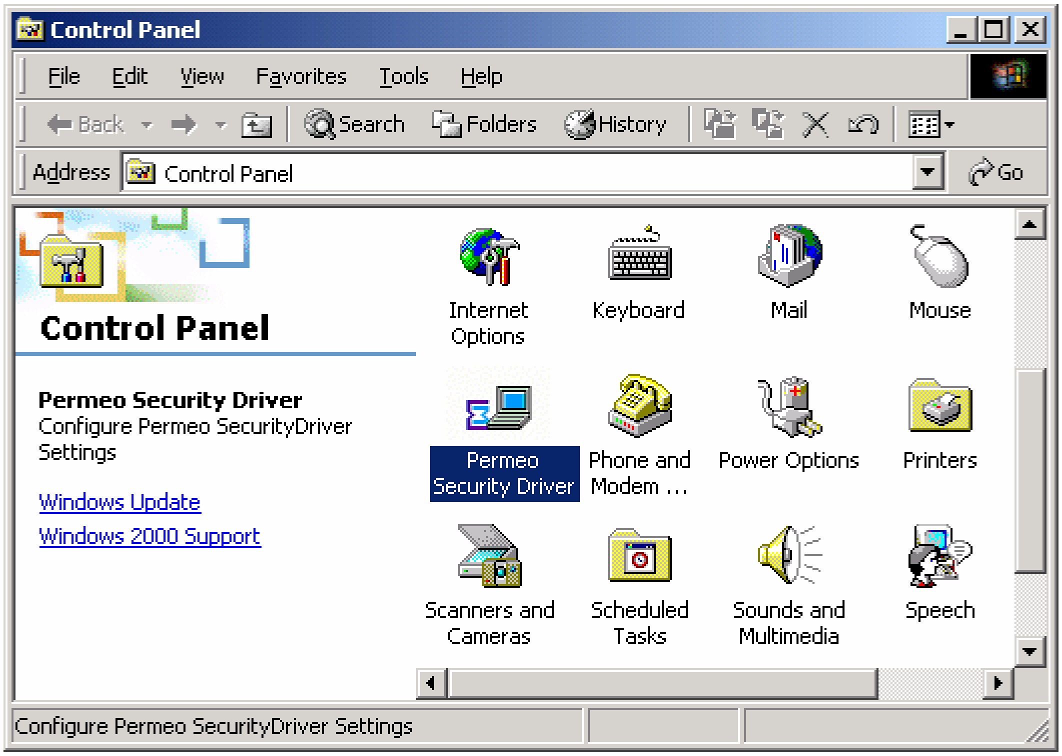
- **System Properties window:** Use to edit plug-in properties, enable logging for trouble-shooting purposes, and create a shared system configuration file for use by multiple users on one machine. This window also contains a feature that allows or disallows users to save their credentials to disk. System Properties is primarily used by network administrators or users who have permissions to configure the Security Driver for other users. For more information, see the ***System Properties Window*** section.
- **User Properties window:** Use to set credential and license key information, disable/enable the proxy, and access configuration files for intranet and extranet access. For more information, see the ***User Properties Window*** section.
- **Configuration window:** Use to specify all proxy server and destination settings, applications to be proxied, DNS settings, and to specify the URL or Security Server where an optional remote configuration file is located. Configuration window settings can be set manually by an experienced user or network administrator, or imported or downloaded from a pre-configured settings file. For more information, see the ***Configuration Window*** section.
- **Administrator's Tool:** After defining Security Driver settings, the administrator's tool can be used to export the current settings to a configuration file that can subsequently be imported or downloaded by other users. This program also provides Ping and Traceroute diagnostics. For more information, see the ***Administrator's Tool*** section.

6.1 System Properties Window

The Security Driver **System Properties** window allows administrators to configure plug-ins, enable logging, and enable and edit system configuration settings.

Access the Security Driver **System Properties** through the Windows® Control Panel:

Click **Start > Settings > Control Panel > Permeo Security Driver**

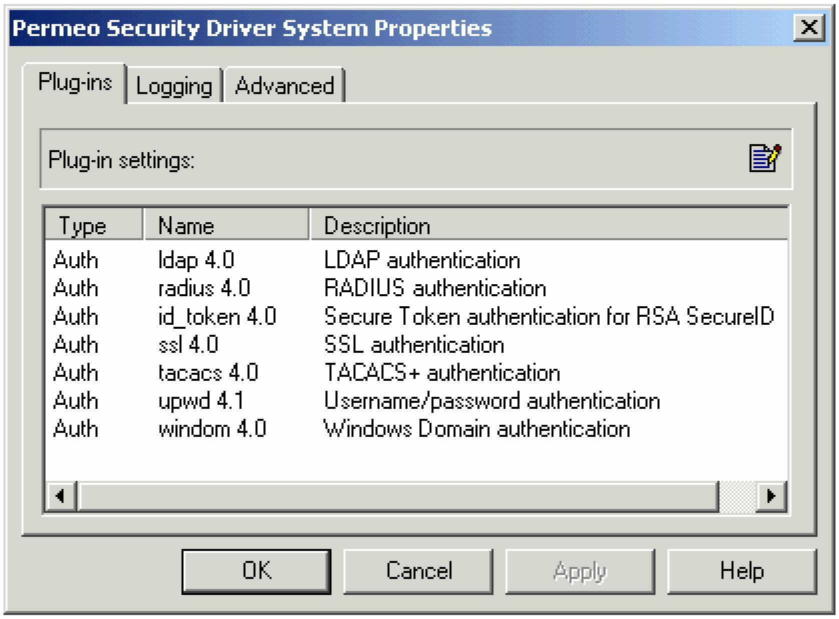


Permeo Security Driver
Configure Permeo SecurityDriver Settings

Configure Permeo SecurityDriver Settings

The following tabs are accessible through the **System Properties** window:

Tab	Description
Plug-ins	View installed plug-ins, edit plug-in settings, and enable/disable plug-ins
Logging	Enable and set the logging level for trouble-shooting purposes
Advanced	Control whether users can save their credentials to disk, enable and set system configuration settings



Permeo Security Driver System Properties

Plug-in settings:

Type	Name	Description
Auth	ldap 4.0	LDAP authentication
Auth	radius 4.0	RADIUS authentication
Auth	id_token 4.0	Secure Token authentication for RSA SecureID
Auth	ssl 4.0	SSL authentication
Auth	tacacs 4.0	TACACS+ authentication
Auth	upwd 4.1	Username/password authentication
Auth	windom 4.0	Windows Domain authentication

6.1.1 Plug-ins Tab

Use the **Plug-ins** tab in the **System Properties** window to view installed plug-ins, edit plug-in settings, and enable/disable plug-ins.

Note: The Security Driver includes the Username/Password authentication plug-in. Additional authentication plug-ins are available in the **Permeo Secure Access** package. The SSL authentication plug-in is available in the **Permeo Encrypt** package. For specific information on plug-ins, refer to the ***Security Driver Plug-ins*** section of this document.

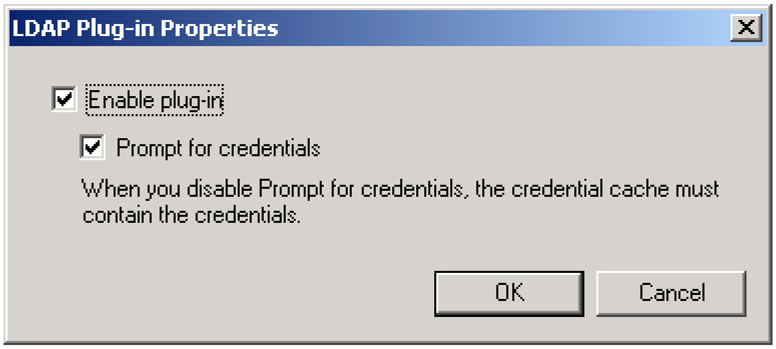
To change settings for a plug-in:

1. Select the plug-in you want to change, then click the **Edit** 📝 icon.

   – or –

   Double-click on the plug-in row.

2. The Driver opens a **Properties** box for the selected plug-in. Most plug-ins include a check box to **Enable** the plug-in and a check box to **Prompt for credentials**.



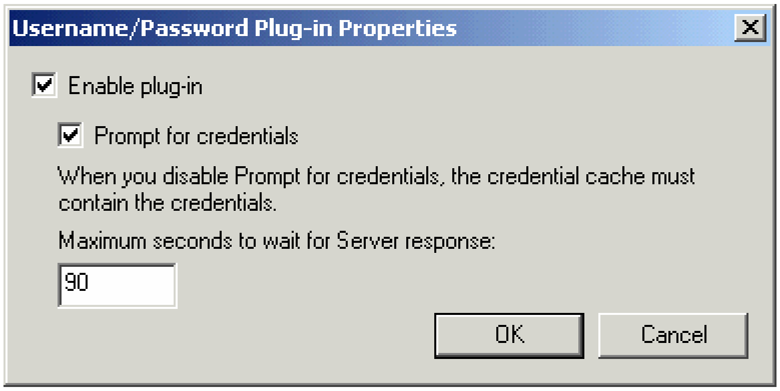
LDAP Plug-in Properties

☑ Enable plug-in

☑ Prompt for credentials

When you disable Prompt for credentials, the credential cache must contain the credentials.

- **Username/Password** and **Windows Domain** plug-ins also include an option to specify a **timeout value**, the time the Driver waits for a response from the Server regarding authentication success.

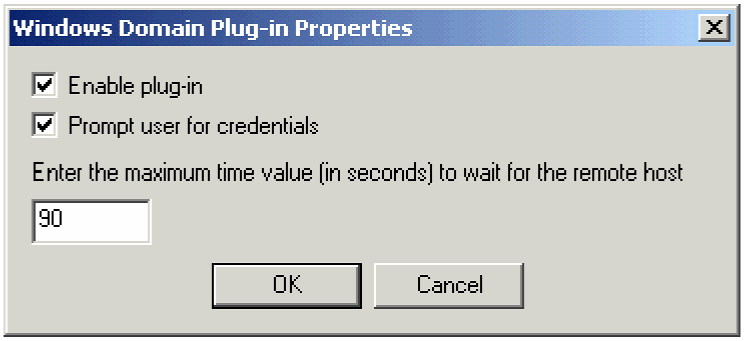

Username/Password Plug-in Properties

☑ Enable plug-in

☑ Prompt for credentials

When you disable Prompt for credentials, the credential cache must contain the credentials.

Maximum seconds to wait for Server response: 90

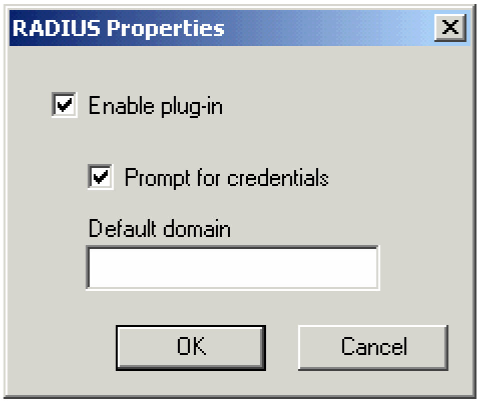

Windows Domain Plug-in Properties

☑ Enable plug-in

☑ Prompt user for credentials

Enter the maximum time value (in seconds) to wait for the remote host: 90

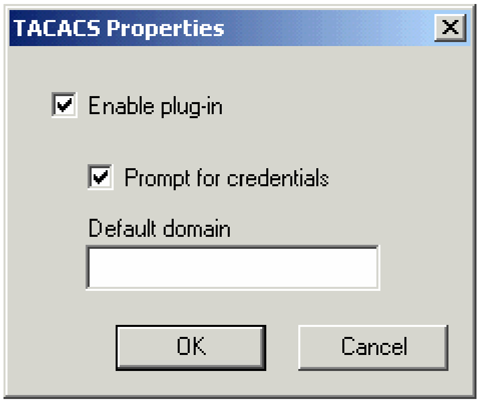
- The **RADIUS** and **TACACS+** plug-ins also include a **Default domain** box. Enter the identifier for the collection of RADIUS or TACACS+ users to which you belong.


RADIUS Properties

☑ Enable plug-in

☑ Prompt for credentials

Default domain:

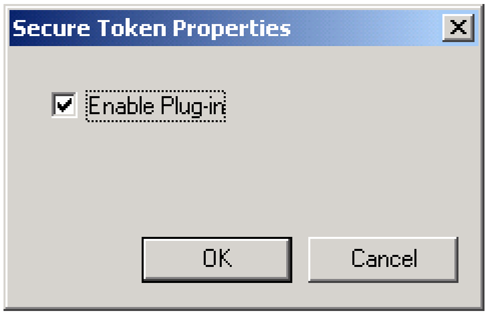

TACACS Properties

☑ Enable plug-in

☑ Prompt for credentials

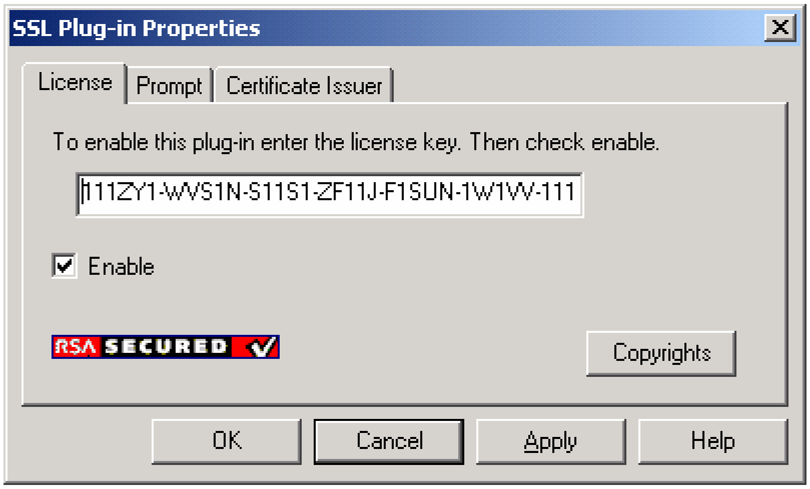
Default domain:

- The **Secure Token for RSA SecurID**® (**id_token**) plug-in only contains an **Enable** checkbox.


Secure Token Properties

☑ Enable Plug-in

- The **SSL** plug-in requires a **license key**, **certificate issuer**, and includes **prompt** options.

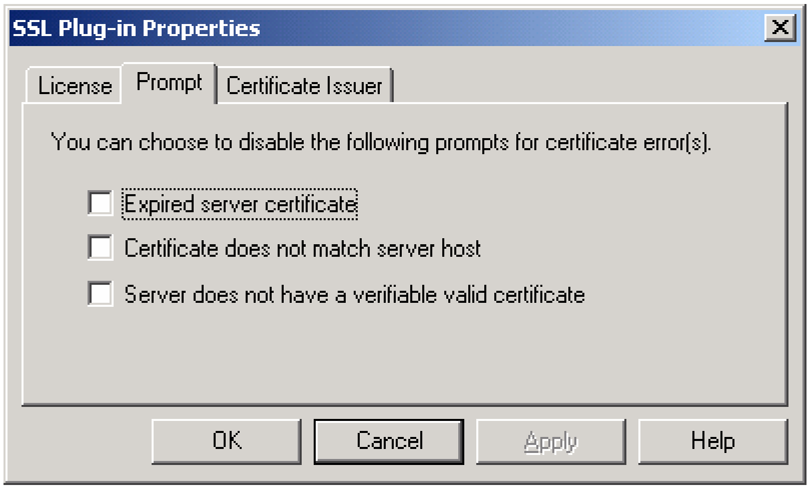


SSL Plug-in Properties

To enable this plug-in enter the license key. Then check enable.

111ZY1-WVS1N-S11S1-ZF11J-F1SUN-1W1VV-111

☑ Enable



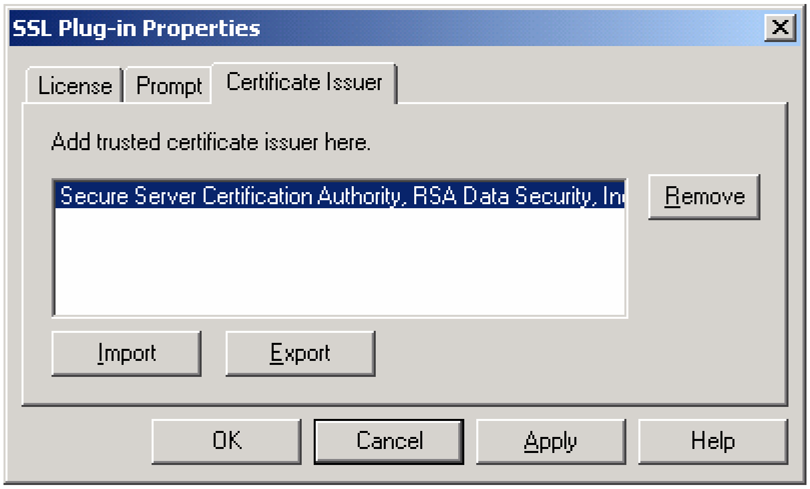
SSL Plug-in Properties

You can choose to disable the following prompts for certificate error(s).

☐ Expired server certificate

☐ Certificate does not match server host

☐ Server does not have a verifiable valid certificate



SSL Plug-in Properties

Add trusted certificate issuer here.

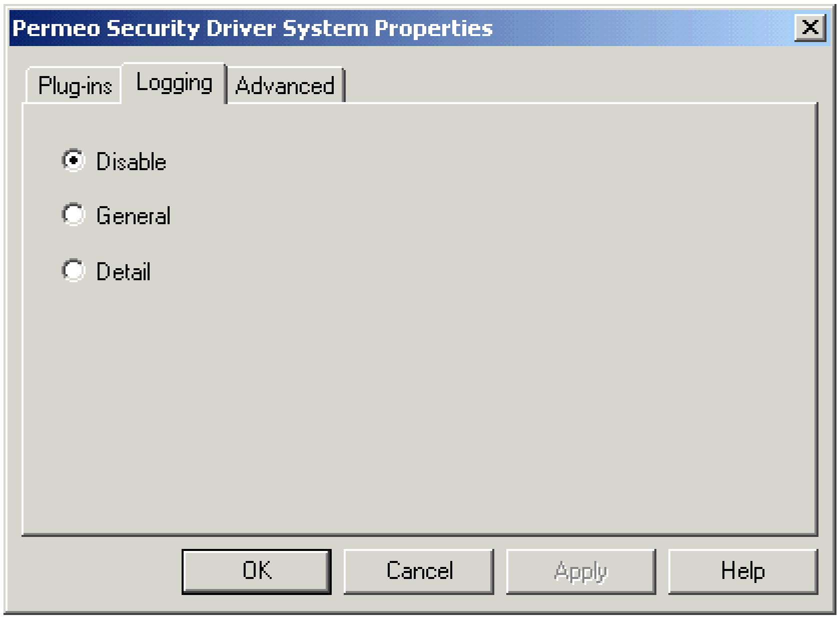
Secure Server Certification Authority, RSA Data Security, Inc

6.1.2 Logging tab

Use the **Logging** tab in the **System Properties** window to enable and set the logging level for trouble-shooting purposes. Do not enable logging for normal operation. Enable logging only when recommended by Permeo Techincal Support.

Logging options include:

- **Disable**: Disable logging (default).
- **General**: Enable General level logging.
- **Detail**: Enable Detail level logging.



