



IBM Access Connections Deployment Guide Version 3.3x

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Preface

This guide is intended for IT administrators, or those who are responsible for deploying IBM® Access Connections on computers in their organizations. The guide is intended to provide the information required for installing IBM Access Connections on one or many computers, provided that licenses for the software are available for each target computer. The IBM Access Connections application provides application help, which administrators and users can consult for information about using the application itself.

IBM ThinkVantage™ Technologies and the deployment guides that accompany them are developed with IT professionals and the unique challenges that they encounter in mind. If you have suggestions or comments, communicate with your IBM authorized representative. To learn more about the technologies that can help you lower the total cost of ownership and to check for periodic updates to this guide, visit this Web site:
<http://www.pc.ibm.com/us/think/thinkvantagetech.html>

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Chapter 1. Overview

IBM Access Connections is a connectivity assistant program which helps to configure various network connections including wireless LANs. Users can create and manage location profiles which helps to store the network and Internet configuration settings that are needed to connect the client computer to a network from a specific location such as home or work. The network connection can be made using a modem, a wired network adapter, a broadband device (DSL, cable modem, or ISDN), or a wireless network adapter. Virtual private network (VPN) connections are also supported. By switching between location profiles as you move your computer from place to place, Access Connections can quickly and easily help users connect to a network without having to reconfigure network settings manually. A location profile supports advanced security settings, default printer, and automatic application launch.

Access Connections has the ability to support automatic location switching between Ethernet and wireless LAN connections.

Features

Access Connections includes the following functions:

- **Create new location profiles**

Access Connections provides a wizard that helps you to create location profiles that define all of the settings required to connect to various types of networks. The Connection Status window is opened by default when Access Connections is started.

- **View location profile and connection status**

The Connection Status window allows you to view the status of the network connection associated with each location profile defined in Access Connections and allows you to switch between location profiles. When you open the window, status is shown for the network connection and for the components used by the currently applied location profile.

- **Switch between location profiles**

Access Connections allows you to change location profiles. You can simply choose another location profile from the list and connect to it. A progress indicator window shows the state of the connection. If the connection fails, a button appears to help you fix the connection.

- **Search for wireless networks.**

Access Connections can search for wireless networks that are in range of your wireless adapter. This feature is useful when you are traveling or in a public place and you are not sure about what, if any, wireless networks are available to you. You can attempt to connect to any wireless networks that are found. If the connection attempt is successful, a new wireless location profile will be created using the detected wireless network name and default settings. You can also manually create a location profile for a detected wireless network if you know the appropriate settings.

- **Automatic switching of location profiles**

If a network associated with your currently applied location profile becomes unavailable, Access Connection can search for available networks and automatically switch to a matching location profile. You can automatically switch

between wireless location profiles, and Ethernet location profiles. You can establish a wireless priority list which allows you to define which wireless location profile will be made active when your computer is in range of multiple wireless networks, or when more than one location profile uses the same wireless network name.

- **Import and export location profiles**

Access Connections allows you to easily share location profiles between different computers. You can also import location profiles that are created by the network administrator.

- **Use the system tray icon**

Access Connections provides an icon in the system tray which allows you to launch the application, view the status of the current location profile, and switch between profiles.

- **Create location profiles for remote deployment (administrator's only)**

An Access Connections administrator can define location profiles for use the Access Connections on the client PCs.

Chapter 2. Using Access Connections

This chapter shows you how to use the features of Access Connections.

Viewing connection status

With the Connection Status window, client users can see their network connections at every link. Furthermore, client users can offer reliable status information to administrators remotely, so the administrators can diagnose and correct problems. One window offers you and users accessible, essential information about connections--and helps them get and stay connected.

