



Customizing and Localizing the AnyConnect Client and Installer

You can customize the Cisco AnyConnect Secure Mobility client to display your own corporate image to remote users, including clients running on Windows, Linux, and Mac OS X computers.

You can localize (translate) the client and all optional modules for different languages. You can also localize the installer program for the core VPN client.

This chapter contains procedures for customizing and localizing in the following sections:

- Customizing the AnyConnect Client, page 11-1
- Changing the Default AnyConnect English Messages, page 11-19
- Localizing the AnyConnect Client GUI and Installer, page 11-21

Customizing the AnyConnect Client

You can customize AnyConnect to display your own corporate image to remote users, including clients running on Windows, Linux, and Mac OS X computers.

You can use one of three methods to customize the client:

- Rebrand the client by importing individual client GUI components, such as the corporate logo and icons, to the ASA which deploys them to remote computers with the installer.
- Import your own program (Windows and Linux only) that provides its own GUI or CLI and uses the AnyConnect API.



The Network Access Manager and Web Security do not support the AnyConnect API. If you deploy Web Security or the Network Access Manager, you must deploy the core AnyConnect client.

Import a transform (Windows only) that you create for more extensive rebranding. The ASA deploys it with the installer.

The following sections describe procedures for these methods:

- Recommended Image Format for AnyConnect 3.0 and Later, page 11-2
- Replacing Individual GUI Components with your Custom Components, page 11-2
- Deploying Executables That Use the Client API, page 11-4

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- Customizing the GUI with a Transform, page 11-4
- Information for Creating your Custom Icons and Logos, page 11-6

Recommended Image Format for AnyConnect 3.0 and Later

For AnyConnect 3.0 and later, we recommend you use Portable Network Graphics (PNG) images with a maximum size of 62x33 pixels for the following reasons:

- PNG images have smaller file sizes than other image formats and use less disk space.
- PNG images support transparency natively.
- The AnyConnect 3.0 and later GUI provides a title adjacent to the logo image in the Advanced window and the tray flyout. Therefore, any title you provided with your image for the earlier client may confuse the user.

Replacing Individual GUI Components with your Custom Components

You can customize AnyConnect by importing your own custom files to the security appliance, which deploys the new files with the client. Table 11-2, Table 11-3, and Table 11-4 contain sample images of the original GUI icons and information about their sizes.

To import and deploy your custom files with the client, follow this procedure:

Step 1 Go to Configuration > Remote Access VPN > Network (Client) Access > AnyConnect Customization/Localization > Resources.

Click Import. The Import AnyConnect Customization Object window displays (Figure 11-1).

Remote Access VPN 🛛 🗇	P Config	uration > Rer	note Access VPN > I	etwork (Client) Acc	ess > AnyConnect	
Introduction	<u>Custor</u>	nization/Loca	alization > Resource	<u>s</u>		-
Network (Client) Access	Impo	rt or Export Ap	Connect-customization	resources to the secu	rity appliance. These	
AnyConnect Connection Profiles	objec	ts will be serve	d by the ASA on reques	t from the AnyConnec	t client.	
📆 AnyConnect Customization/Localiza	t		,	,		
🕂 📆 Resources	(For	AnyConnect 3.0) and newer releases, g	raphic file used for cus	tomization must be .png	·
Binary	file a	nd no larger tha	in 62x33 in size. For ea	rlier releases of AnyCo	nnect, graphic file must	
📆 Script	be.b	mp file.)				
GUI Text and Messages		Import I Exc	ort 🏦 Delete			
Customized Installer Transform	, 3					
	Pla	form		Object Name		
AnyConnect Client Profile						
AnyConnect Client Settings						
Dynamic Access Policies						
Group Policies	[🌆 Import /	inyConnect (Customization Obj			
IPsec(IKEv1) Connection Profiles						
Secure Mobility Solution	Name:	company logo.	png			
Address Assignment						
		The name used	for importing a resourc	e MUST match one of t	he AnyConnect	
		ilenames listed	in the admin guide and	within the online help		
	Platform	wip			~	
Q Deuice Setup	riderorini.	*****				
	Select a file					
Firewall	201001101110					
S S Lincovan	💿 Loca	l computer				
Remote Access VPN	Dath				Provise Local Files	
<u> </u>	Pau	•	c.,company_logo.pr	A	Drowse Local Files	
Site-to-Site VPN	🔿 Flas	n file system				
<u></u>	Ŭ					
Device Management	Path				Browse Flash	
	0.5					
	ORem	ote server				
	Path	fto 💉 ://				
	, acri					
	1		Terra and Manual Concern			
			LINDORE NOW	ancei He	D	
					÷	

Figure 11-1 Importing a Customization Object

- **Step 2** Enter the Name of the file to import. See Table 11-2, Table 11-3, and Table 11-4 for the filenames of all the GUI components that you can replace.

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Note The filenames of your custom components must match the filenames used by the AnyConnect GUI, which are different for each operating system and are case sensitive for Mac and Linux. For example, if you want to replace the corporate logo for Windows clients, you must import your corporate logo as *company_logo.png*. If you import it as a different filename, the AnyConnect installer does not change the component. However, if you deploy your own executable to customize the GUI, the executable can call resource files using any filename.

Step 3 Select a platform and specify the file to import. Click **Import Now**. The file now appears in the table (Figure 11-2).

