



# Installing Cisco Customer Relations Management Communications Connector 2.1.2

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This chapter describes how to install the Cisco Customer Relations Management (CRM) Communications Connector 2.1.2 with the following software:

- Cisco CallManager 4.0 or later
- Cisco CallManager Express 3.2 or later
- Cisco IPCC Express 4.0 or later



## Note

For more information about Cisco IOS voice features, see the entire Cisco IOS Voice Configuration Library—including library preface and glossary, feature documents, and troubleshooting information—at

[http://www.cisco.com/univercd/cc/td/doc/product/software/ios123/123cgcr/voice\\_c/vcl.htm](http://www.cisco.com/univercd/cc/td/doc/product/software/ios123/123cgcr/voice_c/vcl.htm).

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# Upgrading Cisco CRM Communications Connector Software Versions 2.1x

The upgrade for Cisco CRM Communications Connector software versions 2.1x uses an auto-update process. Cisco CRM Communications Connector Client components automatically update when they detect that newer Cisco CRM Communications Connector Server components are installed.



**Note** This upgrade procedure is only for Cisco CRM Communications Connector software versions 2.1x and above.



**Note** It is recommended that you close all Cisco CRM Communications Connector Client sessions until the updated server components are installed and configured.

Perform the following steps to upgrade Cisco CRM Communications Connector software version 2.1x:

- Step 1** Download the latest Cisco CRM Communications Connector software installers (see the [“Downloading Cisco CRM Communications Connector Software”](#) section on page 13). (No need to download the new client, even though that is the component that is being updated.???)
- Step 2** (Optional) Create a backup copy of the C4Server installation directory to back-up your existing configuration files.
- Step 3** Uninstall the prior software versions of the Cisco CRM Communications Connector Server and Server Web Installer using the Start/All Programs/Add or Remove Programs function.
- Step 4** Install the new software versions of the Cisco CRM Communications Connector Server and Server Web Installer into their existing directories.



**Note** During installation, the server configuration window should appear and all of the existing settings should be there.

- Step 5** Restart the C4Client software.  
The PC should recognize that there is a new version of the client available from the server, and will ask if you want to upgrade.
- Step 6** Respond **Yes** to upgrade. The PC will upgrade to the corresponding new version that is provided by the server.

Repeat this procedure on each installed PC using Cisco CRM Communications Connector.

# Required Steps to Install Cisco CRM Communications Connector

Perform these required steps to install Cisco CRM Communications Connector with Cisco CallManager, Cisco CallManager Express, and Cisco IPCC Express:

- 
- Step 1** Install the Cisco CRM Communications Connector Server software on the Cisco CRM server (see the “[Installing the Cisco CRM Communications Connector Server](#)” section on page 14).
- Step 2** Install the Cisco CRM Communications Connector Server Web software on the Cisco CRM server (see the “[Installing the Cisco CRM Communications Connector Server Web Installer](#)” section on page 29).
- Step 3** Install the Cisco TAPI Client software on all PCs using Cisco CRM Communications Connector (see ).
- Step 4** Finally, install the Cisco CRM Communications Connector Client software on all PCs using Cisco CRM Communications Connector (see the “[Installing the Cisco CRM Communications Connector Client Software](#)” section on page 33).

**Note**

These four installation tasks must be performed in the order listed.

## Downloading Cisco CRM Communications Connector Software

Perform the following steps to download and extract the Cisco CRM Communications Connector 2.1.2 software on your PC.

**Note**

Before installing Cisco CRM Communications Connector, make sure that you are a member of the Administrators group under Control Panel > User Account settings.

- 
- Step 1** Create three folders on your desktop and label them:
- CRM\_Server
  - CRM\_Server\_Web\_Installer
  - CRM\_Client
- Step 2** Download the Cisco CRM Connector 2.1.2 software zip files for CRM Server, CRM Server Web, and CRM Client to your PC desktop from the following location:

<http://www.cisco.com/cgi-bin/Software/Tablebuild/tablebuild.pl/CRM-Connector>




**Note**

You must have a valid Cisco CCO account to download Cisco CRM Communications Connector.

- Step 3** Unzip and extract the each set of files into their respective folders on your PC.

Files will automatically install into your specified folder location. [Figure 1](#) shows a typical extracted folder; in this example, the Cisco CRM Communications Connector Server extracted files.