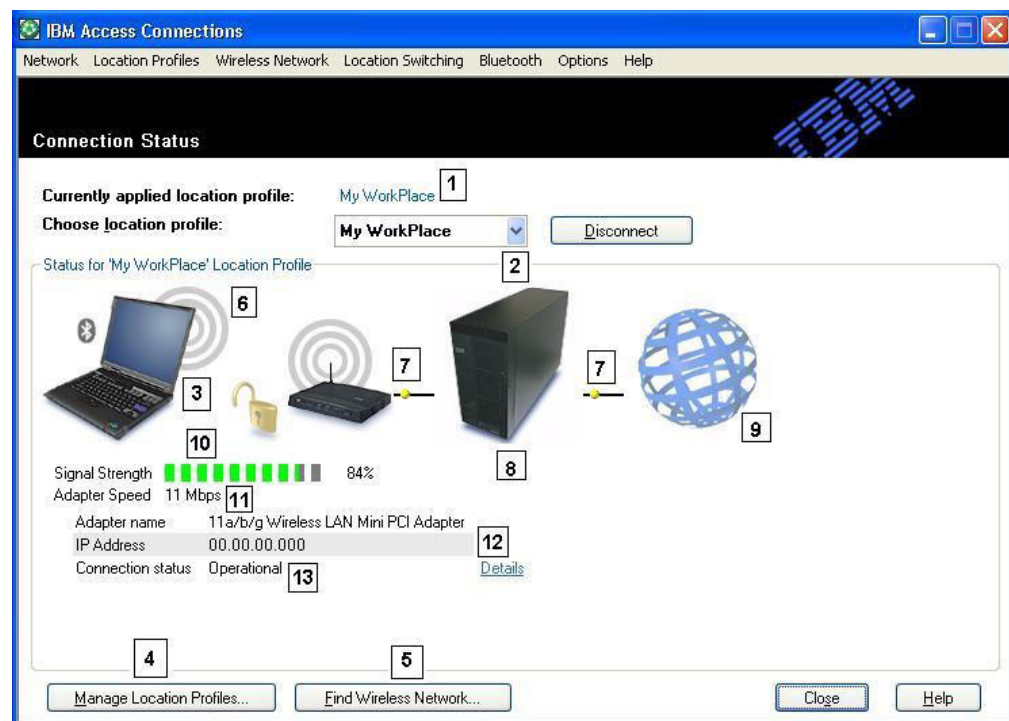


Figure 1. IBM Access Connections Connection Status window.

1. Current[®] location in use
2. Location selector
3. Client computer
4. Manage locations button
5. Find Wireless Network button
6. Network connection device
7. Links
8. Network server/Gateway
9. Internet
10. Signal strength indicator
11. Data transfer speed
12. IP address

Saving location profiles, settings, time, and reducing help desk calls

Create location profiles with nearly all the settings you need to connect almost anywhere that network connectivity is available. After profiles are set, Access Connections lets you easily switch between them. Profiles can be set for automatic switching between wireless and wired connections based on the highest available compatible connection speed. They can be set to change default printers, turn on a VPN, or launch applications by location. Plus, Access Connections helps manage wireless security, including Wi-Fi Protected Access, WEP, 802.11x and Cisco LEAP. Profiles can also be centrally managed to simplify deployment.

IBM Access Connections software is included with the purchase of every new IBM ThinkPad® notebook system. A list of ThinkPad models that are compatible with IBM Access Connections can be found at <http://www-306.ibm.com/pc/support/site.wss/migr-4zlnjb.html#ac>. There are many other software utilities available today, typically included with network adapters, that appear similar in function to Access Connections software. Utilities such as Intel™ PROSet and the Cisco Aironet Client Utility (ACU) both provide profile switching capabilities that control configuration and management for their associated WLAN adapters. Access Connections software, however, manages a much more extensive collection of hardware adapters including LAN, WLAN, WAN (wide area network or cellular), dial-up, as well as Ethernet-connected broadband (DSL, cable, ISDN). Supporting all of this networking hardware provides a key benefit: Access Connections software eliminates the need for administrators to learn and manage multiple client configuration utilities.

All WLAN configuration utilities, as well as the built-in capability in Microsoft® Windows® XP, enable you to create profiles with settings for network name, SSID, and security setup, including the definition of a wired equivalent privacy (WEP) key. However, only Access Connections software integrates location-specific control over the networking and Internet settings that are traditionally set through multiple facilities, windows, and utilities in Windows. These include:

- Fixed IP address or dynamic host configuration protocol (DHCP)
- Auto domain name system (DNS) or explicit DNS addresses and DNS suffixes
- Internet Explorer (IE) home page and proxy settings
- Enable/disable file and printer sharing
- Internet connection firewall
- Windows default printer
- Auto launch virtual private network (VPN) of choice
- Auto launch of any other executable

Without Access Connections software, users might need to take significantly more steps to set up a network connection in a location. For example, consider a telecommuter who uses an Ethernet connection both at work and at home. At work, the user is required to use a fixed-IP address with explicit DNS settings and a proxy server for Internet browsing. But at home, the cable modem dynamically assigns an IP address (DHCP mode) and the user does not need explicit DNS settings or a proxy server. To use the notebook at home, the user must modify Windows network properties to enable DHCP and automatic DNS. And the user must also turn off the proxy settings in IE tools options or the Internet will be inaccessible.

When the user returns to work, these parameters must be redefined. Network properties must be returned to fixed IP address and explicit DNS settings. This will include typing long strings of numbers—IP addresses—into associated fields. Proxy server parameters including the name of the proxy must also be reentered in Internet Explorer (**Tools**→**Options**) to enable Internet browsing. Network settings like these generally require a level of technical knowledge beyond that of the average PC user. Manually changing these settings with every location change can be an error-prone and tedious process that can result in help-desk calls and recurrent frustration for the user.

With Access Connections software, the same telecommuter would establish one profile for home and another for the office. With the click of the mouse, key settings and parameters can be changed, allowing the user to quickly get back to work without manipulating settings. The transition is seamless: This user can easily move the notebook PC between work and home and easily reestablish a network connection. Access Connections software makes this possible because it uses location profiles, which not only include hardware adapter settings but also myriad associated networking or Internet settings. The result: improved productivity and less frustration for the user, as well as potentially lower costs from the reduced number and length of help-desk calls and other technical support.

