**Odyssey Access Client for Windows**

# Administration Guide

**Enterprise Edition**
**FIPS Edition**

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# Table of Contents

# About This Guide

## Objectives

This guide describes how to use the Juniper Networks Odyssey Access Client Administrator tools to configure, update, and deploy Odyssey Access Client (OAC) to users. In corporate networks, OAC negotiates with 802.1X wireless access points, 802.1X switches, and Infranet Controllers for authenticated, secure access to protected networks. An authentication server, such as Juniper Networks Steel-Belted Radius, must validate each user. In a Juniper Networks Unified Access Control (UAC) network, the user's endpoint computer is checked for security compliance before being allowed to access protected resources on the network. In networks with 802.1X-enabled switches, the switches function as enforcement points in the network security architecture.

## Audience

This guide is for network administrators whose responsibilities include managing secure wired and wireless network access for corporate users. It is particularly directed to those administrators who are responsible for configuring and deploying OAC to users, for configuring Extensible Authentication Protocol (EAP) settings, and for configuring which OAC features users can view or configure.

OAC offers a wide range of configuration options and controls, for administrators and for individual users. It is the administrator who determines how much flexibility and control users have, based on corporate security policies and on the configuration settings in the Odyssey Access Client Administrator. All administrators responsible for managing OAC should be familiar with using OAC and with the information presented in the *Odyssey Access Client User Guide*. See "List of Technical Publications" on page xi.

Some of the information in this document pertains to configuration tasks specific to the Juniper Networks Unified Access Control (UAC) security solution. If you use OAC on a UAC network, see the *Unified Access Control Administration Guide* on the Web at:

http://www.juniper.net/techpubs/

## Documentation Conventions

The following tables show the conventions used throughout this book. Table 1 defines notice icons; Table 2 defines text conventions; Table 3 defines CLI conventions; and Table 4 defines GUI conventions.

**Table 1: Notice Icons**

| Icon | Meaning | Description |
|---|---|---|
|  | Note | Indicates important features or instructions. |
|  | Caution | Indicates that you risk losing data or damaging your hardware. |
|  | Warning | Alerts you to the risk of personal injury. |

**Table 2: Text Conventions**

| Convention | Description |
|---|---|
| Plain sans serif type | Filenames and directory names. |
| *Italics* | ■ Terms defined in text.<br>■ Variable elements for which you supply values.<br>■ Book titles. |
| + (plus sign) | Key names linked with a plus sign indicate that you must press two or more keys simultaneously. |

**Table 3: CLI Conventions**

| Convention | Description |
|---|---|
| **Bold type** | Commands that you enter; command names and options. |
| Plain sans serif type | ■ Filenames and directory names.<br>■ Code and system output. |
| *Italics* | Variables for which you supply values. |
| [ ] Square brackets | Elements in square brackets indicate optional keywords or variables. |
| \| Pipe symbol | Elements separated by the pipe symbol indicate a choice between mutually exclusive keywords or variables. |
| { } Braces | Elements in braces indicate required keywords or variables. |

**Table 4: GUI Conventions**

| Convention | Description |
|---|---|
| > (chevron) | Navigation paths through the UI. |
| **Bold type** | User interface elements that you select in a procedure, such as tabs, buttons, and menu options. |
| *Italics* | Variables for which you supply values. |

## List of Technical Publications

This section lists the manuals in the OAC and UAC documentation sets. All documents are available at http://www.juniper.net/techpubs/.

- *Odyssey Access Client User Guide*—Provide an overview of OAC to basic and advanced users, provide detailed discussions and instructions for configuring network and authentication settings, and offer basic troubleshooting advice.
- *Odyssey Access Client Administration Guide*—Describe how to plan, configure, and deploy OAC to multiple users, how to control access to OAC options based on the needs and skill levels of user groups, how to manage updates, and how to deploy updates using scripts.
- *Odyssey Access Client Quick Start Guide*—Help basic users to install OAC and connect quickly to a wired or wireless network.
- *Odyssey Access Client Release Notes*—Provides the latest information about features, changes, known problems, and resolved problems. If the information in the release notes differs from the information found in the documentation set, follow the release notes.
- *Unified Access Control Administration Guide*—Describe the UAC Solution and provide instructions for configuration and maintenance.
- *Unified Access Control Quick Start Guide*—Describe the basic tasks for configuring the Infranet Controller and the Infranet Enforcer.
- *Unified Access Control Client-Side Changes Guide*—Describe the changes that OAC and the Infranet Controller make on client computers, including the installed files and registry changes.
- *Unified Access Control Custom Sign-in Pages Solutions Guide*—Describe how to personalize the look and feel of the pre-authentication and sign-in pages that the Infranet Controller displays to users and administrators.
- *Unified Access Control J.E.D.I. Solutions Guide*—Describe how to write and implement solutions through the Host Checker client and server APIs.
- *Unified Access Control Deployment Scenarios Guide*—Provide recommendations for deploying the UAC solution.

## Requesting Technical Support

Technical product support is available through the Juniper Networks Technical Assistance Center (JTAC). If you are a customer with an active J-Care or JNASC support contract, or are covered under warranty, and need post-sales technical support, you can access our tools and resources online or open a case with JTAC.

- JTAC policies—For a complete understanding of our JTAC procedures and policies, review the *JTAC User Guide* located at http://www.juniper.net/customers/support/downloads/710059.pdf.

- Product warranties—For product warranty information, visit http://www.juniper.net/support/warranty/.
- JTAC hours of operation—The JTAC centers have resources available 24 hours a day, 7 days a week, 365 days a year.

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- Find product documentation—http://www.juniper.net/techpubs/
- Find solutions and answer questions using our Knowledge Base—http://kb.juniper.net/
- Download the latest versions of software and review your release notes—http://www.juniper.net/customers/csc/software/
- Search technical bulletins for relevant hardware and software notifications—http://www.juniper.net/alerts/
- Join and participate in the Juniper Networks Community Forum—http://www.juniper.net/company/communities/
- Open a case online in the CSC Case Manager—http://www.juniper.net/customers/cm/

To verify service entitlement by product serial number, use our Serial Number Entitlement (SNE) Tool located at https://tools.juniper.net/SerialNumberEntitlementSearch/.

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- Use the Case Manager tool in the CSC at http://www.juniper.net/customers/cm/.
- Call 1-888-314-JTAC (1-888-314-5822) toll free in USA, Canada, and Mexico.

For international or direct-dial options in countries without toll-free numbers, visit us at http://www.juniper.net/customers/support/requesting-support/.

Chapter 1

# Understanding the Odyssey Access Client Administrator

This chapter presents an overview of the Odyssey Access Client Administrator—a suite of tools for configuring, updating, and deploying Odyssey Access Client (OAC) to users and for controlling which OAC features users can access. This chapter also presents a discussion of the components and processes required for secure network authentication and a summary of tasks to consider when planning to configure and deploy OAC to users.

## OAC Overview

OAC is 802.1X network access client software. It provides full support for the Extensible Authentication Protocol (EAP), which is required for secure wireless LAN access. Together with an 802.1X-compatible RADIUS server such as Juniper Networks Steel-Belted Radius, OAC secures the authentication and connection of WLAN users, ensuring that only authorized users can connect, login credentials are not compromised, and data privacy is maintained over the wireless link. OAC also serves as a client for enterprises that are deploying identity-based (wired 802.1X) networking. OAC provides wireless access to enterprise networks, home Wi-Fi networks, and public hotspots.

The Juniper Networks Unified Access Control (UAC) solution combines user identity and device security state information with network location to create a unique access control policy for each user. The UAC solution can be enabled at Layer 2 using 802.1X, or at Layer 3 using an overlay deployment. UAC can also be provisioned in mixed mode using 802.1X for network admission control and Layer 3 for resource access control. At the center of this solution is the *Infranet Controller*, a server that verifies your identity and your computer's compliance with security requirements before allowing you to access protected resources. An *Infranet Enforcer* is a firewall for the Infranet Controller to enforce security policies. An Infranet Enforcer is deployed in front of an Infranet Controller and protected network resources.

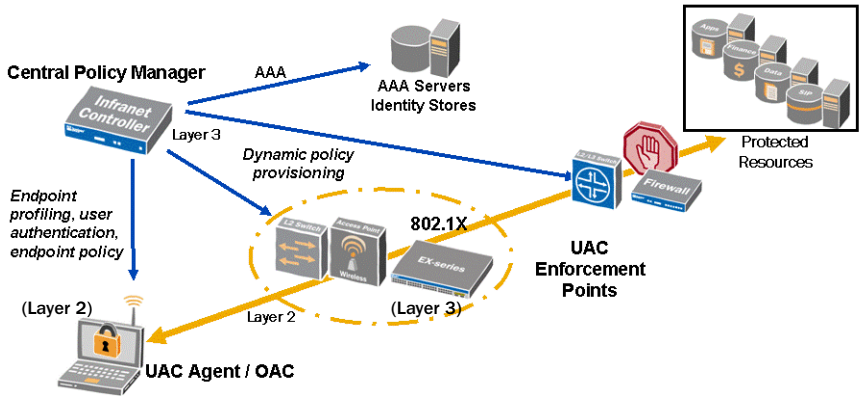
You can deploy OAC in a network that includes the UAC security solution where authenticated access to protected network resources is managed by an Infranet Controller. You can also deploy OAC in a traditional network without an Infranet Controller where OAC negotiates directly with an authentication, authorization, and accounting (AAA) server for authenticated access.

## OAC Network Authentication Overview

When OAC attempts a secure network connection, a series of negotiated transactions takes place before that connection is complete. Figure 1 summarizes the basic network components and transactions involved in such a connection.

For more information on network security and authentication, see the *Odyssey Access Client User Guide*.

**Figure 1: Network Authentication Events**




A user or computer must be authenticated before gaining access to protected network resources. Such a connection requires a series of events to occur during the logon process. In an IEEE 802.1X network, those events include user or machine authentication using Extensible Authentication Protocol (EAP) methods. In a UAC network, both the user and the computer must comply with network security policies.

1. OAC attempts to make an authenticated network connection. Depending on the network infrastructure, the network connection can include a Layer 2 connection to an 802.1X switch or wireless access point or a Layer 3 connection to an Infranet Controller or to a switch that does not support 802.1X authentication.

   - For a wired OAC client, authentication occurs through authentication ports on an 802.1X switch (at Layer 2) to the authentication server. If a network switch that does not support 802.1X, the network connection occurs at Layer 3.

   - A wireless OAC client communicates with the authentication server through an 802.1X access point. The client and the authentication server conduct a public/private key exchange.

2. The authentication server sets up an encrypted tunnel to negotiate secure wireless authentication.

3. Successful wired or wireless authentication gives the user access to a VLAN and the appropriate protected network resources.

## Planning an OAC Configuration

Consider the following questions as you plan your OAC configuration:

- Will you be authenticating users, computers, or both? If you are setting up computers that support multiple users, consider using machine authentication. The method you use determines the flow of steps for configuring the client settings.
- Do you need the computers to connect to the network before the user desktop appears? If you need to run setup scripts or other processes that run earlier, you can configure OAC user account settings to support this ability.
- How many variations of OAC configuration do you need? Based on the user roles configured on the Infranet Controller, you can configure OAC, export the settings to the Infranet Controller, and map those settings to specific roles.
- Which outer EAP authentication protocols do you need? In a UAC network, you can use either Tunneled Transport Layer Security (TTLS) or Protected EAP (PEAP). In a traditional network, check your corporate security policy or ask your network security officer which protocols are supported.
- If you use TTLS or PEAP, which inner authentication protocols do you need? An inner authentication protocol is one transmitting and/or receiving communications within a tunnel provided by a tunneling protocol, such as TTLS. In a UAC network, you must use Juniper Networks UAC (JUAC).
- Which encryption method(s) apply? The encryption methods available to you depend on the access points deployed on your network and on the association mode you select—Wired Equivalent Privacy (WEP), Wi-Fi Protected Access (WPA), or WPA2. If you are using OAC FIPS Edition, there are specific constraints on encryption methods, based on whether FIPS mode is selected. Contact your network security officer if you are unsure which methods your network supports.
- Should you allow users to access and update network auto-scan lists? Auto-scan lists might pose risks of man-in-the-middle attacks or other applications designed to attract wireless connections. Consider using preemptive networks as part of your wireless network configuration.
- For wireless networks, what are the service set identifiers (SSIDs) for your wireless access points and should you broadcast them? The SSIDs that you use to configure wireless networks must match those of the wireless access points on your network. Without the SSID, OAC can detect a wireless network but cannot connect to it.
- Is wireless suppression appropriate for your users? Wireless suppression disables wireless connections as long as the client has a wired network connection. A wired connection usually provides greater network bandwidth and preserves the wireless network bandwidth for users who need a wireless connection.

- Should you allow users to modify configuration settings after you deploy them? The administrative tools allow you to hide, disable, and lock individual configuration settings. You can customize the OAC user interface to provide a simpler set of controls and options for users whom you do not want to change predefined configuration settings.

- Should you allow users to add, remove, or modify trusted servers and certificates? You can turn off access to trust settings to prevent users from modifying them.

- Which network profile configuration settings apply if your network includes Infranet Controllers? Should these settings be locked so that users cannot change them? Each Infranet Controller requires a separate profile.

- Should you allow Fast User Switching for Windows Vista users? Fast User Switching is enabled for Windows Vista and is enabled by default for domain users on Windows XP.

  This means that all concurrent user sessions on a given Windows Vista system can access the current desktop connections to networks and Infranet Controllers. Thus, if one user has a current network connection, other users logged in on the same computer can access the same network connections. This can be a security risk. A background process running in one user session can piggyback onto the network access granted to another session and access resources to which the user should not have access rights. We recommend that you disable Fast User Switching for Windows Vista users.

- What configuration is best if you want to restrict and simplify the OAC configuration for most of your users? Which optional settings should you hide and which ones should you disable so that they cannot be accessed?

- Should you allow access to other wireless supplicant programs or do you prefer to enforce the use of OAC? You can configure OAC to manage all network adapters and prevent users from exiting OAC, thus preventing them from using other Wi-Fi supplicant programs.

- How will you deploy the configuration?

  - In a UAC network, you can create and save preconfigured OAC settings and save them in a .zip file to be uploaded to an Infranet Controller. The Infranet Controller administrator can then associate a specific OAC configuration to a specific role and download preconfigured clients from the Infranet Controller.

  - In a traditional network, you can use an .msi file and update scripts.

Read this guide and the *Odyssey Access Client User Guide* thoroughly before configuring OAC for users. Become familiar with the available options and the configuration procedures for each one.

Chapter 9, “Sample Administrative Workflows,” provides sample workflow scenarios for performing common administration tasks, such as setting up single sign-on for users.