*Figure 1 Cisco CRM Communications Connector Server Extracted Files*

 C4ServerInstaller.msi	2,734 KB	Windows Installer P...	10/12/2005 10:27 AM	
 Setup.Exe	108 KB	Application	3/19/2003 1:03 AM	146198
 Setup.Ini	1 KB	Configuration Settings	10/12/2005 10:26 AM	




## Installing the Cisco CRM Communications Connector Server

Install the Cisco CRM Communications Connector Server on any server in the same Active Directory domain as the target Microsoft CRM server. It is recommended, however, that it be installed on the Microsoft CRM server itself.

Perform the following steps to install the Cisco CRM Communications Connector 2.1.2 with Cisco CallManager, Cisco CallManager Express, and Cisco IPCC Express:

- 
- Step 1** Log in to your PC as administrator, locate and double-click the **Setup.exe** file for the Cisco CRM Communications Connector Server installer (see [Figure 2](#)).

*Figure 2 Cisco CRM Communications Connector Server Setup.Exe File*

 C4ServerInstaller.msi	2,734 KB	Windows Installer P...	10/12/2005 10:27 AM	
 Setup.Exe	108 KB	Application	3/19/2003 1:03 AM	146198
 Setup.Ini	1 KB	Configuration Settings	10/12/2005 10:26 AM	

The Cisco CRM Communications Connector Server Setup Wizard appears (see [Figure 3](#)).

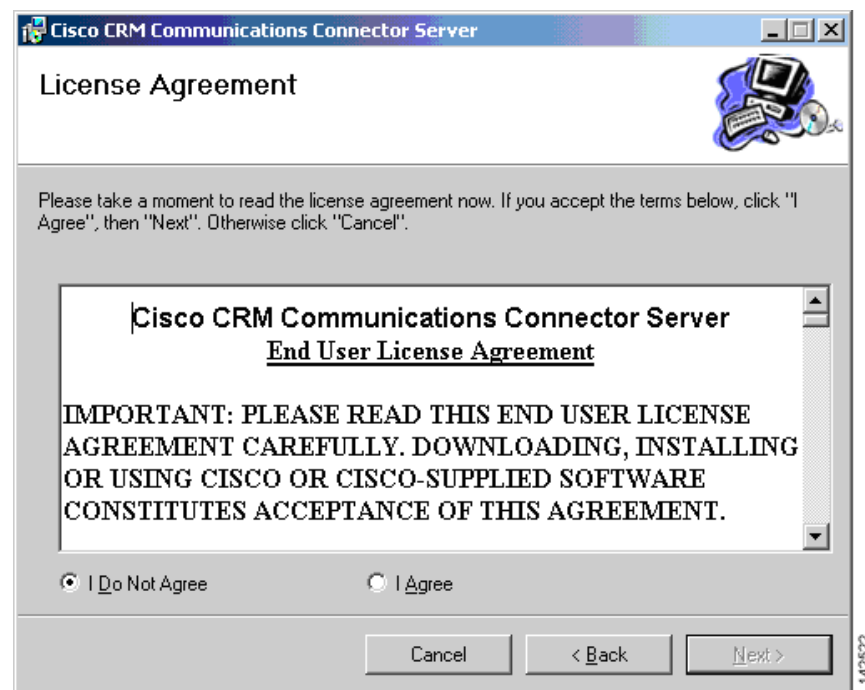
*Figure 3 Cisco CRM Communications Connector Server Setup Wizard*



**Step 2** Click **Next**.

The License Agreement window appears (see [Figure 4](#)).