Enabling effortless wireless LAN connectivity for mobile users

Wireless connectivity is an essential component of mobility for notebook PC users. Access Connections has a number of capabilities that are designed to make wireless LAN connections fast and simple. For example, there is a button on the user interface, **Find Wireless Network**, which enables users to manually initiate a search for a WLAN network. When users select this button, Access Connections software finds and lists all of the active wireless access points in range. If an open or unencrypted connection is available, you can quickly create a location profile based on the newly found access point and connect. This capability enables mobile PC users to find a public WLAN connection in places like airports, hotels or coffee shops and get connected wirelessly. In addition to supporting an extensive array of WLAN adapters and being able to find new wireless LAN networks, Access Connections software performs the following:

- Controls the settings for wireless LAN security, including WEP, IEEE 802.1x, Cisco LEAP and Wi-Fi protected access (WPA). It can also associate a VPN client with a location profile. All of these provide alternative mechanisms for securing the wireless link between your PC and the wireless access point you are associated with. They are used to control access to the WLAN and after the data is flowing, they protect the data using encryption for privacy.
- Enables multi-adapter profiles—profiles with settings for a wired and a wireless adapter—so users can switch from a high-speed wired network connection to a wireless connection at the same location. For instance, at work, you may have a 100 Mbps Ethernet (wired) connection at your desk. When you attend a meeting away from your desk, you disconnect the Ethernet cable. Your notebook computer can then be taken to a conference room with wireless coverage, where Access Connections software automatically detects the absence of the Ethernet connection and senses and enables the wireless connection. When you return to your office and reconnect the Ethernet cable, Access Connections software returns you to your correct wired network settings. With Access Connections, this multi-adapter capability has been extended to include not only Ethernet-to-wireless switching, but Ethernet-to-Ethernet switching as well. Ethernet-to-Ethernet switching is useful, for example, when you need to use a

proxy server at work and a VPN client with no proxy server at home. In both locations the connection is Ethernet, but the settings are different. Access Connections software changes your network and Internet settings automatically.

- Can prioritize the adapters used in the multi-adapter profile to help ensure that the adapter with the lower priority will be utilized only when higher priority adapters cannot establish or maintain a connection.
- Disables wireless LAN radios to help conserve notebook battery power. Wireless adapter radios can consume considerable amounts of power unnecessarily even when not in use. By disabling wireless LAN radios, you can use your notebook for longer time periods before having to recharge the battery.

Extending wireless connection capabilities beyond WLAN

Access Connections software also accommodates wireless wide area networking (WAN) and the personal area networking (PAN) technology, Bluetooth. With the introduction of 3G cellular technologies, wireless WAN services are emerging as an effective alternative for high-speed wireless access to the network when users are away from the office and not near a public WLAN hot spot. (A hot spot is an open (not secure) WLAN such as those found in airports, hotels and coffee shops enabling travelers to easily and wirelessly connect to the Internet or their e-mail.)

Access Connections software supports several wireless WAN PC card adapters. For example, with the Novatel Merlin C201 CDMA 1xRTT PC card installed in your ThinkPad notebook, you can activate a location profile to easily control connection to the Sprint Enhanced PCS network¹. This cellular-based network provides a wireless alternative to WLAN that is both fast and often available where WLAN connectivity is not to be found.

To help manage Bluetooth wireless connections, Access Connections offers a Bluetooth menu bar that offers an easy way to turn off the Bluetooth radio and to set the Bluetooth security level. It also provides capability to create the location profile using the Bluetooth modem, which uses the DUN Bluetooth profile. The Bluetooth security levels can be selected from either this menu bar or from the menu displayed by left-clicking the Access Connections system tray icon. Turning off the Bluetooth radio conserves battery power, which will help extend the time between needing to recharge the notebook battery. Access Connections software makes these tasks simple to accomplish on your ThinkPad notebook.

Helping your clients stay connected

Access Connections software provides your clients with an easy-to-use help system that is accessible from the main user interface. An index provides quick access to standard topics such as connecting at work, remote location connection and other connectivity issues. A troubleshooting guide is also provided to address common questions and answers. And with convenient, point-and-click access to useful diagnostic tools and traditional Windows TCP/IP utilities, users can ping (check for a response from) an IP address, trace an IP route or check status of your IP connection using the IP config feature. Without Access Connections software, these tools are typically accessed through a command prompt and using tedious command line entry. Access Connections software provides point-and-click access to these useful diagnostic tools.

1. Wireless Internet subscription service required; not included.

Capitalizing on new profile-deployment capabilities to ease administration

Access Connections has a feature to make location profile deployment centrally manageable. Prior to having this capability, all client users were required to set up their own location profiles. Although Access Connections software leads you through the steps needed to create a profile, the entry of settings, especially settings associated with security, can still be cumbersome. Now an IT administrator can do the following:

- Create location profiles and distribute them as part of a hard disk image or send the profile files to client systems that have already been deployed, thereby saving users from spending time individually setting up profiles.
- Control policies—such as whether a distributed profile can be modified or deleted—for all profiles in the system, which could prevent users from inadvertently modifying or deleting a profile and then needing help-desk support.
- Establish rules to limit users who can import various deployment packages using distribution control lists (selectively distribute the profiles based on ThinkPad serial numbers).
- Create secure profile deployment packages that are encrypted and password protected so only authorized individuals can import the location profiles. This feature is important because profiles may contain wireless security content such as a WEP key or WPA TKIP PSK (Wi-Fi Protected Access Temporal Key Integrity Protocol Pre Shared Key).

A standard installation of Access Connections software does not include the profile distribution capability. The feature must be enabled using a separate software tool. This enabler utility is available to IBM customers from a dedicated Web site for registration and download. The enabler creates an additional menu item in the Access Connections user interface called Profile Distribution. It is from this profile distribution menu item that the IT administrator creates profiles to be distributed and establishes appropriate user-access policy. If a selected profile contains a wireless profile with encryption enabled, the administrator will be prompted to re-enter the wireless security settings to be deployed, thus ensuring that the administrator knows the security settings such as the WEP encryption key. If the wrong WEP key is entered, that WEP key will be deployed but not usable.