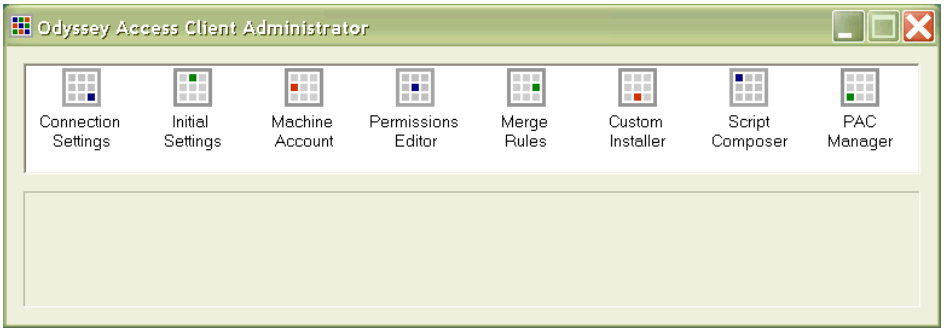
## Odyssey Access Client Administrator Tools Overview

You can preconfigure OAC and deploy a common configuration to multiple users with *push* technology software deployment products. These are third-party products used to distribute software to multiple users at the same time. You can update existing OAC installations with new or modified configuration settings that reflect your current network security policy. The Odyssey Access Client Administrator tools let you select individual OAC features and hide, disable, or lock individual settings before deploying the configured OAC client to users.

To access the Odyssey Access Client Administrator, select **Tools > Odyssey Access Client Administrator** from the Odyssey Access Client Manager menu bar. You can also double-click the odClientAdministrator.exe application in the directory where OAC is installed. The default location is C:\Program Files\Juniper Networks\Odyssey Access Client\Odyssey Access Client Manager.

The Odyssey Access Client Administrator tools are represented by icons in the Odyssey Access Client Administrator management interface (Figure 2 on page 5).

**Figure 2: Odyssey Access Client Administrator Tool Icons**




### *Connection Settings Tool*

Use the Connection Settings tool to configure when the network connection occurs. These settings offer flexibility for controlling when authentication completes and accommodates processes such as startup scripts. The options are:

- Connect to the network after the Windows desktop appears. This connection type requires user login credentials.
- Connect to the network after Windows logon but before the Windows desktop appears. This connection type requires user login credentials.
- Connect to the network before Windows logon. This connection type requires that you install the OAC Graphical Identification and Authentication (GINA) module. See “Connecting Prior to Windows Logon” on page 32 and “Installing the Odyssey GINA Module” on page 36. This connection type requires user login credentials.
- Connect to the network at the machine level (not the user level) at Windows startup. See “Configuring a Machine Account Connection” on page 33.
- Install and use GINA. See “Configuring a Prior to Windows Logon Connection with GINA” on page 36.

### *Initial Settings Tool*

Use the Initial Settings tool to perform one or more of the following tasks for a user account configuration:

- Preconfigure OAC networks and authentication profiles before deploying OAC for groups of users. See "Configuring Initial Settings" on page 12 and "Exporting an OAC Preconfiguration File" on page 59.
- Create and test preconfigured settings before creating a new custom installer or an update file. See "Testing Machine Connection Settings" on page 16.
- Manage SIM cards and SIM card PIN settings. See the *Odyssey Access Client User Guide* for information on managing SIM cards.

### *Machine Account Tool*

Use the Machine Account tool to configure an authenticated network connection for the physical computer rather than for a user. Machine accounts provide a persistent network connection when no user is logged in. See "Configuring a Machine Account Connection" on page 33.

### *Permissions Editor Tool*

Use the Permissions Editor tool to apply custom feature-by-feature restrictions on a user's ability to use or modify OAC configuration settings. This tool lets you disable or hide OAC settings and menu options that you do not want users to change.

### *Merge Rules Tool*

Use the Merge Rules tool to specify the rules for creating a settings update file or a new custom installer file. Merge rules determine how configuration items are added to existing user configurations. You can assign rules that modify current configurations or that prevent users from editing the configurations. You can also use this tool to lock profiles, networks, auto-scan lists, Infranet Controllers, and other settings so that users cannot modify them.

### *Custom Installer Tool*

Use the Custom Installer tool to create a preconfigured installer (.msi) file or a settings update file from the initial user or machine settings that you have configured with Odyssey Access Client Administrator tools. Use custom installer files for upgrades and new user installations. After you have the .msi file, you can deploy the OAC configuration to users with a variety of mass-distribution deployment tools.

You can use the Custom Installer tool to merge updated configuration settings with existing machine account settings.

### *Script Composer Tool*

Use the Script Composer tool to create configuration scripts that add new settings, replace existing settings, or remove settings in OAC configurations.

### *PAC Manager Tool*

Use the PAC Manager tool to manage protected access credentials (PACs) for EAP-FAST.

### *Context-Sensitive Help*

The Odyssey Access Client Administrator includes online help that you can access by selecting **Help > Help Topics** in the Odyssey Access Client Administrator menu bar.

To get context-sensitive help for the Odyssey Access Client Administrator, press F1 on the keyboard.

Chapter 2

# Configuring a User Account

This chapter describes how to use the Initial Settings tool.

## Initial Settings Tool Overview

The Initial Settings tool lets you preconfigure OAC for deployment to your users. When you preconfigure OAC for your users, OAC uses those settings when it runs for the first time. Without preconfigured settings, a user sees the default configuration with no networks, profiles, or adapters configured.

If you want to create a preconfigured copy of OAC for deployment to multiple users, you must use the Initial Settings tool. The Initial Settings tool lets you configure settings for profiles, networks, auto-scan lists, trusted servers, adapters, and Infranet Controllers in the same way.

**NOTE:** If you have a FIPS license, the File menu displays options for turning FIPS mode on and off.

The options on the Tools menu in the Initial Settings tool differ from the options on the Odyssey Access Client Manager Tools menu**.** The File menu in the Initial Settings tool does not include the Forget Password and Forget Temporary Trust options available in the Odyssey Access Client Manager. These are local user options that do not apply for a configuration distributed to multiple users.

The Tools menu in the Initial Settings tool includes the following options:

- Reload and Test Initial Settings—Tests the initial configuration before deploying it to users. See “Configuring Connection Timing for a User Account” on page 15.
- SIM Card Manager—A Subscriber Identity Module (SIM) card is an electronic card present in some mobile wireless devices and used to identify a subscriber to the network. You can use a SIM card for OAC authentication if your client computer has a SIM card reader.

  You can use OAC to manage the personal identification number (PIN) on your SIM card hardware. See the discussion on managing SIM card PIN settings in the *Odyssey Access Client User Guide*.
- Logs—Displays the current contents of the debuglog.log file. See the discussion on viewing log files and diagnostics in the *Odyssey Access Client User Guide*.

- Preferences—Toggles the display of the system tray icon, the control panel icon, or the Odyssey Access Client Manager splash screen.
- Windows Logon Settings—Allows you to override the default network connection timing for all users to whom you deploy the default configuration image. See the discussion on managing Windows logon settings in the *Odyssey Access Client User Guide*.
- Options—Shows the following categories of settings organized as separate tabs:
  - Security
    - Enable session resumption: Restricts session resumption for any session older than the time that you set.
    - Enable automatic reauthentication: Enables periodic automatic reauthentication and sets the reauthentication frequency setting.
    - Enable server temporary trust: Lets you authenticate to a network whose authentication server is not yet configured as trusted in the Trusted Servers dialog box.
    - Prompt for smartcard PIN: Prompts for a smart card PIN.
  - Interfaces
    - Wireless suppression: Defaults to a wired network connection whenever one is available to preserve wireless bandwidth for users who do not have a wired connection.
    - Manage wired/wireless adapters: Configures OAC for any wired or wireless adapter automatically.
- Preemptive Networks—Lets you specify an auto-scan list of preferred networks that, if found, take precedence over any network or auto-scan list currently enabled in the connection dialog box when searching for a network.

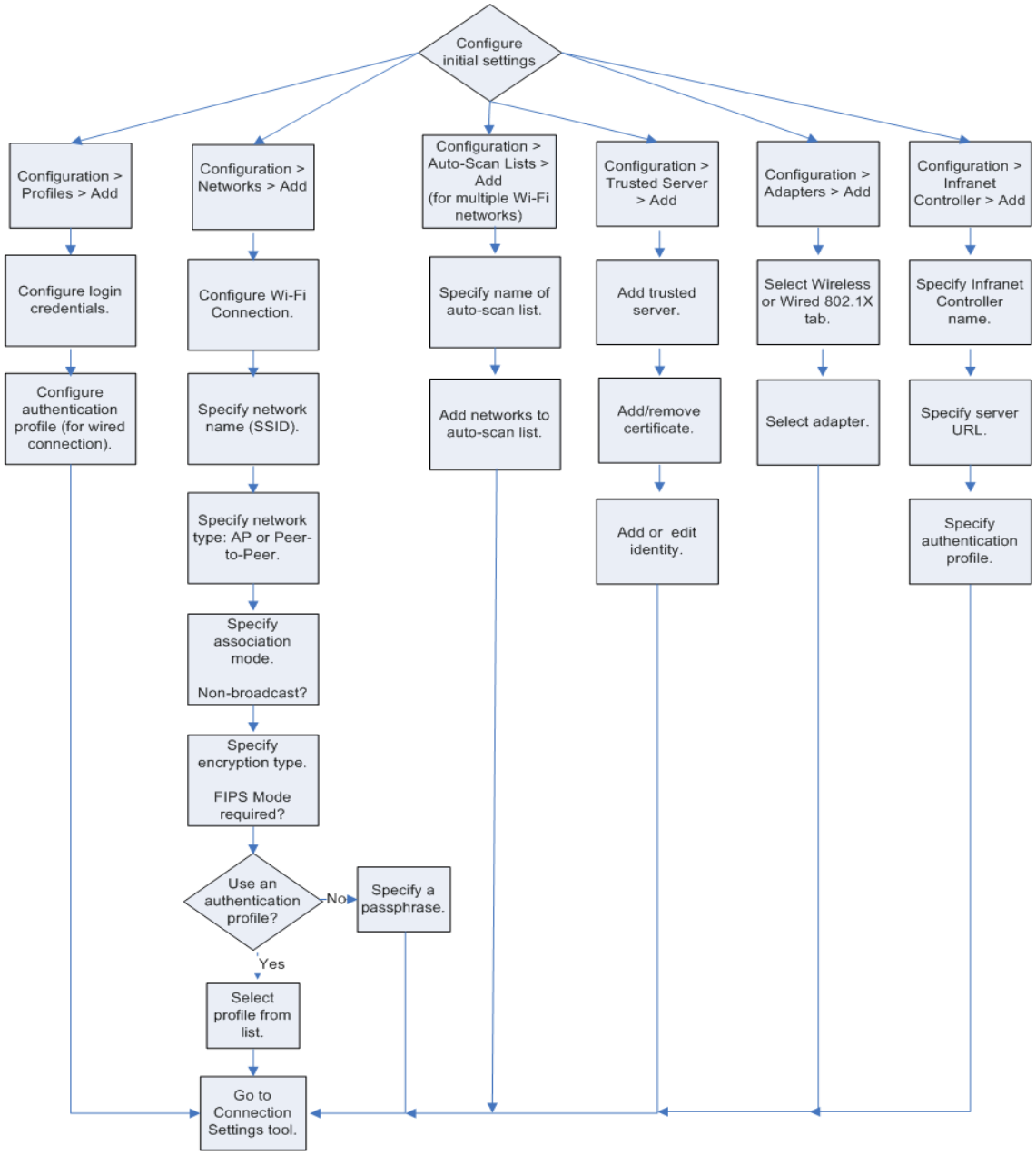
**NOTE:** Preemptive networks affect *which* networks to search for and in what order to search. They do not affect *when* to search. If you select the Switch to a preferred network check box for an auto-scan list, OAC actively monitors the SSIDs being broadcast so that, if an SSID higher up on the list is detected, OAC switches to that network. This feature requires SSIDs to be broadcast to be effective.

  - EAP-FAST—Controls when OAC prompts for EAP-FAST credentials.
  - Notifications—Manages the display of notification messages relating to authentication and network connection status.
  - Default Login Name—Lets you modify the default login name prompt format that appears in any authentication profile you create. This allows you to set up a login name format when the network to which you need to connect has a non-standard login name format.

## Task Flow for Initial Settings

Initial settings are those settings and permissions that you select when creating a preconfigured copy of OAC, typically for deployment to multiple users. In a UAC environment, these settings can be associated with a particular user role. Figure 3 on page 11 identifies the task flow for preconfiguring OAC.

**Figure 3: Task Flow for Initial Settings**



## Configuring Initial Settings

Configure the following sets of features in the Initial Settings tool in much the same way that you configure them in the Odyssey Access Client Manager. Do this for an individual user or for a group of users to which you deploy a common configuration image. You can create more than one configuration image if different groups of users require different settings or if you need to apply more restrictions to one group than for another.

The following categories of settings appear under Configuration in the Initial Settings tool sidebar.

- Profiles—Preconfigure the authentication settings that correspond to a specific network that requires authenticated access. See the *Odyssey Access Client User Guide* for instructions on configuring authentication profiles. (A wired 802.1X connection required an authentication profile.)

**NOTE:** Your authentication server might not support all of the EAP authentication methods available in OAC. Identify the methods your authentication server supports before setting up authentication for OAC.

- Networks—Configure the default networks for this user or for a configuration image to deploy to multiple users. See the *Odyssey Access Client User Guide* for instructions on configuring networks.

- Auto-Scan Lists—Configure and order the networks for an auto-scan list for this user or for a configuration image to deploy to multiple users. See the *Odyssey Access Client User Guide* for instructions on configuring auto-scan lists and features such as wireless suppression.

- Trusted Servers—Configure the trusted root certificate authority (CA) or intermediate CA certificate in the local certificate store of the computer that you use for configuration updates. Then configure a trusted server for users in the Initial Settings tool. You can configure the trust settings individually. See the *Odyssey Access Client User Guide* for instructions on configuring trusted servers and adding or removing certificates.

  To manage merge rule settings for trust configuration, see “Setting Merge Rules for Trust” on page 49. You can now manage merge rule settings, such as locking, for individual certificate and identity entries.

- Adapters—Configure the wired or wireless adapters users can have. Users are not required to have exactly the same adapter you have (the names and models can differ), as long as you install a similar type (wired or wireless) of adapter on their computers. See the *Odyssey Access Client User Guide* for instructions on managing network adapters.

- Infranet Controllers—Configure one or more Infranet Controllers for users. Select the **User may not disconnect from this IC** check box to lock a user connection to a specific Infranet Controller. This feature maintains host checker policies and endpoint integrity checks as long as the computer or the user is on the network. The feature is only available in the Initial Settings and the Machine Account tools. It allows administrators to prevent users from disabling the connection.

When users run OAC for the first time, they typically see the settings that have been preconfigured in the Initial Settings tool. You can use the same configuration settings for:

- Custom installers
- Settings update files
- Preconfigured settings for export to an Infranet Controller

**NOTE:** Before creating a custom installer or a settings update file, use the Merge Rules tool to specify how the Initial Settings tool configuration applies to updated or new user configurations.

### *Managing Windows Logon Settings*

Select **Tools > Windows Logon Settings** to override the default setting for network connection timing. For Windows XP, this option supports users whose configuration is based on a preconfigured GINA connection timing (on Vista and Windows 7, this is a Credential Provider) and provides the ability to override the default setting. This option lets a user connect to a network other than the default connection configured for OAC, in which case logon credentials might be different. See "Connecting Prior to Windows Logon" on page 32 for a complete description of the logon timing options.

**NOTE:** Changing the logon timing can affect other startup processes.

Any of the Windows logon options can be configured as your default network connection timing. Additionally, you can allow OAC users to override the timing of default network connection settings. For example, if users can log onto a domain with cached credentials and if the network connection is configured to occur prior to Windows logon, users can change the connection timing to connect to the network after the desktop appears.