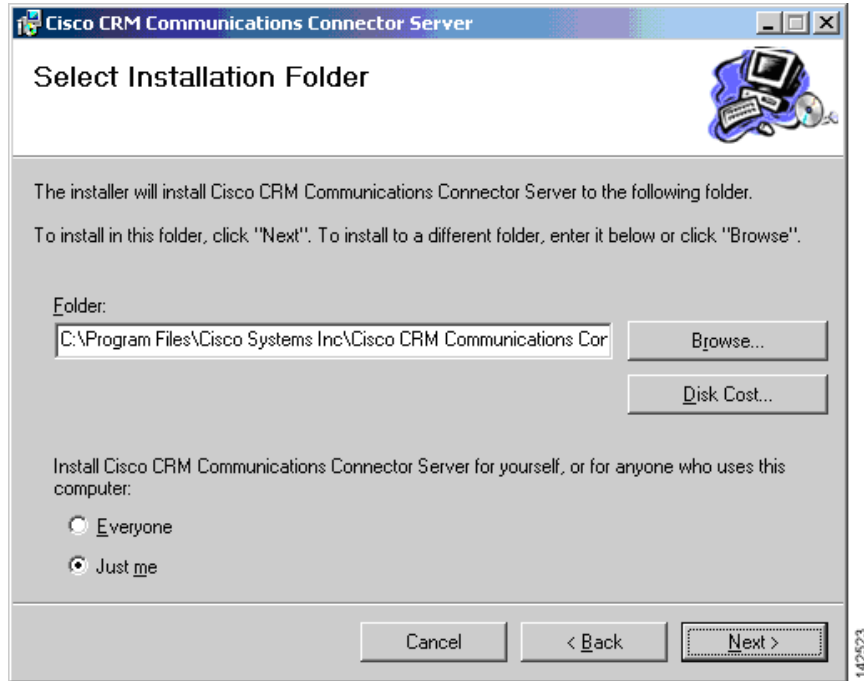
*Figure 4 License Agreement Window*



**Step 3** Select **I Agree** and click **Next**.

The Select Installation Folder window appears (see [Figure 5](#)).

*Figure 5 Select Installation Folder Window*

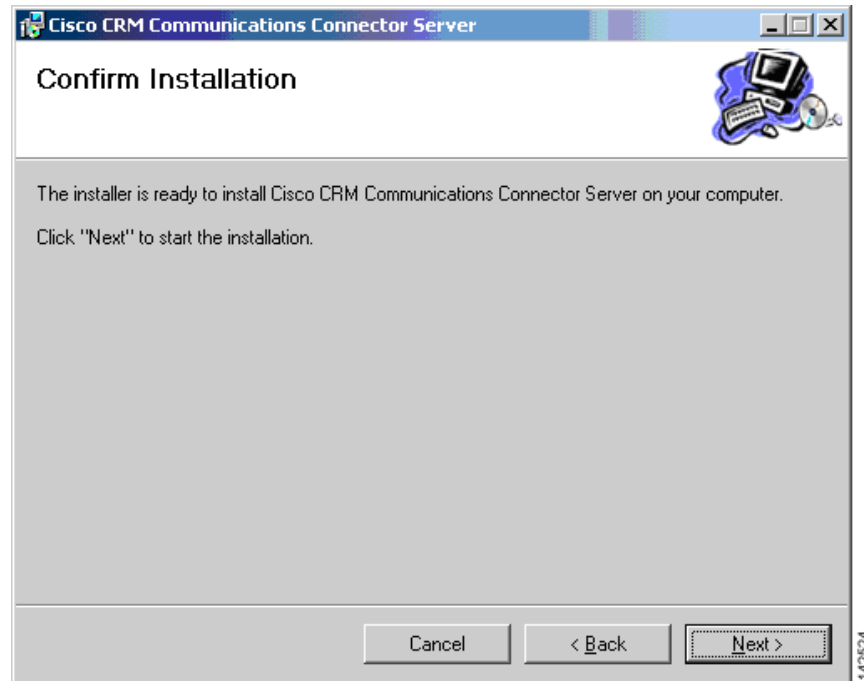


**Step 4** Click **Just me** to install the Cisco Communications Connector Server to specify yourself as administrator.

**Step 5** Click **Next** to accept the default installation folder location (recommended).

The Confirm Installation window appears (see [Figure 6](#)).