● Disable
○ General
○ Detail

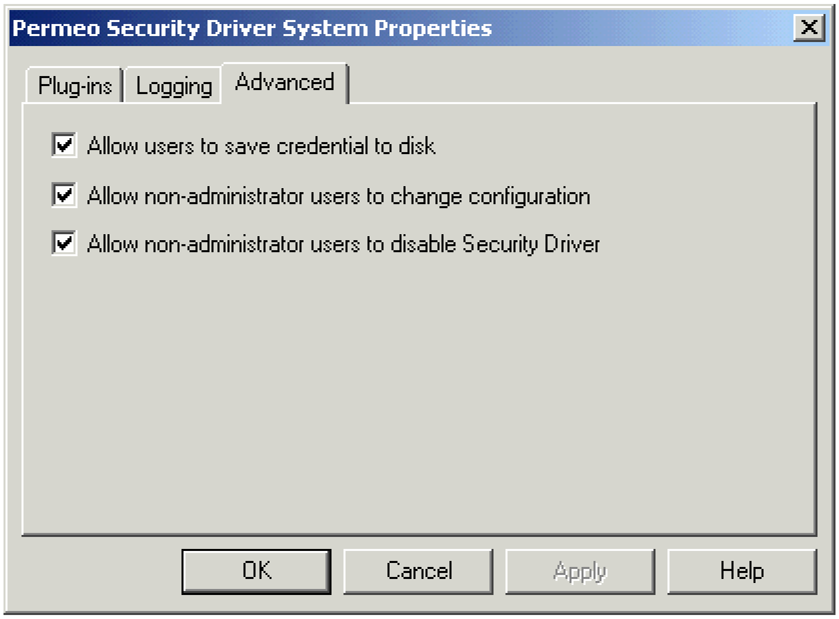
The Driver creates the log file if it doesn't exist. If the file does exist, the Driver adds to the end of the file until the file exceeds the maximum size.

If you are not experiencing problems with the Driver, do not log. Logging decreases network performance. After resolving problems, we recommend that you remove the log file.

Note to Administrators: The files generated by the logging feature must be interpreted by Permeo Technical Support. General level logging generates an **eb_debug.log** file, while Detail logging generates both **eb_debug.log** and **ws2.log** files.

6.1.3 Advanced tab

The **Advanced** tab in the **System Properties** window allows network administrators to control whether users can save their credentials to disk, edit their own Driver configurations, and disable the Security Driver. These features are designed for use by individuals managing and configuring the Security Driver for use by other users.



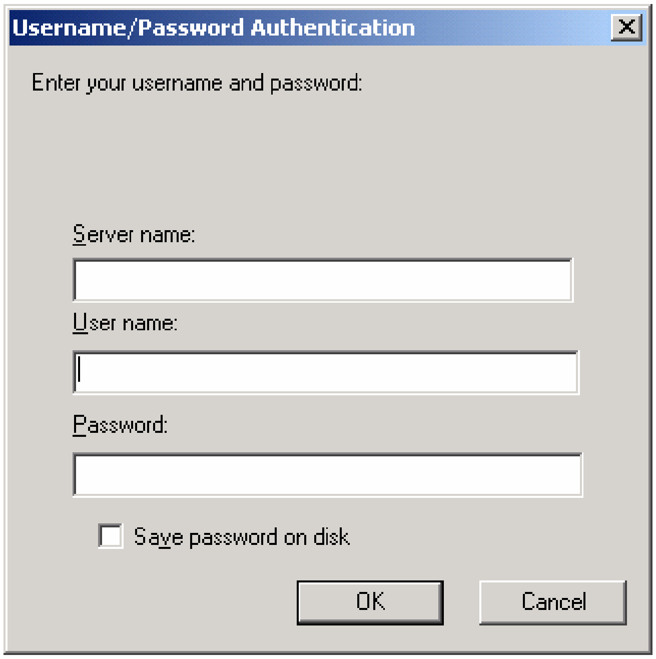
☑ Allow users to save credential to disk

☑ Allow non-administrator users to change configuration

☑ Allow non-administrator users to disable Security Driver

- **Allow users to save credential to disk:**
  Check this option to allow users to save their credential to disk in supported authentication plug-ins. A **Save password on disk** option will appear on credential windows.

  Uncheck this option to remove the user option of saving a password. For increased security, do not allow users to save their credential to disk – requiring them to type their credential/password each time they log on.



Enter your username and password:

Server name:

User name:

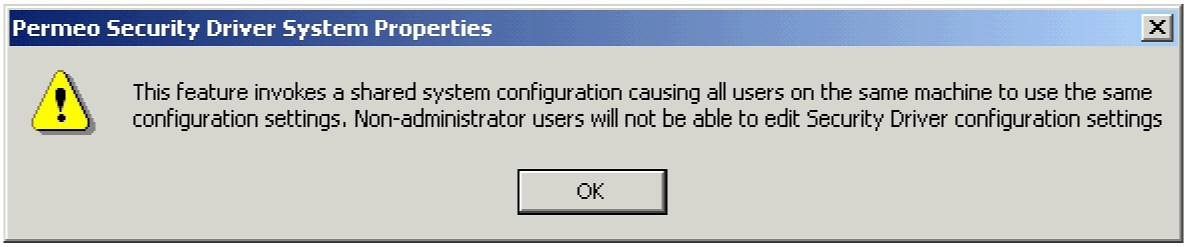
Password:

□ Save password on disk

- **Allow non-administrator users to change configuration:**
  Check this option to allow users to change and customize their own Driver configurations. Uncheck this option to prevent users from changing Driver configuration settings.

  When this option is unchecked, a shared system configuration is invoked – ensuring that all Security Driver users on a particular machine will share the same configuration file. Shared system configuration settings will override any user configuration files previously created on the same machine.

  The following prompt appears upon un-checking this feature:



Permeo Security Driver System Properties

This feature invokes a shared system configuration causing all users on the same machine to use the same configuration settings. Non-administrator users will not be able to edit Security Driver configuration settings

When the shared system configuration is invoked, users can see the system configuration settings in a view-only mode, but not make changes to the configuration.

Notes to Administrators:

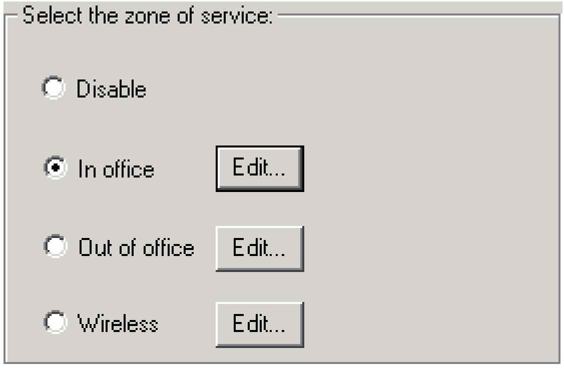
- ➢ The **shared system configuration** feature stores the system settings in a shared configuration file named **ebshared.conf**, located in the Windows application data directory. The shared file contains all Driver configurations (In office, Out of office, and Wireless).

- ➢ For simplified management of wide-spread users, administrators can configure the Remote Configuration Download feature, allowing users to specify a URL or a Security Server name that downloads a pre-configured remote configuration file. Refer to the following sections for more information: **Configuration Window – Update Tab** and **Advanced Configuration Options for Administrators – Remote Configuration Download**.

<u>To create a shared system configuration</u>:

1. From the **Advanced** tab, uncheck **Allow non-administrator users to change configuration**. The default setting is checked.
2. Click **OK** after reading shared system configuration message.
3. Click **Apply** then **OK** to save setting.

When users with administrator privileges run the Driver's User Properties program, they can select a zone of service, and click an **Edit** button to open the **Configuration** window to customize settings for the selected zone of service.



Select the zone of service:

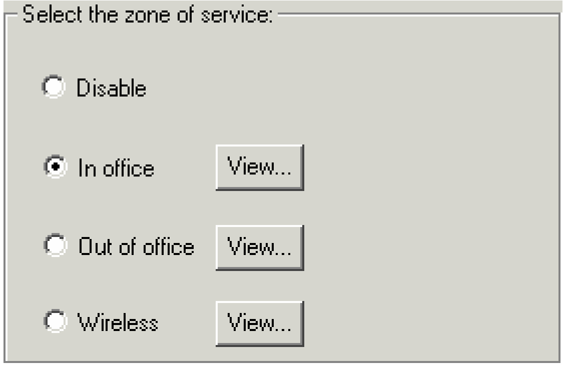
○ Disable

● In office

○ Out of office

○ Wireless

When users without administrator privileges run the Driver's User Properties program, they can select a zone of service, and click a **View** button to open the **Configuration** window to view settings for the selected zone of service. They will be unable to make any changes to the configurations.



Select the zone of service:

○ Disable

● In office

○ Out of office

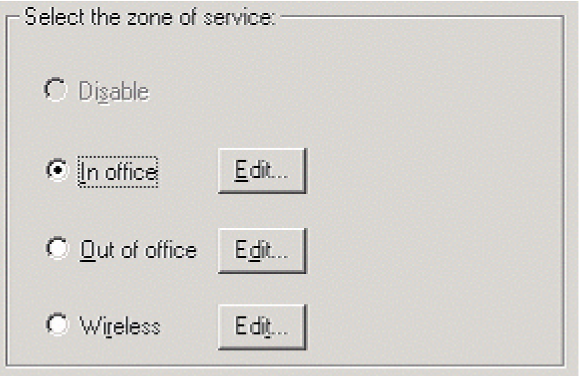
○ Wireless

- **Allow non-administrator users to disable Security Driver:**

  Check this option to allow non-administrator users to disable the Security Driver.

  Uncheck this option to prevent non-administrator users from disabling the Security Driver. The Disable option on the General tab of the User Properties window will no longer be available for those users.

  This option only affects non-administrator users' ability to disable the Security Driver. They will be able to select between other zones of service and View or Edit configuration settings, based on the status of the **Allow non-administrator users to change configuration** feature.



Select the zone of service:

○ Disable

● In office

○ Out of office

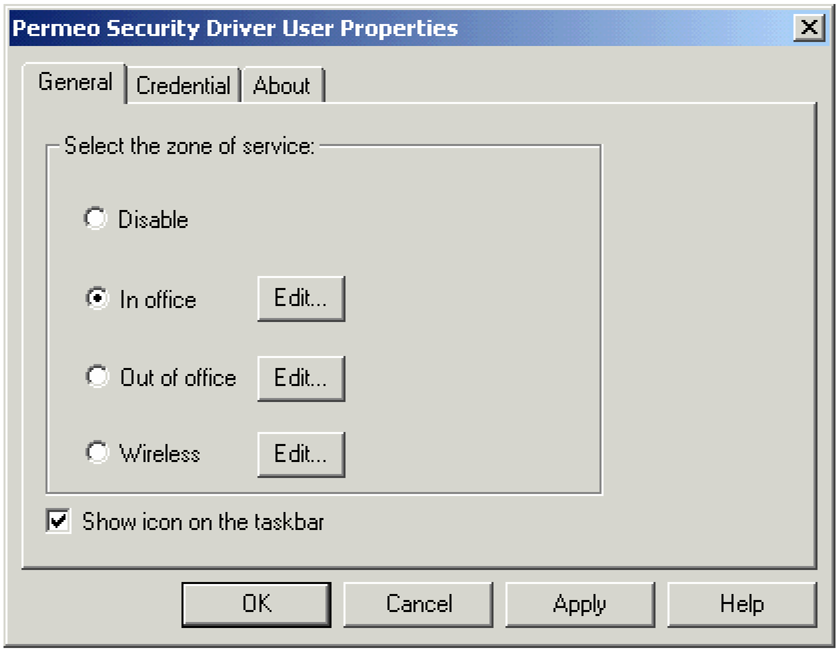
○ Wireless

6.2 User Properties Window

The **User Properties** window is used to set credential and license key information, disable and enable the proxy, and to create and edit configuration files for intranet and extranet access.

To access the Security Driver **User Properties** window:

Click **Start** > **Programs** > **Permeo Security Driver** > **User Properties**



Select the zone of service:

○ Disable

● In office

○ Out of office

○ Wireless

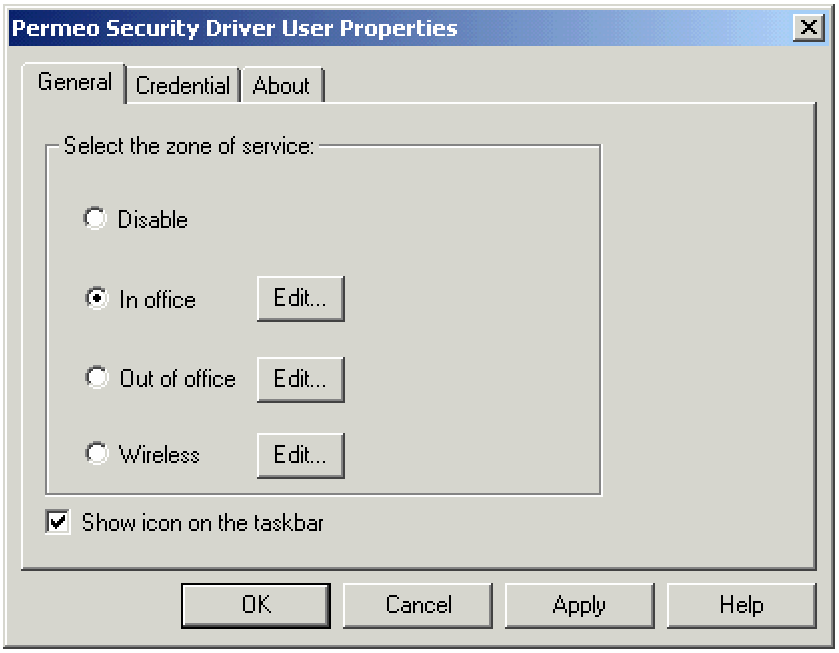
☑ Show icon on the taskbar

The following tabs are accessible through the **User Properties** window:

Tab	Description
General	Disable the proxy, select a zone of service, create/edit a dual set of configuration settings, and display the Security Driver icon on the taskbar
Credential	View, add, delete, and update credential information
About	View product version information, view/edit the license key, and read the Permeo Security Driver software license

6.2.1 General Tab

The **General** tab of the Security Driver **User Properties** window allows the user to disable the proxy, select a zone of service, create/edit/view multiple configurations, and display/hide the **Permeo Security Driver** icon on the taskbar.



Select the zone of service:

○ Disable

● In office Edit...

○ Out of office Edit...

○ Wireless Edit...

☑ Show icon on the taskbar

Zone of service: Users can choose the zone of service they want to activate. There are four zones to choose from: **Disable**, **In office**, **Out of office**, and **Wireless**.

Disable: Choose this zone to turn off all functionality provided by the Security Driver. The Disable option is available to non-administrator users only when the **Allow non-administrator users to disable Security Driver** is checked in the System Properties **Advanced** tab. Otherwise, the Disable option is not available to non-administrator users.

The disabled Driver icon is displayed on the taskbar when the Driver is disabled and **Show icon on the taskbar** is enabled.

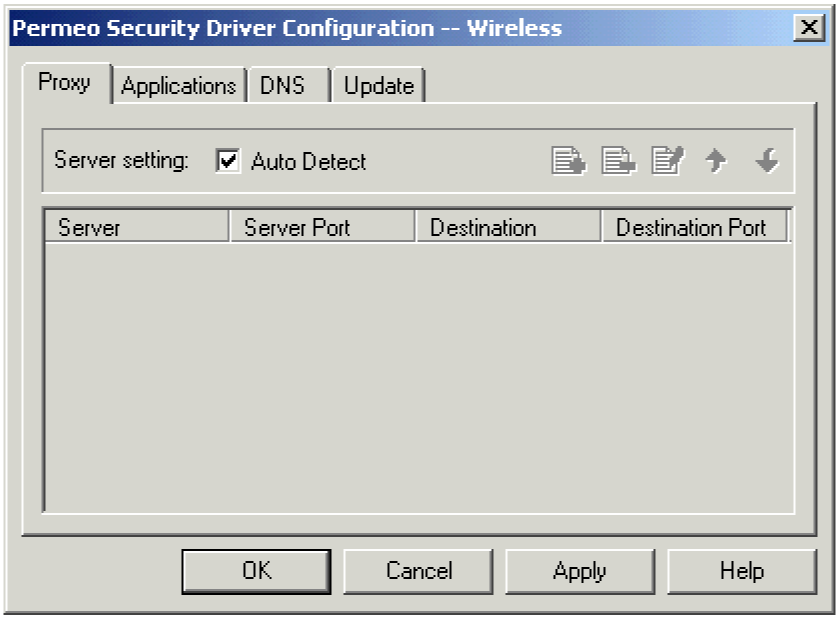
In office/Out of office:

The Security Driver supports multiple configurations, allowing users and/or administrators to create different configurations to choose from. Selecting a desired zone of service simply points the Security Driver to the selected configuration. It is up to the user or administrator to configure the settings correctly for each zone.

For example, the **In office** zone can be configured to allow external access from within the intranet, while the **Out of office** zone can be configured to allow access to an internal network from a remote machine on the Internet.

Wireless: Users can create a **Wireless** configuration to ensure secure wireless connections between the Driver and the Security Server.

When the configuration window appears, an **Auto-Detect** checkbox appears on the **Proxy** tab. Check the **Auto-Detect** checkbox to enable the Driver to automatically locate a Security Server instead of using Proxy rules.



Server setting: ☑ Auto Detect

Server	Server Port	Destination	Destination Port

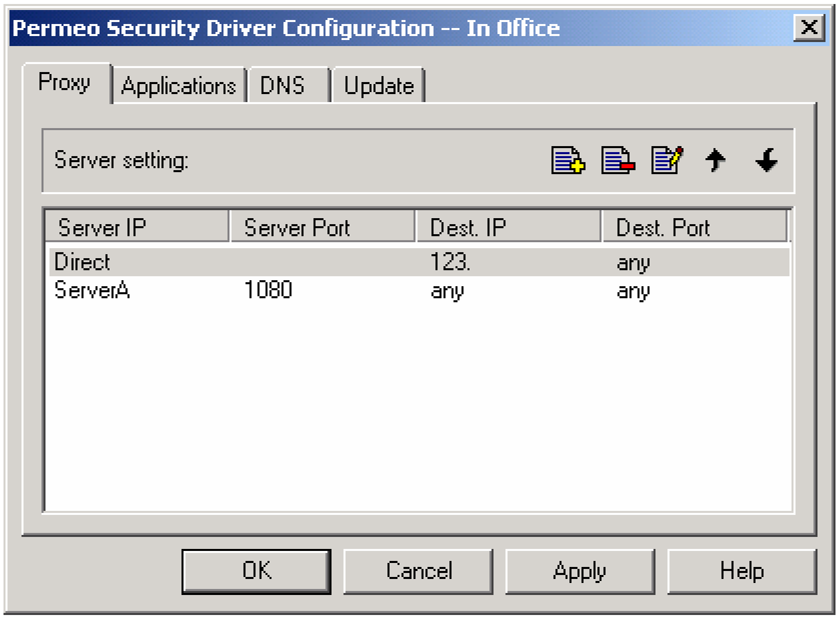
If the Auto-Detect checkbox is not selected, standard Proxy rules must be created for the Wireless configuration.

Note: This zone of service requires the **Permeo Encrypt SSL** plug-in to be installed on the Server and Driver. For more information, please see the ***Wireless LAN Solution*** section of this document.

Edit mode: The **Edit** buttons next to **In office**, **Out of office**, and **Wireless** configurations indicate that either a User with administrator privileges is using the Driver, or that the **Allow non-administrator users to change configuration** has been activated by an Administrator.

Click any **Edit** button to open the Security Driver **Configuration** window to modify settings in the selected configuration. The **Edit** mode allows each user to create their own customized configurations.

When the configuration window appears, all editing functions are operational, as shown below.