### *Caution on Overriding Default Windows Logon Settings*

The **Windows Logon Settings** option in the Odyssey Access Client Manager lets users override the default network connection timing (which is configured using the Connection Settings tool). The Windows Logon Settings option accommodates users who have different connectivity requirements at login time. For example, an OAC configuration distributed to multiple users might contain predefined networks for most corporate users. However, users in a remote location might need to connect to other networks and the requirements for login timing might differ. This option lets those users override the default login setting without needing administrative privileges. This option is not used frequently.

**NOTE:** Do not select **Override default settings for Windows logon** in the Initial Settings tool unless you intend to let users override the network connection settings you configure in the GINA tab of the Connection Settings tool.

If default login settings are overridden and if you use the Odyssey GINA module on Windows, users can configure a network connection that takes place before Windows logon. Users can override default network connection settings that you configure unless you have restricted them with the Permissions Editor.

Users cannot override trusted server configuration if OAC is set up to connect before Windows logon. The only way to change the trust setting for a Windows logon connection is to modify those settings in the Trusted Servers dialog box of the Initial Settings tool.

## *Configuring the Login Name Format*

Select **Tools > Options > Default Login Name** from the Initial Settings tool to specify the default login for all new OAC users. The default login name option that you specify might require user input if you specify a custom format. In that case, the user sees a prompt for the custom login name. See "Specifying a Custom Login Format" on page 14.

The resulting default login name applies under the following circumstances:

- The default login name appears automatically in the Login Name box of any new Odyssey Access Client Manager authentication profile the user creates.
- If you preconfigure authentication profiles for deployment to multiple users, you can leave the Login Name box blank. When a user to whom you deploy the profile runs OAC, the Login Name box is populated with the user's Windows logon name.
- The default login name is populated automatically for profiles when a user imports an OAC script that includes a profile with a blank username.

**NOTE:** You do not need the Merge Rules tool to lock the default login name that is used by a custom installer or settings update file. The default login name option that you specify in the Initial Settings tool is automatically used in any custom installer or settings update file.

### Specifying a Custom Login Format

Use this setting to insert text that prompts the user with the correct login format the first time they use OAC for authentication. The login format that the user enters is populated automatically for the following profiles:

- All new authentication profiles that the user creates.
- Any authentication profiles that you configure with blank login names for distribution to your users through settings update files and custom installers.

For example, you could require users to use the following format for the login name:

*username@domain*

To specify the custom login name format prompt:

1. Select **Tools > Options** from the Initial Settings tool. The Options dialog box appears.
2. Select the **Default Login Name** tab.
3. Select **Prompt for login name using the following prompt**.
4. Specify the prompt for the login name format.
5. Select **OK**.

### Configuring Domain-Decorated or Undecorated Login Names

To specify the default login name for all user profiles as the domain-decorated or undecorated Windows logon name:

1. Select **Tools > Options** from the Initial Settings tool. When the Options dialog box appears, select the **Default Login Name** tab.
2. Select one of the following Windows logon name formats:
   - **Decorated Windows logon name**—Use the default domain-decorated Windows logon name format of *Domain_name\Logon_Name*.
   - **Undecorated Windows logon name**—Use the Windows logon name without any domain name decoration.
3. Select **OK**.

## Configuring Connection Timing for a User Account

If you are not using machine-level authentication, users connect to the network by providing login credentials. Note, however, that timing options for network authentication determine when the authenticated connection is established. Configure these settings after you have completed the user account configuration settings using the Initial Settings tool.

To configure a user network connection:

1. Double-click the Connection Settings tool.
2. Select the **User Account** tab.
3. Select the connection timing option you prefer. See “Network Connection Timing” on page 28 for specific instructions and details.
4. Save your settings and close the Connection Settings tool.
5. Disable any configuration features you that need to restrict or lock using the Permissions Editor tool.

## Testing Configuration Settings

This section describes how to test the configuration for users or machine connections before you create a custom installer to deploy it.

The Reload and Test Initial Settings option loads the configuration defined in the Initial Settings tool to the Odyssey Access Client Manager and attempts a network connection. If the connection fails, try to troubleshoot the failure like any other failed connection, based on error messages and the entries in the log file.

To test your user connection settings:

1. Double-click the Initial Settings tool.
2. Select **Tools > Reload and Test Initial Settings** from the Initial Settings tool.
3. Select **OK**. This permanently deletes your current Odyssey Access Client Manager settings and loads your settings from the Initial Settings tool into the Odyssey Access Client Manager.
4. Test all the connections through the Wi-Fi or Ethernet Connection dialog box of the Odyssey Access Client Manager. Any modifications that you make in the Odyssey Access Client Manager are not reflected in the Initial Settings tool.
5. Return to the Initial Settings tool to correct any connection problems and retest the connections as necessary.

## Testing Machine Connection Settings

To test machine connection settings:

1. Double-click the Connection Settings tool.
2. Select the **Machine Account** tab.
3. Select **Leave the machine connection active.**
4. Select **OK**.
5. Double-click the system tray icon to open the Odyssey Access Client Manager.
6. Verify the status of your network connection(s).
7. Return to the Machine Account tab to correct any connection problems and retest these connections, if necessary.
8. If you modified your connection settings, select the Machine Account tab in the Connection Settings dialog box and restore the previous settings.

## Controlling Network Adapters and Other Wi-Fi Supplicants

If network administration policies prohibit users from managing network adapters or using Wi-Fi supplicant programs other than OAC, you can limit users' ability to configure or disable OAC.

- You can configure OAC to manage any wired or wireless adapter on the user's computer automatically. You can then lock this setting in the Merge Rules tool before deploying OAC.
- You can use the Permissions Editor to prevent users from exiting OAC and prevent external programs from disabling OAC.
- You can use the Merge Rules tool to lock OAC settings.

Chapter 3

# Configuring a Machine Account

This chapter describes how to configure machine accounts.

## Machine Account Overview

A machine (computer) has a name and password that is transmitted to the network before a user logs in. With a machine connection enabled, a network IP connection persists as long as the computer is running, even if a user is not logged in. This can be done using a preconfigured user name and password or, in a Windows environment, with the computer's Active Directory credentials or certificate.

A machine account connection is the earliest time that OAC can connect to the network and is useful for administrative tasks such as nightly backups or update processes that take place whether or not the user is logged in. It is also used for Active Directory domain policy scripts that run during startup.

You can configure OAC to use a machine connection when a user connection is not available, transition to a user-level connection after a user logs in to the network, and then resume a machine connection after the user logs out.

**NOTE:** After you configure machine account settings on a target computer manually or by means of a settings update file, you must restart the computer.

## Machine Account Tool Overview

The user interface for the Machine Account tool is similar to the interface for the Initial Settings tool. You can use the items in sidebar to configure the settings for profile, networks, auto-scan lists, trusted servers, adapters, and Infranet Controllers in the same way.

Double-click **Machine Account** in the Odyssey Access Client Administrator to open the Machine Account tool.

The File menu in the Machine Account tool does not include the Forget Password or Forget Temporary Trust options available in the Odyssey Access Client Manager. These are local user options that do not apply for a broad-based configuration.

The Tools menu option in the Machine Account tool has fewer options than the Odyssey Access Client Manager Tools menu.

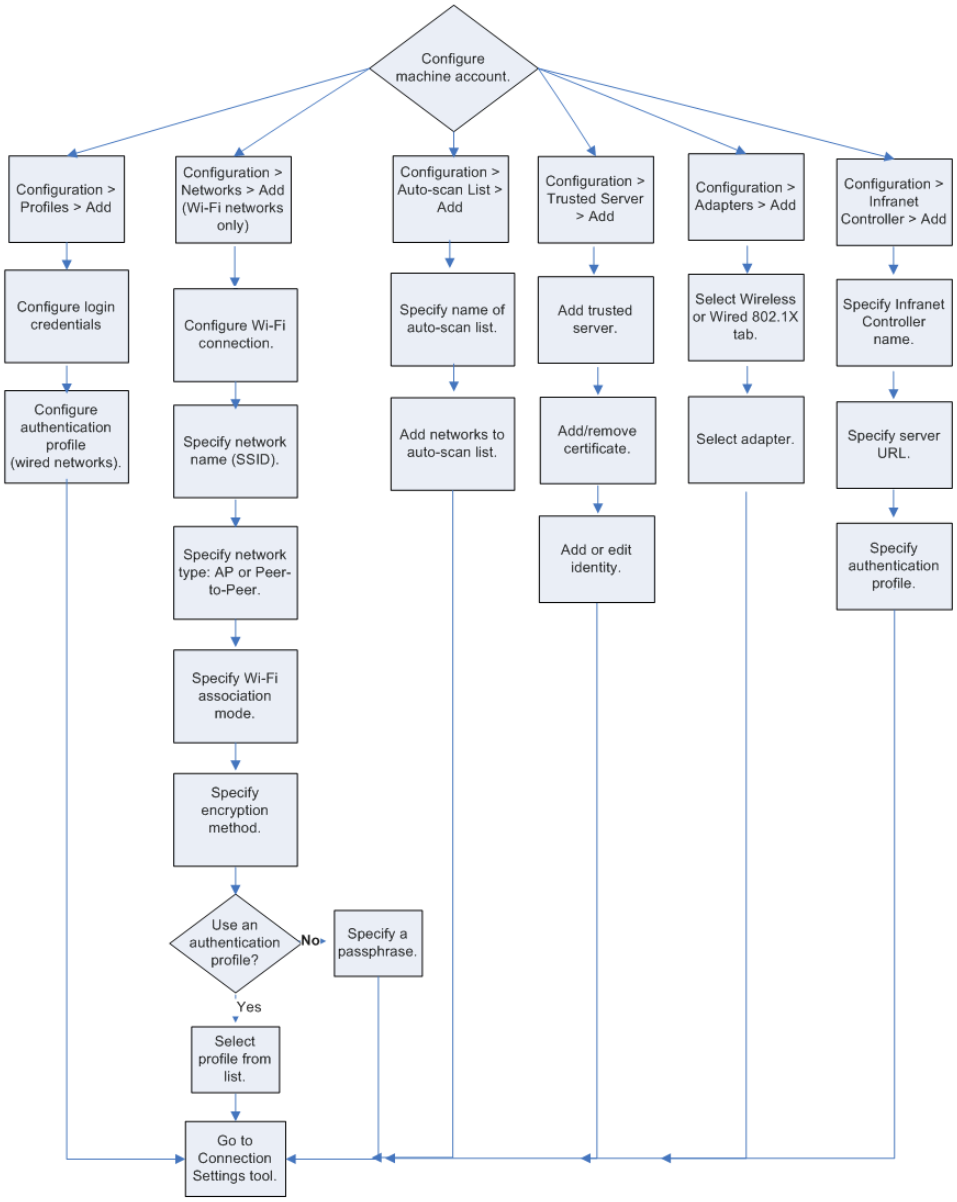
Select **Tools > Options** in the Machine Account tool. You can configure settings for the following tabs:

- Security
- Interfaces
- Preemptive Networks
- Notifications

## Task Flow for Machine Account Settings

Machine account settings are those settings and permissions that you select when you are setting up a preconfigured copy of OAC for a machine-level connection. Figure 4 on page 21 shows the task flow for configuring machine account settings.

**Figure 4: Task Flow for Machine Account Settings**




## Enabling a Machine Account Connection

To configure a machine account in the Connection Settings tool:

1. Open the Connection Settings tool and select the Machine Account tab.
2. Select **Enable network connection using machine account**.
3. Select **Leave the machine connection active; users are connected via the machine connection**. In this case, the machine account is active even when the user is not logged into Windows.

After you configure a machine-level network connection in the Connection Settings tool, use the Machine Account tool to configure the machine network connection settings for a profile. This type of configuration is similar to how you configure connection settings for the Odyssey Access Client Manager.

A machine account can be assigned to a different VLAN from the one set up for a user account. If you configure the machine account to transition to a user account when the user logs in, the IP address for the machine might change because of a different VLAN assignment. Similarly, when the user logs off, if the account is configured to transition back to a machine account, the IP address and VLAN assignments might change back again.

## Configuring Machine Account Settings

Configure machine account settings in the Machine Account tool in much the same way that you configure them in the Odyssey Access Client Manager. You can create more than one configuration image if different groups of users require different settings or if you need to apply more restrictions to one group than to another.

The following configuration categories appear in the navigation pane in the Machine Account tool. See the *Odyssey Access Client User Guide* for instructions on configuring the settings.

- Profiles—Preconfigure the authentication settings that correspond to a specific network that requires authenticated access.

**NOTE:** Your authentication server might not support all of the EAP authentication methods available in OAC. Try to determine which methods your authentication server allows before setting up authentication in OAC.

- Networks—Configure the default networks for this user or for a configuration image to deploy to multiple users.

- Auto-Scan Lists—Configure and order the networks for an auto-scan list for this user or for a configuration image to deploy to multiple users. See the *Odyssey Access Client User Guide* for instructions on configuring auto-scan lists and features such as wireless suppression.

- Trusted Servers—Configure the trusted root CA or intermediate CA certificate in the local certificate store of the computer that you use for configuration updates. Then configure a trusted server for users in the Initial Settings tool. You can configure the trust settings individually. See the *Odyssey Access Client User Guide* for instructions on configuring trusted servers and adding or removing certificates.

  To manage merge rule settings for trust configuration, see “Setting Merge Rules for Trust” on page 49. You can now manage merge rule settings, such as locking, for individual certificate and identity entries.

- Adapters—Configure the wired or wireless adapters users can have. Users are not required to have exactly the same adapter you have (the names and models can differ), as long as you install a similar type (wired or wireless) of adapter on their computers. See the *Odyssey Access Client User Guide* for instructions on managing network adapters.

- Infranet Controllers—Configure one or more Infranet Controllers for users. Select the **User may not disconnect from this IC** check box to lock a user connection to a specific Infranet Controller. This feature maintains host checker policies and endpoint integrity checks as long as the computer or the user is on the network. The feature is only available in the Initial Settings and the Machine Account tools. It allows administrators to prevent users from disabling the connection. See the *Odyssey Access Client User Guide* for instructions on configuring an Infranet Controller connection.

### *Machine Account Profile Options*

You can configure profiles, networks, auto-scan lists, trusted servers, adapters, and Infranet Controllers for a machine account. The only profiles, networks, adapters, or Infranet Controllers that are used for machine connections are those you configure in the Machine Account tool.

### *Setting Machine Account Password Credentials*

If you enter a password in a machine account profile and intend to create a custom installer, the credentials that you enter are used by all copies of OAC that use this installer. It is better to enter credentials on each client computer manually if user credentials are required.

### *Setting Automatic Certificate Selection for EAP-TLS*

If you require Extensible Authentication Protocol-Transport Layer Security (EAP-TLS) for authentication and plan to distribute this configuration to multiple users, select **Use automatic certificate selection** on the profile you use for the machine connection. See the discussion on configuring authentication profiles in the *Odyssey Access Client User Guide.*

### *Trust Configuration Requirements for Machine Authentication*

Configure a trusted root certificate authority (CA) or intermediate CA certificate for a machine connection from the Trusted Servers dialog box of the Machine Account tool. Before you do so, make sure that you have the certificate installed in the certificate store on the computer that you use for configuration. See the discussion on managing trusted servers in the *Odyssey Access Client User Guide* for information about how to add certificates.

### *Restrictions for Machine Account Settings*

Default login name, EAP-FAST options, and authentication methods that require user interactions, such as those associated with tokens, do not apply for machine account settings. The Profile Properties dialog box in the Machine Account tool varies slightly from that of the Odyssey Access Client Manager.