Figure 11-2 The Imported File Displays in the Table

Configuration > Remote Access VP Customization/Localization > Reso	N > Network (Client) Access > AnyConnect urces	2
Import or Export AnyConnect-customization resources to the security appliance. These objects will be served by the ASA on request from the AnyConnect client.		
(For AnyConnect 3.0 and newer releases, graphic file used for customization must be .png file and on larger than 62x33 in size. For earlier releases of AnyConnect, graphic file must be .hmp file.)		
🗣 Import 🗹 Export 前 Delete		
Platform	Object Name	
win	company_logo.png	



If you import an image as a resource file (such as company_logo.bmp), the image you import customizes AnyConnect until you reimport another image using the same filename. For example, if you replace company_logo.bmp with a custom image, and then delete the image, the client continues to display your image until you import a new image (or the original Cisco logo image) using the same filename.

Deploying Executables That Use the Client API

For Windows, Linux, or Mac computers, you can deploy your own User Interface (UI), by using the AnyConnect API. You replace the AnyConnect GUI or the AnyConnect CLI by replacing the client binary files.

You must distribute your custom UI, and manage AnyConnect software updates.

The following AnyConnect features are not compatible with custom AnyConnect UIs:

- AnyConnect software deployment from ASA. If you update the version of the AnyConnect package
 on the ASA, the end user's clients may be updated, which would replace your custom UI. You must
 manage distributing AnyConnect software and your custom client. Although the ASDM
 Configuration > Remote Access VPN > Network (Client) Access > AnyConnect
 Customization/Localization > Binary dialog allows you to upload binaries to replace the
 AnyConnect client, that function is not supported.
- Network Access Manager and Web Security. If you deploy Web Security or the Network Access Manager, you must use the Cisco AnyConnect Secure Mobility Client GUI.
- Start Before Logon is not supported.

The following table lists the filenames of the client executable files for the different operating systems.

Client OS	Client GUI File	Client CLI File
Windows	vpnui.exe	vpncli.exe
Linux	vpnui	vpn
Mac	Not supported ¹	vpn

Table 11-1Filenames of Client Executables

1. Not supported by ASA deployment. However, you can deploy an executable for the Mac that replaces the client GUI using other means, such as Altiris Agent.

Your executable can call any resource files that you import to the ASA, such as logo images (see Figure 11-1). Unlike replacing the pre-defined GUI components, when you deploy your own executable, you can use any filenames for your resource files.

Customizing the GUI with a Transform

You can perform more extensive customizing of the AnyConnect GUI (Windows only) by creating your own transform that deploys with the client installer program. You import the transform to the ASA, which deploys it with the installer program.

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To create an MSI transform, you can download and install the free database editor from Microsoft, named Orca. With this tool, you can modify existing installations and even add new files. The Orca tool is part of the Microsoft Windows Installer Software Development Kit (SDK) which is included in the Microsoft Windows SDK. The following link leads to the bundle containing the Orca program:

http://msdn.microsoft.com/library/default.asp?url=/library/en-us/msi/setup/orca_exe.asp.

After you install the SDK, the Orca MSI is located here:

C:\Program Files\Microsoft SDK SP1\Microsoft Platform SDK\Bin\Orca.msi.

Install the Orca software, then access the Orca program from your Start > All Programs menu.

To import your transform, follow these steps:

Step 1 Go to Configuration > Remote Access VPN > Network (Client) Access > AnyConnect Customization/Localization > Customized Installer Transforms. Click Import. The Import AnyConnect Customization Objects windows displays (Figure 11-3).

Remote Access ¥PN 🗗	Configuration > Remote Access VPN > Network (Client) Access >
2 Introduction	AnyConnect Customization/Localization > Customized Installer Transforms
📄 🧱 Network (Client) Access	Import or Export ApyConnect-customization objects to the security appliance. These
AnyConnect Connection Profiles	objectsil be served by the ASA on request from the AnyConnect client.
IPsec Connection Profiles	
Group Policies	Timport Export Delete
- Dynamic Access Policies	Platfork Object Name
📄 🚊 🧑 AnyConnect Customization/Loca	ization
Resources	
- 🧑 Binary	
- 📆 GUI Text and Messages	
🚽 🔤 Customized Installer Transfo	rms
🔤 Localized Installer Transform	s
🕀 🎭 Address Assignment	
🗄 📆 Advanced	
🗈 🌃 Clientless SSL VPN Access	Import AnyConnect Customization Objects
🕀 🙀 AAA/Local Users	
🗄 🖓 🚮 Secure Desktop Manager	Name: Our_corporate_icon
🗈 🔂 Certificate Management	Diskforms win
Load Balancing	Select a file
P DHCP Server	
	 Local computer
H Contraction	Bathy CUDocuments and Settings/userid/Mu Doc Browse Local Files
	Cryboculiencs and Sectings(usendyny bor
0	◯ Flash file system
Device Setup	
	Path: Browse Flash
Firewall	
Car and a family light	O Relifice server
Remote Access VPIN	Path ftp 🔽 ://
Ca Site to Site VDN	
	Import Now Cancel Help
Device Management	
	Physical Apply Reset
	docs 15 🐻 🖼 🕞 5/4/09 10:10:34 AM EDT

Figure 11-3 Importing a Customizing Transform

- **Step 2** Enter the Name of the file to import. Unlike the names of other customizing objects, the name is not significant to the ASA and is for your own convenience.
- **Step 3** Select a platform and specify the file to import. Click **Import Now**. The file now appears in the table (Figure 11-4).