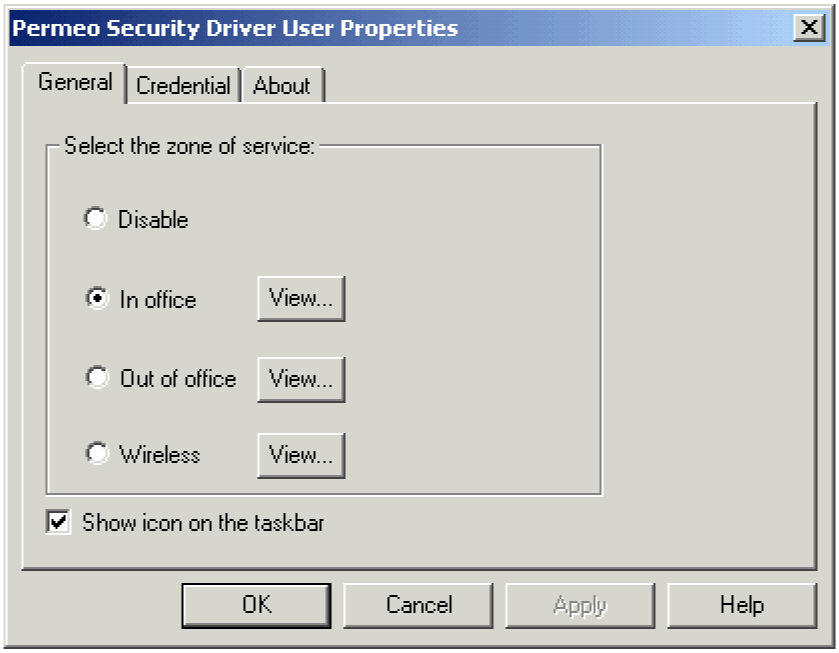


Server IP	Server Port	Dest. IP	Dest. Port
Direct		123.	any
ServerA	1080	any	any

View mode: The **View** buttons next to **In office**, **Out of office**, and **Wireless** configurations indicate that non-administrator users cannot edit configurations, only view configuration settings and select a zone of service to enable.

The **View** buttons also indicate that a **shared system configuration** is active, such that all users on the same machine are using a shared Security Driver configuration.

Click a **View** button to open the **Configuration** window in a read-only mode to display settings for the selected zone of service.



Select the zone of service:

○ Disable

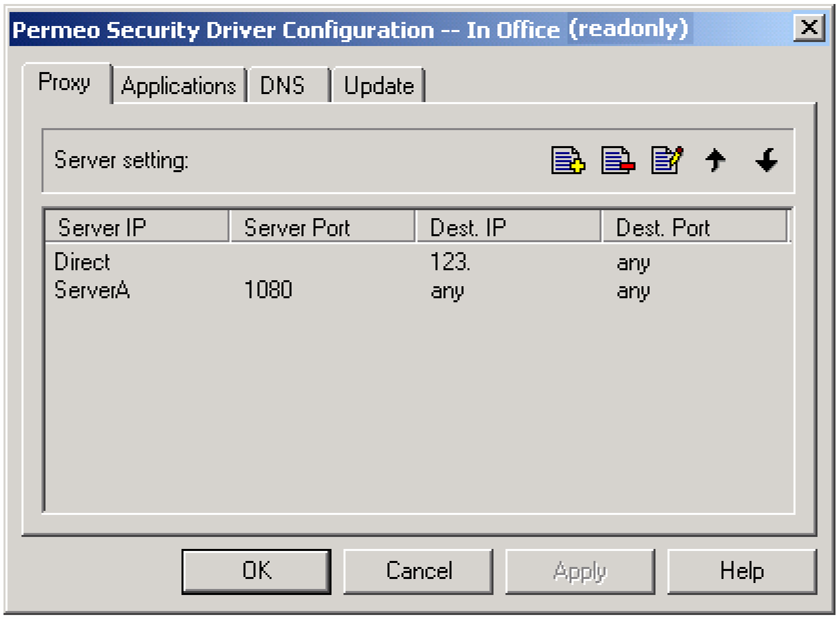
● In office

○ Out of office

○ Wireless

☑ Show icon on the taskbar

When the configuration window appears in a read-only mode, all data is displayed, but no editing functions are available, as shown below.



Permeo Security Driver Configuration -- In Office (readonly)

Server setting:

Server IP	Server Port	Dest. IP	Dest. Port
Direct		123.	any
ServerA	1080	any	any

For information on creating a shared system configuration, refer to the ***Advanced Tab*** section under the ***System Properties Window.***

Show icon on the taskbar:

A toggle feature that displays/hides the Security Driver icon on your system tray taskbar.

To Display the Security Driver icon on the taskbar:

1. Click **Show icon on the taskbar** to check box.
2. Click **Apply**.
3. When the SecurityDriver is enabled, the "enabled" Security Driver icon appears on your system tray.

   When the Security Driver is disabled, the "disabled" Security Driver icon appears on your system tray.

To Hide the Security Driver icon on the taskbar:

1. Click **Show icon on the taskbar** to uncheck box.
2. Click **Apply**.
3. The **Security Driver** icon no longer appears on your system tray.

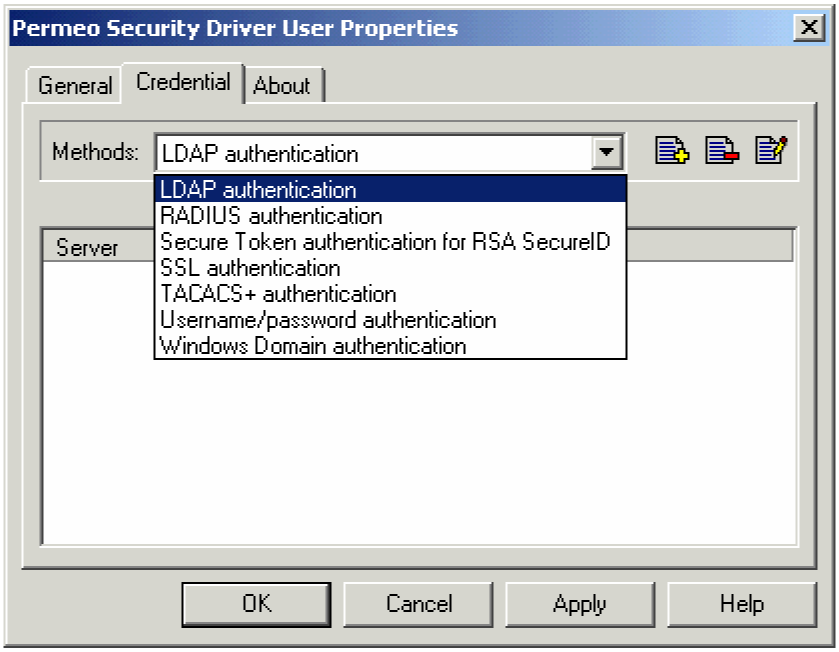
6.2.2 Credential Tab

Use the **Credential** tab to:

- Identify Servers that require authentication
- Specify credentials for required authentication methods
- View, add, delete, and edit credential information
- Indicate whether or not to save your user name and password on disk (if allowed by administrator.)

  Note: Using the **System Properties** window **Advanced** tab, a network administrator can control whether or not this feature is enabled.

When the **Permeo Security Server** requires credentials, and **Prompt user for credentials** is checked in the System Properties plug-in's properties box, the Driver prompts the user for credentials once during each session and stores the user's credentials in the credential cache. When the Server requires authentication, the Driver only prompts if the credential is unavailable in the cache.



Methods: LDAP authentication

LDAP authentication
RADIUS authentication
Secure Token authentication for RSA SecureID
SSL authentication
TACACS+ authentication
Username/password authentication
Windows Domain authentication

Specifying Credentials

Select the corresponding authentication plug-in method from the drop-down list. Each plug-in uses a separate credential cache.

To **add** a credential for a particular server, click the **New** icon to open the property box for the selected authentication method.

To **delete** a credential for a particular server, select the server, then click the **Remove** icon. Click **OK** when the Driver asks if you want to remove the Server. The Driver deletes the Server credential entry.

To **change** credential properties for a particular server, select the Server entry, then click the **Edit** icon.

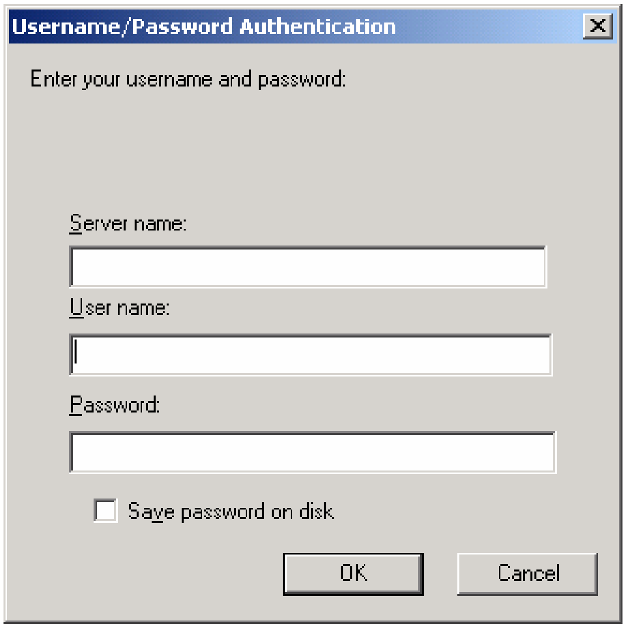
Credential Notes:

- It is not necessary to enter credential information for all authentication methods.
- The Username/Password authentication plug-in is included with the **Permeo Security Driver** package.
- The LDAP, RADIUS, Secure Token for RSA SecurID®, TACACS+, and Windows Domain plug-ins are available in the Driver **Secure Access** package.
- The SSL plug-in is available in the **Permeo Encrypt** package.

Following are credential dialog boxes for each type of authentication method.

Note: If an administrator enables **Allow users to save credential to disk** (See the Security Driver **System Properties** window **Advanced** tab), the corresponding authentication box includes a **Save password on disk** option.

6.2.2.1 Username/Password Authentication



Username/Password Authentication

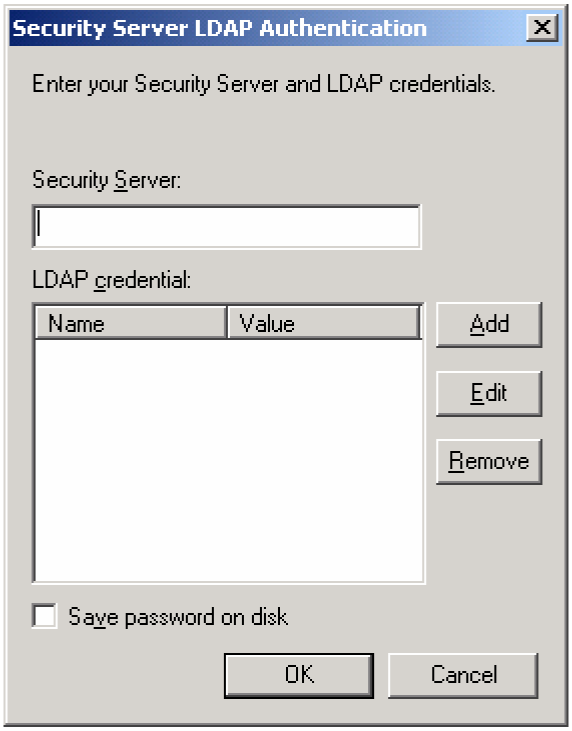
Enter your username and password:

1. Type the IP address for the Server for which you are adding the credential in the **Server name** box.
2. Type the **User name** and **Password** in the appropriate boxes.
3. Click **OK**.

When you check **Save password on disk**, the Driver stores the credentials for subsequent sessions.

When you uncheck **Save password on disk**, the Server prompts for credentials once during each Driver session.

6.2.2.2 LDAP Authentication



Security Server LDAP Authentication

Enter your Security Server and LDAP credentials.

1. Type the IP address for the Server for which you are adding the credential in the **Security Server** box.
2. The Driver builds the credential from one or more **distinguished names**. To add a distinguished name, click **Add**.
3. Type the distinguished name in the **Name** box, and the value for that name in the **Value** box. Click **Add** to continue adding distinguished names, or **Close** to return to the LDAP Authentication box.
4. Click **OK**.

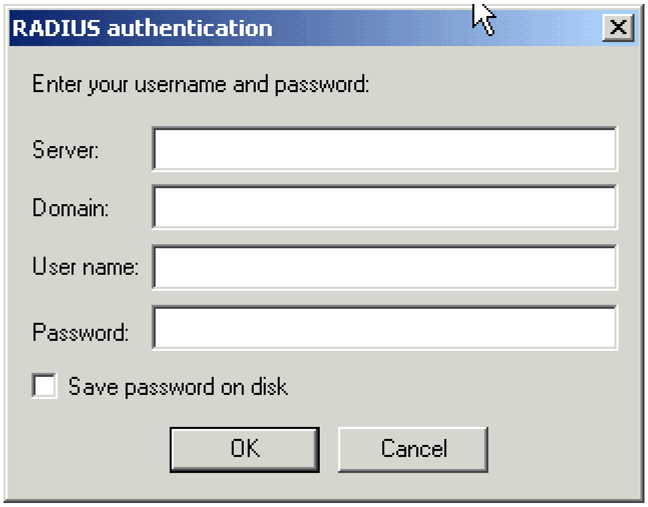
Please see the **LDAP Example** below for an example of adding a credential with a distinguished name.

LDAP Example

To add a credential for a user with user name `testuser` and password `secret` when the Server requires a distinguished name for `username` and one for `password`, in the **Add Distinguished Name box**:

1. Type `username` in the **Name** box, and `testuser` in the **Value** box.
2. Click **Add**.
3. Type `password` in the **Name** box, and `secret` in the **Value** box.
4. Click **Close**. The LDAP Authentication box displays the distinguished name entries.
5. Click **OK**.

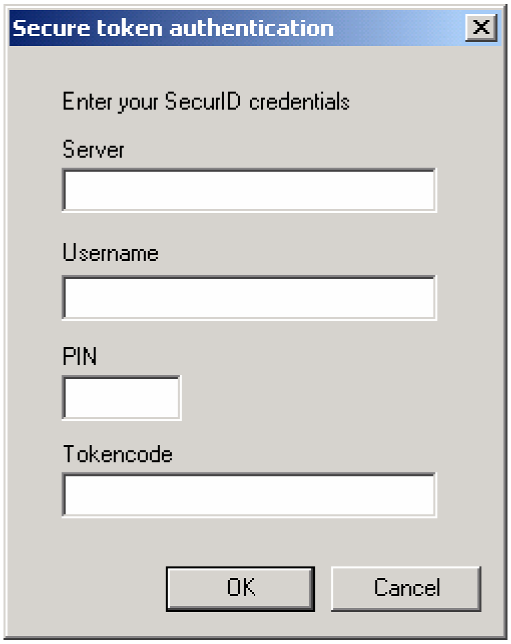
6.2.2.3 RADIUS Authentication



Enter your username and password:

6. Type the IP address for the Server for which you are adding the credential in the **Server name** box.
7. Type your **User name** and **Password** in the appropriate boxes.
8. Click **OK**.

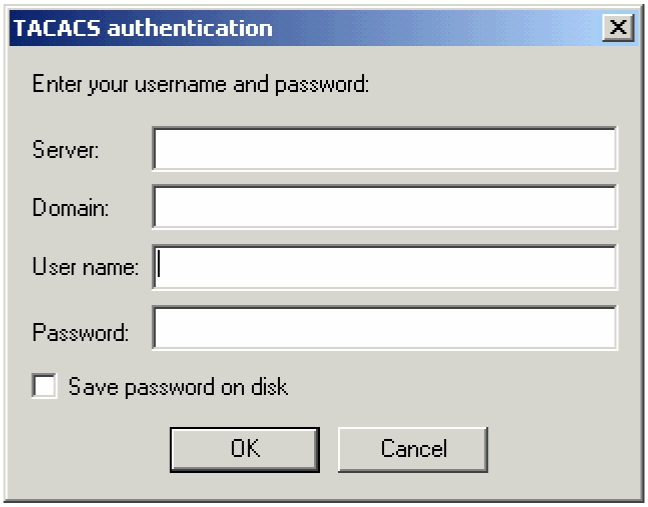
6.2.2.4 Secure Token for RSA SecurID® Authentication



Use the **Secure Token authentication** box to store the token code issued for use with your RSA ACE/Server®.

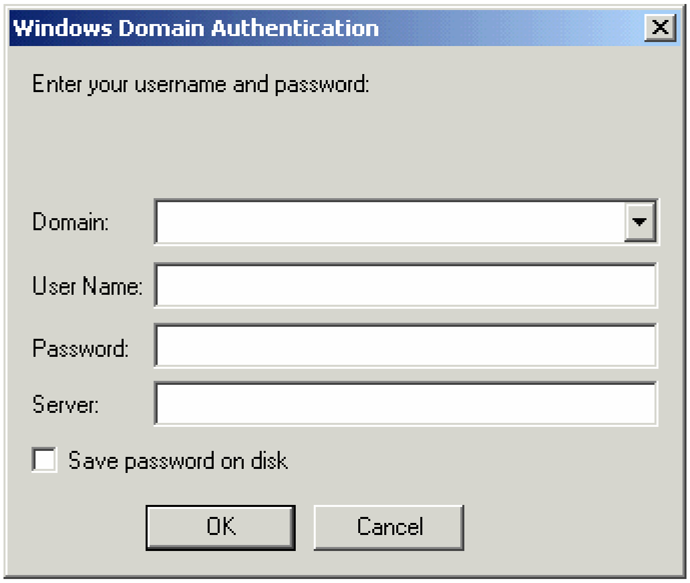
1. Type the IP address for the Server for which you are adding the credential in the **Server** box.
2. Type the **User name** and **Password** in the appropriate boxes.
3. Type your personal identification number in the **PIN** box.
4. Type your token code in the **Tokencode** box. The credential issuer distributes the token code.
5. Click **OK**.

6.2.2.5 TACACS+ Authentication



1. Type the IP address for the Server for which you are adding the credential in the **Server name** box.
2. Type your **User name** and **Password** in the appropriate boxes.
3. Click **OK**.

6.2.2.6 Windows Domain authentication



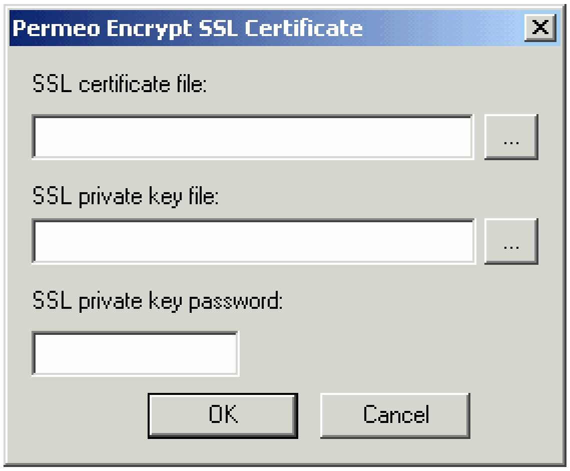
Windows Domain Authentication

Enter your username and password:

When using Windows Domain authentication, the Driver always uses the user’s Windows logon credentials. When the **Security Server** fails to authenticate the user with the Windows credentials, it prompts the user for a domain, and Username and Password for that domain. Use the **Windows Domain Credentials** box to enter additional credentials.

1. Choose a domain from the **Domain** name list, or type a domain name.
2. Type the **User name** and **Password** for the domain in the appropriate boxes.
3. Type the IP address for the Server for which you are adding the credential in the **Server** box.
4. Click **OK**.