### *Configuring a Machine Password*

You can configure machine credentials (computer name and computer domain password) when authenticating the computer to RADIUS servers that check the machine credentials against an Active Directory listing. The machine credentials are created automatically when the computer joins the domain.

To use machine credentials for authentication:

1. Select **Configuration > Profiles** in the Machine Account tool.
2. When the profiles list appears, click **Add**.
3. When the Add Profile dialog box appears, click the **User Info** tab and select **Use machine credentials**.

   If you select **Use machine credentials**, OAC uses the machine credentials created when the computer is joined to a domain for authentication. If you do not select this option, OAC uses the username provided as a login name.
4. Enter a realm name in the **Realm (optional)** box.
5. Select the **Permit login using password** check box unless you are authenticating with TLS.

When you have configured the machine credentials, open the Connection Settings tool. Select the **Machine Account** tab and select **Enable network connection using machine account**.

### *EAP Methods That Support Machine Credentials*

Machine credentials are valid only with EAP-TTLS or EAP-PEAP. Select one or both of these authentication methods for the profile. Then configure the authentication options on the TTLS Settings tab or PEAP Settings tab of the Profiles Properties dialog box, as necessary. See the *Odyssey Access Client User Guide* for instructions on selecting authentication protocols for a machine account profile.

### *Enabling Machine Authentication*

When OAC connects to a UAC network, it supports Active Directory machine authentication and endpoint assessment. This means that you can configure a machine account for integrity checking.

**NOTE:** After you configure a machine account on a user computer, you must restart the computer.

To enable this feature:

1. Double-click the Machine Account tool and click the **Profiles** icon from the sidebar.
2. Click **Add**.

3. In the User Info tab, specify a login name or select **Use machine credentials**. Optionally, specify a realm name other than the default.

4. Click the **TTLS** tab and select **EAP** as the inner authentication protocol; then select **JUAC** as the inner EAP protocol. (These settings are in place by default.)

**NOTE:** If an endpoint integrity check fails for a machine-level connection, remediation instructions or other notifications are not displayed. Depending on the policy defined for machine authentication, the computer might be redirected to a protected VLAN where remediation can occur.

Chapter 4

# Configuring Network Connections

This chapter describes how to use the Connection Settings tool.

## Connection Settings Tool Overview

The Connection Settings tool lets you configure options that control the type and timing of OAC network connections. By default, OAC connects to a network after the Windows desktop appears. This default behavior is appropriate when no special processing is required early in the Windows startup sequence. However, you might need an authenticated connection earlier to enable domain authentication before a user logs in or to execute scripts during a startup process.

Double-click the Connection Settings tool in the Odyssey Access Client Administrator. The Connection Settings dialog box has three tabs:

- User Account—Use these settings to configure the default timing of user network connections. At the user level, the network connection requires a user's login credentials and persists as long as the user is logged in.
- Machine Account—Use these settings to configure a machine-level network connection at Windows startup time using machine credentials. At the machine level, the network connection uses the credentials of either a user or of a physical computer. A machine connection can persist as long as the computer is running, regardless of which user is logged in.
- GINA—Use the Odyssey Graphical Identification and Authentication (GINA) module to control authentication before Windows startup. GINA is a replaceable dynamic link library (DLL) that runs before the Windows logon process to gather user credentials needed for authentication. GINA is instrumental in enabling a network connection to occur before Windows logon. Various vendors have their own versions of GINA. The Odyssey GINA module is designed to interact with OAC and is compatible with GINA modules from other vendors. See "Configuring a Prior to Windows Logon Connection with GINA" on page 36.

**NOTE:** On Windows Vista and Windows 7 systems, the capabilities described for GINA are provided by Credential Providers. There is a separate OAC login icon for using OAC to connect and log on to these systems. On Windows XP the GINA modules were "chained" and could sometimes interoperate, whereas Credential Providers are independent from each other.

**NOTE:** Before configuring user account connection settings, use the Initial Settings tool to configure the user account. Similarly, before configuring machine account connection settings, use the Machine Account tool to configure the machine account settings.

## Network Connection Timing

You can control when network connections occur based on events such as Windows startup and authentication. Connection timings can apply at either the machine connection level or the user login level and are mutually exclusive. The settings described in this section show the available options.

### *User-Level Connection Options*

The three types of user-level connection are as follows:

- A user-level connection to the network occurs based on user credentials immediately before the user logs onto Windows.
- A user-level connection to the network occurs based on user credentials after the user logs onto Windows but before the desktop appears.
- A user-level connection to the network occurs based on user credentials after the Windows desktop appears.

Note that some of these configurations are enabled or disabled based on other features that you select.

For more information about configuring the various network connection options, as well as information about why you might select one scenario over another, see the following sections:

- “Configuring Machine-Only Connections” on page 34
- “Configure Machine Connections That Switch to User Connections” on page 35

### *Machine-Level Connection Options*

A machine connection to the network can use either the physical computer’s login credentials or the user’s credentials.

The following configuration options are available for a machine connection:

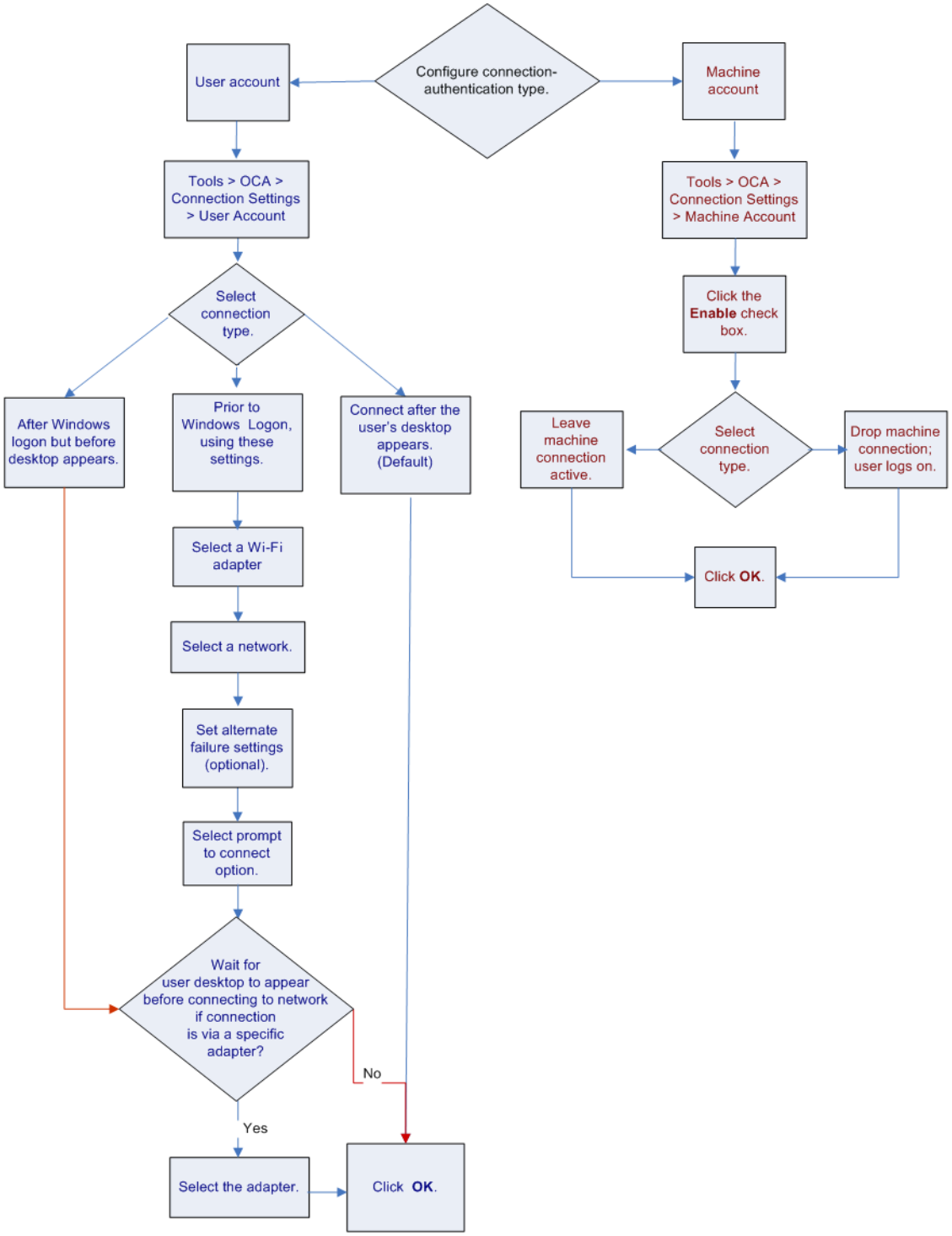
- A machine-level connection to the network occurs when Windows starts up. With this connection type, the computer remains accessible over the network even if the user is not logged in, as long as the computer is still running. This option is useful for deploying update scripts and backups whether or not the user is logged in.
- A machine-level connection to the network occurs at Windows startup time and switches to a user-level connection and authentication immediately before the user logs in to Windows.

- A machine-level connection to the network occurs at Windows startup time and switches to user-level connection and authentication after the user logs in to Windows but before the desktop appears.
- A machine-level connection to the network occurs at Windows startup time and switches to user-level connection and authentication after the desktop appears.

## Task Flow for Connection Settings

Connections settings determine how and when OAC connects to a network. Figure 5 on page 30 is a task-flow diagram for configuring connection settings for user account and for machine account connections.

**Figure 5: Task Flow for Connection Settings**



## Configuring a User Account Connection

The success of a network connection might depend on the timing you select. The default option establishes the network connection after the desktop appears. However, if you require users to connect to the network before the desktop appears—for example, if you run startup scripts from the network—you can select an earlier connection time.

Select the User Account tab in the Connection Settings tool to configure a connection to occur before or after the Windows logon prompt appears. Configure the timing of a user-level connection with the options listed under **Use Odyssey to connect to the network.** The following options control when the login prompt appears:

- **After the user's desktop appears**—Select this option if you do not want the user to establish a network connection before the desktop appears. This is the default setting.
- **After Windows logon, before the desktop appears**—Select this option if you want the user to establish a network connection before the desktop appears but not before the Windows logon. See "Connecting After Windows Logon, Before the Desktop Appears" on page 31.
- **Prior to Windows logon, using the following settings**—Select this option if you want the user to establish a network connection before logging in to Windows. See "Connecting Prior to Windows Logon" on page 32.

To configure Windows logon features for a custom installer or to update configuration settings, follow the guidelines in "Configuring the Login Name Format" on page 14.

### *Connecting After the User's Desktop Appears*

This option is the default setting and there are no optional settings.

### *Connecting After Windows Logon, Before the Desktop Appears*

There are two choices for the conditions under which the connection takes place after the Windows desktop appears:

- Defer the connection whenever users of this computer are connected to your network through a wired adapter. Do this by selecting **Any wired adapter**. This option applies even if the wired adapter is not connected to an 802.1X hub or switch.
- Defer the connection whenever users are connected to your network through one or more specified adapters. Do this by selecting **One of the following adapters**. This option is valid for any adapter listed.

  To edit the list of adapters:

  a. Select **Edit**. The Select Adapters dialog box appears.

  b. Select any adapter that you want used for network connections that occur after the desktop appears.

c. Select **OK** to close the Select Adapters dialog box.

The selected adapters appear in the list next to the **Edit** button on the User Account tab of the Connection Settings tool.

### *Connecting Prior to Windows Logon*

**NOTE:** Before you can configure Prior to Windows Logon connection settings, select the GINA tab in the Connection Settings tool and install the Odyssey GINA module. See "Installing the Odyssey GINA Module" on page 36 and "GINA Compatibility with Other Modules Running at Windows Logon" on page 38.

If your network configuration has a profile that requires a password for authentication, select **Configuration > Profiles > Properties > User Info** in the Initial Settings tool and select the **Use Windows password** box on the Password subtab. See the discussion on configuring authentication profiles in the *Odyssey Access Client User Guide*.

If your network configuration requires a profile that specifies EAP-TLS or any other certificate-based authentication method, select **Use the logon certificate from my smart card reader** on the Certificate subtab of the User Info tab in the Profile Properties dialog box. The options for configuring this type of connection are as follows:

- **Use alternate settings on failure**—Provide an alternate wired 802.1X adapter and profile (or wireless adapter network) for connections that take place before Windows logon. The alternate configuration applies if a connection attempt using the displayed adapter/network pair fails and a failure code is returned.

  One use of this option is to provide an alternate 802.1X wired adapter (and profile) for connections that occur before Windows logon. Another use is to provide an alternate adapter and network in the event of failure. OAC uses the alternate settings automatically to try to establish a connection.

**NOTE:** The alternate settings option applies to a connection of the same type; that is, if a wireless connection fails, the alternate adapter and network must also be wireless. Failing over from a wireless to a wired connection, or from wired to wireless, is not valid.

  Configure the alternative adapter and profile in the Initial Settings tool before you configure alternate settings for this option.

  After selecting this option, select the **Edit Alternate Settings** button and then select an alternate adapter and network.

- **Prompt to connect**—There are three options available that control whether a prompt screen should appear before the network connection at login time. The options are:

  - **Never**—Select this option if you do not want your users to be prompted to connect, even if the connection attempt fails.

  - **On connection failure**—Select this option if you want your users only to be prompted when a connection attempt fails.

  - **Prior to connecting to the network**—Select this option if you want your users to be prompted each time they log on to Windows.

- **Wait until the user's desktop appears before using Odyssey Access Client to connect to the network**—Override the prior to Windows logon connection setting when users can connect with a network adapter.

  Select **Any wired adapter**. When you do so, OAC connects after the desktop appears.

## Configuring a Machine Account Connection

A machine account lets you connect and authenticate a computer, rather than a user, to the network. This process includes having an IP address assigned to the computer (a Layer 2 network connection). The network connection and IP address assignment occurs before the user logs in. A machine account is useful for setting up domain-level resources and drive mappings before a user connects.

User authentication is different from authenticating a computer: different credentials are required to connect to the network. While the physical computer might have network access, a separate process is needed for a user to log on and be authenticated.

When you configure machine account connections, you must also configure authentication profile options (such as the credentials and network to use) for machine account connections. See "Machine Account Profile Options" on page 23.

Select the Machine Account tab in the Connection Settings tool to connect to the network at startup time with machine (rather than user) credentials, and select the **Enable network connection using machine account** check box. Then select one of the following mutually exclusive options:

- **Leave the machine connection active; users are connected via the machine connection**—Maintains the machine-level network connection after a user logs in. This option gives users less control over their network connections but they still have access to the network resources. They can view status information and reconnect to the network but cannot change the existing OAC configuration. This option supports an environment where coworkers use any computer in the workspace without logging on or off: users do not require authentication because the computer is authenticated.

- **Drop the machine connection; users must connect with their own credentials**—Drops the machine connection and automatically establishes a network connection based on the user's Windows credentials when the user logs in. With this connection type, users have less restricted network access than when the machine connection is still active. After being authenticated, users can modify or view connection settings using the Odyssey Access Client Manager.

Use this option when the endpoint machine must be connected even when no one is logged in. The machine connection is used to support remote administrative tasks or system service scripts that run during off hours. A user who needs network access from that machine must provide his or her own credentials.

When the user logs off, the connection reverts to a machine account.