With the profile deployment capability, Access Connections software provides a significant benefit to IT administrators in terms of wireless security manageability. Many organizations that use WEP security leave their WEP encryption keys static simply because the updating of WEP keys across the entire client user base is a daunting task. This practice can put an organization at risk because static WEP key encryption can be broken. The Access Connections profile-deployment feature enables system administrators to remotely change and deploy new security settings including WEP keys. By frequently changing WEP keys, system administrators can dramatically reduce the possibility of security breaches in a WLAN environment.

IBM Access Connections software facilitates fast, easy network connections by using profiles to define the network adapter and associated networking parameters for different locations. Easy to use and manage, Access Connections software delivers a comprehensive network connectivity solution to help you improve total cost of ownership and employee productivity. And with the Access Connections software profile deployment feature, a system administrator can centrally create profiles and remotely deploy them to the client user base—as opposed to setting

up profiles individually at each client—resulting in streamlined management of network connectivity and helping you achieve lower overall IT costs.

Diagnosing network connectivity problems

IBM Access Connections supports a new feature of network diagnostics when users are unable to make network connections. It shows detailed progress of connection status and finds suspected reasons of failure and recommended actions. Access Connections also offers an automatic repair button to recover the network connection in some cases.

Chapter 3. Considerations for deploying Access Connections

Collecting information about the various places where users might attempt to connect and the kinds of connections available in those locations will help you develop preconfigured profiles that users can import and use right away. By capturing working configurations in profiles which can be deployed with the initial image, support calls can be reduced and users can immediately take advantage of their network connections without intervention.

An Administrator Feature is available with version 2.7 or later of Access Connections. This feature simplifies the task of deploying location profiles, global settings, and control policies to individuals or groups of individuals running Access Connections in a corporate environment. The deployment of these profiles and settings can be accomplished during the initial system deployment as part of the preload image or after systems are in the field using standard remote deployment methods.

Requirements and specifications for deployment

The current list of supported IBM ThinkPad systems, drivers and configurations is available at <http://www-306.ibm.com/pc/support/site.wss/migr-4zlnjb.html#ac> .

Chapter 4. Deploying Access Connections

After creating the location profiles required for client users, you can also manage and deploy new, updated, or revised location profiles to client computers.

Access Connections deployment features

The following is a list of features to help IT administrators deploy and manage Access Connections:

- The IBM Access Connections Enabler for Administrator Profile Deployment feature is required to deploy location profiles that you create for client users. The Enabler is available to IT professionals only at <http://www-3.ibm.com/pc/support/site.wss/document.do?lnocid=ACON-DEPLOY>.
- Administrators can create location profiles and distribute them as part of a preload image or install them after the client systems have been deployed.
- Control policies can be set for each profile.
- Distribution control lists can be created to limit who can import various deployment packages.
- A client configuration policy can be set to configure the operation of Access Connections on the client computer.
- Deployment packages are encrypted and password protected to be sure that only authorized individuals can import the location profiles that may contain wireless security information such as WEP or static password, for example.

Installing IBM Access Connections

IBM Access connections can be installed with using either a bundled package that includes IBM Access Connections software and all the necessary drivers, or the IBM Access Connections software alone, where you will install the necessary drivers separately.

Installing the integrated IBM Access Connections package

To install IBM Access Connections 3.0 or later without user interaction, do the following:

1. Start Windows 2000 or Windows XP, and then log on with administrative privileges.
2. Extract the Access Connections drivers to the hard disk drive.
3. Click **Start**, then click **Run**.
4. Type the following command:
`SETUP.EXE /S`

You can download the software package along with the installation instructions from the Web at:

http://www.pc.ibm.com/us/think/thinkvantagetech/downloads_support.html.
From that page, click **Software download and User's Guide** to download the software package.

Installing the standalone IBM Access Connections

To install IBM Access Connections 3.0 or later without user interaction, do the following:

1. Start Windows 2000 or Windows XP, and then log on with administrative privileges.
2. Extract the Access Connections drivers to the hard disk drive.
3. Click **Start**, then click **Run**.
4. Type one of the following commands:
 - a. For computers that do not automatically restart, type this command:
SETUP.EXE -S -SMS
 - b. To install from a CD, type this command:
SILENT.BAT

You can download the software package along with the installation instructions from the Web at:

http://www.pc.ibm.com/us/think/thinkvantagetech/downloads_support.html.
From that page, click **Software download and User's Guide** to download the software package

Enabling the Administrator Feature

To enable the Administrator Feature of Access Connections, you must first have Access Connections 3.0 or later installed on a donor computer.

When deploying location profiles that provide a wireless network connection, the donor and recipient computers must contain wireless adapters which support the capabilities defined in the location profile. For instance, if the location profile being deployed is configured for LEAP authentication, the adapters on the recipient systems must support LEAP authentication.