6.2.2.7 SSL Certificate



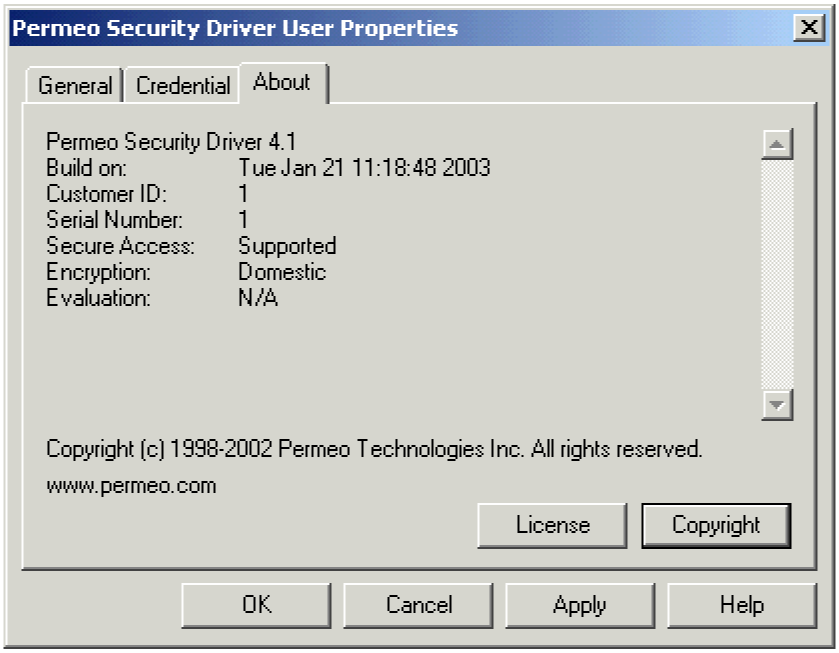
Permeo Encrypt SSL Certificate

1. Type the SSL certificate file name in the **SSL certificate file** box.
2. Type the SSL private key file in the **SSL private key file** box.
3. Type the SSL private key password in the **SSL private key password** box.
4. Click **OK**.

Note: The **SSL** authentication plug-in is available separately in the **Permeo Encrypt** package.

6.2.3 About Tab

The **About** tab allows users to view product version information, view/edit the license key, and read the **Permeo Security Driver** software license.



Permeo Security Driver User Properties

Permeo Security Driver 4.1	
Build on:	Tue Jan 21 11:18:48 2003
Customer ID:	1
Serial Number:	1
Secure Access:	Supported
Encryption:	Domestic
Evaluation:	N/A

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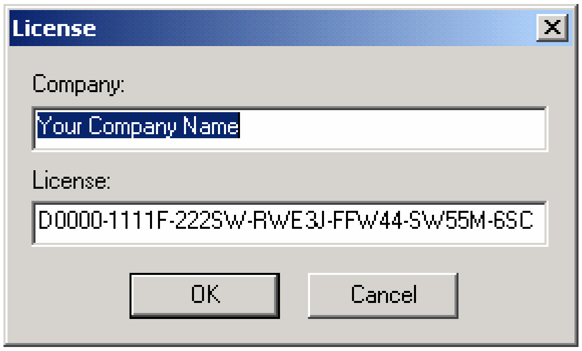
6.2.3.1 View/Enter License Key

- Click the **License** button to view or enter a license key.



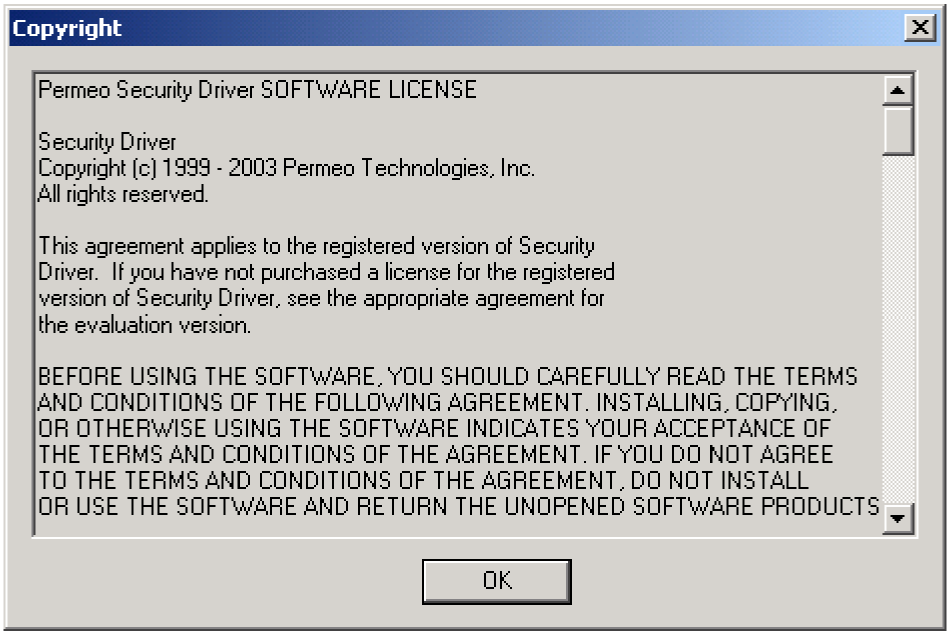
License

Company: Your Company Name

License: D0000-1111F-222SW-RWE3J-FFW44-SW55M-6SC

6.2.3.2 View Copyright / License Agreement

- Click the **Copyright** to view the software license/copyright agreement.



Permeo Security Driver SOFTWARE LICENSE

Security Driver
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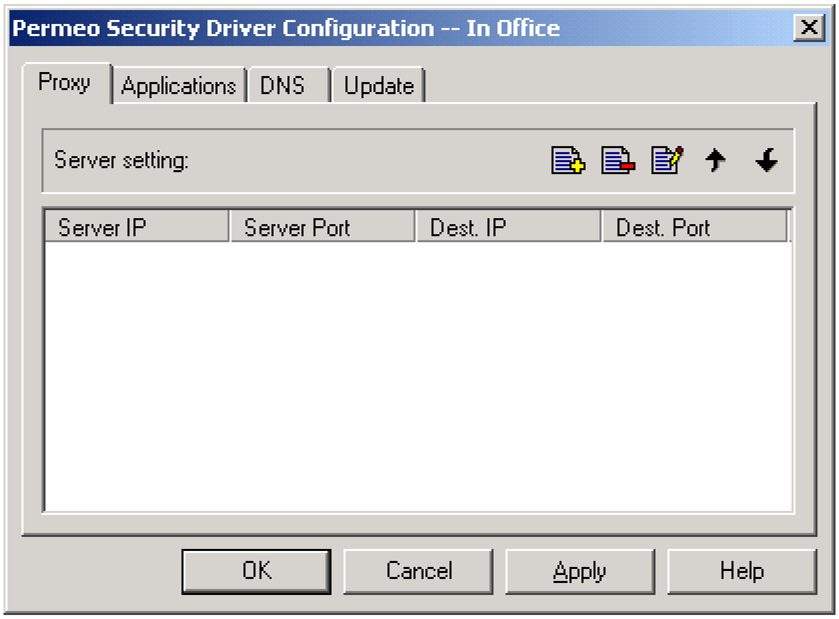
6.3 Configuration Window

The **Security Driver Configuration** window allows administrators and users to configure and view proxy, application, DNS, and update settings.

This window can be invoked from the:

- Security Driver **User Properties** window, **General** tab
  (For users to view/edit their configuration settings)
- Security Driver **System Properties** window, **Advanced** tab
  (For an advanced user or administrator to create a shared system configuration for multiple users on one machine)



There are four tabs accessible from the **Configuration** window:

Tab	Description
Proxy	The **Proxy** tab contains the Security Server settings and the proxy requirements to connect to specified destination addresses.
Applications	The **Applications** tab allows the user to tell the Security Driver which applications to proxy, and to enable/disable Windows Networking Services.
DNS	The **DNS** tab defines how the Security Driver resolves domain names.
Update	The **Update** tab can be used to specify a remote configuration file located on a Web server or Security Server – to download preconfigured settings on-demand, or upon every user logon.

6.3.1 Proxy tab

The Proxy tab allows you to add, edit, delete, and reorder your Server proxy entries using the following buttons:

The **New** button opens the **Proxy Properties** window, adding a blank entry under the highlighted entry.

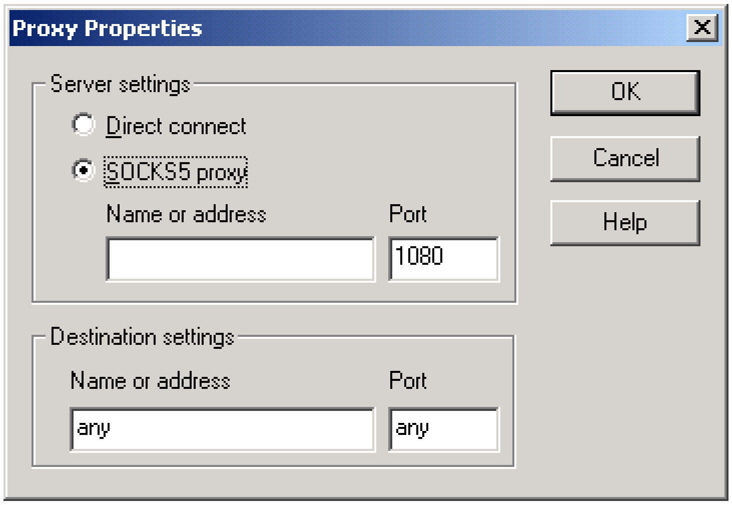
The **Remove** button deletes the highlighted entry.

The **Edit** button opens the **Proxy Properties** window, allowing changes to be made to the highlighted entry.

The **Up** button moves the highlighted entry up one line,
raising the rule's precedence, or rule order.

The **Down** button moves the highlighted entry down one line,
lowering the rule's precedence, or rule order.

Note: To learn about proxy rule precedence, please refer to the ***Proxy Rule Order with Multiple Servers*** section.



Server settings

○ Direct connect

● SOCKS5 proxy

Name or address:

Port: 1080

Destination settings

Name or address: any

Port: any

To proxy applications, the Security Driver must know:

- The Server host(s) and port(s)
- Server authentication requirements
- Applications for which the Driver requires a proxy Server

Security Driver configuration settings can be set:

- **Manually** – by typing all Server and Destination settings directly into the Driver **User Properties** panel

  -or-

- **Automatically** – by downloading a remote configuration file from a Web server or Security Server, or importing a configuration file using the **Administrator's Tool**. Automatic configuration must be setup by a network administrator.

  For enabling and configuring the **Remote Configuration Download** feature, refer to the following sections: ***Configuration Window – Update Tab*** and ***Advanced Configuration Options for Administrators – Remote Configuration Download***. For information on Import/Export, see the ***Administrator's Tool*** section.

6.3.1.1 Entering Server Settings

From the **Proxy** tab in the **Configuration** window, click the **New** button to add a new proxy rule entry. The **Proxy Properties** window appears.

The **Proxy Properties** window is divided into two boxes: **Server settings** and **Destination settings**.

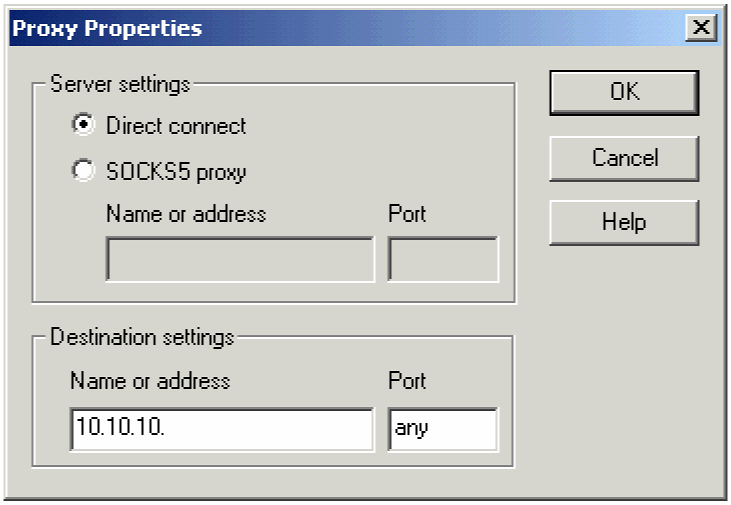
Server settings allows the user to indicate whether the Driver bypasses (**Direct connect**) or uses a Security Server (**SOCKS5 proxy**) to connect to an application server. You must enter a specific Server IP address or name in Server settings. Do not use a subnet or port ranges in Server settings.

You must enter data in both the **Server settings** and **Destination settings** boxes to create a proxy rule entry. Click **OK** to create the proxy rule. You can create as many entries as necessary to customize the Security Driver to your environment. After an entry is created, use the **Proxy** tab buttons to add, remove, edit, and reorder entries.

6.3.1.1.1 Connecting Directly to an Address

1. Click Direct connect.

2. Enter destinations to which you directly connect – destinations that do not require a proxy connection. This option connects directly to the specified address, by-passing the **Permeo Security Server**. See ***Entering Destination Settings*** below.



Proxy Properties

Server settings

● Direct connect

○ SOCKS5 proxy

Name or address:

Port:

Destination settings

Name or address: 10.10.10.

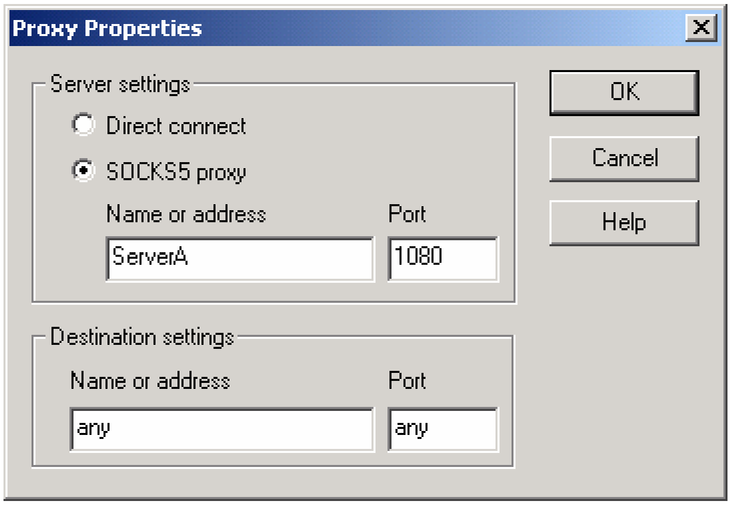
Port: any

6.3.1.1.2 Using the Security Server to connect to an Application Server

1. Click **SOCKS5 proxy**.

2. Enter the Security Server's IP address or host name in the **Name or address** box. **Server Name or Address** identifies the Server the Driver uses to connect to the application server.

   Note: When specifying a **SOCKS5 proxy**, you must enter a specific Server name or IP address. Do not use a subnet.



Proxy Properties

Server settings

○ Direct connect

● SOCKS5 proxy

Name or address: ServerA

Port: 1080

Destination settings

Name or address: any

Port: any

3. Enter the Security Server's port in the **Port** box.

   Note: When specifying a SOCKS5 proxy, you must enter a single port.

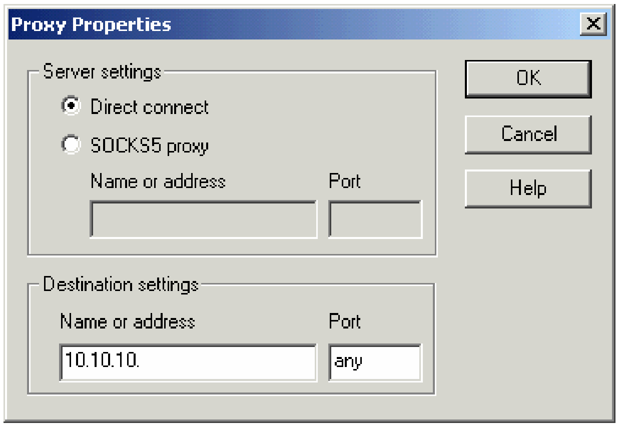
4. Enter Destination settings. See ***Entering Destination Settings*** below.

6.3.1.2 Entering Destination Settings

The **Destination settings Name or address** and **Port** identify a specific address, subnet, or domain, and port or range of ports that you can connect to using the Security Server. Enter a specific host name or IP address, or enter a **Dash (-)** or **any** to connect to any address or any port using the Server. After entering both Server settings and Destination settings, click **OK** to complete the entry and return to the Configuration Window's **Proxy** tab.

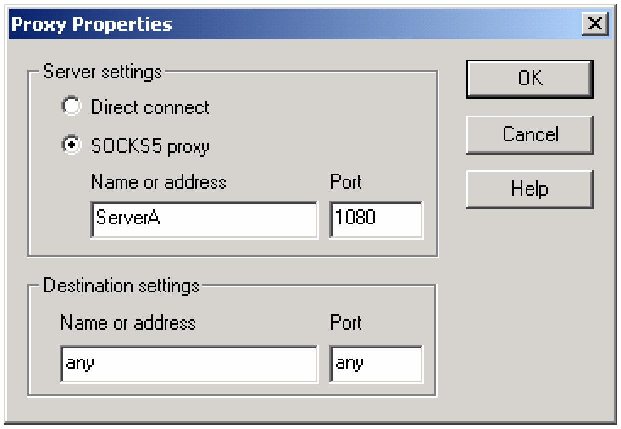
You can create as many entries as necessary to customize the Security Driver to your environment. After an entry is created, use the **Proxy** tab's buttons to add, remove, edit, and reorder entries.

Please see the following sections for acceptable use of Server host names, IP addresses, Server ports, and proxy rule order.


Proxy Properties

Server settings
● Direct connect
○ SOCKS5 proxy
Name or address:
Port:

Destination settings
Name or address: 10.10.10.
Port: any


Proxy Properties

Server settings
○ Direct connect
● SOCKS5 proxy
Name or address: ServerA
Port: 1080

Destination settings
Name or address: any
Port: any

To enter a Destination:

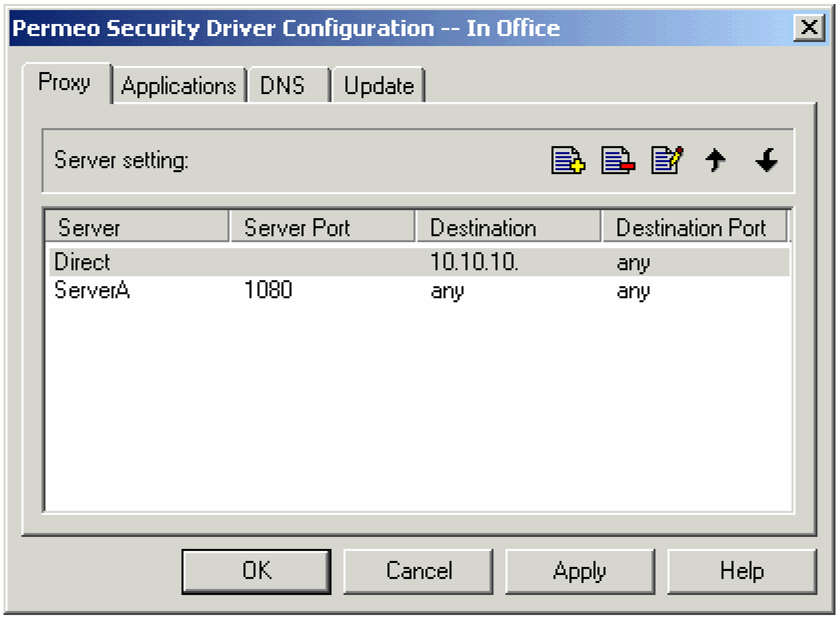
1. Enter the destination name or IP address in the **Name or address** box. **Destination Name or address** identifies the specific address to which the Security Driver connects using the Security Server.
   - or -
   Type a **Dash (-)** or **any** to allow the Security Driver to connect to any address on the destination Server.

   See the section on ***Entering Destination Server Host Names and IP Addresses*** below, for valid host and IP address syntax.

2. Enter the destination port in the **Port** box. **Destination Port** identifies the specific port to which the **Security Driver** connects using the **Security Server**.
   - or -
   Type a **Dash (-)** or **any** to allow the Security Driver to connect to any port on the destination Server.

   See the section on ***Entering Destination Server Ports*** below, for valid port syntax.

3. Click **OK** to save the settings and return to the **Proxy** tab of the Security Driver **Configuration** window. All proxy entries are displayed. The order of the entries indicates the order that the Security Driver processes the proxy rules.