If you select this option, set the timing for the user connection by clicking the User Account tab.

Select one of the following timing options:

- **After the user's desktop appears**
- **After Windows logon, before the desktop appears**
- **Prior to Windows Logon, using the following settings**

## *Configuring Machine Account Connection Settings*

To configure your connection settings based on your selections:

1. Double-click the Connection Settings tool.
2. Select a machine network connection option from the Machine Account tab.
3. Configure the network connection settings.
4. Double-click the Initial Settings tool to configure new user account settings to let users connect using their own credentials after the machine connection has been established.

### Configuring Machine-Only Connections

To identify a client machine on the network without relying on user credentials, you can connect all client machines to the network using machine authentication. This can be useful if you have any machine-related startup processes. You can use this feature to maintain network connections for the client machine even when users are logged off. In this way, the machine is always connected to the network, even if no user is logged in, as long as the machine is on and Windows is running. This is useful for running scripts at off hours and for remote administrative tasks.

To configure a machine-only connection:

1. Double-click the Connection Settings tool.
2. Select the Machine Account tab and select **Enable network connection using machine account**.
3. Select **Leave the machine connection active**.
4. Select **OK**.

5. Double-click the Machine Account tool. Set up your machine network connection, including networks, adapters, and profiles, and close the Machine Account tool. See “Configuring a Machine Password” on page 24 for details about specifying machine account profiles.

### Configure Machine Connections That Switch to User Connections

You can connect all client machines to the network using machine credentials and then require user authentication when the user logs in. This option lets you perform network tasks at Windows startup, before users log in, and then switch to an authenticated user-level network connection when the user logs in. You can run maintenance scripts and backups at night or during hours when users are typically not in the office.

To configure a machine connection that can switch to a user connection:

1. Double-click the Connection Settings tool in the Odyssey Access Client Administrator.

2. Select the Machine Account tab and select **Enable network connection using machine account**.

3. Select **Drop the machine connection**.

4. Select the User Account tab, select one of the available user authentication timing options, and then click **OK**.

5. Double-click the Machine Account tool. When the Machine Account dialog box appears, configure your machine network connection by using the Networks, Trusted Servers, Adapters, and Profiles dialog boxes. See “Configuring a Machine Password” on page 24 for details about specifying machine account profiles.

6. Close the Machine Account tool.

7. Double-click the Initial Settings tool. The Initial Settings dialog box appears. Configure your user network connection by using the Profiles, Networks, Trusted Servers, and Adapters dialog boxes.

8. Close the Initial Settings tool.

9. Double-click the Merge Rules tool to lock any configuration features that require locking.

## Configuring a Prior to Windows Logon Connection with GINA

**NOTE:** On Windows Vista and Windows 7 systems, the capabilities described for GINA are provided by Credential Providers. There is a separate OAC login icon for using OAC to connect and log on to these systems. On Windows XP the GINA modules were "chained" and could sometimes interoperate, whereas Credential Providers are independent from each other.

The OAC Identification and Authentication (GINA) module is a replaceable dynamic link library (DLL) that runs before the Windows logon process completes. is instrumental in enabling a network connection to occur before Windows logon. It captures user login credentials from the Windows logon dialog box and delays the actual Windows logon to enable other setup processes and scripts to run first. As soon as a user enters Windows logon credentials, GINA captures and uses them to authenticate the user before the login process and the network connection are complete. In this way, users are authenticated on the network before they have a connection.

Connecting before Windows logon can be helpful when users have startup processes that require network connections to run. This is also a useful tool if your company uses Active Directory as a user database.

**NOTE:** On Windows systems, you must install the Odyssey GINA module to be able to use this type of network connection.

Odyssey GINA is an advanced configuration tool intended for administrators who are familiar with the Windows GINA module and who understand how to use it. The Odyssey GINA module preempts Windows GINA and is intended for use with OAC connection and authentication only.

### *Installing the Odyssey GINA Module*

To install the GINA module:

1. Open the Odyssey Access Client Administrator and select **Connection Settings**.
2. Select the GINA tab.
3. Click the **Install Odyssey GINA module** button.
4. Select the User Account tab.
5. Select **Prior to Windows logon** button and configure your logon settings.
6. Click **OK**.

### *Removing the Odyssey GINA Module*

To remove the Odyssey Access Client GINA module:

1. Open the Odyssey Access Client Administrator and select **Connection Settings**.

2. Select the **GINA** tab.

3. Click the **Remove Odyssey GINA module** button from the GINA tab of the Connection Settings tool.

4. Restart your computer.

## *Using Qualified Third-Party GINA Modules*

In addition to the Odyssey GINA module, OAC also supports other qualified third-party GINA modules. A qualified GINA module is one that Juniper Networks has confirmed as being compatible with Odyssey GINA. The list of qualified modules appears on the GINA tab.

### Adding a New GINA Module

In addition to the list of qualified GINA modules that come with OAC, you can add other GINA modules to the OAC configuration.

To add a new GINA module:

1. Open the Odyssey Access Client Administrator and select **Connection Settings**.

2. Select the GINA tab.

3. Click **Add**.

4. In the dialog box that prompts for the new GINA module name, enter the new GINA module name. The module name must conform to the Microsoft file naming conventions, defined in detail at http://msdn.microsoft.com/en-us/library/aa365247.aspx.

5. Click **OK**.

**NOTE:** When you upgrade to a new version of OAC, the list of GINA modules is reset to those modules that OAC supports by default. To retain any modules that you have added to the list of qualified GINA modules, specify that you want to maintain your current OAC settings when upgrading.

### Using a Third-Party GINA Module and Odyssey GINA

To use a third-party GINA module in addition to the Odyssey GINA module, install the Odyssey GINA module *after* you install the third-party GINA module.

If you install the Odyssey GINA module before installing a third-party GINA module:

1. Remove the Odyssey GINA module. See “Removing the Odyssey GINA Module” on page 36.

2. Install the third-party GINA module.

3. Install the Odyssey GINA module using the instructions in “Installing the Odyssey GINA Module” on page 36.

4. Add the third-party GINA modules to the list of qualified modules.

5. Restart your computer.

**CAUTION:** Installing or using a third-party GINA module with Odyssey GINA might cause problems with system startup or operation. If you encounter problems after installing a third-party GINA module, contact JTAC for information on how to use a boot disk to recover without reinstalling your system.

### Removing a GINA Module

To remove a GINA module:

1. Open the Odyssey Access Client Administrator and select **Connection Settings**.

2. Select the GINA tab.

3. Highlight one or more entries from the list of qualified GINA modules.

4. Click **Remove**.

## *GINA Compatibility with Other Modules Running at Windows Logon*

The Odyssey GINA module runs before the Windows GINA module that presents the Windows Logon dialog box.

Note the following about the interaction between OAC and other login modules:

- You might be prompted for credentials by OAC for some applications that replace the Microsoft Windows logon screen.
- OAC is compatible with a number of login modules, preserving single sign-on behavior.
- In the case of Novell Client for Windows, OAC uses your Novell credentials at login time without prompting for credential information.

**CAUTION:** The Odessey Client does not support the Novell Client on Windows 7 or on Vista.

## *Using GINA with Smart Cards*

If you plan to use smart cards with GINA authentication, set the following configuration features using the Initial Settings tool. See the *Odyssey Access Client User Guide* for directions for performing each of these tasks.

1. Select **Configuration > Profiles.**

2. Click **Add** to create an authentication profile that uses a certificate-based authentication protocol such as EAP-PEAP, EAP-TTLS, or EAP-TLS (with TLS as the inner authentication protocol).

3. Select the User Info tab and enter a text string in the **Login Name** box. If you leave the **Login Name** box blank, authentication will fail.

   If you are using Juniper Networks Steel-Belted Radius for authentication, any text string is acceptable.

4. Select the Certificate subtab on the User Info tab.

5. Select both **Permit login using my certificate** and **Use the login certificate from my smart card reader**.

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**NOTE:** You can configure a profile that uses both smart card and password-based protocols for authentication before or after Windows logon if you install GINA. EAP-TLS works only with smart cards at GINA logon time.

---

6. Select **OK** to save the profile.

7. Configure a network and trusted server. Make sure that you associate the profile created in Step 2 with this network.

8. Select **Tools > Odyssey Access Client Administrator**.

9. Double-click **Initial Settings**.

10. Configure any options you require by selecting **Tools > Options** in the Initial Settings dialog box.

11. Close the Initial Settings tool.

12. Double-click the Connection Settings tool and do the following:

    a. Install GINA if it is not already installed. See "Installing the Odyssey GINA Module" on page 36.

    b. Set up the appropriate prior to Windows logon connection option on the User Account tab and select the network that you configured in Step 7.

13. Double-click the Merge Rules tool and lock the profile that you created in Step 2. Lock any other features that require locking.

---

**NOTE:** Turning FIPS mode on disables OAC smart card PIN management.

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Note the following about setting up GINA connections:

- You can configure all default user account network settings in the Initial Settings tool. However, the restricted options are not disabled by default in the Initial Settings tool, so be sure to configure the network connection properly.

- Features that apply only when you configure default Windows logon settings in the Initial Settings tool are not available if your users override default Windows logon settings by selecting **Tools > Windows Logon Settings** from the Odyssey Access Client Manager menu bar.

- You can configure all of the machine account network settings from the Machine Account tool. The restricted options are disabled for you in the Machine Account tool.
- The password, token, and PIN prompt restrictions apply to the listed protocols whenever they are in use (either as inner or outer authentication protocols).
- You can configure a prior to Windows logon machine authentication that includes both EAP-TLS with smart card certificates *and* a password-based protocol such as EAP-TTLS. In this case, the authentication method depends on whether the user wants to use a smart card or a Windows password to log on. The login prompts with both options, and the user must select one.

Chapter 5

# Setting Permissions for OAC Features

This chapter describes how to use the Permissions Editor tool.

## Permissions Settings Overview

The Permissions Editor tool lets you enable, disable, or hide individual OAC configuration settings and control which features users can see or access. The Permissions Editor allows you to decide which authentication protocols are supported on your network, control which wireless network properties your network will support, and disable parts of the Odyssey Access Client Manager interface to provide a simple interface for users who only need to connect and disconnect from a network or an Infranet Controller.

You can give advanced users access to more features, such as the ability to create and configure networks or change trust settings. In this case, create and deploy a separate predefined configuration tailored for those users and use the Permissions Editor to enable the options appropriate to that group of users. The range of options is extensive, so you can control configurations with the flexibility you need.

Use the Permissions Editor tool to apply customized feature-by-feature restrictions on a user's ability to use or modify OAC-specific features in the configuration. This lets you hide or disable settings that you do not want users to change.

The settings that you configure in the Permissions Editor tool are applied automatically to the machine you use to preconfigure OAC for deployment. You can also create a file to export the permissions configuration to one or more users. See "Merging Settings" on page 61.

Options that you disable in the Permissions Editor that are not specific to controlling the appearance of the Odyssey Access Client Manager still appear in a menu or dialog box. If users attempt to access disabled options, a dialog box instructs the user that the administrator has disabled that option.

### *Authentication Protocols*

Use the authentication protocol settings to enable or disable individual outer EAP protocols, such as EAP-SIM. When individual protocols are disabled, they still appear in the list of protocol choices. However, when a user attempts to save the profile settings by clicking **OK**, an error message identifies which protocols are invalid and prevents the save operation from succeeding until all the settings have been validated.

### *TTLS Inner Authentication Protocols*

Use the TTLS inner authentication protocol settings to enable or disable individual protocols, such as MS-CHAP. When individual protocols are disabled, they still appear in the list of protocol choices. However, when a user attempts to save the profile settings by clicking **OK**, an error message identifies which protocols are invalid and prevents the save operation from succeeding until all the settings have been validated.

### *TTLS Inner EAP Protocols*

Use the TTLS inner EAP protocol settings to enable or disable individual inner EAP protocols, such as EAP-GenericTokenCard. When individual protocols are disabled, they still appear in the list of protocol choices. However, when a user attempts to save the profile settings by clicking **OK**, an error message identifies which protocols are invalid and prevent the save operation from succeeding until all the settings have been validated.

### *PEAP Inner Authentication Protocols*

Use the PEAP inner authentication protocol settings to enable or disable individual inner PEAP protocols, such as EAP-POTP. When individual protocols are disabled, they still appear in the list of protocol choices. However, when a user attempts to save the profile settings by clicking **OK**, an error message identifies which protocols are invalid and prevents the save operation from succeeding until all the settings have been validated.

### *Profile Properties*

Use the profile properties setting to enable or disable the requirement for a valid certificate as part of login authentication.

### *Options*

Use the Options setting to enable or disable temporary trust for users. This option appears in the Security tab of the **Initial Settings > Tools > Options** menu even after it has been disabled. Users cannot change it if it is disabled.

### *Network Properties*

Use the network properties settings to enable or disable specific network options, such as peer-to-peer networks or specific encryption protocols. The **Disable non-broadcast networks** option lets you disable access to networks that do not broadcast an SSID, even if that network has been configured in OAC with an SSID. The Permissions Editor settings override the current settings in OAC.

### *Odyssey Control*

Use the Odyssey control setting to prevents users or external programs from editing the Windows Registry to disable OAC. In conjunction with the options in the Initial Settings tool for managing all adapters, this setting prevents users from using a different and unauthorized wireless client to access protected network resources. See “Controlling Network Adapters and Other Wi-Fi Supplicants” on page 17.

### *User Interface Settings*

Use the user interface settings to remove the Odyssey Access Client Administrator or License Keys dialog box in the Help menu. You can also turn off the display of individual settings in the Odyssey Access Client Manager sidebar, and prevent users from editing the Windows Registry to disable OAC to use a different wireless access client to circumvent the network security policy.

**NOTE:** If you disable user access to the Odyssey Access Client Administrator, you can disable your own access to this tool. You can restart the Odyssey Access Client Administrator from *drive*:\Program Files\Juniper Networks\Odyssey Access Client\odClientAdministrator.exe.

### *User Interface—Hide Configuration Sections*

Use the user interface—hide configuration settings to hide individual configuration folders in the sidebar (Profiles, Networks, Auto-Scan Lists, Trusted Servers, Adapters, and Infranet Controllers) or hide the entire Configuration section in the sidebar.

Any setting configured as hidden (but not disabled) appears in a View menu in the Odyssey Access Client Manager menu bar. A user can see which settings are hidden in the View menu and turn those settings on again one at a time. When you configure a setting as hidden in the Permissions Editor, that setting resets to being hidden each time the user starts the Odyssey Access Client Manager.

If you do not hide any of the configuration options, the View menu does not appear in the Odyssey Access Client Manager menu bar.

### *User Interface—Disable and Hide Configuration Sections*

The options in this category disable and hide individual configuration folders in the sidebar (Profiles, Networks, Auto-Scan Lists, Trusted Servers, Adapters, and Infranet Controllers) or hide the entire Configuration section in the sidebar. Features that are hidden and disabled are under the administrator's control and do not appear in the View menu. Only the administrator can re-enable them.

## Setting Permissions and Restrictions

To set up permission or restrictions for individual configuration settings:

1. Open the Permissions Editor tool.
2. Select the check box to set the indicated restriction, such as **Disable EAP-SIM**.
3. Click **OK**.

To remove a restriction, clear the check box.

## Guidelines for Using the Permissions Editor

The following guidelines apply when you set or change permissions or restrictions.