Windows is the only valid choice for applying a transform.

nfiguration > Remote Access VPN > NyConnect Customization/Localizati	<u>Network (Client) Access</u> > on > <u>Customized Installer Transforms</u>	
Import or Export AnyConnect-customizat objects will be served by the ASA on requ Import	ion objects to the security appliance. These Jest from the AnyConnect client.	
Platform	Object Name]
win	Our_corporate_icon	

Figure 11-4 The Customizing Transform Appears in the Table

Sample Transform

While offering a tutorial on creating transforms is beyond the scope of this document, we provide the text below as representative of some entries in a transform. These entries replace *company_logo.bmp* with a local copy and install the custom profile *MyProfile.xml*.

```
DATA CHANGE - Component Component ComponentId
+ MyProfile.xml {39057042-16A2-4034-87C0-8330104D8180}
Directory_ Attributes Condition KeyPath
Profile_DIR 0 MyProfile.xml
DATA CHANGE - FeatureComponents Feature_ Component_
+ MainFeature MyProfile.xml
DATA CHANGE - File File Component_ FileName FileSize Version Language Attributes Sequence
+ MyProfile.xml MyProfile.xml MyProf~1.xml|MyProfile.xml 601 8192 35
<> company_logo.bmp 37302{39430} 8192{0}
DATA CHANGE - Media DiskId LastSequence DiskPrompt Cabinet VolumeLabel Source
+ 2 35
```

Information for Creating your Custom Icons and Logos

The tables that follow list the files you can replace for each operating system supported by AnyConnect.



If you create your own custom images to replace the client icons, your images must be the same size as the original Cisco images.

For Windows

All files for Windows are located in:

%PROGRAMFILES%\Cisco\Cisco AnyConnect Secure Mobility Client\res\



%PROGRAMFILES% refers to the environment variable by the same name. In most Windows installation, this is C:\Program Files.

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Table 11-2 lists the files you can replace and the client GUI area affected:

Table 11-2 AnyConnect for Windows—Icon Files

Filename and Description in Windows Installation	Image Size (pixels, I x h) and Type
about nng	24 x 24
The About button in the upper right corner of the Advanced dialog	PNG
The size is not adjustable.	1110
1	
about_hover.png	24 x 24
The About button in the upper right corner of the Advanced dialog.	PNG
The size is not adjustable.	
1	
ArrowDown.png	16 x 22
The button that allows the user to move networks down in the Networks list of the Network Access Manager Advanced window Configuration tab.	PNG
The size is not adjustable.	
ArrowDownDisabled.png	16 x 22
The disabled button that allows the user to move networks down in the Networks list of the Network Access Manager Advanced window Configuration tab.	PNG
The size is not adjustable.	
▼	
ArrowUp.png	16 x 22
The button that allows the user to move networks up in the Networks list of the Network Access Manager Advanced window Configuration tab.	PNG
The size is not adjustable.	
▲	

1

Filename and Description in Windows Installation	lmage Size (pixels, l x h) and Type
ArrowUpDisabled.png	16 x 22
The disabled button that allows the user to move networks up in the Networks list of the Network Access Manager Advanced window Configuration tab.	PNG
The size is not adjustable.	
▲ · · · · · · · · · · · · · · · · · · ·	
company_logo.png	97 x 58
The company logo displayed in the top left corner of the tray flyout and Advanced dialog, and bottom right corner of the About dialog.	(maximum) PNG
97x58 is the maximum size. If your custom file is not that size, it is resized to $97x58$ in the application. If it is not in the same ratio, it is stretched.	
cisco	
attention.ico	16 x 16
System tray icon alerting the user to a condition requiring attention or interaction. For example, a dialog about the user credentials.	ICO
The size is not adjustable.	
error.ico	16 x 16
System tray icon alerting the user that something is critically wrong with one or more components.	ICO
The size is not adjustable.	
8	
neutral.ico	16 x 16
System tray icon indicating client components are operating correctly.	ICO
The size is not adjustable.	

Table 11-2 AnyConnect for Windows – Icon Files (continued)

Γ

Filename and Description in Windows Installation	Image Size (pixels, l x h) and Type
vpn_connected.ico	16 x 16
System tray icon indicating the VPN is connected.	ICO
The size is not adjustable.	
cues_bg.jpg	1260 x 1024
The background image for the tray flyout, Advanced window, and About dialog.	JPEG
Because images are not stretched, using a replacement image that is too small results in black space.	
gradient.png	1 x 38
	T X 50
	PNG
GUI.tif	
The application and system tray icon.	

Table 11-2 AnyConnect for Windows—Icon Files (continued)

1

	Image Size (pixels, I x h)
Filename and Description in Windows Installation	and lype
mftogglebtn.png	300 x 40
The background of the inactive menu option in the Advanced window.	PNG
When the AnyConnect installation has multiple components (such as the Network Access Manager, Web Security, telemetry), the GUI Advanced window displays menu options for each component. This image is used as the background for the menu option when it is inactive.	
mftogglebtn-down.png	300 x 40
The background of the Status Overview menu option (when active) in the Advanced window.	PNG
When the AnyConnect installation has multiple components (such as the Network Access Manager, Web Security, telemetry), the GUI Advanced window displays menu options for each component. This image is used as the background for the Status Overview when the Advanced window initially opens, and when the user clicks the menu option.	
mftogglebtn-down-solid.png	300 x 40
The background used by Advanced window menu options, other than the Status Overview menu option, when the menu option is activated.	PNG
When the AnyConnect installation has multiple components (such as the Network Access Manager, Web Security, telemetry), the GUI Advanced window displays menu options for each component. This image is used as the background for all menu options, other than the Status Overview menu option, when the user clicks the menu option and activates it.	