Server	Server Port	Destination	Destination Port
Direct		10.10.10.	any
ServerA	1080	any	any

4. If desired, use the **Proxy** tab buttons to **Remove**, **Edit**, or re-order highlighted proxy rule entries. For more information on changing rule order with multiple servers, see ***Proxy Rule Order and Multiple Servers*** section below.
   - or -

   Click the **New** button to add another proxy entry below the current entry.

5. Click **Apply**, then **OK** to save the current entries.

6.3.1.3 Entering Destination Server Host Names and IP Addresses

The Server recognizes a **Dash (-)** or **any** to indicate any host, or IP addresses and host names using these patterns:

hostip/mask	Use the hostip/mask to mask the host portion of the address from the network or subnetwork portion.
n1.	all hosts in the n1. subnet
n1.n2.	all hosts in the n1.n2. subnet
n1.n2.n3.	all hosts in the n1.n2.n3. subnet
n1.n2.n3.n4	specific IP address
.domain.name	host must end with .domain.name
a.host.name	host must match exactly with a.host.name

Using Domain Names vs. IP Addresses

The Security Driver uses the following conventions when resolving IP addresses and Domain names used in proxy rules and connections:

Domain names:
When using Domain names in **Direct** and **Proxy** rules, it is important to consistently use Domain names when making connections, not IP addresses.

IP addresses:
When using IP addresses in **Direct** and **Proxy** rules, you can use either IP addresses or Domain names when making connections, as long as the domains can be resolved using DNS.

The following table shows all Domain name and IP address usage combinations, and whether the usage is valid and/or requires DNS to work:

Used in Rule	Used in Connection	DNS Requirement
Domain name	Domain name	Valid usage – No DNS required to work
IP address	IP address	Valid usage – No DNS required to work
IP address	Domain name	Valid usage – Must have DNS to work
Domain name	IP address	Invalid usage – Will not work

6.3.1.4 Entering Destination Server Ports

The Server recognizes a **Dash (-)** or **any** to indicate any port, or the following port syntax:

port number	for example, port 80
service port	for example, Telnet, usually port 23
a range of ports	separated by a comma and enclosed in square brackets, for example [100,1000] specifies ports 100 through 1000, inclusive

Note: Avoid using service port names because some systems lack the ability to convert the service port name to the correct port number.

6.3.1.5 Proxy Rule Order with Multiple Servers

When your Driver uses more than one Server, or when you specify addresses to which you connect directly, you can specify the conditions, or rules, under which the Driver uses each Server.

Proxy rules allow you to:

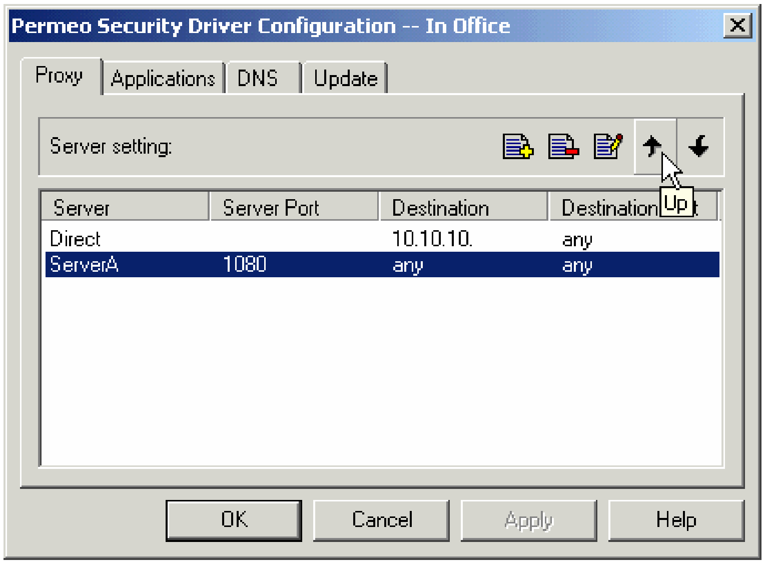
- Prioritize the order in which the Driver attempts to connect to Servers
- Use specific Servers for different applications
- Use specific Servers for different destinations
- Achieve load-balancing by randomly choosing a Server from a list of Servers

The following sections show how to change the proxy rule order and examples of multiple proxy rule entries, and how rule order impacts Security Driver behavior.

6.3.1.5.1 Changing Rule Order

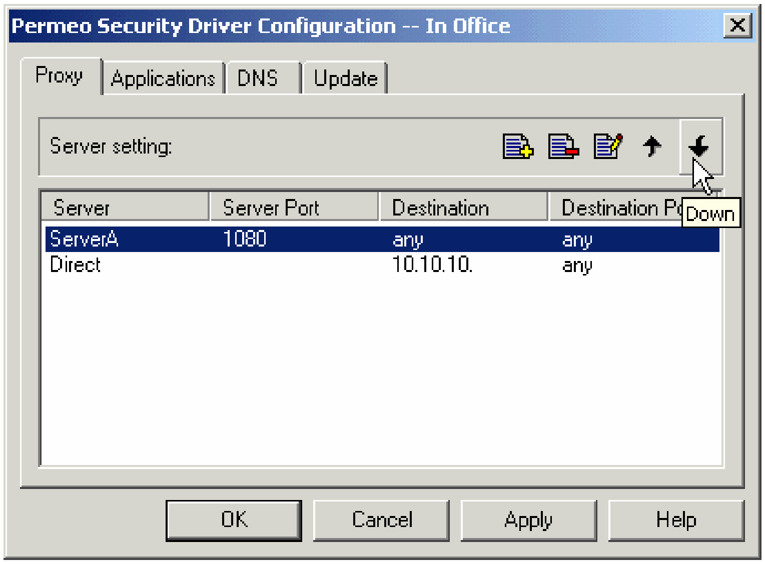
The **Security Driver** sequentially reads and processes each rule in the **Proxy** box in the order listed. The Driver provides an easy method to reorder the rules displayed in the **Proxy** tab.

↑ To raise the priority of a rule, select the rule and click the **Up** button until the rule is in the correct position.



Server	Server Port	Destination	Destination
Direct		10.10.10.	any
ServerA	1080	any	any

↓ To lower the priority of a rule, select the rule and click the **Down** button until the rule is in the correct position.



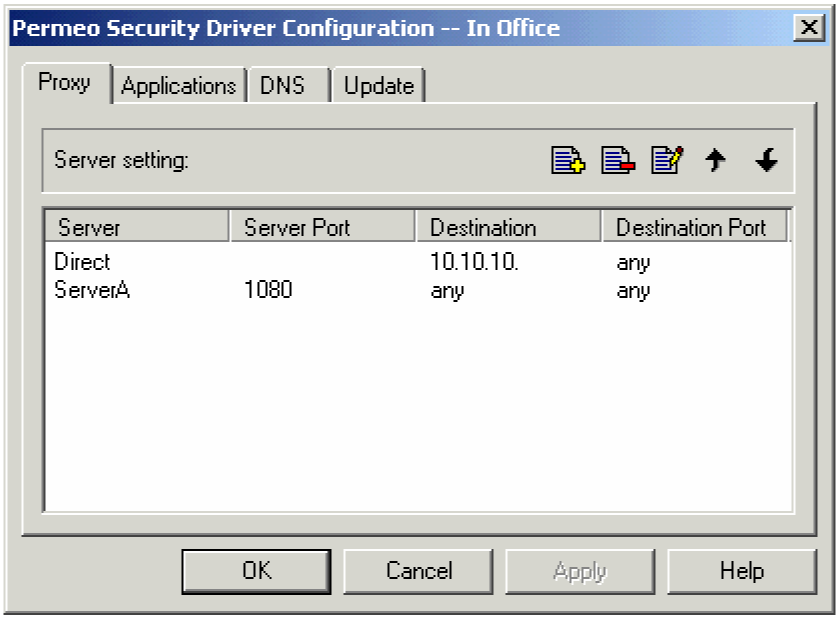
Server	Server Port	Destination	Destination P
ServerA	1080	any	any
Direct		10.10.10.	any

6.3.1.5.2 Proxy Rule Examples

The order of rules in the proxy list is crucial to achieving desired results. The **Security Driver** sequentially reads and processes each rule in the **Proxy** box in the order listed. When a proxy rule matches the Driver's request, it stops checking rules. The following examples show how the order of rules determines how proxy requests are processed.

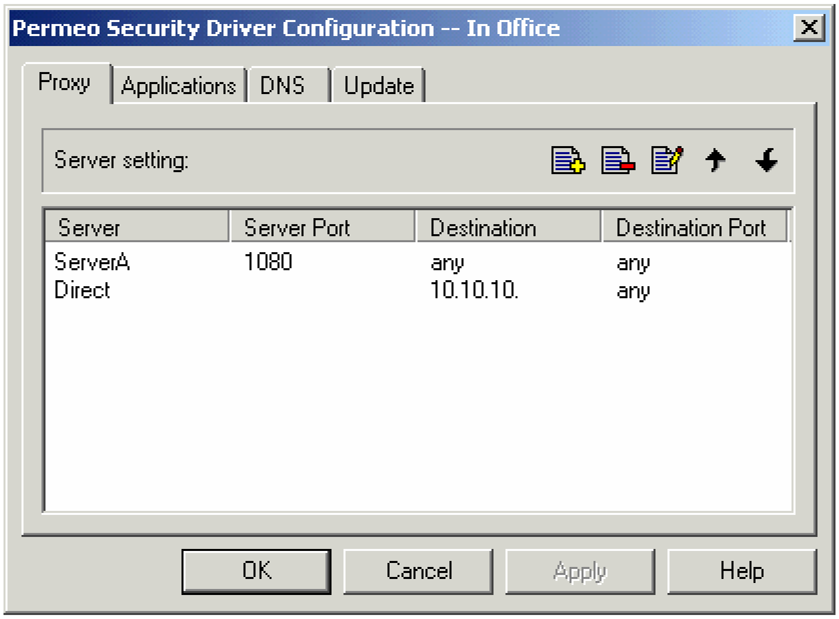
Proxy Rules Example 1

- The first rule specifies that all requests go Direct (by-passing the Security Server) for any host in the 10.10.10 network, while all other requests use ServerA.



Server	Server Port	Destination	Destination Port
Direct		10.10.10.	any
ServerA	1080	any	any

- If the same rules were in the reverse order, the first rule would satisfy the Driver's request, and it would never process the second rule. ServerA would process all requests.

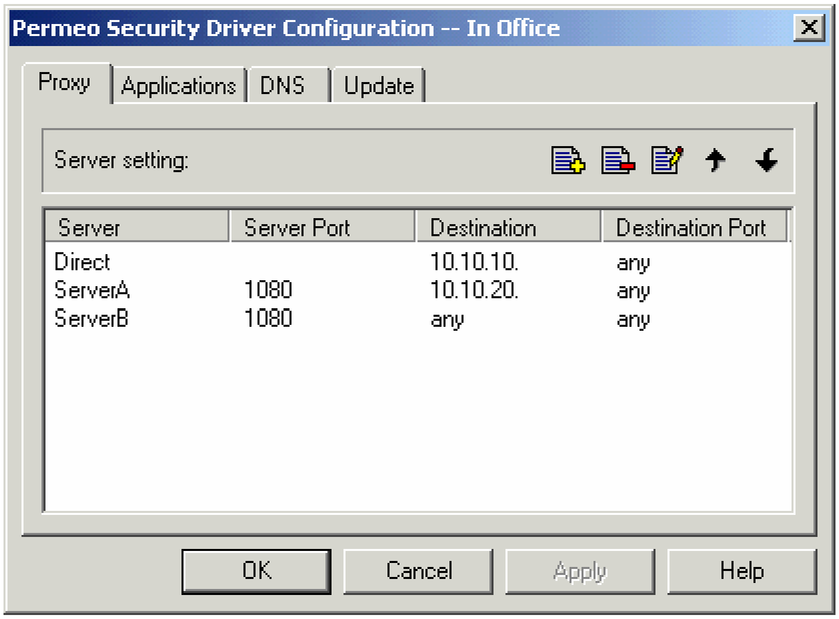


Server	Server Port	Destination	Destination Port
ServerA	1080	any	any
Direct		10.10.10.	any

Proxy Rules Example 2

This example describes how the Security Driver processes these rules, assuming your local subnet is 10.10.10.:

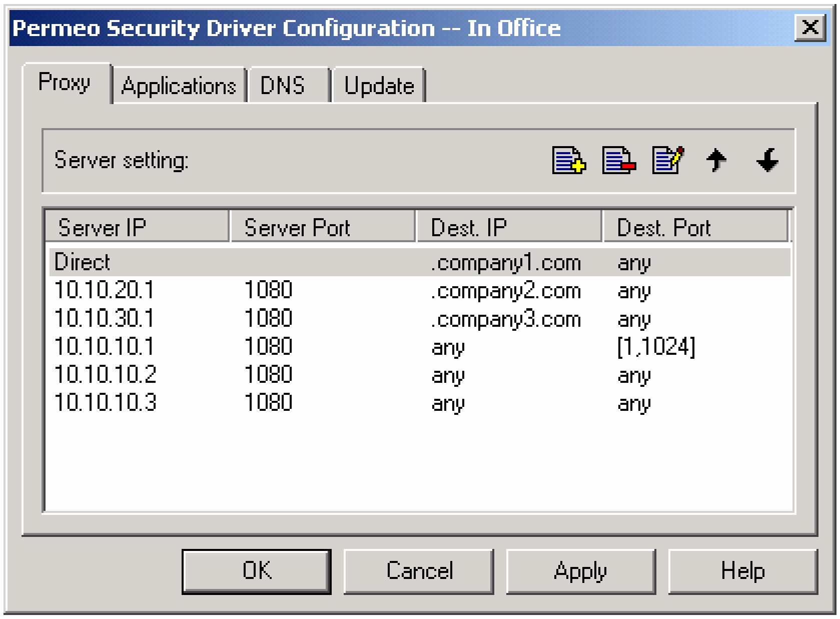
- **Rule 1:** Specifies that all requests go Direct (by-passing the Security Server) for any host in the 10.10.10 network.
- **Rule 2:** Specifies that all traffic bound for the 10.10.20 network uses ServerA.
- **Rule 3:** Specifies that all other requests (not covered by rules 1 and 2) use ServerB.



Server	Server Port	Destination	Destination Port
Direct		10.10.10.	any
ServerA	1080	10.10.20.	any
ServerB	1080	any	any

Proxy Rules Example 3

- **Rule 1:** Connection requests to any host in the **.company1.com** domain connect directly – without using the Security Server. When the Driver processes a request to connect to a host in **.company1.com**, it does not process the remaining rules. The Driver stops evaluating rules when it finds a match.
- **Rule 2:** Traffic bound for the **.company2.com** network goes via Server 10.10.20.1.



Server IP	Server Port	Dest. IP	Dest. Port
Direct		.company1.com	any
10.10.20.1	1080	.company2.com	any
10.10.30.1	1080	.company3.com	any
10.10.10.1	1080	any	[1,1024]
10.10.10.2	1080	any	any
10.10.10.3	1080	any	any

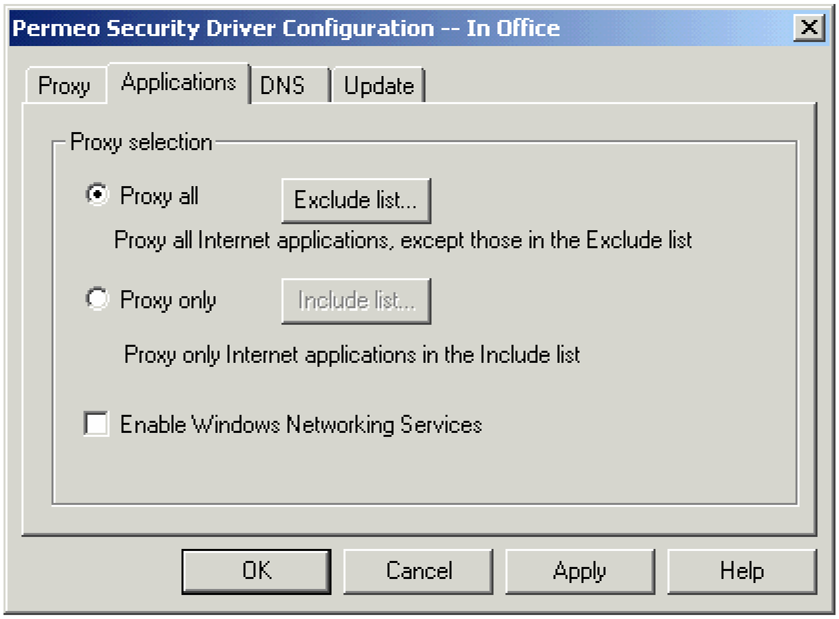
- **Rule 3:** Traffic bound for the **.company3.com** network goes via Server 10.10.30.1.
- **Rule 4:** All traffic bound for ports in the range 1 through 1024 uses Server 10.10.10.1.
- **Rules 5 and 6:** For all other traffic, the Security Driver load-balances between Servers 10.10.10.2 and 10.10.10.3.

Note: If the last rule were first, the Driver would use 10.10.10.3 for all connection requests and would never process the other rules.

6.3.2 Applications tab

The **Applications** tab allows the user to tell the Security Driver which applications to proxy, and to enable/disable Windows Networking Services.

In the **Proxy selection** box, you must choose between **Proxy all** and **Proxy only**, then indicate which applications you want to **Exclude** or **Include**.



Proxy selection

● Proxy all

Proxy all Internet applications, except those in the Exclude list

○ Proxy only

Proxy only Internet applications in the Include list

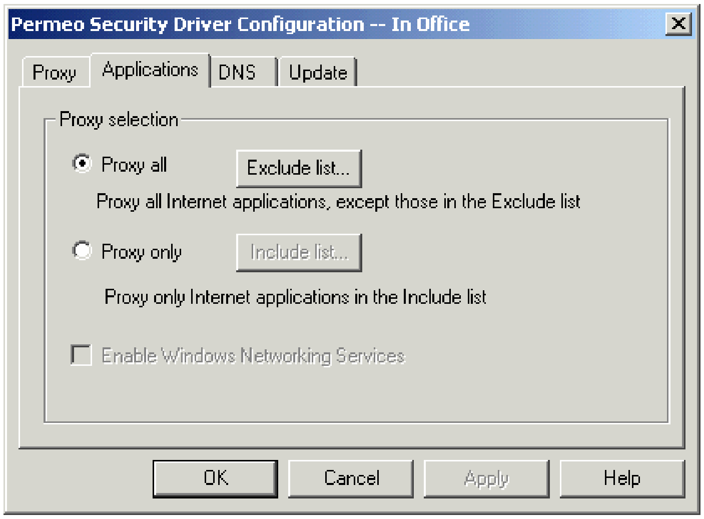
□ Enable Windows Networking Services

- Select **Proxy All** to proxy all applications, except those listed in the **Exclude list**.
- Select **Proxy Only** to proxy only those applications listed in the **Include List**.

  Note: When adding applications to either the **Include** or **Exclude** list, make sure to add all necessary executables (files ending with .exe) for that application – since some applications have more then one executable file.
- Click **Enable Windows Networking Services** to access remote files and printers on a Windows network.

6.3.2.1 Proxy All applications except those in Exclude List

Select **Proxy All** to proxy all applications, except those listed in the **Exclude list**.