- Any features that you restrict (lock) in the Merge Rules tool are exempt from constraints that you configure in the Permissions Editor tool.
- Features or options that you restrict might remain visible to your users, even though they cannot configure or use them.
- If you select **Disable [any] networks**, users cannot connect to unspecified networks using the [any] network feature. See the discussion on managing network access in the *Odyssey Access Client User Guide*.
- If you select **Disable ad-hoc networks**, users cannot make peer-to-peer connections.
- If you select **Remove Odyssey Access Client Administrator from Tools menu**, users cannot access the Odyssey Access Client Administrator from the Odyssey Access Client Manager.
- If you select **Remove License Keys from Help menu**, users cannot modify or view license keys.
- If you select any of the Disable unauthenticated options, users cannot create a network configuration using the specified encryption protocol if they do not assign a profile to the network connection.
- The Disable unauthenticated clear connections option applies to network descriptions configured for no encryption (**none** is selected as the encryption method on the Network Properties dialog box).
- If you select any of the Disable authenticated options, users cannot create a network configuration using the specified encryption protocol when they assign a profile to the network connection.
- If you hide (rather than disable) settings, the Odyssey Access Client Manager menu bar displays a View menu showing the hidden settings. Users can toggle options on or off by selecting them. When there are no hidden settings configured, the View menu does not appear.
- You can prevent users from exiting OAC by selecting **Do not allow users to exit Odyssey**. Enabling this settings removes the Exit selection from the OAC icon in the system tray. You can use this setting along with the options to manage all wireless (Wi-Fi) adapters and manage all wired (Ethernet) adapters to prevent users from using a different wireless supplicant program and potentially bypassing the network access security policy.

**NOTE:** You can use the Merge Rules tool to lock individual categories of configuration settings to prevent users from changing them.

Chapter 6

# Using Merge Rules

This chapter discusses how to use the Merge Rules tool.

## Merge Rules Overview

Merge rules let you add, replace, or lock configuration settings defined in the Initial Settings tool. Merge rules are intended to help manage OAC configuration updates. Merge rules can be applied to the following categories of configuration settings, each of which is represented by a tab in the Merge Rules dialog box:

- Profiles
- Networks
- Auto-scan lists
- Infranet Controllers
- Trust
- Other

Merge rules let you control how the current Initial Settings tool configuration options apply to the users of the current machine, to a new custom installer file, or to a configuration update file.

### *Merge Rule Settings*

This section describes the function of each merge rule setting. Note that some merge rule settings are not available for all configuration categories.

- **None**—Do not merge these settings into the existing user configuration but set them for new user accounts.
- **Add if not present**—Add the settings to the existing user configuration but do not overwrite settings with the same names, such as a network or profile name. This is the default option for all tabs of the Merge Rules tool except for the items on the Other tab for which this option is not available. This mode affects the configurations for new users and current users of your OAC installations. Users can modify these settings.

- **Set, replace if present**—Add the settings to the existing user configuration and overwrite any settings with the same names if they already exist. This mode affects the configurations for new users and current users of your OAC installations. Users can modify these settings.

- **Lock except user info**—Overwrite all existing user configuration settings, except for any user credential information (username, password, or user certificate) associated with a profile.

  This option is available for profiles only. It prevents users from editing any portions of a locked profile except for credentials. Do not specify a username, password, or user certificate for any profile you create in the Initial Settings tool if you plan to apply this type of locking.

- **Lock**—Set or replace all existing user configuration settings and prevent users from editing them. When you lock a feature, OAC deletes the current user settings with the same name and prevents new and current users from editing them. Users see one of the following indicators for locked features:

  - Title bars of dialog boxes are marked as read-only if every feature shown on the dialog box is locked.

  - Text that appears on a tab of a dialog box indicates that the features on the selected tab are locked.

The settings that you make in merge rules affect the settings for all users of the machine that you are configuring. The changes take effect as soon as you close the Merge Rules tool. You can then use these merge rules when you provide configuration updates to your users or when creating a new installer file.

### *Merge Rule Scenarios*

You might want to configure rules to update current user configurations to:

- Update OAC periodically to a group of users or machines.

- Add networks, profiles, auto-scan lists, or Infranet Controllers to existing configurations.

- Upgrade users with a newer version of OAC.

- Set up a locked configuration to be installed on a new machine. (The default setting is to enable all configuration settings.)

- Lock specific settings, such as FIPS mode or trust settings, that you do not want users to change. You can lock an Infranet Controller or the corresponding profile configuration and require users to connect to a specific Infranet Controller.

## Setting Merge Rules

Use the Merge Rules tool to assign rules to apply initial settings and Windows logon configurations to the current machine or to a configuration file you create in the Custom Installer. The following sections describe how to set merge rules for each of the merge rule categories.

### *Setting Merge Rules for Profiles*

To set merge rules for profiles:

1. Select the Profiles tab in the Merge Rules tool. The profiles that you have configured appear in the list at the bottom of the window.

2. Select a profile and click the **Set Merge Rules** button to see the available merge rule settings.

3. Select the merge rule you want to apply.

4. Repeat these steps for other merge rule modes that you need for updates to authentication profiles.

5. (Optional) Select the **Permit only the following profiles** check box.

   When you enable this option:

   - Users can access only the profiles that you configure through the Initial Settings tool.
   - All options (aside from user credentials) for all user profiles are locked.
   - Users cannot add new profiles to their configurations.
   - Users can edit their credentials for each of the locked profiles that you configure.
   - Profiles configured previously are hidden from users and are disabled. To make these visible to your users, clear the **Permit only the following profiles** check box.

6. If, in addition to locking all profiles, you want to lock user credentials for one or more of these locked profiles, select the profiles whose user credentials you want to lock and select **Lock** in the **Set Merge Rules** list.

7. Click **OK**.

### *Setting Merge Rules for Networks*

To set merge rules for a network:

1. Select the Networks tab in the Merge Rules tool. The networks that you have configured appear in the list at the bottom of the window.

2. Select a network and click the **Set Merge Rules** button to see the available merge rule settings.

3. Select the merge rule you want to apply.
4. Repeat these steps for other merge rule modes that you need for networks.
5. (Optional) Select the **Permit only the following networks** check box. When you enable this option:
   - Users can use only those networks configured with the Initial Settings tool.
   - All components of all user networks are locked.
   - Users cannot add new networks to their configurations.
   - Networks configured previously in OAC are hidden and disabled.
6. Click **OK**.

**NOTE:** (FIPS Edition only): If you use FIPS mode connections in your network, you can select **FIPS Mode On** in the Initial Settings tool and lock the FIPS mode setting as a merge rule. Lock any networks for which FIPS mode is required.

### *Setting Merge Rules for Auto-Scan Lists*

To set merge rules for auto-scan lists:

1. Select the Auto-Scan Lists tab in the Merge Rules tool. The auto-scan lists that you have configured appear in the list at the bottom of the window.
2. Select an auto-scan list and click the **Set Merge Rules** button to see the available merge rule settings.
3. Select the merge rule you want to apply.
4. Repeat these steps for other merge rule modes that you need for auto-scan lists.
5. (Optional) Select the **Permit only the following auto-scan lists** check box. When you enable this option:
   - Users can access only the auto-scan lists you configure with the Initial Settings tool.
   - All components of all user auto-scan lists are locked.
   - Users cannot add new auto-scan lists to their configurations.
   - Any auto-scan lists configured previously in OAC are hidden from users and disabled. To make these visible to users, clear the **Permit only the following auto-scan lists** check box.
6. Click **OK**.

### *Setting Merge Rules for Infranet Controllers*

To set merge rules for Infranet Controllers:

1. Select the Infranet Controllers tab in the Merge Rules tool. The Infranet Controllers that you have configured appear in the list at the bottom of the window.

2. Select an Infranet Controller from the list and click the **Set Merge Rules** button to see the available merge rule settings.

3. Select the merge rule you want to apply.

4. Repeat these steps for other merge rule modes that you need for individual Infranet Controllers.

5. (Optional) Select the **Permit only the following Infranet Controllers** check box. When you enable this option:

   - Users can use only the Infranet Controllers that you configure through the Initial Settings tool.

   - All components of all Infranet Controllers are locked.

   - Users cannot add new Infranet Controllers to their configurations.

   - Any Infranet Controllers configured previously in OAC are hidden from users and disabled. To make these visible to your users again, clear the setting for **Permit only the following Infranet Controllers**.

6. Click **OK**.

### *Setting Merge Rules for Trust*

In previous releases of OAC, merge rule settings applied uniformly to the entire trust table. Trust configuration now offers a more granular configuration for merge rules and is located in a separate Trust tab in the Merge Rules tool.

For example, Acme Corporation has its own certificate authority (CA) issued by a trusted root CA (Verisign). The Acme CA can use this root certificate to generate and deploy their own intermediate certificates to their Infranet Controllers for internal authentication. Acme employees then trust these intermediate certificates when they request authentication.

Users do not typically configure their own trust settings. A corporate security officer sets up trust configuration using the Initial Settings tool and uses merge rules to distribute a locked-down trust configuration to users.

A security officer can update trust settings to add other subordinates to the root (Verisign) or remove them as necessary. In this example, Acme CA and all of its subordinates are trusted as long as the Verisign CA is trusted.

**Verisign CA (set, replace)**

**Acme CA (lock)**

**<any> (lock)**

Note the following when configuring merge rules for trust:

- You can add trusted server entries to an existing list of trusted servers. You can also add subordinate certificate identities and set merge rules for them.
- You can configure merge rule settings to lock individual nodes in the trust tree. If you lock an entry in the trust tree, users cannot modify the trust settings for that entry. Lock settings propagate from a node to its descendants.
- Merge rules for either **Add if not present** or **Set, replace if present** that you set for an individual trust node also apply to its ancestors (parent nodes). The rule does not apply to the node's descendants (children) unless you set them separately.
- You can undo a merge rule by selecting **None**.

To set merge rules for trust:

1. Select the Trust tab in the Merge Rules tool. The currently configured trust tree settings appear in the list at the bottom of the window.
2. Select any item in the trust tree and click the **Set Merge Rules** button to select the merge rule you want to apply.
3. Repeat these steps for other merge rule modes that you need for individual trust settings.
4. (Optional) Select the **Permit only the following trust** check box. When you enable this option:
    - Users can use only the trust settings that you configure through the Initial Settings tool.
    - All components of the trust tree are locked.
    - Users cannot add new trust settings.
    - Any trust settings configured previously in OAC are hidden from users and disabled.
5. Click **OK**.

### *Setting Merge Rules for the Other Tab*

Use the Other tab in the Merge Rules tool to assign configuration update rules for the following categories of settings:

- **Windows logon settings**—Control whether users can override the default settings for Windows logon.
- **Security and EAP-FAST**—Control whether users can change settings in the **Tools > Options > Security** dialog box on their computers or modify the current configuration settings for EAP-FAST.

- **FIPS Mode** (FIPS Edition only)—Lock or unlock FIPS mode for users who have a FIPS license.
- **Options: Interfaces** (wireless suppression and network adapters)—Lock or unlock settings for wireless suppression and adapter use.
- **Options: Preemptive networks**—Control user access to the preemptive network setting.
- **Options: Notifications**—Control the appearance and display timing for warning and failure messages.

To set merge rules for any setting in the Other tab:

1. Select the Other tab in the Merge Rules tool.
2. Select any item from the Item list and click the **Set Merge Rules** button to see the available merge rule settings.
3. Select the merge rule you want to apply.
4. Repeat these steps for other merge rule modes that you need for individual items.
5. Click **OK**.

**NOTE:** A warning or an error message might appear when you close the Merge Rules tool. For example, an error message appears if you attempt to assign an invalid merge rule. These error messages describe how to resolve merge rule errors or inconsistencies.

Chapter 7

# Deploying Odyssey Access Client

This chapter discusses the methods available for deploying new and updated OAC configurations to one or more users. This includes the ability to export a configuration in XML format (contained in a .zip file) that can be subsequently imported by an Infranet Controller. The deployment methods are:

- Use an .msi file to deploy preconfigured settings.
- Use an .msi file to deploy updated configuration settings.
- Export configuration settings for use on an Infranet Controller.
- Use a script to deploy updated configuration settings.

## Custom Installer Tool Overview

Use this tool to create a preconfigured installer (MSI) file or a settings update file from the initial user or machine settings that you have configured with Odyssey Access Client Administrator tools. You can also use this tool to deploy OAC license keys with the configuration. After you have the configurations settings saved in an .msi file, you can deploy them using mass-distribution push-technology software, such as Microsoft Systems Management Server (SMS). Alternatively, you can export the settings in a .zip file to be used for deployment from an Infranet Controller.

The configuration settings that you deploy to users are those configured in the Initial Settings, Machine Account, Permissions Editor, and Merge Rules tools as:

- Preconfigured copy of OAC to one or more users and machines
- Updated OAC configurations for existing users and machines
- New or updated licenses

Custom installer files and updated user configuration files derive their configuration from the features you set using the Odyssey Access Client Administrator tools, not in the Odyssey Access Client Manager.

After you configure and test your configuration settings, use the Custom Installer tool in the Odyssey Access Client Administrator to create a new OAC installer file with the defaults that are configured from your template. See “Configuring Connection Timing for a User Account” on page 15 for more information on testing configuration settings. See “Merging Settings” on page 61.

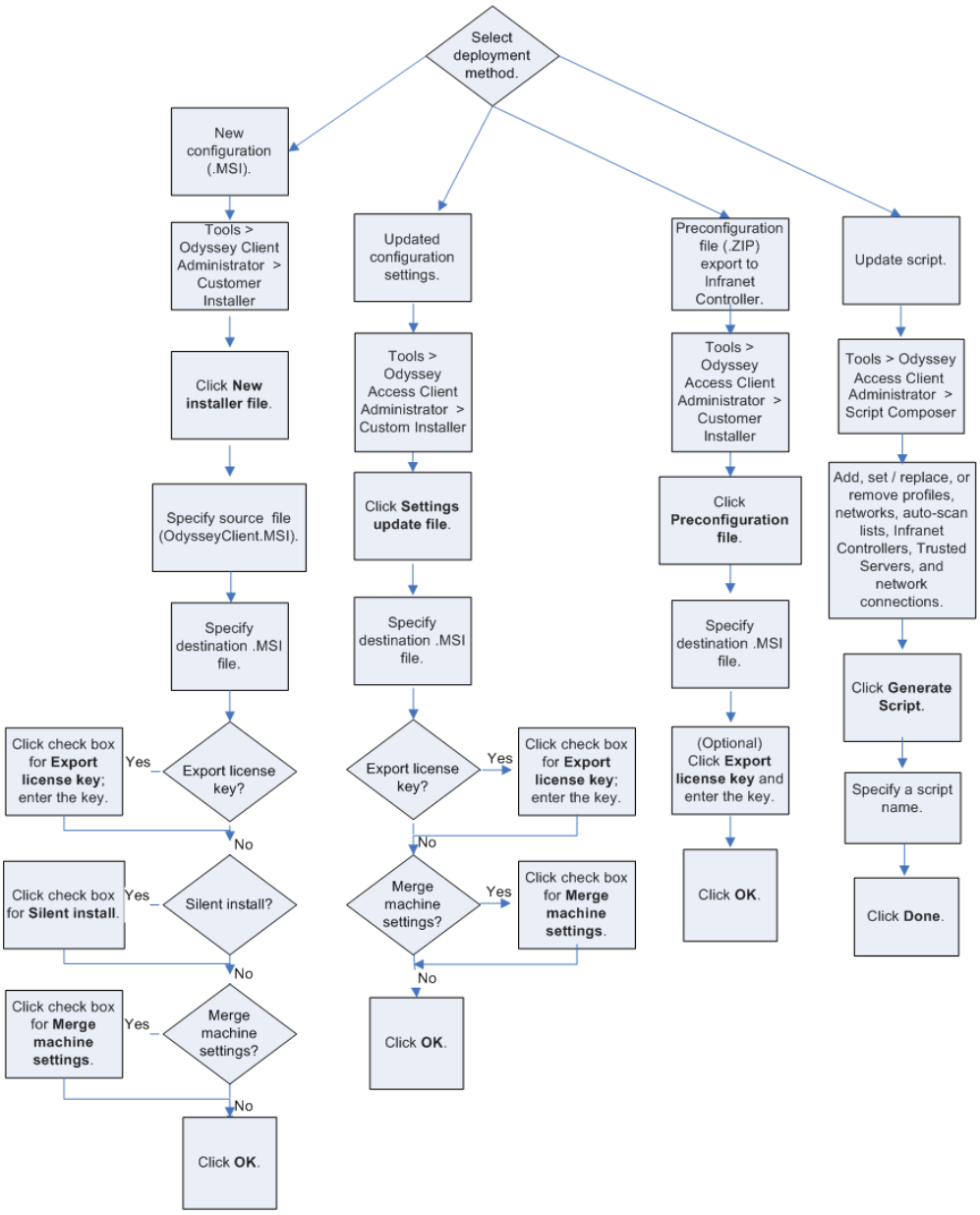
**NOTE:** After you configure machine account settings and use the resulting .msi file to install the settings in a target computer, you must restart the computer.