Table 11-2 AnyConnect for Windows – Icon Files (continued)

Γ

Filename and Description in Windows Installation	lmage Size (pixels, l x h) and Type
minimize.png	16 x 16
The minimize button for the tray flyout.	PNG
The size is not adjustable.	
minimize-hover.png	16 x 16
The minimize button for the tray flyout when the user hovers over it.	PNG
The size is not adjustable.	
—	
pinned.png	38 x 30
The button in the Network Access Manager tray flyout tile that allows the user to automatically select a network.	PNG
The size is not adjustable.	
9	28 - 20
pinned_button.png	38 x 30
The button in the Network Access Manager tray flyout tile, when the user hovers on it, that allows the user to automatically select a network.	PNG
The size is not adjustable.	
9	
status_ico_attention.png	16 x 16
Attention status icon used by each component in the tray flyout and Advanced window Status Overview pane indicating user attention is required.	PNG
The size is not adjustable.	
<u>^</u>	

Table 11-2 AnyConnect for Windows—Icon Files (continued)

1

Filename and Description in Windows Installation	lmage Size (pixels, l x h) and Type
status_ico_error.png	16 x 16
Error status icon used by each component in the tray flyout and Advanced window Status Overview pane indicating a serious error, such as the service being unreachable.	PNG
The size is not adjustable.	
8	
status_ico_good.png	16 x 16
Good status icon used by each component in the tray flyout and Advanced window Status Overview pane indicating each component is operating properly.	PNG
The size is not adjustable.	
✓	
status_ico_neutral.png	16 x 16
Neutral status icon used by each component in the tray flyout and Advanced window Status Overview pane indicating the component is working, but is not necessarily active.	PNG
The size is not adjustable.	
status_ico_transition.png	16 x 16
Transition status icon used by each component in the tray flyout and Advanced window Status Overview pane indicating the component is between states, such as between connected and disconnected.	PNG
The size is not adjustable.	
status_ico_trusted.png	16 x 16
Trusted status icon used by each component in the tray flyout and Advanced window Status Overview pane indicating the component is operating properly but is disabled due to policy, such as set by the Trusted Network Detection (TND) feature.	PNG
The size is not adjustable.	
~	

Table 11-2 AnyConnect for Windows—Icon Files (continued)

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Filename and Description in Windows Installation	lmage Size (pixels, l x h) and Type
transition_1.ico	16 x 16
System tray icon that displays along with transition_2.ico and transition_3.ico indicating one or more client components are in transition between states (for example, when the VPN is connecting or when Network Access Manager is connecting). The three icon files display in succession, appearing to be a single icon bouncing from left to right.	PNG
The size is not adjustable.	
transition_2.ico	16 x 16
System tray icon that displays along with transition_1.ico and transition_3.ico indicating one or more client components are in transition between states (for example, when the VPN is connecting or when Network Access Manager is connecting). The three icon files display in succession, appearing to be a single icon bouncing from left to right.	PNG
The size is not adjustable.	
transition_3.ico	16 x 16
System tray icon that displays along with transition_1.ico and transition_2.ico indicating one or more client components are in transition between states (for example, when the VPN is connecting or when the Network Access Manager is connecting). The three icon files display in succession, appearing to be a single icon bouncing from left to right.	PNG
The size is not adjustable.	

Table 11-2 AnyConnect for Windows—Icon Files (continued)

1

Filename and Description in Windows Installation	lmage Size (pixels, l x h) and Type
unpinned.png	38 x 30
The button in the Network Access Manager tray flyout tile that allows the user to connect exclusively to the current network.	PNG
The size is not adjustable.	
unpinned_button.png	38 x 30
The button in the Network Access Manager tray flyout tile, when the user hovers on it, that allows the user to connect exclusively to the current network.	PNG
The size is not adjustable.	

Table 11-2 AnyConnect for Windows—Icon Files (continued)

For Linux

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All files for Linux are located in:

/opt/cisco/anyconnect/pixmaps/

Table 11-3 lists the files that you can replace and the client GUI area affected.

Table 11-3	AnyConnect for Linux—lcon Files
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Filonome and Description in Linux Installation	Image Size (pixels, I x h) and Type
company-logo.png	142 x 92
Corporate logo that appears on each tab of the user interface.	PNG
For AnyConnect 3.0 and later, use PNG images no bigger than 62x33 pixels.	
cisco	
cvc-about.png	16 x 16
Icon that appears on the About tab.	PNG
cvc-connect.png	16 x 16
Icon that appears next to the Connect button, and on the Connection tab.	PNG
N.	
cvc-disconnect.png	16 x 16
Icon that appears next to the Disconnect button.	PNG
Va.	
cvc-info.png	16 x 16
Icon that appears on the Statistics tab.	PNG
0	
systray_connected.png	16 x 16
Tray icon that displays when the client is connected.	PNG
1	

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1

Filename and Description in Linux Installation	Image Size (pixels, l x h) and Type
systray_notconnected.png	16 x 16
Tray icon that displays when the client is not connected.	PNG
(
systray_disconnecting.png	16 x 16
Tray icon that displays when the client is disconnecting.	PNG
8	
systray_quarantined.png	16x16
Tray icon that displays when the client is quarantined.	PNG
(
systray_reconnecting.png	16 x 16
Tray icon that displays when the client is reconnecting.	PNG
vpnui48.png	48 x 48
Main program icon.	PNG

For Mac OS X

All files for OS X are located in:

/Applications/Cisco AnyConnect Secure Mobility Client/Contents/Resources



You will find the Resources folder by going to **Applications > Cisco**, clicking on **Cisco AnyConnect Secure Mobility Client**, and then choosing **Show Package Contents**.

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Table 11-4 lists the files that you can replace and the client GUI area affected.