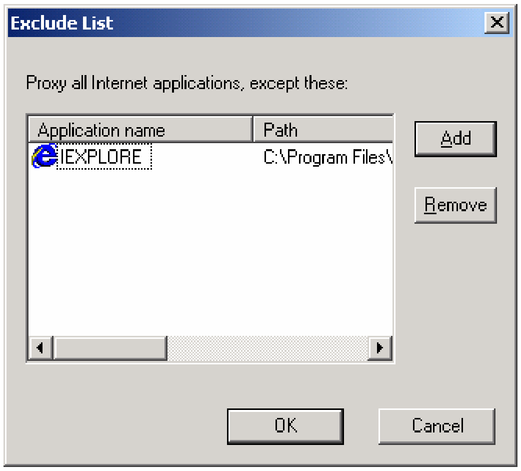
● Proxy all

Proxy all Internet applications, except those in the Exclude list

○ Proxy only

Proxy only Internet applications in the Include list

□ Enable Windows Networking Services



Proxy all Internet applications, except these:

Application name	Path
IEXPLORE	C:\Program Files\

<u>To add applications to the **Exclude List**</u>:

1. Select **Proxy all**.
2. Click the **Exclude list** button to open the **Exclude List** window.
3. Click **Add** and navigate to and select the executable file for the application.

   - or -

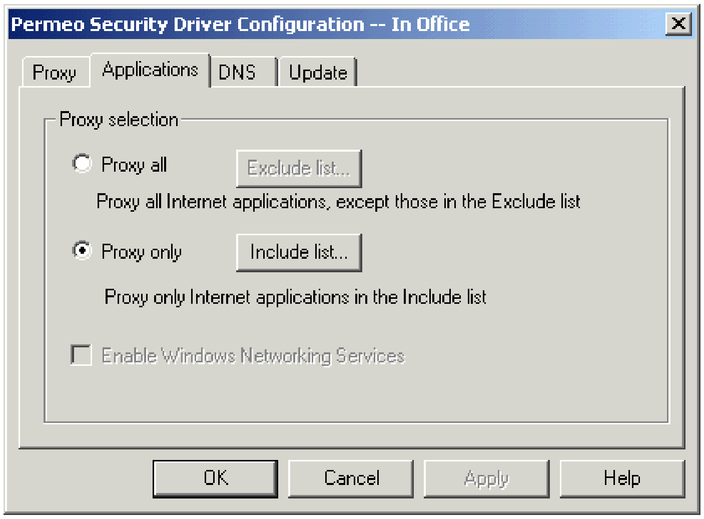
   Drag application icons from the Windows Desktop to the **Exclude List** window.
4. Repeat step 3 to exclude as many applications as needed.
5. Click **OK** when finished adding applications.

<u>To delete an application from the **Exclude List**</u>:

1. Select **Proxy all**.
2. Click the **Exclude list** button to open the **Exclude List** window.
3. Select the application to remove.
4. Click **Remove**.
5. Click **OK** when finished removing applications.

6.3.2.2 Proxy Only applications specified in Include list

Select **Proxy Only** to proxy only those applications listed in the **Include List**.



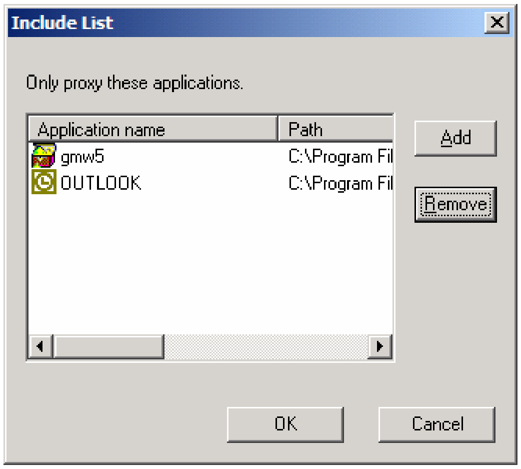
○ Proxy all

Proxy all Internet applications, except those in the Exclude list

● Proxy only

Proxy only Internet applications in the Include list

□ Enable Windows Networking Services



Only proxy these applications.

Application name	Path
gmw5	C:\Program Fil
OUTLOOK	C:\Program Fil

<u>To add applications to the **Include List**</u>:

1. Select **Proxy only**.
2. Click the **Include list** button to open the **Include List** window.
3. Click **Add** and navigate to the executable file for the application.

   - or -

   Drag application icons from the Windows Desktop to the **Include List** box.
4. Repeat step 3 to include as many applications as needed.
5. Click **OK** when finished adding applications.

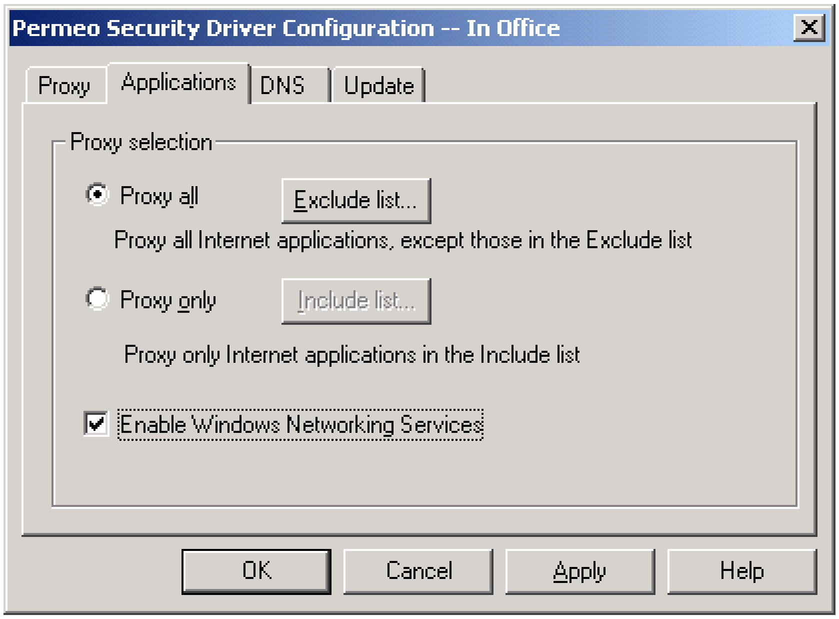
Note: Some applications, including Netscape® Navigator and Communicator, and Microsoft® Internet Explorer include built-in SOCKS capability. If you are using the built-in SOCKS capability, do not SOCKS-enable those applications with the **Permeo Security Driver**.

<u>To delete an application from the **Include List**</u>:

1. Select **Proxy only**.
2. Click the **Include list** button to open the **Include List** window.
3. Select the application to remove.
4. Click **Remove**.
5. Click **OK** when finished removing applications.

6.3.2.3 Enable Windows Networking Services

Click **Enable Windows Networking Services** to enable the Security Driver to access remote files and printers on a Windows network.



Proxy selection

● Proxy all

Proxy all Internet applications, except those in the Exclude list

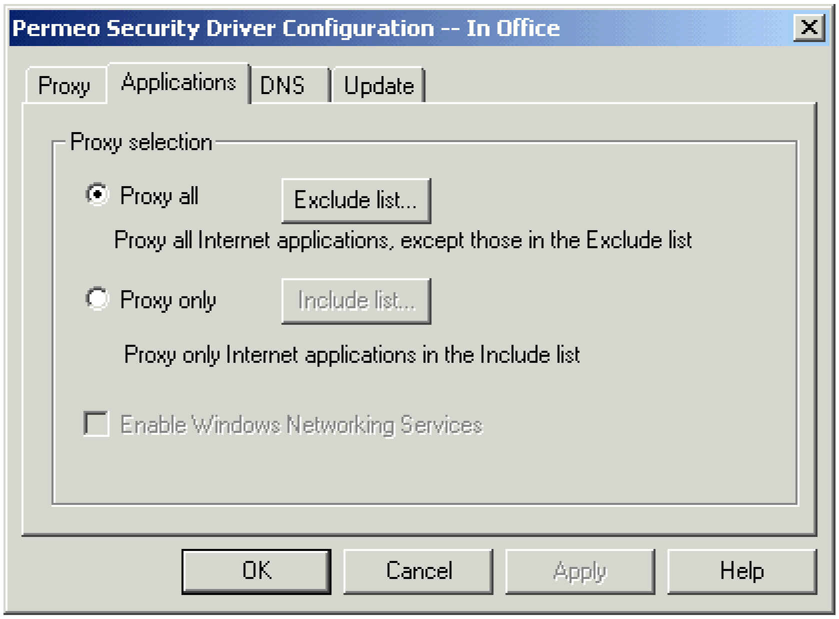
○ Proxy only

Proxy only Internet applications in the Include list

☑ Enable Windows Networking Services

Note: This feature is only available through the **Permeo Driver Secure Access** package, and is supported only on Windows 2000 and XP platforms.

If you have not installed the **Driver Secure Access** package, the **Enable Windows Networking Services** feature will be unavailable (grayed out) as shown below:



Proxy selection

● Proxy all

Proxy all Internet applications, except those in the Exclude list

○ Proxy only

Proxy only Internet applications in the Include list

□ Enable Windows Networking Services

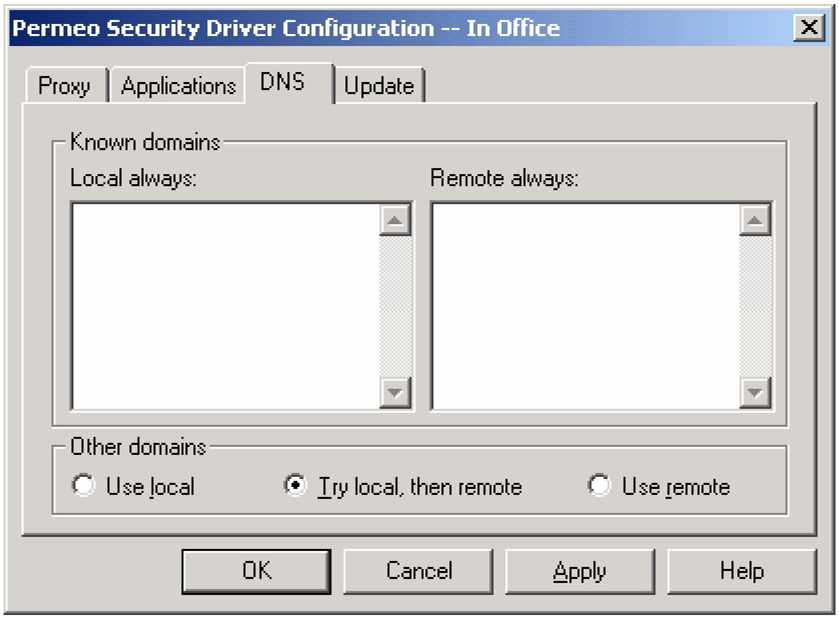
To configure Microsoft Networking Services support on the client, you must:

- Install the **Driver Secure Access** package
- Have a valid WINS server configured on a Windows host
- Obtain the required credential, account, and workgroup information on the client.
- Set your client computer to use the WINS server
- Enable the **Microsoft Networking Services** feature in the Security Driver's Configuration window Applications tab
- Restart your Windows system

Note to Administrators: Detailed information on server requirements and configuring the client to run Microsoft Networking Services is available in the ***Configuring Remote File and Printer Sharing for Administrators*** section later in this document. In addition, a network administrator must configure the **Permeo Security Server** to support Microsoft Networking Services.

6.3.3 DNS tab

The **DNS** tab defines how the **Security Driver** resolves domain names. The window is divided into **Known domains** and **Other domains**. Enter the **Known domains** by typing domain names in the appropriate columns. Use space to separate multiple domain names. The DNS tab is most useful when the Driver machine and Server machine use different DNS servers.



6.3.3.1 Resolving Domain Names

- **Local always**: To define domain and host names the Driver resolves. The Driver attempts to resolve domain names and fails connection attempts it cannot resolve. Enter all the domains that you know can be resolved by the local machine in the **Local always** list.
- **Remote always**: To define domain and host names the Security Server resolves for the Driver. Enter all the domains that you know can be resolved by the remote machine in the **Remote always** list.
- **Other domains**: For domains that are not in either **Local always** or **Remote always** categories, the Driver uses **Other domains** to define the priority to resolve domain names.
    - ➢ When you choose **Use local**, the Driver attempts to resolve domain names and fails connection attempts it cannot resolve.
    - ➢ When you choose **Try local, then remote**, the Driver attempts resolution. If the Driver fails to resolve the name, the Server attempts resolution.
    - ➢ When you choose **Use remote**, the Driver requests that the Server resolve domain and host names.

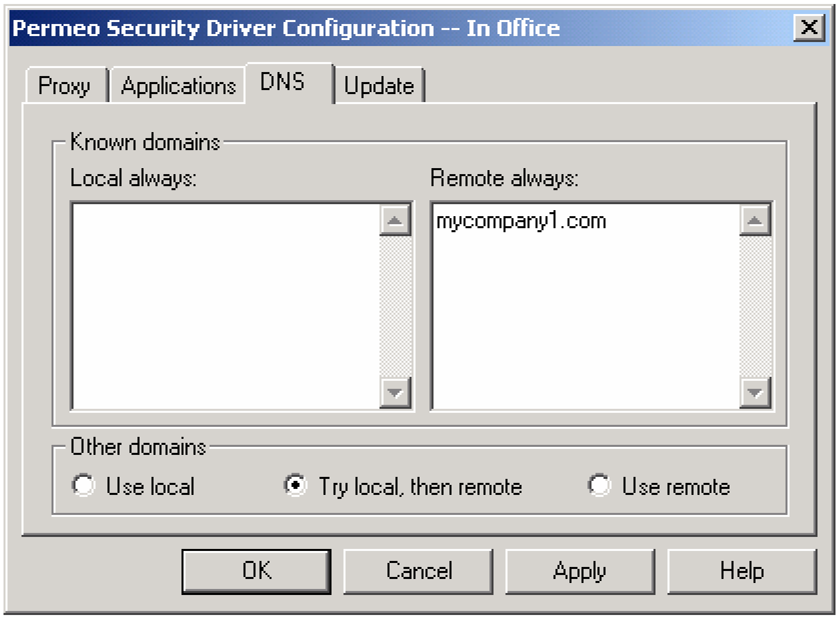
Note: It is no longer required to have a DNS Server entry in the Windows Internet Protocol (TCP/IP) Properties window. The Driver will function without it. However, if you do not have a DNS Server, then you must configure the Driver with a remote option, such as **local then remote**, or **remote always** on the Security Driver Configuration **DNS** tab.

6.3.3.2 DNS Examples

<u>**DNS Example 1**</u>

This examples assumes you work from home to access your company resources (**mycompany1.com**) via the **Permeo Security Server**. Since your Driver machine's DNS server is provided by your ISP, it cannot resolve internal machines in your company network.

In this case, you would specify **mycompany1.com** as **Remote always**.



Permeo Security Driver Configuration -- In Office

Known domains

Local always:

Remote always: mycompany1.com

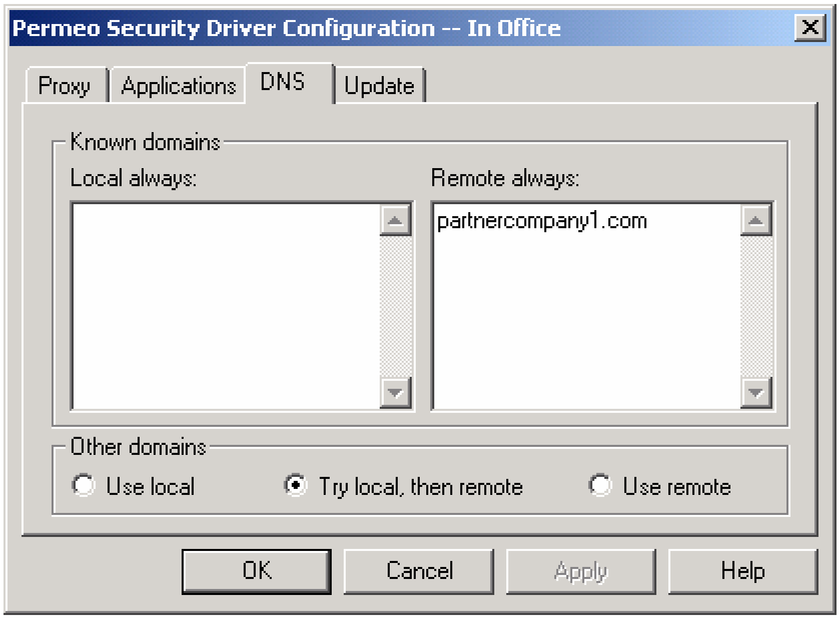
Other domains

○ Use local ● Try local, then remote ○ Use remote

DNS Example 2

Now you are back at the office, working on **mycompany1.com**, but you are using your partner company’s **Permeo Security Server** to access their resources.

In this case, you would specify **partnercompany1.com** as **Remote always**.



Permeo Security Driver Configuration -- In Office

Known domains

Local always:

Remote always: partnercompany1.com

Other domains

○ Use local ● Try local, then remote ○ Use remote

6.3.4 Update tab

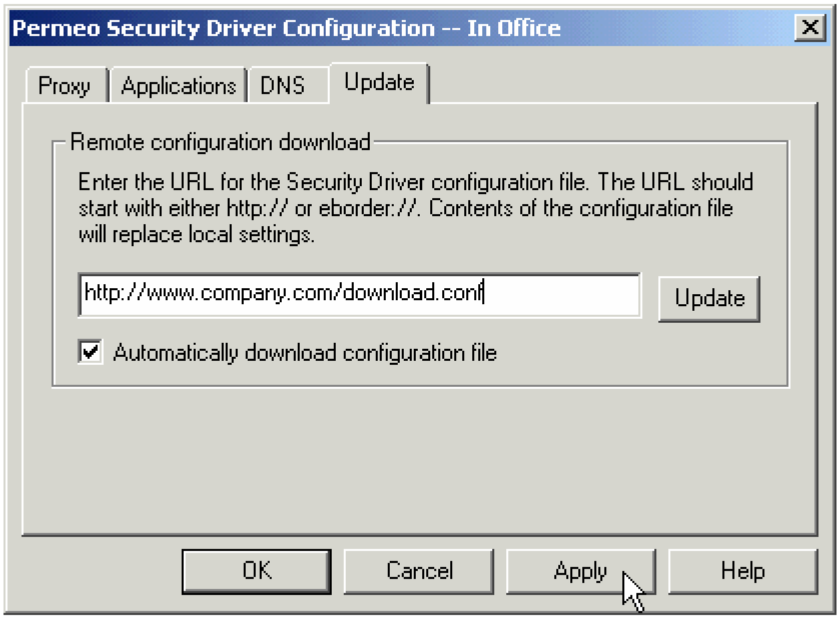
The **Update** tab provides a **Remote Configuration Download** option that allows network administrators to create a Driver configuration file and store it on a Web server or Security Server in a centralized location. The **Security Driver** can connect to the URL or Security Server, copy the file locally, and activate (and override) the settings for the Driver on the client machine.

This option simplifies Security Driver setup in a networking environment where groups of Driver users require the same configuration. The configuration file can be set to download on-demand, or to download every time the user logs on.

The following sections detail the **Remote Configuration Download** feature. For other advanced configuration options and more detail on the **Remote Configuration Download**, please refer to the section on ***Advanced Configuration Options for Administrators***.

The **Remote Configuration Download** feature allows a network administrator to:

- Create one Security Driver configuration file for use by several machines
- Centrally manage and control Security Driver settings
- Easily make changes to settings for many users by changing one file
- Provide users with consistent and immediate configuration updates
- Allow users to update their configuration on-demand, or automatically upon logon



Permeo Security Driver Configuration -- In Office

Remote configuration download

Enter the URL for the Security Driver configuration file. The URL should start with either http:// or eborder://. Contents of the configuration file will replace local settings.

http://www.company.com/download.conf

☑ Automatically download configuration file

6.3.4.1 Remote Configuration Download – On-demand

A remote configuration file can be downloaded on-demand whenever a network administrator wants to distribute a standardized configuration, or when users want to restore their configuration back to the network standard. The advantage of the on-demand update is that users can update whenever they want, and choose to use the downloaded settings as is, or further customize their settings by making changes to their configuration through the **Configuration** window. Administrators can put a **Security Driver** configuration file either on a Web server or a **Permeo Security Server**.