To enable the Administrator Feature, do the following:

1. Obtain the Administrator Feature Enabler and save it on the computer on which you will develop location profiles. (<http://www-3.ibm.com/pc/support/site.wss/document.do?lnocid=ACON-DEPLOY>)
2. Click **Start --> Run**, and then click **Browse**. Select the self-extracting executable file that you saved in step 1.
3. Click **OK**. This will extract the Enabler application to C:\Program Files\Thinkpad\ConnectUtilities.
4. Close the main window of Access Connections if it is open.
5. Click **Start --> Run**, and enter C:\Program Files\Thinkpad\ConnectUtilities\AdmEnblr.exe



Figure 2. Enabler for Administrator Profile Deployment Feature window

6. Select **Enable Administrator Feature**.
7. Select **Exit** to close the Enabler.
8. Start Access Connections.

If you have not previously created profiles on the computer, the initial window for the profile creation wizard will be displayed. After you have created at least one profile, you will be able to view the main window of Access Connections. A menu-bar item labeled "Profile Distribution" will be displayed.

Using the Administrator Feature

To use the Administrator Feature, do the following:

1. Create all the location profiles that users will require. Consider these and other needs as you create the profiles:
 - a. Office, building connections
 - b. Home connections
 - c. Branch-office connections
 - d. Connections while traveling
 - e. Hot-spot connections
2. After you have created the location profiles, click **Profile Distribution --> Create Distribution Package**.

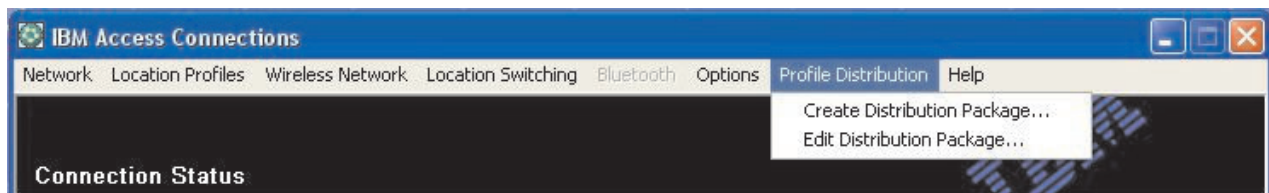


Figure 3. Profile Distribution

3. Select the location profiles that you want to deploy. For each location profile selected, choose the appropriate user-access policy as shown in Figure 4 on page 14. If a profile that is selected contains a wireless profile with encryption enabled, the administrator will be prompted to re-enter the wireless settings data again to ensure sensitive data is not exposed.

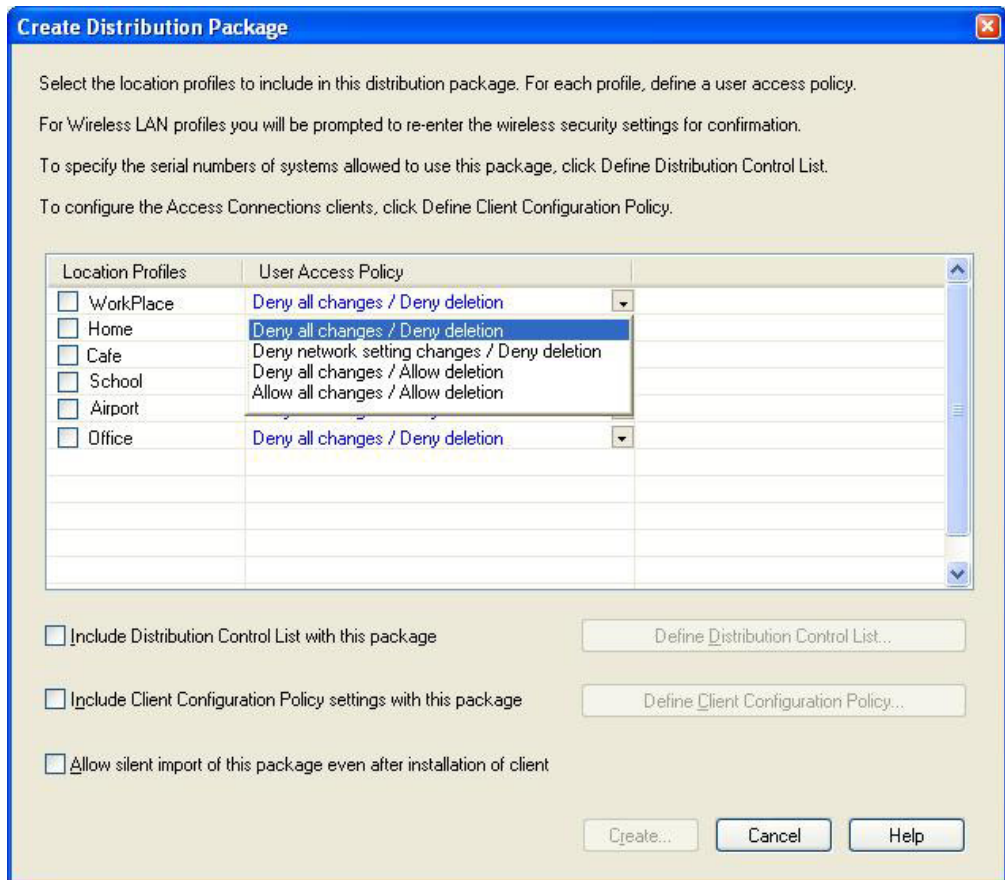


Figure 4. Create Distribution Package window

The access control policy defines the restrictions that are in place for a particular profile. Access control policies can be defined per profile and can have the following values:

- a. **Deny all changes / Deny Deletion:** Users cannot perform operations such as modify, copy, or delete on the profile.
- b. **Deny network setting changes / Deny deletion:** In this case the network settings in the profile cannot be modified, deleted or copied. The non-modifiable parameters are TCP/IP settings, Advanced TCP/IP settings, and wireless settings. The profile cannot be deleted.
- c. **Deny all changes / Allow deletion:** Users can not modify or copy the profile; however, users can delete the profile.
- d. **Allow all changes / Allow deletion:** Users can modify, copy and delete the profile.