Table 11-4	AnyConnect for Mac OS X—lcon F	ïles
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Filename in Mac OS X Installation	lmage Size (pixels, l x h)
bubble.png	142 x 92
Notification bubble that appears when the client connects or disconnects.	PNG
·: ::: :. cisco	
connected.png	32 x 32
Icon that displays under the disconnect button when the client is connected.	PNG
logo.png	50 x 33
Logo icon that appears on main screen in the top right corner.	PNG
cisco	
menu_connected.png	16 x 16
Connected state menu bar icon.	PNG
(1)	
menu_error.png	16 x 16
Error state menu bar icon.	PNG
menu_idle.png	16 x 16
Disconnected idle menu bar icon.	PNG
9	
menu_quarantined.png	16 x 16
Quarantined state menu bar icon.	PNG
8	

Filename in Mac OS X Installation	lmage Size (pixels, l x h)
menu_reconnecting.png	16 x 16
Reconnection in process menu bar icon.	PNG
warning.png	40 x 40
Icon that replaces login fields on various authentication/certificate warnings.	PNG
vpngui.icns	128 x 128
Mac OS X icon file format that is used for all icon services, such as Dock, Sheets, and Finder.	PNG

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Changing the Default AnyConnect English Messages

You can make changes to the English messages displayed on the AnyConnect GUI by adding an English translation table and changing message text within an editing window of ASDM.

The following procedure describes how to change the default English messages:

Step 1 Go to Configuration > Remote Access VPN > Network (Client) Access > AnyConnect Customization/Localization > GUI Text and Messages. Click Add. The Add Language Localization Entry window displays (Figure 11-5).

Remote Access VPN Introduction Network (Client) Access AnyConnect Connection Profiles Psec Connection Profiles Poynamic Access Policies AnyConnect Customization/Localit Resources Sinary Customized Installer Transform Localized Installer Transform	₽ × eation	Configurati AnyConnec Configur appliance the Anyou Canguage L Language L	on > Remote Access VPN > Netwo t Customization/Localization > GL e language translation tables tha e uses to translate titles and mess connect VPN Client user interface age Edit în Delete 4 Import age	ork (Client) Access > II Text and Messages t the security sages associated with t	
 ⊕ Address Assignment ⊕ Advanced ⊕ Clientless SSL VPN Access ⊕ AAA/Local Users 	Transi Langu	lation Domain: age:	AnyConnect		Ò
🖅 🚠 Secure Desktop Manager			Language	Language Code	
🕀 🔂 Certificate Management			Chinese (PRC)	zh-cn	
			Chinese (Singapore)	zh-sa	
2 Load Balancing			Chinese (Taiwan)	zh-tw	-
PHCP Server			Crainese (raiwan)	211-099	
DNS DNS					
⊞13 Advanced			Czech	cs	
			Danish	da	
			Dutch (Belgium)	nl-be	
			Dutch (Standard)	nl	
Firous!			English	en	
and the same			English (Australia)	en-au	
23 Remote Access VPN			English (Belize)	en-bz	
			English (Canada)	en-ca	
Site-to-Site VPN			English (Caribbean)	en-029	
_			English (Ireland)	en-ie	⊻
55 Device Management			English (Jamaica)	en-im	
					_
		OK	Cancel Save to I	File Help	
Device					247

Figure 11-5 Adding an English Translation Table

- **Step 2** Click the Language drop-list and specify the language as *English* (en). The translation table for English displays in the list of languages in the pane.
- Step 3 Click Edit to begin editing the messages. The Edit Language Localization Entry window displays (Figure 11-6). The text between the quotes of msgid is the default English text displayed by the client and *must not* be changed. The msgstr string contains text the client uses to replace the default text in msgid. Insert you own text between the quotes of the msgstr.

In the example below, we insert "Call your network administrator at 800-553-2447."



Figure 11-6 Editing the Message Text

Step 4 Click **OK** and then **Apply** in the GUI Text and Messages pane to save your changes.

Localizing the AnyConnect Client GUI and Installer

You can localize (translate) the client and all optional modules for different languages. You can also localize the installer program for the core VPN client that provides VPN service.



If you are deploying AnyConnect using a corporate IT deployment software, such as Altiris Agent, you can only translate the installer. You cannot translate the client. Client translation is only available when the ASA deploys the client.

The following sections contain information and procedures for configuring this feature:

- Localizing the AnyConnect GUI, page 11-21
- Localizing the AnyConnect Installer Screens, page 11-29
- Using Tools to Create Message Catalogs for Enterprise Deployment, page 11-31
- Merging a Newer Translation Template with your Translation Table, page 11-32

Localizing the AnyConnect GUI

The security appliance uses translation tables to translate user messages displayed by AnyConnect. The translation tables are text files with strings to insert translated message text. The AnyConnect package file for Windows contains an English language template for AnyConnect messages. The ASA automatically imports this file when you load the client image. The file contains the latest changes to message strings, and you can use it to create new translation tables for other languages.

When the remote user connects to the ASA and downloads the client, the client detects the preferred language of the computer and applies the appropriate translation table. The client detects the locale specified during installation of the operating system. If you update the translation table on the ASA, the translated messages are not updated until the client is restarted and makes another successful connection.

For more information about language options for Windows, go to these URLs:

http://www.microsoft.com/windowsxp/using/setup/winxp/yourlanguage.mspx http://www.microsoft.com/globaldev/reference/win2k/setup/changeUI.mspx



If you are not deploying the client with the ASA, and are using a corporate software deployment system such as Altiris Agent, you can manually convert the AnyConnect translation table (anyconnect.po) to a .mo file using a catalog utility such as Gettext and install the .mo file to the proper folder on the client computer. See the "Using Tools to Create Message Catalogs for Enterprise Deployment" section on page 11-31 for more information.

The following sections contain detailed procedures for two different methods of translating GUI text:

- Translating using the ASDM Translation Table Editor, page 11-22
- Translating by Exporting the Translation Table for Editing, page 11-26

Translating using the ASDM Translation Table Editor

The following procedure describes how to localize the AnyConnect GUI using ASDM:

Step 1 Go to Configuration > Remote Access VPN > Language Localization. Click Add. The Add Language Localization Entry window displays (Figure 11-7).