Note: When the **Update** is performed, only the settings for the selected **Zone of Service** are updated. Before you **Update**, be sure to **Edit** the configuration in the **Zone of Service** that you want to update (**In Office**, **Out of office**, or **Wireless**) from the User Properties **General** tab.

To specify the configuration file and download settings on-demand:

1. From the **Update** tab, type the **URL** or **Security Server** name that contains the pre-configured **Security Driver** configuration file. (See entry examples below.)
2. Click **Update** to copy the remote configuration file, overriding the local Driver settings for the selected **Zone of Service**.
3. Downloaded configuration data will override all local settings in Proxy, Application, DNS, and Update tabs. Upon updating, it is even possible that the URL or Server name on the Update tab could change. The Security Driver displays a prompt to indicate that the update was successful. Click **OK**.

Note: Users must obtain the URL of the configuration file or the Security Server name from their network administrator for the initial update. If the path, name, or syntax is invalid, the Security Driver displays an error prompt indicating the update failed. Click **OK** and try again.

Examples

- **To enter a URL:** You must enter the complete URL for the configuration file, for example: `http://www.company.com/download.conf`
- **To enter a Security Server:** You only need to specify `eborder://` followed by the name of the Security Server where the file is located. It is not necessary to enter a filename, as it must be specified by your administrator in the Server configuration, for example: `eborder://SecurityServer1`

Notes to Administrators:

- When preparing the remote configuration file, you must be sure to enter the target URL or Security Server name for the remote configuration file location. When users initially perform the **Update** function, they must enter the same target URL or Security Server name. Each subsequent time the **Update** is performed (upon user logon), the URL or Server Name is provided by the remote configuration file.
- To create a configuration file that users automatically download each time they logon, enable **Automatically download configuration file** when you are preparing the remote configuration file. Please see the following section.

6.3.4.2 Remote Configuration Download – Automatic

This option is for advanced users and network administrators who are configuring the Security Driver for other users. Use this option to automatically update the configuration file each time the user logs on – guaranteeing that all designated users are using the same configuration. This option ensures uniformity of settings – any changes users make to their local Security Driver settings will be overwritten the next time they logon.

To specify that the configuration file be downloaded each time a user logs on:

1. Perform steps 1-3 listed under **Remote Configuration Download – On-demand** above. A valid configuration file URL or Security Server name must be properly entered and successfully updated.
2. Check **Automatically download configuration file**.
3. Click **Apply** for the setting to take effect.

Note to Administrators: When preparing the remote configuration file for users to automatically download each time they logon, you must enable **Automatically download configuration file**. If you do not enable **Automatically download configuration file** in the source file, the configuration file will be updated only one time – when the user clicks **Update**. When the remote configuration file updates the current settings, if the box is not checked in the remote configuration file, the Driver will not download the next time the user logs on.

6.4 Administrator's Tool

The **Permeo Security Driver** provides an **Administrator's Tool** to manually export and import configuration settings to and from a file, and Ping and Traceroute diagnostics to verify connectivity to a Security Server. Generally, this tool is used by network administrators to create centralized configuration files to be used by groups of users, as well as troubleshoot Server problems. The Import/Export functions of the **Administrator's Tool** lend flexibility to advanced users and administrators who configure the Security Driver for others.

Potential uses for Import/Export are:

- Export a configuration file that will later be shared with (imported by) other users, or put on a Web server or Security Server for users to download. For more information on the **Remote Configuration Download** feature, please refer to the following sections of this document: the ***Configuration Window – Update Tab*** and ***Advanced Configuration Options for Administrators***.
- Import a configuration file to override current settings
- Export a configuration file to have as a backup
- Import a backup file to restore settings to original configuration

To start the Security Driver **Administrator's Tool**:

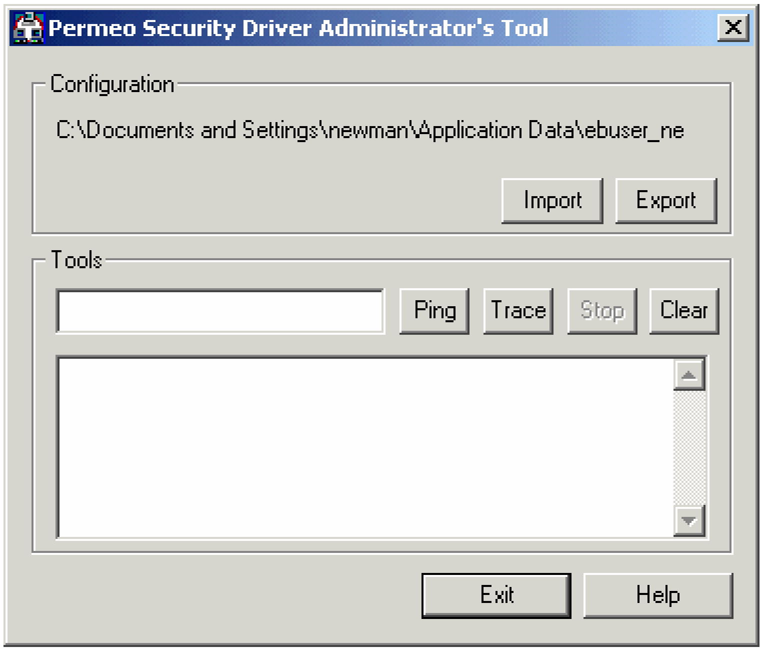
1. Run the **Administrator's Tool** from the **Start** menu:

   Click **Start > Programs > Permeo Security Driver > Administrator's Tool**

   - or -

   From Windows Explorer, go to your **Permeo Security Driver** INSTALLDIR (the default installation directory is c:\Program Files\Permeo\Security Driver) and run **EBAdmin.exe**.

2. The **Administrator's Tool** window appears, displaying the current configuration file.



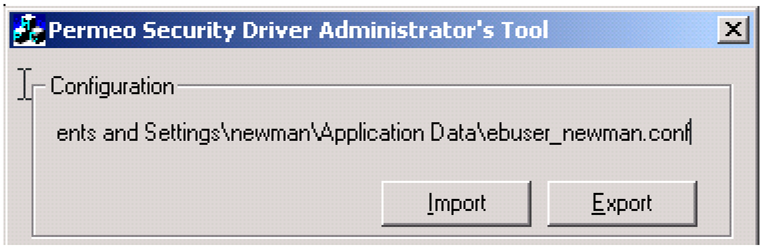
C:\Documents and Settings\newman\Application Data\ebuser_ne

6.4.1 Configuration Filenames

Upon loading, the **Admistrator's Tool** automatically shows the Security Driver configuration file that is currently in use:

- If the **Allow non-administrator users to change configuration** feature is ENABLED in the System Properties window, a separate Driver configuration file is stored for each user in the Windows application data directory.

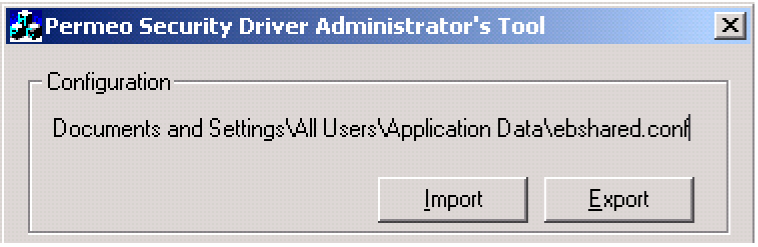
  The user configuration file is named **ebuser_username.conf**, where *username* is the User's logon name.



ents and Settings\newman\Application Data\ebuser_newman.conf

- If the **Allow non-administrator users to change configuration** feature is DISABLED in the System Properties window, one shared system configuration file is stored in the Windows application data directory on that machine for use by all users on that machine.

  The shared system configuration file is named **ebshared.conf**.



Configuration

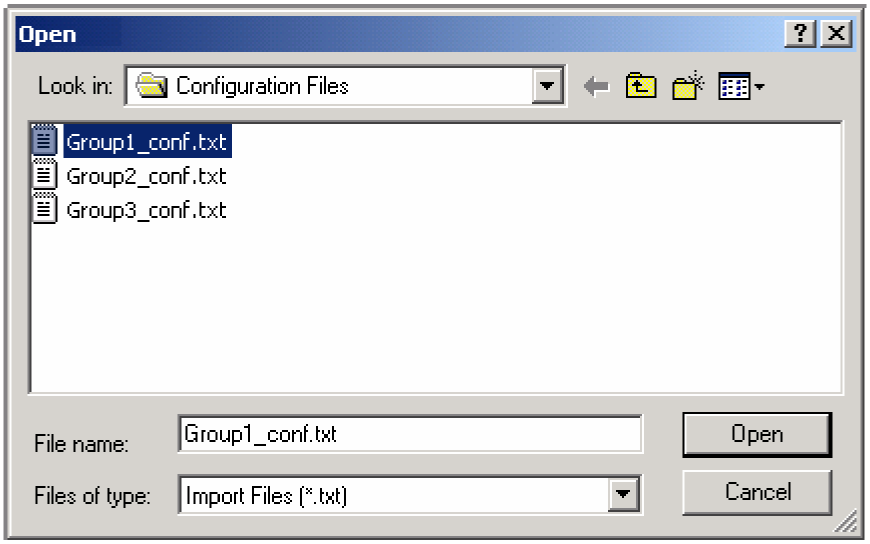
Documents and Settings\All Users\Application Data\ebshared.conf

6.4.2 Importing a Configuration File

In some environments, an administrator may give users a Security Driver configuration file directly, for example, as an e-mail attachment, or place it on a network server. Users can manually import the configuration file to override their local Driver settings.

Note: When importing a configuration file, all configurations (**In Office, Out of office,** and **Wireless)** will be imported.

1. Make sure your Permeo Security Driver **User Properties** window is closed.
2. Click the **Import** button in the **Administrator's Tool** window.
3. Enter the filename, or browse to locate the file to import.
4. Click the **Open** button or press **Enter** to import the file and override the current Security Driver settings. The active Driver configuration file will be updated.



Look in: Configuration Files

Group1_conf.txt
Group2_conf.txt
Group3_conf.txt

File name: Group1_conf.txt

Files of type: Import Files (*.txt)

6.4.3 Exporting a Configuration File

An administrator can configure the Security Driver and export the configuration settings to a specific filename and location.

Note: When exporting a configuration file, all configurations (**In Office, Out of office,** and **Wireless**) will be exported. Exported configuration file does not include user credential information or any settings contained in the Driver System Properties.

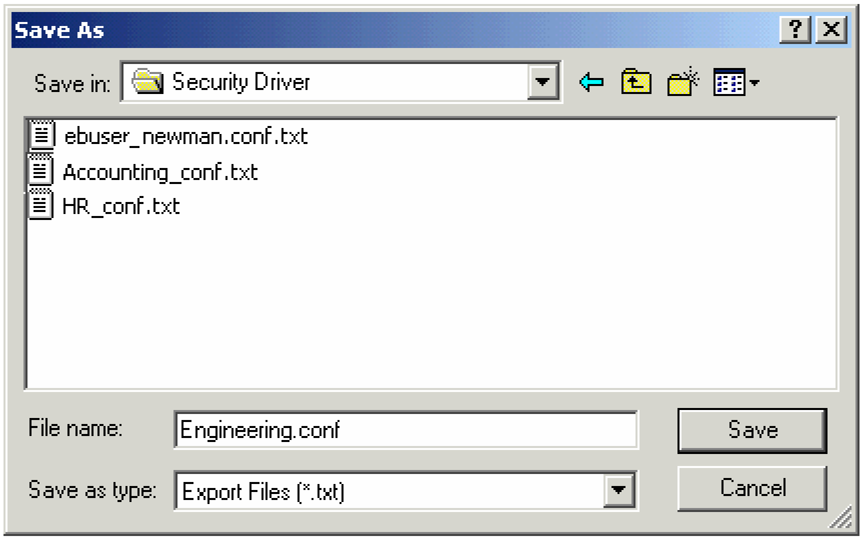
1. Make sure you have all sections for all service zones configured as desired.

2. Click the **Export** button in the **Administrator's Tool** window.

3. Browse to a location where you want to save the Driver configuration file, and enter a filename.

4. Click **Save**. The file can then be sent to users to **Import**, or put on a Web server or Security Server for users to download.

For more information on the **Remote Configuration Download** feature, please refer to the following sections of this document: the ***Configuration Window – Update Tab*** and ***Advanced Configuration Options for Administrators***.



Save in: Security Driver

ebuser_newman.conf.txt
Accounting_conf.txt
HR_conf.txt

File name: Engineering.conf

Save as type: Export Files (*.txt)

6.4.4 Driver Diagnostics

The Administrator's tool offers Ping and Traceroute diagnostics that could be helpful while diagnosing network connectivity issues. The Ping and Trace tools allow users to run ping and trace functions provided by the **Permeo Security Server**.

Ping Executes a ping command to the host in the Destination box and displays the result in the message window

Trace Executes a traceroute command to the host identified in the Destination box and displays the result in the message window

Stop Cancels the ping or traceroute command

Clear Clears the diagnostic message window

7 Wireless LAN Solution

Permeo offers a Wireless LAN (WLAN) solution through the combined use of the Security Server and Security Driver. In addition to the “in office” and “out of office” configurations, users can choose to create a “wireless” configuration on the client to ensure secure wireless connections between the Driver and the Security Server.

7.1 Security Server Requirements

To use the Wireless LAN solution, the Security Server requires the following:

- The **Server Encrypt SSL** plug-in must be properly installed, configured, and enabled on the Security Server. When the **Wireless** setting is active on the Driver, all connections are protected by SSL, even when the Security Server’s policy does not require SSL authentication. Meaning that an **auth** rule in the Policy editor is not required for the Wireless LAN solution to function. However, if you do use an **auth** rule, it will be combined with ssl.

  For example, if you specify:

  ```
  auth - - u
  ```

  it will function as if you specified:

  ```
  auth - - su
  ```

- If the Driver is set to use the wireless **Auto-Detect** option, then the SERVER_DETECT global variable must be set to **on**. From **Server Manager**, click the **Properties** button, select the **Advanced** tab, then change SERVER_DETECT to the desired value.

7.2 Client Requirements & Options

To use the Wireless LAN solution, the **Security Driver** and the **Driver Encrypt SSL** plug-in module must be installed on the client machine. If the Encrypt SSL plug-in module is not installed on the client machine, the **Wireless** option will not be available.

7.2.1 Wireless Auto-Detect Server Option

The wireless configuration has two options for connecting to a Security Server:
Auto-Detect mode and the standard **Proxy** rules.

- If **Auto-Detect** is selected, the Driver will automatically locate a Security Server. Auto-detect is done per connection. When you make a connection, the Driver will actively search for an available Security Server. The Driver will use the first Server it detects to make a connection. On the Driver side, there is no way to control or specify which Server to use when **Auto-Detect** is in effect.

Note: When **Auto-Detect** is selected, any rules previously defined in the **Proxy** tab are preserved, but not used.

- If **Auto-Detect** is not selected, rules defined in the **Proxy** tab will be used.

All other wireless configuration options (on Applications, DNS, Update tabs) function the same as **in office** and **out of office** configurations.

8 Configuring Remote File and Printer Sharing for Administrators

The **Permeo Security Driver Secure Access** package provides support for Microsoft Networking Services. After you have installed the Permeo **Secure Access** package, the **Configuration** window **Applications** tab displays a check box labeled **Enable Windows Networking Services**. This is an advanced feature that allows a user to securely browse files and share printers in their office network from a computer in a remote location. However, this capability will require some setup by a network administrator on the network to be browsed, and some setup by the user on the client machine.

The Windows Networking Services feature requires a client and a server component. The client component is the Security Driver, and is only supported on Windows 2000 and XP. The server component may be a Windows or UNIX Security Server.

This section outlines:

- Network requirements for Microsoft Networking Services
- Client requirements for Microsoft Networking Services
- How to change the client computer's workgroup
- How to set the client computer to use the network WINS server
- How to enable Microsoft Networking Services on the Security Driver
- How to disable/enable NetBIOS on the client

8.1 Network Requirements

The Security Driver will support Microsoft Networking Services only if the network to be browsed meets the following requirements:

- The network has a domain.
- The network is running a Microsoft WINS server on the Primary Domain Controller (PDC).
- The PDC must grant the user access to the WINS server.
- The network is running a Permeo Security Server on a Windows 2000 or XP system.
- The Security Server must run on a different machine than the PDC.
- The machine the Security Server is on must have NetBIOS disabled.
- The Security Server must grant the user access for remote file and printer sharing (ports UDP 137, UDP 138, and TCP 139).

8.2 Client Requirements

The Security Driver requires the following to be set up on the client machine before a user can browse the remote network.

- A credential (username and password) for the network PDC.
- A credential for the remote resources to be accessed. This usually is, but may not be, the same credential as the domain login.
- A local account and local workgroup to match the domain login and network domain, respectively.
- Set the client computer to use the network WINS server.
- Enable Microsoft Networking Services on the Security Driver.

8.3 Changing the Workgroup

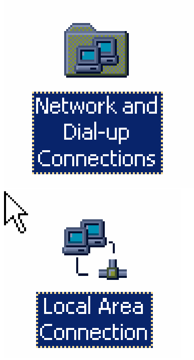
Before a user can browse the remote network, the Security Driver requires a local account and local workgroup be set up to match the domain login and network domain, respectively. When the user's computer is in a remote location from the network to be browsed, they may not login to the remote domain. This would be insecure, because joining a domain is only secure when the client computer is physically connected to the local network of the domain controllers. Remote domain login attempts will fail after a long timeout. This means that when the user's computer is removed from the company network, they must login to a local account and local workgroup. It is best to create a local account with the same username and password as the user's domain login, and a local workgroup with the same name as the network domain.

To change your computer's workgroup on Windows 2000:

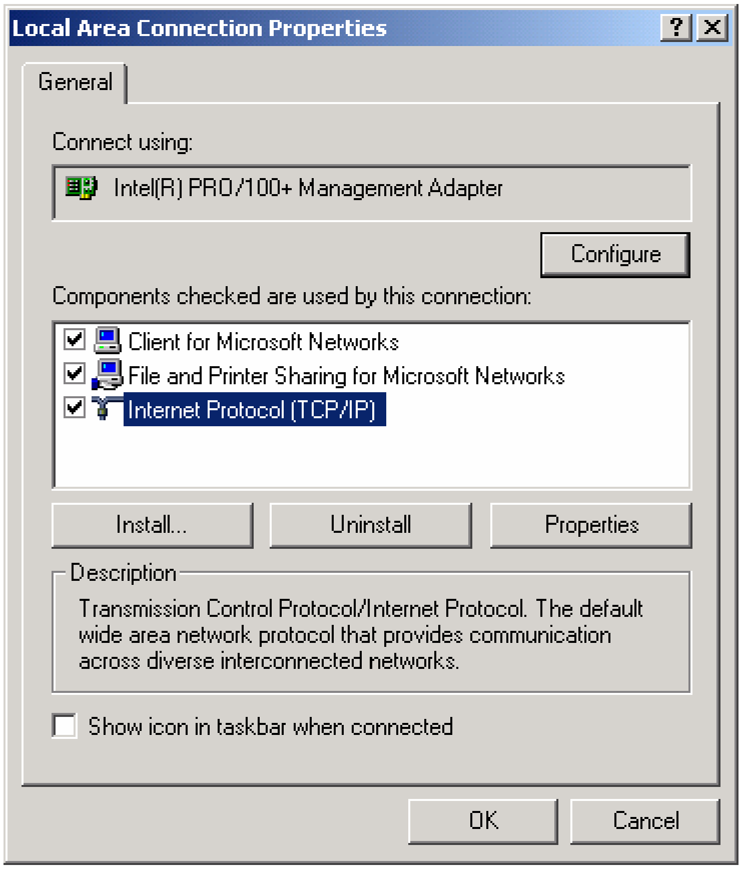
1. Login to an account with administrator privileges.
2. From the system taskbar, click:
   Start > Settings > Control Panel
3. From the **Control Panel**, double-click the **Network and Dial-up Connections** applet.
4. Select the **Advanced** menu, then the **Network Identification…** menu item.
5. From the **Network Identification** tab, click the **Properties** button
6. Select the **Workgroup:** radio button, and set the workgroup name as desired.
7. Click the **OK** button on the dialog.
8. After a few seconds, you will see a **"Welcome to the … workgroup"** message box. Click **OK** and read the warning that states: **"You must reboot this computer for the changes to take effect."**
9. Click **OK** for another message box that asks, **"You must restart your computer before the new settings will take effect. Do you want to restart your computer now?"** You may answer **No** if you do not wish to wait for a reboot. For Windows 2000 and Windows XP, you do not need to reboot before Microsoft Networking Services will work.