Limitation: The above control policies can be applied to local users with Administrator level privileges. If the local users are configured as Limited Users, stricter restrictions are imparted by the operating system. Limited Users can only create dial-up connection-type profiles and can not modify or copy or delete profiles created by the administrator. A global setting in Access Connections enables Limited Users to switch between profiles created by the administrator.

4. When the **Allow silent import of this package even after installation of client** checkbox is marked, the IT administrator can export to any client computer *.LOA files silently regardless of the privileges of the user who is actually logged on to the client computer. Later packages (consisting of *.LOA and *.SIG

files) can be copied to the installation folder for Access Connections. The next time Access Connections runs, it will detect and import the package silently.

5. **Optional:** The administrator can define a Distribution Control List based on computer serial numbers. This method of distribution enables the administrator to type individual serial numbers or to create different groups of serial numbers that represent different organizations of users who need different location profiles. This optional step is designed primarily for securing the distribution of the profile location file (*.LOA), when it is being sent to remote users for manual importing. Distribution control lists ensure that individuals install appropriate network connection profiles only. They can help reduce unauthorized network access.

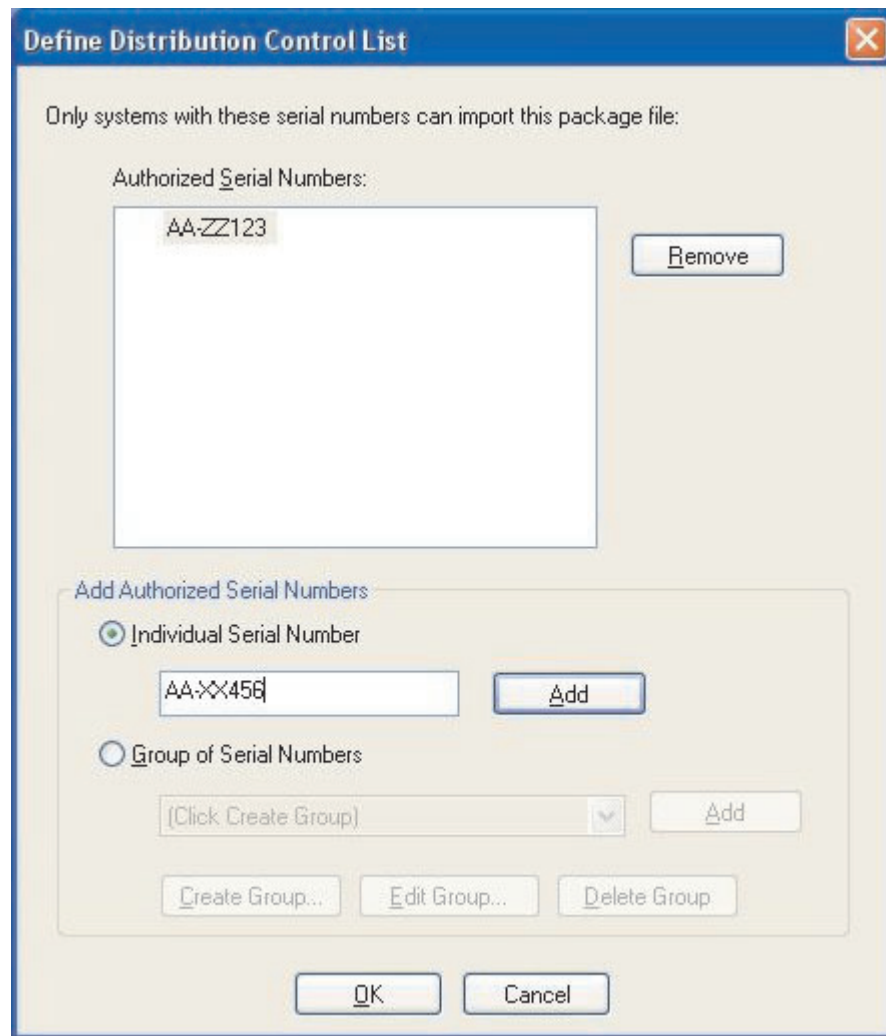


Figure 5. Define Distribution Control List

When creating groups of serial numbers, flat text files can be imported which contain the group of serial numbers. The file must be formatted such that each line contains a single serial number. These text files can be created by exporting a list that has been created with the Administrator Feature or by an asset management system if it has such capabilities. This simplifies the process of controlling distribution to a large number of computers based on their serial number.