Figure 11-7 Language Localization Pane



Γ

Step 2 Click the **Translation Domain** drop-list and choose **AnyConnect** (Figure 11-8). This choice ensures that only the messages relating to the AnyConnect GUI appear for editing purposes.

🗟 Add I	Language Localization Entry	
Transl	ation Domain: url-list	✓
Langu	Translation Domain	Functional Areas Translated
	csd	csd
#: db	url-list	Text that user specifies for URL bookmarks on the portal page.
msgia	PortForwarder	Messages displayed to Port Forwarding users.
msgs	customization	Messages on the logon and logout pages, portal page, and al
#: db	AnyConnect	Messages displayed on the user interface of the Cisco AnyCo
msgid	webypn	All the layer 7, AAA and portal messages that are not custom
msgst	banners	Banners displayed to remote users and messages when VPN
msgst #: db msgid msgst #: db msgid msgst	r "" "db_list" r "" <u>list:9</u> "server_3" r ""	
	OK Car	ncel Save to File Help

Figure 11-8 Translation Domain

Step 3 Specify a language for this translation table (Figure 11-9). ASDM tags this table with the standard abbreviations recognized for languages by Windows and browsers (for example, *es* for Spanish).

Figure 11-9 Choosing a Language

🖆 Add Language Li	ocalization Entry		
Translation Domain:	AnyConnect		~
Language:			~
msastr ""	Language	Language Code	
	Sami (Lappish)	sz	~
#: 1dfc73e65e8317	Serbian	sr	
"Password Expired	Slovak	sk	
"Continue."	Slovenian	sl	
msgstr ""	Sorbian	sb	
#1.1dfc72o4Eo9217	Spanish (Spain)	es	
msaid ""	Spanish (Argentina) が	es-ar	
"Password Expiring,	Spanish (Bolivia)	es-bo	
"Continue."	Spanish (Chile)	es-cl	
msgstr	Spanish (Colombia)	es-co	
#: 1dfc73e65e8317	Spanish (Costa Rica)	es-cr	
msgid ""	Spanish (Dominican Republic)	es-do	
"Password Change F "click Coptinue "	Spanish (Ecuador)	es-ec	
msgstr ""	Spanish (El Salvador)	es-sv	
-	Spanish (Guatemala)	es-gt	
	Spanish (Honduras)	es-hn	
	Spanish (Mexico)	es-mx	
OK	Spanish (Nicaragua)	es-ni	
	Spanish (Panama)	es-na	

I

Step 4 The translation table now displays in the list of languages in the pane (*es* in our example). However, it has no translated messages. To begin adding translated text, click **Edit**. The Edit Language Localization Entry window displays (Figure 11-10).

Add your translated text between the quotes of the message strings (msgstr). In the example below, we insert *Connectado*, the Spanish word for *Connected*, between the quotes of its message string.

Be sure to click **OK** and then **Apply** in the Language Localization pane to save your changes.





Translating by Exporting the Translation Table for Editing

This procedure shows you how to export the AnyConnect translation template to a remote computer, where you can edit the table using an editor or using third-party tools such as Gettext or Poedit.

Gettext utilities from The GNU Project is available for Windows and runs in the command window. See the GNU website at gnu.org for more information. You can also use a GUI-based utility that uses Gettext, such as Poedit. This software is available at poedit.net.

Step 1 Export the AnyConnect translation template.

Go to **Configuration > Remote Access VPN > Language Localization**. The language localization pane displays (Figure 11-11). Click the **Templates** link to display a table of available templates. Select the *AnyConnect* template and click **Export**. The Export Language Localization window displays.

Figure 11-11 Exporting a Translation Template

Remote Access VPN	а т ×	Configuration > Remote Access VPN > Language Localization
Introduction Network (Client) Access Lief Clientless SSL VPN Acce AAA/Local Users AAA/Local Users Certificate Management Language Localization DACP Server DHCP Server Advanced	55 27 :	Configure language translation tables that the security appliance uses to translate titles and messages associated with the portal page, the AnyConnect VPN Client user interface, Cisco SecureDesktop, and plug-ins. Add C Edit Delete Import Export Language Language Translation Table <u>fr PortForwarder ja PortForwarder DevtForwarder Templates Configure language translation tables that the security appliance by using the Templates available in the table. To create new translation table, export the bates, modify and import them back with another name.</u>
		@ View @ Export
Sizewall		Translation Template
		AnyConnect
Remote Access VPN	The second second	
🚰 Site-to-Site VPN	📾 Export Langu	
🗾 Device <u>M</u> anagement	Language:	Template 🚽
	Translation Doma	in: AnyConnect
	Select a file	
	 Local comp 	uter
	Path:	C:\\AnyConnect_translation_table Browse Local Files
	🔵 Flash file s	ystem
	Path:	Browse Flash
	🔘 Remote se	rver
	Path ftp	
		Export Now Cancel Help

Step 2 Choose a method to export and provide a filename. In Figure 11-11, we export to a local computer with the filename *AnyConnect_translation_table*.

Step 3 Edit the translation table.