8.4 *Setting the client computer to use the network WINS server*

To set the WINS server on Windows 2000:



1. From the system taskbar, click:
   Start > Settings > Control Panel
2. From the **Control Panel**, double-click the **Network and Dial-up Connections** applet.
3. Right-click the **Local Area Connection** icon, and select the **Properties** menu item.
4. Select **Internet Protocol (TCP/IP)** from the list, and click the **Properties** button.



Connect using:

Intel(R) PRO/100+ Management Adapter

Components checked are used by this connection:

- ☑ Client for Microsoft Networks
- ☑ File and Printer Sharing for Microsoft Networks
- ☑ Internet Protocol (TCP/IP)

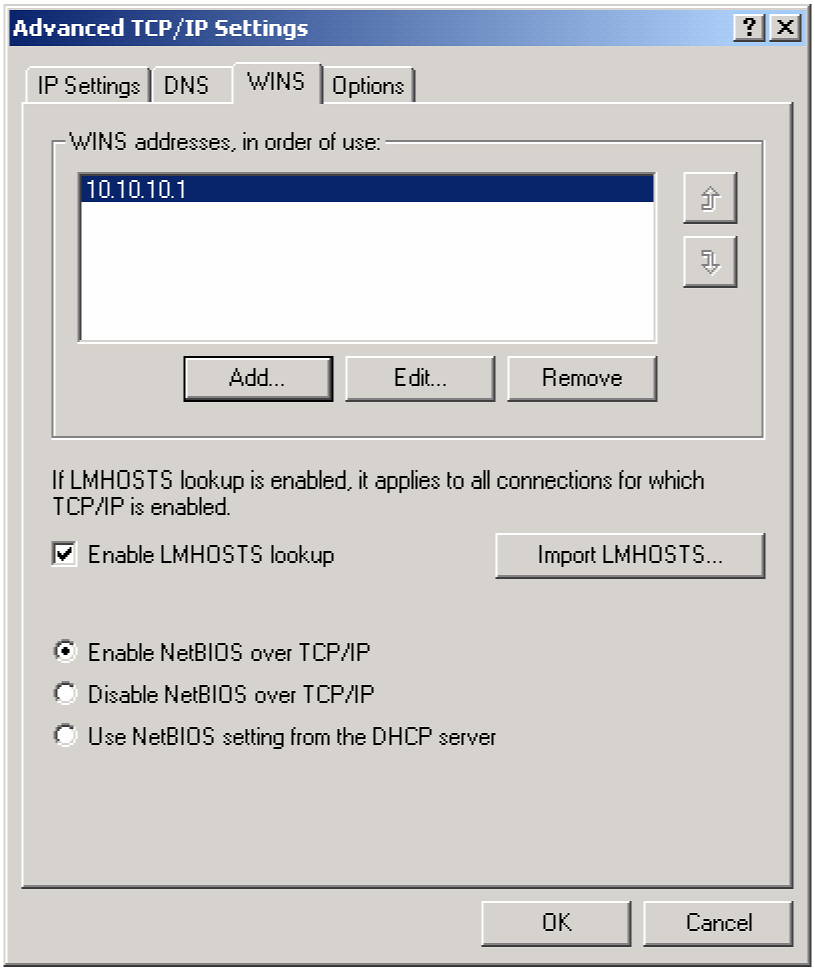
Description

Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.

☐ Show icon in taskbar when connected

5. From the **General** tab of the **Internet Protocol (TCP/IP) Properties** window, click the **Advanced** button, and select the **WINS** tab page.

6. Click the **Add** button and enter the internal IP address of the WINS server.



WINS addresses, in order of use:

10.10.10.1

If LMHOSTS lookup is enabled, it applies to all connections for which TCP/IP is enabled.

☑ Enable LMHOSTS lookup

● Enable NetBIOS over TCP/IP

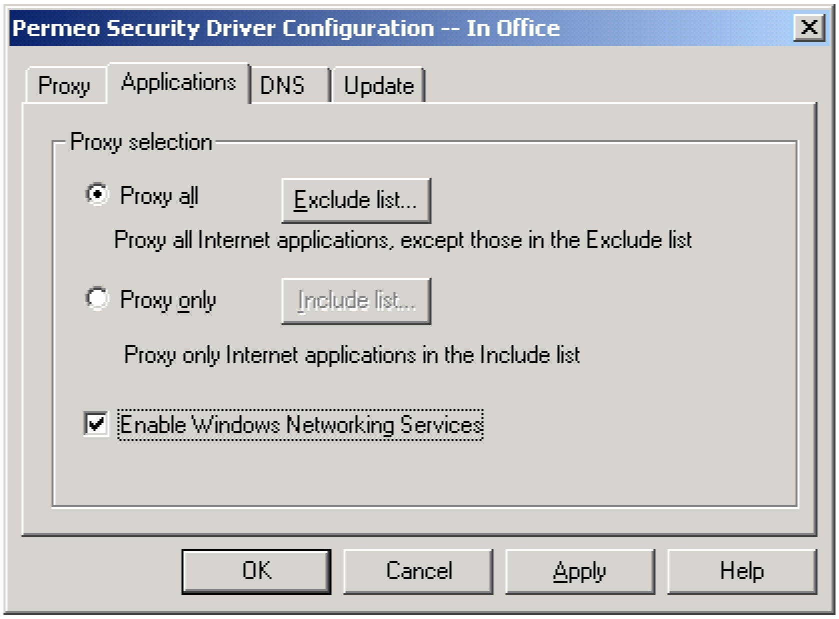
○ Disable NetBIOS over TCP/IP

○ Use NetBIOS setting from the DHCP server

8.5 Enabling Microsoft Networking Services

To enable Windows Networking Services on the Security Driver, you must check the **Enable Windows Networking Services** checkbox in the **Applications** tab of the Security Driver **Configuration** window.

See also the ***Enable Windows Networking Services*** section under the ***Configuration Window – Applications Tab*** heading.



Permeo Security Driver Configuration -- In Office

Proxy selection

● Proxy all

Proxy all Internet applications, except those in the Exclude list

○ Proxy only

Proxy only Internet applications in the Include list

☑ Enable Windows Networking Services

After enabling Windows Networking Services, you may not immediately see the remote network in the Windows Explorer browse list. At the time you booted the machine, Microsoft Networking could not retrieve the browse list for the remote network, because you were not logged in to enter your Security Driver credential.

Unfortunately, Microsoft Networking may take up to 15 minutes to refresh the Windows Explorer browse list after you log in. Activating the **View**, then **Refresh** menu on the **Network Neighborhood** window will not make Microsoft Networking refresh its browse list.

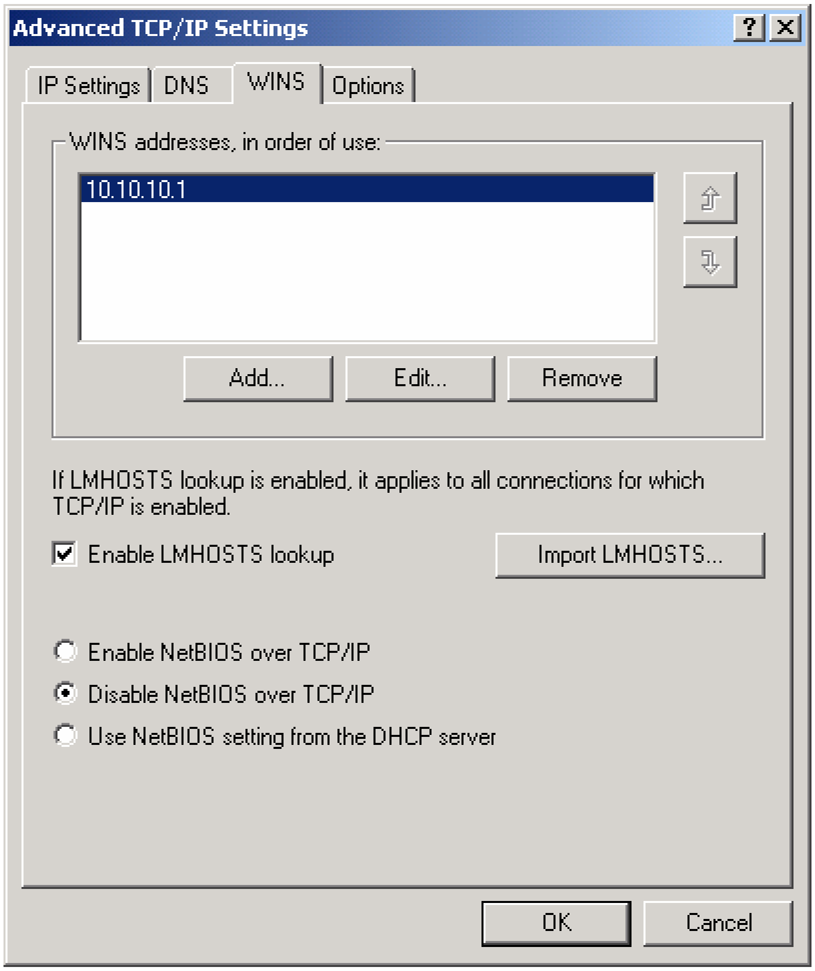
Tip: If you do not wish to wait, you may login with administrator privileges, then disable and re-enable NetBIOS (see the following section.) This workaround should cause the remote network computers to appear immediately in your Network Neighborhood.

8.6 Changing NetBIOS Settings

The following workaround (disabling and re-enabling the NetBIOS on the client) may assist in expediting the refresh of your browse list – causing the remote network computers to appear in your Network Neighborhood. You must have administrator privileges to perform this procedure.

To disable or enable NetBIOS on Windows 2000:

1. From the system taskbar, click:
   Start > Settings > Control Panel
2. From the **Control Panel**, double-click the **Network and Dial-up Connections** applet.
3. Right-click the **Local Area Connection** icon and select the **Properties** menu item.
4. Select **Internet Protocol (TCP/IP)** from the list, and click the **Properties** button.
5. Click the **Advanced** button on the resulting dialog, and select the **WINS** tab.
6. Select either the **Enable NetBIOS over TCP/IP**, or **Disable NetBIOS over TCP/IP** radio buttons.
7. Exit all dialogs by clicking the **OK** button.



WINS addresses, in order of use:

10.10.10.1

If LMHOSTS lookup is enabled, it applies to all connections for which TCP/IP is enabled.

☑ Enable LMHOSTS lookup

○ Enable NetBIOS over TCP/IP

● Disable NetBIOS over TCP/IP

○ Use NetBIOS setting from the DHCP server

Note: Even with Microsoft Networking Services remote file and printer sharing enabled, your mapped network drives may sometimes fail to reconnect. This is because at the time Windows attempts to reconnect your network drives, your Security Driver credential is not available to authenticate your connection to the remote network (by design). You should cancel the reconnection. When you have completed logging in, you may simply select the remote drive from Windows Explorer to reestablish the connection.

9 Advanced Configuration Options for Administrators

This section is intended for network administrators and individuals tasked with configuring and deploying the Security Driver for other users. There are three advanced configuration options that can ease the process of installing and/or configuring the Driver for other users:

- Importing a configuration file
- Remote configuration download
- One-click Web install

9.1 Manually Import a Configuration File

The **Permeo Security Driver** provides an **Administrator's Tool** that can import and export a Driver configuration file. An administrator can configure all Driver settings, then export the configuration file and send it to other users who require the same Driver configuration. The configuration file can be sent as an e-mail attachment, or placed on a network server. Instruct users to run the **Administrator's Tool**, and import the configuration file from wherever it is stored. Upon import, all local configuration settings (**In office**, **Out of office**, and **Wireless**) are overridden, and the user's configuration file is updated.

Please refer to the ***Security Driver Components – Administrator's Tool*** section for more information on running the Administrator's tool, configuration file names, and steps for importing and exporting configuration files.

9.2 Remote Configuration Download

Permeo offers two remote configuration download options that allow a network administrator to centrally manage, control, and update Security Driver settings for any size group of users – freeing users from the task of configuring their own Driver settings. The configuration file can be provided for users to download on-demand, or set to automatically download each time they logon to their machines.

Please refer to the ***Configuration Window – Update Tab*** section in this document for more information on on-demand and automatic remote configuration download.

Note: The remote configuration download feature is accessible by users during the initial installation process or from within the Security Driver interface.

A network administrator can deploy the remote configuration download feature as follows:

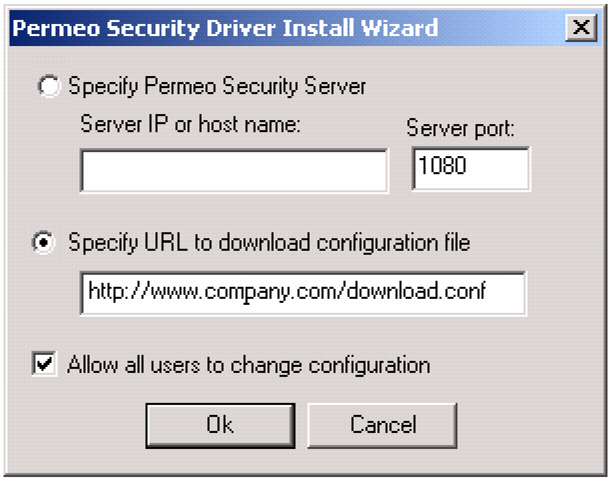
1. Create a Security Driver configuration file by entering all of the configuration settings for all desired **Zones of Service** (**In office**, **Out of Office**, **Wireless**) for a particular target audience.

2. Export the file using the **Administrator's Tool**.

3. Copy the exported configuration file to a Web server accessible to the target group of users, and provide the users with the URL to this file. Or, copy the configuration file to a Permeo Security Server, and supply the users with the Security Server name.

   Note: If your Security Server is running on a Windows system, the network administrator must enable the **Push Driver Configuration** feature, and create a **Remote Client Configuration File**, as defined in the ***Permeo Security Server User's Guide for Windows Systems***. If your Security Server is running on a UNIX system, the network administrator must set the **CLIENT_CONFFILE** variable in the Server Configuration file, and create a **Remote Client Configuration File**, as defined in the ***Permeo Security Server User's Guide for UNIX Systems***.

4. Users who are installing the **Permeo Security Driver** for the first time can enter the URL or the Security Server that points to the remote configuration file directly into the **Install Wizard** window during the initial installation procedure:



Permeo Security Driver Install Wizard

○ Specify Permeo Security Server

Server IP or host name:

Server port: 1080

● Specify URL to download configuration file

http://www.company.com/download.conf

☑ Allow all users to change configuration

Note to Administrators:

- When users specify the URL or Security Server of the remote configuration file during the initial install process, all **Zones of Service** settings (**In office**, **Out of office**, and **Wireless**) will be downloaded.
- When users perform the remote configuration download on-demand through the **Configuration** window **Update** tab, only the selected **Zone of Service** settings (**In office**, **Out of office**, or **Wireless**) will be downloaded.

- In the **Install Wizard** window, the **Allow users to change configuration** option is initially enabled – allowing users to edit their own Security Driver configurations, including Proxy server settings, applications to proxy, and DNS settings. When this option is disabled, the **shared system configuration** feature is enabled, such that users who are sharing one computer share one configuration file, and can only view their configuration previously setup by an administrator.

5. Users who have already installed the Security Driver must manually download the configuration file on-demand, as follows:

    1) From the Security Driver **User Properties** windows, click the **Edit** button to open the **Configuration** window for the **Zone of Service** they want to update (**In office**, **Out of office**, or **Wireless**).

    2) From the **Configuration** window, select the **Update** tab.

    3) Enter the **URL** or **Security Server** that links to the configuration file.

    4) Click the **Update** button, then click **OK**.

    5) The pre-configured remote configuration file loads, overriding all local configuration settings for the selected **Zone of Service** only (**In office**, **Out of office**, or **Wireless**).

       Note to Administrators: If you want to set the Driver to automatically download the remote configuration file every time the users logon to their machines, you must enable the option to **Automatically download configuration file** when preparing the remote configuration file.

9.3 One-click Web Install

The Permeo Security Driver offers a one-click installation method to simplify administration, troubleshooting, and setup of the Security Driver. The Security Driver One-click Web install allows the Administrator to create a pre-configured distribution of the Driver that can then be installed by any user through their Web browser. The advantage of the One-click install process is that it installs the Permeo Security Driver product along with a pre-configured Driver configuration file.

Note: The One-click install is available in the Permeo Security Server package.

In order for the Driver One-click to work, the InstallShield Wizard from InstallShield Corporation must first be installed on the user's computer. The InstallShield Wizard will automatically be downloaded and installed on the user's computer when the user clicks on the link to the One-click install. A warning message will alert the user that the InstallShield Wizard is about to be installed on the user's computer, the user must accept the installation of the InstallShield Wizard in order for the One-click install to proceed.

9.3.1 Pre-configuring the One-Click Web install

When required, a network administrator can completely pre-configure the One-click install to include the complete Driver configuration, including the license key and the location of the remote configuration file.

Pre-configuring the One-Click Web install consists of two main steps:

1. The administrator first installs and configures the **Permeo Security Driver** on a computer, then exports the configuration to a text file using the **Administrator's Tool**. Then, the configuration file must be placed on a Web server accessible to all users. For example, a company may save a configuration file named **PSDconfig.txt** on their Web server, **www.company.com**.

2. The administrator then edits the Web install installation script, **auto.htm**, to specify the license key information and point to the configuration URL.

9.3.2 Including license key and URL

The One-click install uses JavaScript to manage the installation of the Security Driver. To configure the One-click install to include the license key and the URL to the Driver's configuration file, edit the file **auto.htm**, inserting your valid data. In addition, the administrator can specify whether to overwrite any current configuration files, or to use a system configuration file.

1. Replace the sample license key with a valid license key:

   ```
   ether.SetProperty("LicenseKey", "1234-5678-9123-4567-ABCD");
   ```

2. Specify the URL of the Security Driver remote configuration file:

   ```
   ether.SetProperty("ImportURL", http://www.company.com/PSDconfig.txt");
   ```

3. To use the user's current configuration, enter 1, otherwise 0, for example:

   ```
   ether.SetProperty("preserve", "0");
   ```

   If the user already has a configuration file, specifying 1 will preserve the configuration file, while specifying 0 will over-write the current settings with the contents of **PSDconfig.txt**.

4. To specify that all users use the shared system configuration, enter 1, otherwise 0, for example:

   ```
   ether.SetProperty("shared", "0");
   ```

With these options set, the user only needs to click on the link to the file and the Driver will be installed on their system with the remote configuration options set.

9.3.3 One-click install without pre-configuration

If there is no need to pre-configure the Driver, then the Web install can be used like a normal installation. In this instance, users will need to provide their own license key during installation, and must know the address of their Security Server to configure the Driver.

9.3.4 Exporting the Driver configuration to a file

In order to export a configuration file, an administrator must first configure the Driver to use all of the desired settings the particular group of users will require. Configure settings through the Security Driver User Properties **Configuration** window.

Next, using the Permeo Security Driver **Administrator's Tool** (**EBAdmin.exe),** click the **Export** button to save the configuration as a text file to a desired location.

For more information on the **Administrator's Tool**, please see the ***Administrator's Tool*** section earlier in this document.