## Task Flow for Deployment

Figure 6 on page 55 shows the high-level task flows for deploying OAC configuration settings. There are four methods of deploying configuration settings for OAC:

- A new configuration file (MSI). See “Creating an Installer File” on page 55.
- Updated configuration settings. See “Creating a Settings Update File” on page 57.
- A preconfiguration file that can be exported as a .zip file. See “Exporting an OAC Preconfiguration File” on page 59.
- An update script. See “Using Script Composer” on page 62.

**Figure 6: Task Flow for Deployment**




## Creating an Installer File

You can create an installer file to deploy OAC to new users or to deploy OAC version upgrades. The installer file is an .msi file that can be downloaded from an Infranet Controller in an UAC network. For networks that do not include an Infranet Controller, you can use a product such as email or Microsoft Systems Management Server (SMS) to distribute the configuration.

Note the following guidelines when you are preparing a new custom installer file for deployment:

- If you create a new custom installer file and do not export a license key, the license for the installed product expires in 30 days.
- The default OAC license in a UAC network is built into the product, so there is never a prompt for a license key. Thus, a custom installer based on the default license key is always a silent installation because there is no need to prompt for a license key.
- All locking rules that you specify in the Merge Rules tool apply to new custom installer files. If you select **Settings update file** in the Custom Installer tool, you can create a configuration file that includes administrative updates from the merge rules and permission restrictions you configure in the Merge Rules and Permissions Editor tools. You cannot use settings updates for new installers. See "Merging Settings" on page 61.

To create an installer file:

1. Double-click the Custom Installer icon.
2. Select the **New installer file** option button.
3. Specify the source installer (.msi) file. This file must be a full product installer file for OAC. Enter the path and name of the file in the **File name** box or do the following:
    a. Select the top **Browse** button. The Select Source File dialog box appears.
    b. Use the **Files of type** list at the bottom of the Select Source File dialog box to search for the correct file type. You can use the original OAC installer file from any current or previous release (OdysseyClient.msi) as the source file.
    c. Double-click the source file in the window or select **Open**.
4. Specify the destination installer (.msi) file. Enter the path and name of the file in the **File name** box or do the following:
    a. Select **Browse** to browse for the desired destination file. The Select Destination File dialog box appears.
    b. Select the name of the new (destination) .msi file.
    c. Select **Save**.
5. Optionally, select **Export license key** and enter a valid license key for the number of copies you intend to distribute.
6. Select **Silent install** if you want the installation to run without displaying any dialog boxes during the installation process.
7. Select **Merge Machine Settings** to update OAC configuration settings for users so that settings are merged with the existing configuration. See "Merging Settings" on page 61.

8. Click **OK**.

### *Additional Command Line Options Available to the OAC Installer*

The OAC intaller supports all standard msiexec.exe command line options. In addition to the standard options, the OAC installer also supports the following commands:

NOADMIN=1

When you specify NOADMIN = 1 on the msiexec.exe command line, the OAC Administrator is not installed. Specifically, odClientAdministrator.exe is not installed and the Odyssey Access Client Administrator menu item is not displayed from the Tools menu.

LICENSEKEY=<licensekey>

(Note that you replace < licensekey > with the real license key.) This command allows you to set a license key at the command line. This is particularly useful if a non-preconfigured installer is being run silently.

INSTALLGINA=1

This command line option tells the installer to install the OAC GINA module.

REBOOT=ReallySuppress

This is a standard MSI command line option. It tells the installer not to prompt for a reboot, even if one is required.

## Creating a Settings Update File

A settings update file contains any updated configuration settings that you have made. The difference between a settings update file and a new installer file is that the new installer file also contains the software for installing OAC. The update file provides updates and new settings to existing OAC configurations.

Only users with administrative privileges on their machines can run the settings update file on their own machines.

To create a settings update file:

1. Double-click the Custom Installer icon.

2. Click **Settings update file**.

3. Specify a destination file for the update settings. You can enter a file name or click **Browse** to find the desired destination directory. If you click **Browse**, the Select Destination File dialog box appears. The default destination file name is OdysseyClientUpdate.msi.

4. Use the **Save as type** list at the bottom of the Select Destination File dialog box to use a file type other than the default (msi).

5. Select **Merge Machine Settings** if you want to update OAC configuration settings for users so that settings are merged with the existing configuration. See “Merging Settings” on page 61.

6. Select **Export license key** and enter a license key that is valid for the number of copies that you intend to distribute. Use this option to deploy new license keys.

7. Click **Save**.

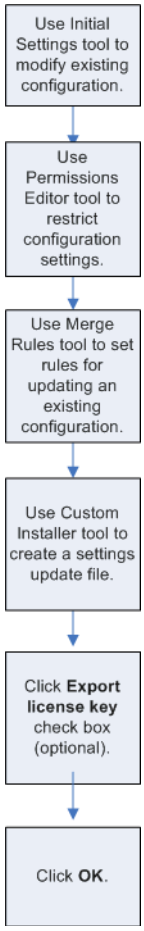
8. Click **OK**.

See Figure 7, “Task Flow for Updating User Account Settings,” on page 58.

## Task Flow for Updating User Account Settings

Figure 7 on page 58 is a high-level task flow for deploying configuration update settings to existing OAC users. You can also use this option to merge update for machine settings.

**Figure 7: Task Flow for Updating User Account Settings**



## Exporting an OAC Preconfiguration File

You can export a detailed OAC configuration file that can be imported by an Infranet Controller and mapped to specific user roles when being deployed to users. In this way, you can tailor OAC configuration files to specific user roles.

**NOTE:** Exporting a configuration file is used only to deploy OAC configurations in a UAC network in which configurations are associated with specific user roles. For details on using this feature, see the discussion on using a preconfigured installer in the *Unified Access Control Administration Guide*.

The following tools can be used to create a preconfiguration file:

- Connection Settings
- Initial Settings
- Machine Account
- Permissions Editor
- Merge Rules

In addition to the settings generated by these tools, you can include a license key and a flag to indicate whether GINA is installed in the preconfiguration file. The preconfiguration file can control whether GINA is installed as part of an installation or upgrade.

The preconfiguration file option lets you save OAC settings in a .zip file so that an Infranet Controller administrator can import them for deployment to users. The contents of the .zip file include:

- XML files (preconfig.xml and properties.xml)
- Certificates (.pfx files)

To export a preconfigured settings file:

1. Double-click the Custom Installer icon.
2. Select **Preconfiguration file**.
3. Select the **Browse** button and navigate to a location for saving the settings in a .zip file. The Save Destination File dialog box appears. Enter the name of the file or select an existing .zip file in the current directory, and then select **Save**.
4. Optionally, select **Export license key** and enter any valid license key (Enterprise or FIPS Edition) for the copies of OAC to distribute for a given role.
5. Click **OK**.

For more information about importing a preconfigured .zip file and mapping that file to user roles on an Infranet Controller, see the discussion on initial configuration of the Infranet Controller in the *Unified Access Control Administration Guide*.

## Preconfiguring OAC for a Group of Users

You can preconfigure profiles and networks for deployment to a group of users by creating a custom installer. For example, each copy of OAC that you install with this configuration could include a default network. If all users require the same network configuration, a custom installer reduces or eliminates the need for your end users to enter configuration information. For those users who do not require a new installation of OAC, you can use the same settings to update their configurations.

### *Creating an OAC Configuration for Custom Installer*

You can use the Odyssey Access Client Administrator tools to create a custom installer that deploys a standard configuration to users. The custom installer can include settings users cannot change (for example, connection timing, authentication protocols, or networks) as well as settings that users can modify as needed (for example, profiles for use in a home office). After you create a custom installer file, you can deploy it to groups of OAC users.

To configure the settings that will be used in a custom installer:

1. Configure network configuration and connection options. Refer to the following sections for more information:
   - "Configuring Connection Timing for a User Account" on page 15
   - "Enabling a Machine Account Connection" on page 21
   - "Configure Machine Connections That Switch to User Connections" on page 35
2. Use the Permissions Editor to configure feature access or control restrictions. See "Setting Permissions for OAC Features" on page 41.
3. Use the Merge Rules tool to configure locking options and specify how the updated configuration will be applied to target computers. See "Using Merge Rules" on page 45.
4. Test network connections. See "Configuring Connection Timing for a User Account" on page 15.

### *Creating a Settings Update File*

You configure connection settings from the Connection Settings tool, machine account settings in the Machine Account tool, user settings in the Initial Settings tool, lock options in the Merge Rules tool, and feature constraints in the Permissions Editor tool. After you have set up a standard configuration, you are ready to create a settings update file to distribute the standard configuration to users.

Note the following limitations for settings update files:

- You cannot use a settings update file to deploy OAC upgrades. Use a new installer file for OAC version upgrades.
- You cannot include stored passwords or login names in a settings update file.
- You cannot include client certificates in a settings update file. You can, however, configure certificates for any trusted root server in the Trusted Servers dialog box of the Initial Settings or Machine Account tool.

To create a settings update file:

1. Double-click the Custom Installer tool.
2. Select **Settings update file**.
3. Enter an **.msi** file name in the **Destination file** box. Alternatively, click **Browse**, select the name of an existing configuration file, and click **Save**.
4. If you want to distribute an OAC license with the settings update file, click the **Export license key** check box and enter the license key in the corresponding text box.
5. If you want to merge new settings with existing settings, click the **Merge machine settings** check box. Refer to “Merging Settings” on page 61 for more information about this option.
6. Click **OK**.

After the Custom Installer tool saves your settings to the specified installation file, you are ready to install the file on one or more target computers.

## Merging Settings

You can merge new settings into an existing configuration to preserve current settings.

- Networks—If the SSID and network name of a network in the update match an existing network, the updated network configuration replaces the current version.
- Profiles—If the name of an authentication profile in the update matches the name of an existing profile, the update replaces the existing version.
- Infranet Controllers—If the name of an Infranet Controller in the update matches the name of an existing Infranet Controller, the update replaces the existing version.
- Auto-scan lists—If the name of an auto-scan list in the update matches the name of a current auto-scan list, the contents of new auto-scan list are added to the end of the current auto-scan list, preserving any existing networks in the current file that are not contained in the update.

## Task Flow for Updating Machine Account Settings

**Figure 8: Task Flow for Updating Machine Account Settings**


## Using Script Composer

You can use the Script Composer tool to create XML-based configuration scripts to add, replace, or remove settings in OAC configurations on target computers. You can use these scripts to deploy preconfigured OAC settings to platforms other than Windows desktop versions—such as Macintosh, Linux, and Windows Mobile/CE—that do not include the Odyssey Access Client Administrator. You can use a single script to distribute updates for profiles, networks, and auto-scan lists. You can also use scripts to modify settings for trusted servers, security and EAP-FAST, wireless suppression, preemptive networks, and Windows logon timing settings.

If you have personal data such as a password in a profile, the script can encrypt that data. When OAC imports that script, the information is decrypted. There is no difference from the user's perspective between a script with encrypted data and one without encrypted data. Encryption and decryption occur transparently.

**NOTE:** You cannot include certificates in scripts created with the Script Composer.

Scripts differ from configuration files in that they are specifically oriented toward data that affects the user running the script, as opposed to system-wide data or initial configuration data.

You can perform the following tasks with scripts:

- **Add**—Add settings that are not currently defined in the user configuration. Those updates are applied when the script runs only if the user's configuration does not have components with the same name. The configuration settings that you can select to add must be in the copy of OAC on your local machine.
- **Set**—Set or replace current settings. The configuration settings that you can select to add or replace must be in the copy of OAC on your local machine.
- **Remove**—Remove configuration settings. The settings do not have to be part of the configuration on your local machine.
- **Connect**—Enable automatic connections. You select a profile for a wired connection or a network or auto-scan list for a wireless connection.The adapter used is the first appropriate adapter configured in OAC for the user.

Alternatively, you can use a command-line interface to export an entire configuration to a script. See "Creating and Loading OAC Scripts Using Commands" on page 71.

**NOTE:** An update script will fail to update a setting in the target client if that setting is locked in the client configuration. The setting must be unlocked with the Merge Rules tool on the user's machine before the update can take effect. This situation can occur if a user has access to the Odyssey Access Client Administrator and has locked a setting locally.

After you create and distribute a script file, users can access this script by clicking **Tools > Check New Scripts** in the Odyssey Access Client Manager. See "Deploying Incremental Updates" on page 70.

## Creating a Script

To create a script with the Script Composer:

1. Set up the configuration to include the settings that you want to add or modify.

   The Script Composer uses the Odyssey Client Manager settings on the machine where those settings have been configured. Scripts are composed from configuration settings on a template machine—not from system data (settings configured in the Initial Settings tool). See the *Odyssey Access Client User Guide* for information about configuring individual OAC settings.

2. Double-click the Script Composer icon. The Script Composer dialog box appears.

3. Specify the tasks you want the script to perform. See the following sections for information on how to add, remove, or activate different types of information.

4. Click **Generate Script**.

5. When the Select Destination File dialog box appears, use the **Save as type** list to specify the file format for your script.

   - To save your script as an autoscript that OAC executes without user intervention, select the .odyClientScriptAuto file type.

   - To save your script as a manual script that your users can choose to run, select the .odyClientScript file type.

6. Enter a name for the file in the **File name** box.

7. Click **Save**.

8. Click **Done** to exit the Script Composer.

After you create a script, you can distribute it to the target computers on which you want it to run.

### *Adding or Replacing Profiles*

You can add or set any number of profiles that you have configured in the Odyssey Access Client Manager in the same script. Use the **Add** action to add a new profile to the target computer. Use the **Set, replace if present** action to overwrite a profile on the target computer with an update profile of the same name.