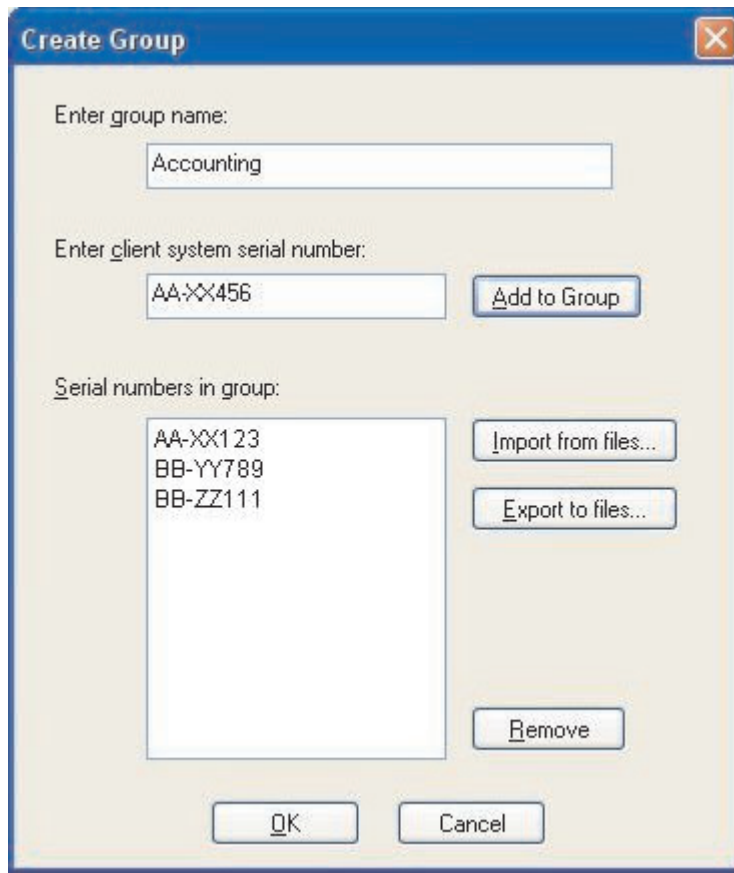


Figure 6. Create Group

6. **Optional:** You can define the Client Configuration Policy, which will control the capabilities that will be available to the user after the *.LOA file is imported.

Note: Marking the box beside **Do not allow clients to become an administrator** will prevent users from enabling the Administrator Feature on their installation of Access Connections. This setting is useful in large enterprise environments, where IT administrators want to prevent others from creating and distributing network access profiles.

The Client Configuration Policy panel also enables the administrator to set the Global Settings for Access Connections. If the end user logs onto a computer with a Limited User account, then the administrator must enable the "Allow all users of this system to switch to any existing location profile" setting under Global Setting. Otherwise, the users will not be able to switch between the preconfigured location profiles provided by the administrator.