The following example shows a portion of the AnyConnect template. The end of this output includes a message ID field (msgid) and a message string field (msgstr) for the message *Connected*, which appears on the AnyConnect GUI when the client establishes a VPN connection (the complete template contains many pairs of message fields):

SOME DESCRIPTIVE TITLE. # Copyright (C) YEAR THE PACKAGE'S COPYRIGHT HOLDER # This file is distributed under the same license as the PACKAGE package. # FIRST AUTHOR <EMAIL@ADDRESS>, YEAR. #, fuzzv msgid "" msgstr "" "Project-Id-Version: PACKAGE VERSION\n" "Report-Msgid-Bugs-To: \n" "POT-Creation-Date: 2006-11-01 16:39-0700\n" "PO-Revision-Date: YEAR-MO-DA HO:MI+ZONE\n" "Last-Translator: FULL NAME < EMAIL@ADDRESS>\n" "Language-Team: LANGUAGE <LL@li.org>\n" "MIME-Version: 1.0\n" "Content-Type: text/plain; charset=CHARSET\n" "Content-Transfer-Encoding: 8bit\n" msgid "Connected"

```
msgstr ""
```

The msgid contains the default translation. The msgstr that follows msgid provides the translation. To create a translation, enter the translated text between the quotes of the msgstr string. For example, to translate the message "Connected" with a Spanish translation, insert the Spanish text between the quotes:

msgid "Connected"
msgstr "Conectado"

Be sure to save the file.

Step 4 Import the translation template as a new translation table for a specific language.

Go to **Configuration > Remote Access VPN > Language Localization**. The language localization pane displays (Figure 11-12). Click **Import**. The Import Language Localization window displays.

Step 5 Click the Language drop-list to choose the language (and the industry-recognized abbreviations) for this translation table. If you enter the abbreviation manually, be sure to use an abbreviation recognized by browsers and operating systems.

Step 6 Specify the Translation Domain as *AnyConnect*, choose a method to import, and provide a filename. Click **Import Now**. A message displays saying you successfully imported the table.

Be sure to click **Apply** to save your changes.

In Figure 11-11, we specify the language as *Spanish* (es) and import the same file we exported in Step 1 (AnyConnect_translation_table). Figure 11-13 shows the new translation table for Spanish in the list of Languages for AnyConnect.



Remote Access VPN	⊡ ₽ ×	Configuration > Remote Access VPN > Langu	Jage Localization			
	s	Configure language translation tables that the sh translate titles and messages associated with the AnyConnect VPN Client user interface. Gico Sec Add P Edi Delete Import P E Language Language Translation fr PottForwarder ja PortForwarder Templates Configure language translation tables that the s using the Templates available in the table. To ort table, export templates, motify and import them PortForwarder Translation Template AnyConnect banners cod customization PortForwarder age Localization	curity appliance uses to a portal page, the ureDesktop, and plug-ins. ixport in Table curity appliance by aback with another name.	X		
	Language:	✓				
			Language	Language Code		
	Translation Doma	in: AnyConnect	Slovenian	sl		
	Select a file		Sorbian	sb		
		uter	Spanish (Spain)	es		
	Cocarcomp		Spanish (Argentina)	es-ar 'V	-	
	Path:	C:\\AnyConnect_translation_table	Spanish (Bolivia)	es-bo	-	
	🔿 Elach file cr	uctem	Spanish (Chile)	es-ci	-	
			Spanish (Colombia)	es-co	-	
	Path:		Spanish (Costa Rica)	es-ur	-	
	O D u u b u u		Spanish (Dominican Republic)	es-do	-	
	O Remote se	rver	Spanish (Ecuador)	es-ec	-	
	Path ftp	♥ ://	Spanish (El Salvador)	es-sv	-	
			Spanish (Guatemaia)	es-gt	-	
		Import Now Cancel H	Spanish (Honduras)	es-nn	-	
		Cancer In	Spanish (Mexico)	es-mx	-	
			spanish (Nicaragua)	es-ni		
			Spanish (Panama)	es-pa		
			Spanish (Paraguay)	es-py	-	
			Spanish (Peru)	es-pe	- 8	2
			Spanish (Puerto Rico)	es-pr	- 💌 i	Ē
			Spanish (Uruguay)	es-uy		4

onfiguration > Rem	ote Access VPN > Language Localizatio	<u>n</u> 🗆
Configure language tr translate titles and m AnyConnect VPN Clier	anslation tables that the security appliance u essages associated with the portal page, the it user interface, Cisco SecureDesktop, and p i Delete 💠 Import 🧭 Export	ises to olug-ins.
Language	*1 Language Translation Table	
es	AnyConnect	
fr	csd	
Fr	PortEoriairder	

Figure 11-13 New Language Displayed in Language Table

Localizing the AnyConnect Installer Screens

As with the AnyConnect GUI, you can translate messages displayed by the client installer program which installs the VPN service. The ASA uses transform to translate the messages displayed by the installer. The transform alters the installation but leaves the original security-signed MSI intact. These transforms only translate the installer screens and do not translate the client GUI screens.

Note

Every release of AnyConnect includes a localized transform that administrators can upload to the ASA whenever they upload AnyConnect packages with new software. If you are using our localization transform, make sure to update them with the latest release from CCO whenever you upload a new AnyConnect package.

Each language has its own transform. You can edit a transform with a transform editor such as Orca and make changes to the message strings. Then you import the transform to the ASA. When the user downloads the client, the client detects the preferred language of the computer (the locale specified during installation of the operating system) and applies the appropriate transform.

We currently offer transforms for 30 languages. These transforms are available in the following .zip file on the AnyConnect software download page at cisco.com:

```
anyconnect-win-<VERSION>-web-deploy-k9-lang.zip
```

In this file, <version> is the version of AnyConnect release (e.g. 2.2.103).

The package contains the transforms (.mst files) for the available translations. If you need to provide a language to remote users that is not one of the 30 languages we provide, you can create your own transform and import it to the ASA as a new language. With Orca, the database editor from Microsoft, you can modify existing installations and new files. Orca is part of the Microsoft Windows Installer Software Development Kit (SDK) which is included in the Microsoft Windows SDK. The following link leads to the bundle containing the Orca program:

http://msdn.microsoft.com/library/default.asp?url=/library/en-us/msi/setup/orca_exe.asp.