To add or set profiles from the Script Composer:

1. Select **Profiles** under the **Add** or **Set** group in the **Select category** list.

   - Use the **Add** action to add a profile to the target computer. If a profile with the same name already exists on the target computer, the script does nothing.

- Use the **Set, replace if present** action to add a profile on the target computer. If a profile with the same name already exists on the target computer, the script overwrites the old profile configuration.

The profiles configured in the Odyssey Access Client Manager appear listed on the right.

2. Select the profiles that you want to include in the script. You can select multiple profiles.

Note the following guidelines:

- User identity information (such as names or passwords) in the profiles you select is distributed to users who run the resulting script. Passwords are encrypted.
- If user identity information in the profiles you select is blank, OAC attempts to replace the name and/or password with the user's Windows identity when the script runs. If this is not possible, OAC prompts the user for identity credentials the first time the user connects to the network.
- Certificate information is not included in the script.

### *Removing a Profile*

You can remove one or more profiles on a target computer if you know the name of each profile that you want to remove.

To configure your script to remove profiles from target computers:

1. Select **Profiles** under the **Remove** group in the **Select category** list.
2. Enter the name of each profile you want to remove in the text area provided. Press Enter after each profile name.

   You can remove as many profiles as you want. If you remove all of the existing profiles, the user on the target computer cannot be authenticated on the network.

### *Activating a Profile for a Wired Connection*

To activate a profile for OAC wired connections:

1. Select **Profile** under the **Connect** group in the **Select category** list.
2. Select the check box next to each profile that you want to be activated.

### *Adding or Replacing Networks*

You can specify networks that you want to add or replace on target computers when a script is run. To add or set networks:

1. Select **Networks** under the **Add** or **Set** group in the **Select category** list.

   - Use the **Add** action to add a network to the target computer. If a network with the same name already exists on the target computer, the script does nothing.

   - Use the **Set, replace if present** action to add a network on the target computer. If a network with the same name already exists on the target computer, the script overwrites the old network configuration.

   The networks that you have configured in the Odyssey Access Client Manager appear listed on the right.

2. Select the networks that you want to include in this category. You can select multiple networks.

### *Setting the FIPS Mode Setting (FIPS Edition Only)*

If you have a FIPS Edition license, you can use a script to set FIPS mode on or off:

1. Double-click the Initial Settings tool.

2. Select **Configuration > Networks** in the navigation pane.

3. Select the network for which you want to set or replace the FIPS mode setting.

4. Select **File > FIPS Mode** to toggle the setting on or off.

5. Close the Initial Settings tool.

6. Follow the steps in “Adding or Replacing Networks” on page 66.

### *Removing a Configured Network*

You can remove a specific network from an OAC configuration if you know the name (SSID) and description of the network. To remove a specific network:

1. Select **Networks** under the **Remove** group in the **Select category** list.

2. Enter the description and SSID of each network that you want to remove in the text area provided. Press Enter after typing the name and description of each network you want to remove.

   The syntax for identifying a network is: *description* <*SSID*>. For example, enter **Home Network <skynet>** to remove a network called Home Network that uses an SSID of skynet.

### *Removing All Networks with a Common SSID*

You can remove all networks that use a specific SSID, regardless of their descriptions.

To remove all networks that share a common SSID:

1. Select **SSIDs** under the **Remove** group.
2. Enter the SSID of each network that you want to remove in the text area provided. Press Enter after typing the name and description of each network you want to remove.

   The syntax for identifying a network SSID is *SSID* (without angle brackets). For example, enter **skynet** to remove all networks use an SSID of skynet.

### *Activating a Wireless Network for a Connection*

To activate a network for OAC wireless connections:

1. Select **Network** under the **Connect** group in the **Select category** list.
2. Select the check box next to each networks to be activated.

### *Adding or Replacing Auto-Scan Lists*

You can add or set (replace if present) one or more auto-scan lists that you have configured in the Odyssey Access Client Manager in the same script. Use the option to add one or more auto-scan lists if it they are not currently on the client machine. Use the option to set one or more auto-scan lists to replace and existing ones of the same name.

To add or set auto-scan lists that you configured in the Odyssey Access Client Manager:

1. Select **Auto-Scan Lists** under the **Add** or **Set** group in the **Select category** list.

   The auto-scan lists you have configured in the Odyssey Access Client Manager appear on the right.
2. Select the auto-scan lists that you want to include in this category.

### *Removing Auto-Scan Lists*

To remove one or more auto-scan lists:

1. Select **Auto-Scan Lists** under the **Remove** group in the **Select category** list.
2. Enter the name of any auto-scan list that you want to remove in the text area provided. Press Enter after typing the name of each auto-scan list that you want to remove.

### *Activating an Auto-Scan List*

To activate an auto-scan list for OAC wireless connections:

1. Select **Auto-Scan List** under the **Connect** group in the **Select category** list.

2. Select the check box next to each auto-scan list to be activated.

### *Adding or Replacing an Infranet Controller*

You can specify Infranet Controllers that you want to add or replace on target computers when a script is run. To add or set Infranet Controllers:

1. Select **Infranet Controllers** under the **Add** or **Set** group in the **Select category** list.

   - Use the **Add** action to add an Infranet Controller to the target computer. If an Infranet Controller with the same name already exists on the target computer, the script does nothing.

   - Use the **Set, replace if present** action to add an Infranet Controller on the target computer. If an Infranet Controller with the same name already exists on the target computer, the script overwrites the old Infranet Controller configuration.

   The Infranet Controllers that you have configured in the Odyssey Access Client Manager appear listed on the right.

2. Select the Infranet Controllers that you want to include in this category. You can select multiple Infranet Controllers.

### *Removing an Infranet Controller*

You can remove a specific Infranet Controller from an OAC configuration if you know the name of the Infranet Controller.

To remove one or more Infranet Controllers:

1. Select **Infranet Controller** under the **Remove** group in the **Select category** list.

2. Enter the name of each Infranet Controller that you want to remove in the text area provided. Press Enter after typing each name.

### *Adding or Replacing a Trusted Server*

You can specify trusted servers that you want to add or replace on target computers when a script is run. To add or set trusted servers:

1. Select **Trusted Servers** under the **Add** or **Set** group in the **Select category** list.

   - Use the **Add** action to add a trusted server to the target computer. If a trusted server with the same name already exists on the target computer, the script does nothing.

   - Use the **Set, replace if present** action to add a trusted server on the target computer. If a trusted server with the same name already exists on the target computer, the script overwrites the old trusted server configuration.

The trusted servers that you have configured in the Odyssey Access Client Manager appear listed on the right.

2. Select the trusted servers that you want to include in this category. You can select multiple trusted servers.

### *Removing a Trusted Server*

You can remove a specific trusted server from an OAC configuration if you know the name of the trusted server.

To remove one or more trusted servers:

1. Select **Trusted Servers** under the **Remove** group in the **Select category** list.

2. Enter the name of each trusted server that you want to remove in the text area provided. Press Enter after typing each name.

### *Replacing Options Settings*

You can use scripts to modify the following types of OAC settings (which can be accessed by selecting **Tools > Options** in the Odyssey Access Client Manager) on a target computer:

- Security
- Interfaces (wireless suppression and network adapters)
- Preemptive networks
- Notifications (settings that control the appearance and display timing for warning and failure messages)
- Default login name
- EAP-FAST

See the *Odyssey Access Client User Guide* for information on configuring these settings.

To set (replace) the options settings configured by selecting **Tools > Options** in the Odyssey Access Client Manager:

1. Select **Other** under the **Set** group in the **Select category** list.

2. Enable the check box next to the settings category in the options list displayed on the right.

   Each of these settings categories corresponds to the current settings configured in the **Tools > Options** menu in the Odyssey Access Client Manager and in the Initial Settings tool.

## Deploying Incremental Updates

You can update OAC configurations for one or more users. For example, if you add new SSIDs to a network, you can configure the network once with the Odyssey Access Client Manager and then create a script that deploys the updated configuration to one or more users.

To provide scripts to update user configurations:

1. Generate one or more scripts using the Script Composer or the command-line interface.

   - See "Using Script Composer" on page 62 for information about creating scripts using the Script Composer. Make sure that you save your scripts with the correct extension for autoscripts or manual scripts.

   - See "Creating and Loading OAC Scripts Using Commands" on page 71. Encrypted scripts that you create using the command-line interface can only be executed automatically.

2. Deliver the script(s) to the default directory described by the following path on your user's computer:

   *Application Data*\Funk Software\Odyssey Client\newScripts

   where *Application Data* is typically located in *volume*:\Documents and Settings*username*\Application Data

   This might differ for non-English versions of the Windows operating system.

   OAC polls regularly for new scripts and executes them automatically as long as they are in the locations specified above.

**NOTE:** To view the Application Data directory, you must make hidden files and folders visible.

Depending on your operating system, the physical path to the Application Data folder is always the CSIDL_APPDATA path used by Windows shell programmers. After you locate the Application Data folder, you can access the scripts under Odyssey Access Client\newScripts.

OAC polls this directory for new scripts frequently. New scripts are treated as follows:

- Autoscripts run automatically when detected by OAC.

- Users can run or delete other scripts when they select **Tools > Check New Scripts** from the Odyssey Access Client Manager.

If you store a script in a location other than the default, use **Tools > Run Script** to browse to the script and click **Open** to run it manually.

### *Creating and Loading OAC Scripts Using Commands*

You can use CLI commands to create scripts that export the entire Odyssey Access Client Manager configuration. The syntax is as follows:

**odClientAdministrator** *arguments*

The arguments that you can use to save (export) the Odyssey Access Client Manager configuration or restore (import) a saved configuration to the Odyssey Access Client Manager are:

**/E[xport] =** *filename*
**/I[mport] =** *filename*
**/Key =** *encryptionKey*
**/N[oSavePrivateData]**
**/S[ilent]**

You can use any of the following argument combinations:

- **/E =** *filename*
- **/E =** *filename* **/N**
- **/E =** *filename* **/S**
- **/E =** *filename* **/K =** *encryptionKey* **/N**
- **/E =** *filename* **/K =** *encryptionKey* **/N /S**
- **/E =** *filename* **/K =** *encryptionKey*
- **/E =** *filename* **/K =** *encryptionKey* **/S**
- **/I =** *filename*
- **/I =** *filename* **/S**
- **/I =** *filename* **/K =** *encryptionKey*
- **/I =** *filename* **/K =** *encryptionKey* **/S**

Note the following guidelines about the behavior of CLI commands:

- Only users with administrative privileges can import or export scripts from the command line.
- Users can execute scripts with an .odyClientScript file extension by selecting **Tools > Run Script** in the Odyssey Access Client Manager
- If you use multiple switches, leave a space between each switch command.
- The Odyssey Access Client Administrator displays a message after your import or export unless you use the **/S** (silent mode) switch.
- An error level is always returned when a script runs, so you can use the **errorlevel** command in a batch file to evaluate the error level. A **0** indicates success. Failures return nonzero values.

- The script that you create using this command-line interface adds any new items to an Odyssey Access Client Manager configuration, and replaces existing items if they have the same names.

- If you do not specify an encryption key, OAC encrypts passwords, WEP keys, and passphrases so that any user with OAC installed can run this script. If you specify the **/K** encryption key switch with an exported script, the encryption key you supply must also be used when you or someone executes configuration script to update OAC settings.

- If you specify the **/K** switch when you export a script, you cannot use the following symbols for this key: |, &

- If you specify the **/N** switch when you export a configuration, then none of your personal data (username, password, and any WEP keys you supply) is exported.

- Certificates are never exported using CLI commands.

- Adapter types (wired or wireless) are exported, but the adapter details are not. If you create a custom installation file configured for a wireless connection, the installer file adds a wireless adapter but the adapter information does not include the make and model of the adapter. Therefore, during installation, OAC takes control of the default Wi-Fi adapter. Similarly, if the configuration being installed is configured for a wired adapter, OAC takes control of the default Ethernet adapter

- Exported features are not locked, even if they are locked in your Odyssey Access Client Manager configuration. To lock features, use the Merge Rules tool and create a settings update file. See “Merging Settings” on page 61.

Chapter 8

# Managing Protected Access Credentials

The PAC Manager tool manages protected access credentials (PACs) for EAP-FAST.

PACs are used to perform mutual authentication with a secure access control server (ACS) during EAP-FAST authentication. PACs have a randomly generated encryption key to set up a TLS tunnel and are used instead of certificates.

Consult your ACS documentation for discussions of PACs and how they are created and provisioned on the server.

Double-click the PAC Manager tool to view or delete the PACs currently in use.

## Refreshing the PAC Manager Display

To update the display for a selected PAC listing, select **Refresh**.

## Deleting a PAC

To delete one or more selected PACs from the list, select **Delete**.

## Exiting from the PAC Manager

To exit from the PAC Manager tool, select **Close**.

Chapter 9

# Sample Administrative Workflows

This chapter presents common administrative tasks and provides the workflow steps for accomplishing them. These tasks require familiarity with the Odyssey Access Client Manager and the Odyssey Access Client Administrator.

## Using Single Sign-On for TTLS or PEAP

Single sign-on requires that you have already installed the certificate authority (CA) certificate needed for server validation. The certificate must be installed in the trusted root certificate store on the local machine.

To configure OAC for prior to Windows logon connections:

1. Create the network configuration with the Initial Settings tool.
2. Set up a user account and GINA connection settings using the Connection Settings tool.
3. Test the connection settings and update any configuration settings in the Initial Settings tool or the Connection Settings tool, as necessary.

## Configuring a Prior to Windows Logon with Odyssey GINA

Connecting prior to Windows logon is helpful if users have startup processes that need a network connection to run. For example, you can configure OAC for EAP-TTLS or EAP-PEAP authentication with prior to Windows logon by using OAC and with the Odyssey GINA module installed. This enables Windows users to connect to a network using Windows logon credentials before a login dialog box appears.

Before you can complete the connection settings for prior to Windows logon, you must define the network configuration in the Initial Settings tool.

To configure the network configuration:

1. Set up an adapter.
2. Create a profile. Leave the login name blank when you create a profile for use with GINA.
3. Add a network.

4. Set up a trusted server certificate.

5. Connect to the network.

See the *Odyssey Access Client User Guide* for instructions for each of these steps.

## Creating User Account Connection Settings and Installing Odyssey GINA

To configure the Connection Settings and install Odyssey GINA:

1. Double-click the Connection Settings tool in the Odyssey Access Client Administrator.

2. Select the GINA tab and click **Install Odyssey GINA Module**. If the GINA module is installed, skip this step.

3. Select the User Account tab and select **prior to Windows logon, using the following settings**.

4. Select **OK**.

If you require authentication at machine startup time, you can configure machine account settings to have users connect to the network using the machine account at machine startup time and then drop that connection to connect to the network with user credentials prior to Windows logon. In this case, configure machine account settings on the Machine Account tab of the Connection Settings tool before you click **OK**.

If you intend to use OAC for single sign-on authentication to an external database other than Windows, select **Prompt before connecting to the network** before you click **OK**.

## Testing Prior to Windows Logon Settings

To test prior to Windows logon settings:

1. Double-click the Initial Settings tool and select **Tools > Reload and Test Initial Settings**.

2. Open the Odyssey Access Client Manager.

3. Check the connection status on the Wi-Fi or Ethernet dialog box, based on the type of network connection you have (wireless or wired).

4. Modify any settings in the Initial Settings or Connection Settings tool and re-test as necessary from the Initial Settings tool.

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