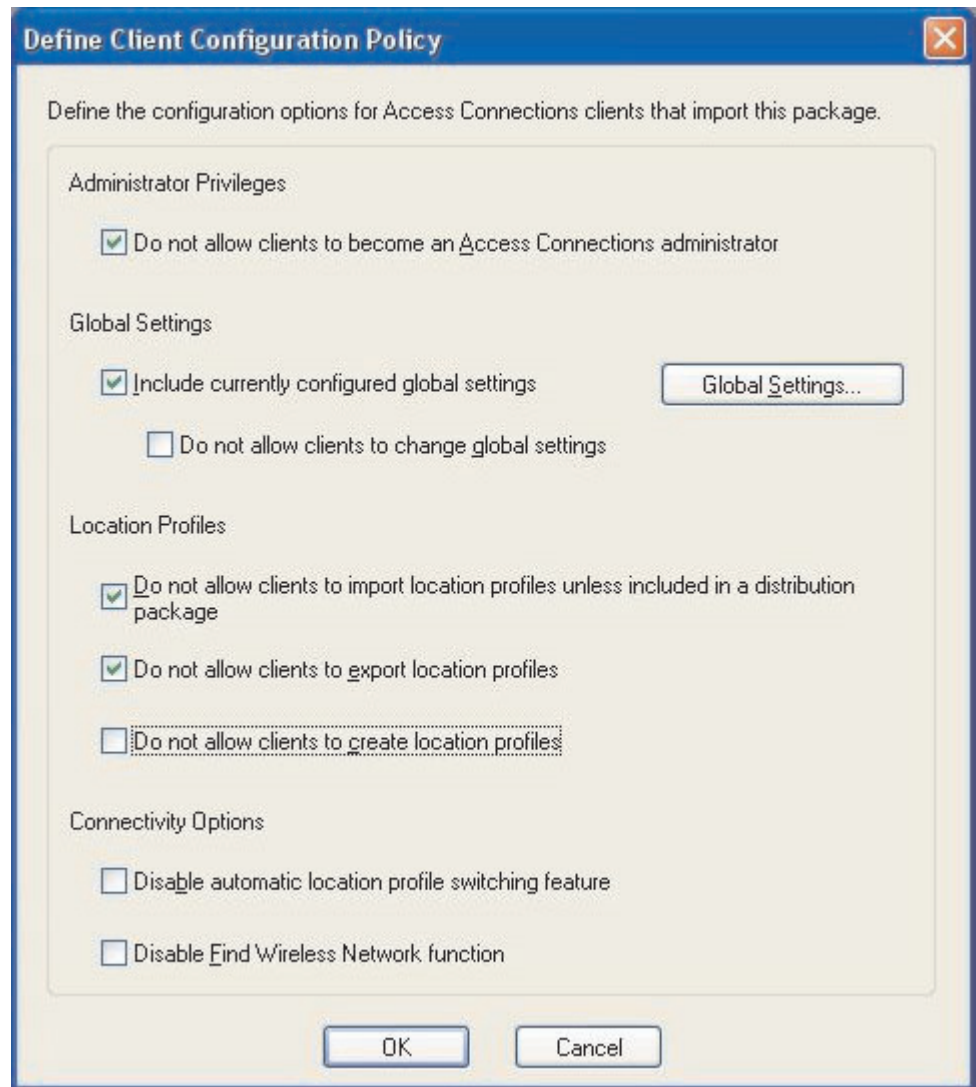


Figure 7. Define Client Configuration Policy

7. After you have specified all the necessary settings in the Define Client Configuration Policy window, click **Create**. A passphrase prompt will be displayed. The passphrase is used to encrypt the *.LOA file so that the file can be imported only if the Access Connections application was installed as described in Section 4.4 or if you provide the passphrase to the user.
8. Give the *.LOA file a name and location.
Attention: For image deployment, *.LOA file must reside in the Access Connections install directory - (C:\PROGRAM FILES\THINKPAD\CONNECTUTILITIES).

Preparing for a new-image installation

To deploy the Access Connections software, do the following:

1. Install Access Connections on a sample system from the group of systems being deployed.
2. Start the Administrator Feature Enabler, as described in “Enabling the Administrator Feature” on page 12.

3. Create the location profiles, as described in section “Using the Administrator Feature” on page 13.
4. Create the deployment package, as described in section “Using the Administrator Feature” on page 13.
5. While creating the location deployment package, mark the check box beside **Do not allow clients to become administrator** in the Client Configuration Policy window.
6. Save the *.loa and the *.sig files, which were created in “Using the Administrator Feature” on page 13, to another computer, removable media, or network drive to generate a collection of deployment packages.

Note: The *.sig file contains the signature data generated from the password used in generating the deployment package. This file will be located in the install directory of Access Connections, typically C:\PROGRAM FILES\THINKPAD\CONNECTUTILITIES

7. Install Access Connections on the image building system according to your process.
 - If the computer that you are using to create the build image is the same as a computer on which you created the location profiles, uninstall Access Connections from the build-image computer so that the Administrator Feature is removed. Add Access Connections to the image in an uninstalled state. Simply create a directory that contains the setup files plus the *.loa and *.sig files, which were saved in step 6.
 - Add a new DWORD value under HKLM\SOFTWARE\Microsoft\Windows\CurrentVersion\RunOnce in the registry.
 - Name the value ACinstall and set it to <Path where Access Connection setup files exist>\setup.exe -s
8. Upon the first boot of the client computers, Access Connections will silently install and automatically launch. Access Connections will import the *.loa file silently. The *.loa and *.sig files will be deleted

Deploying Access Connections location profiles remotely

There are two ways to deploy Access Connections remotely: unattended deployment and attended deployment. The following sections will describe each remote deployment method.

Unattended deployment

After computers have been deployed in the manner discussed in “Preparing for a new-image installation” on page 17, an administrator can use systems management applications (such as SMS, Tivoli®, etc.) to push updated *.loa files to the client and have Access Connections silently import them if the following conditions are met:

1. The *.loa files must be created using the exact password which was used originally in the build that was deployed on the client computer.
2. The *.loa files must be placed in the Access Connections installation directory.

Access Connections must be restarted, either by restarting the computer or by closing the System Tray icon (QCTRAY.EXE), and then launching Access Connections again.

Attended deployment

To deploy Access Connections location profiles to remote users or to computers that have already been deployed, do the following:

1. Using the Administrator Feature, create the *.loa file that contains the profiles that remote users need.
2. During the export process, specify the serial numbers of the remote users' computers and set a password to use in encrypting the *.loa file.
3. In separate e-mail messages (one for the password and one for the *.loa file), send to the users over a secure medium the password and *.loa file.
4. Prepare the following instructions for the users:
 - a. Detach the *.loa files to your hard disk.
 - b. Open Access Connections. (Depending on the way you set up the Start menu, you might need to provide navigation instructions to the Access Connections entry.)
 - c. Click **Manage Location Profiles**, and then click **Options --> Import/Export**.
 - d. Click **Import Location Profiles**.
 - e. Using the drop down selection for Files of type, select Profile Distribution files (*.loa)
 - f. Browse to the location where you saved the *.loa file that you detached in step 4a.
 - g. Select the saved *.loa file, and then click **Open**.
 - h. Access Connections will check the serial number of your computer to make sure that the *.loa file matches your computer. If a message is displayed that the serial number in the *.loa file and your computer serial do not match, contact the administrator who sent you the *.loa file. You will need a revised *.loa file that contains the correct serial number for your computer.
 - i. If the serial numbers match, you will be prompted to type the passphrase your administrator provided in a separate e-mail. Type the password carefully and precisely, using upper- and lower-case characters, where applicable, and then press Enter.
5. When the user correctly types the passphrase and presses **Enter**, Access Connections will decrypt the *.loa file and import the location profiles as well as global settings and access controls you have set. The *.loa file is then automatically deleted.

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