After you install the SDK, the Orca MSI is located here:

C:\Program Files\Microsoft SDK SP1\Microsoft Platform SDK\Bin\Orca.msi.

c

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The following procedure shows how to import a transform to the ASA using ASDM:

Step 1 Import a Transform. Go to Configuration > Remote Access VPN > Network (Client) Access > AnyConnect Customization/Localization > Localized Installer Transforms. Click Import. The Import MST Language Localization window opens (Figure 11-14):



Figure 11-14 Importing a Transform to Translate the Installer Program

Step 2 Click the **Language** drop-list to choose a language (and the industry-recognized abbreviation) for this transform. If you enter the abbreviation manually, be sure to use an abbreviation recognized by browsers and operating systems.

Step 3 Click **Import Now**. A message displays saying you successfully imported the table.

Be sure to click **Apply** to save your changes.

In Figure 11-14, we specify the language as *Spanish* (es). Figure 11-15 shows the new transform for Spanish in the list of Languages for AnyConnect.

Figure 11-15 Imported Transform Displays in the Table

Configuration > Remote Acc AnyConnect Customization	<u>cess VPN > Network (Client) Access</u> > /Localization > <u>Localized Installer Transforms</u>	
Configure language translatio AnyConnect messages implen	on tables that the security appliance uses to translate nented through MST (Microsoft Transform file format).	
🗣 Import 🗹 Export 📋	Delete	
Language	Language Translation Table	
es	AnyConnect	

Using Tools to Create Message Catalogs for Enterprise Deployment

If you are not deploying the client with the ASA, and are using an enterprise software deployment system such as Altiris Agent, you can manually convert the AnyConnect translation table to a message catalog using a utility such as Gettext. After converting the table from a .po file to a .mo file, you then place the file in the proper folder on the client computer.

Gettext is a utility from The GNU Project and runs in the command window. See the GNU website at gnu.org for more information. You can also use a GUI-based utility that uses Gettext, such as Poedit. This software is available at poedit.net.

AnyConnect Message Template Directories

AnyConnect message templates are located in these folders listed below.

Note

The **\110n** directory is part of each directory path listed below. The directory name is spelled: lower case 1 ("el"), one, zero, lower case n.

Windows 7 and Windows Vista

```
<DriveLetter>:\Program Data\Cisco\Cisco AnyConnect Secure Mobility
Client\l10n\<LANGUAGE-CODE>\LC_MESSAGES
for example
```

```
<DriveLetter>:\Program Data\Cisco\Cisco AnyConnect Secure Mobility
Client\l10n\en-us\LC MESSAGES
```

Windows XP:

%ALLUSERSPROFILE%\Application Data\Cisco\Cisco AnyConnect Secure
Mobility Client\l10n\<LANGUAGE-CODE>\LC_MESSAGES

Mac OS X and Linux:

/opt/cisco/anyconnect/l10n/<LANGUAGE-CODE>/LC_MESSAGES

Creating Message Catalogs

The following procedure creates a message catalog using Gettext:

Step 1	Download the Gettext utilities from http://www.gnu.org/software/gettext/ and install Gettext on a computer you use for administration (not a remote user computer).
Step 2	Retrieve a copy of the AnyConnect message template <i>AnyConnect.po</i> on a computer with AnyConnect installed.
Step 3	Edit the AnyConnect.po file (use notepad.exe or any plain text editor) to change strings as desired.
Step 4	Run the Gettext message file compiler to create the .mo file from the .po file:
	msgfmt -o AnyConnect.mo AnyConnect.po
Step 5	Place a copy of the .mo file in the correct message template directory on the user's computer. See AnyConnect Message Template Directories for more information.

Merging a Newer Translation Template with your Translation Table

Occasionally, we add new messages displayed to AnyConnect users that provide helpful information about the client connection. To enable translation of these new messages, we create new message strings and include them in the translation template packaged with the latest client image. Therefore, if you upgrade to the latest available client, you also receive the template with the new messages. However, if you have created translation tables based on the template included with the previous client, the new messages *are not* automatically displayed to remote users. You must merge the latest template with your translation table to ensure your translation table has these new messages.

You can use convenient third party tools to perform the merge. Gettext utilities from The GNU Project is available for Windows and runs in the command window. See the GNU website at gnu.org for more information. You can also use a GUI-based utility that uses Gettext, such as Poedit. This software is available at poedit.net. Both methods are covered in the procedure below.

Step 1 Export the latest AnyConnect Translation Template from Remote Access VPN > Language Localization > Templates. Export the template with the filename as AnyConnect.pot. This filename ensures that the msgmerge.exe program recognizes the file as a message catalog template.



This step assumes you have already loaded the latest AnyConnect image package to the ASA. The template is not available for export until you do.

Step 2 Merge the AnyConnect Template and Translation Table.

If you are using the Gettext utilities for Windows, open a command prompt window and run the following command. The command merges the AnyConnect translation table (.po) and the template (.pot), creating the new *AnyConnect_merged.po* file:

msgmerge -o AnyConnect_merged.po AnyConnect.po AnyConnect.pot

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The following example shows the results of the command:

C:\Program Files\GnuWin32\bin> msgmerge -o AnyConnect_merged.po AnyConnect.po AnyConnect.pot done.

If you are using Poedit, first open the AnyConnect.po file; go to **File > Open > <AnyConnect.po>**. Then merge it with the template; go to **Catalog > Update** from POT file *<AnyConnect.pot>*. Poedit displays an Update Summary window with both new and obsolete strings. Save the file, which we will import in the next step.

Step 3 Import the Merged Translation Table from Remote Access VPN > Language Localization. Click Import, specify a language, and select AnyConnect as the Translation Domain. Specify the file to import as AnyConnect_merged.po.