*Figure 6 Installation Confirmation Window*

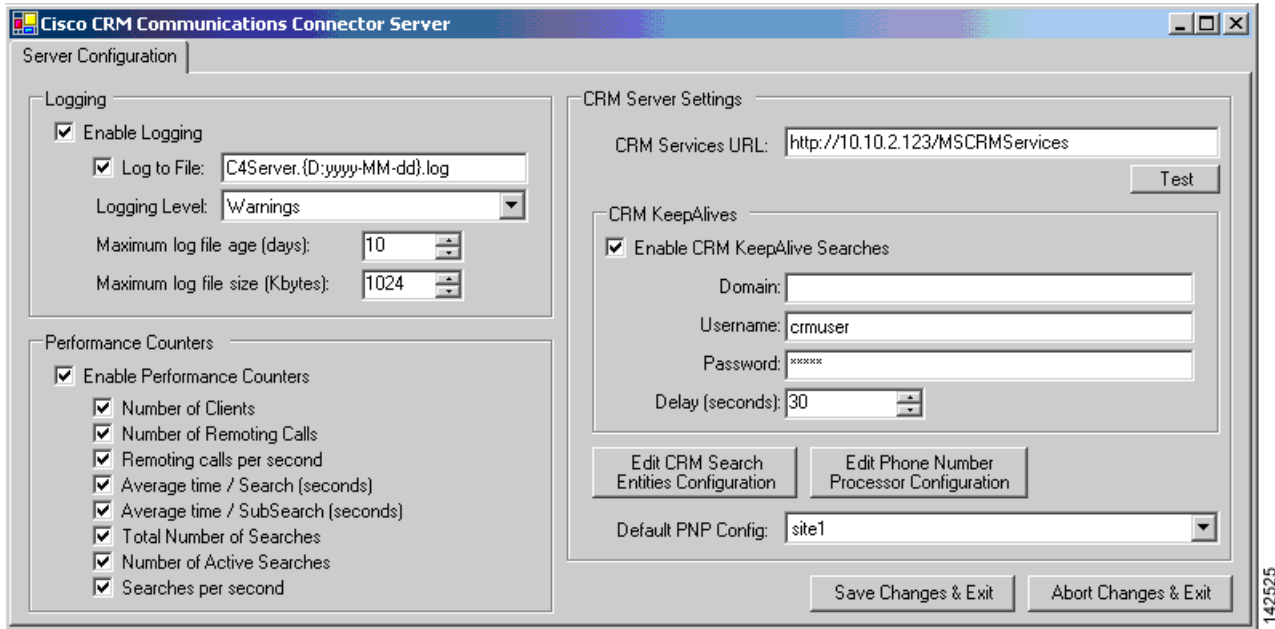


**Step 6** Click **Next** to confirm and start the installation.

The installation is now ready to begin copying files.

After the files are copied, the Cisco CRM Communications Connector Server Configuration window appears (see [Figure 7](#)). [Table 2](#) summarizes the field options for the Cisco CRM Communications Connector Server Configuration window.


**Figure 7** Cisco CRM Communications Connector Server Configuration Window



**Table 2** Cisco CRM Communications Connector Server Window Field Descriptions

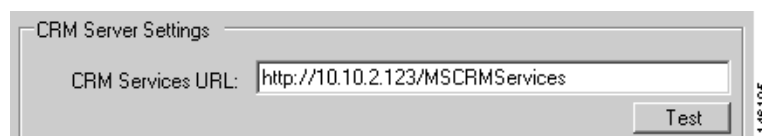
Field	Description
<b>Logging Information</b>	
Enable Logging	Check/uncheck this box to enable/disable logging.
Log to File	Type the filename to log to.
Logging Level	Sets the verbosity of the log file output.
Maximum log file age	The maximum age in days of old (existing) log files (must use dynamic filenames).
Maximum log file size	The maximum approximate size in kilobytes of any single log file.
<b>Performance Counters Information</b>	
<b>Note</b> Check/uncheck this box to enable/disable Performance Monitoring counters. To view these objects, add "C4.Server as a counter within the Microsoft Windows Performance Monitor and select the objects to monitor.	
Number of Clients	The number of clients that are currently connected.
Number of Remoting Calls	The total number of client-initiated server requests.
Remoting Calls Per Second	The average number of client-initiated requests per second.
Average time / Search	The average time in seconds to complete a full search.
Average time / Subsearch	The average time in seconds to complete a search of any particular entity.



Total Number of Searches	The total number of Searches that have been performed.
Current Number of Active Searches	The number of searches that are currently executing.
Searches Per Second	The average number of searches per second.
<b>CRM Server Settings Information</b>	
CRM Services URL	The URL to the Microsoft CRM Web Services interface (use 'Test' button to validate). You can specify the IP address or hostname for this value.
CRM KeepAlives	 <p><b>Note</b> This feature is used to ensure that the Microsoft CRM server is continuously polled so that it does not drop objects from its cache which could negatively affect a demonstration environment. You will not need to use this feature in a live deployment / production environment.</p>
Enable CRM KeepAlives	Check/uncheck this box to enable/disable keepalive searches.
Domain	The user's domain to use when authenticating for performing KeepAlive searches.
Username	The username to use when authenticating for performing KeepAlive searches.
Password	The user's password to use when authenticating for performing KeepAlive searches.
Delay	The delay in seconds to wait after any search is performed before initiating a KeepAlive search.
Edit CRM Search Entities Configuration	Click this button to configure how the server searches the CRM database.
Edit Phone Number Processor Configurations	Click this button to configure the PhoneNumberProcessor.
Default PNP Configuration	The default PNP configuration to present to clients with unspecified/invalid PNP configurations.

- Step 7** Click **Test** to verify that the C4 Server Service is able to contact the Microsoft CRM Web Services (see [Figure 8](#)).

*Figure 8 Cisco CRM Server Services Test*



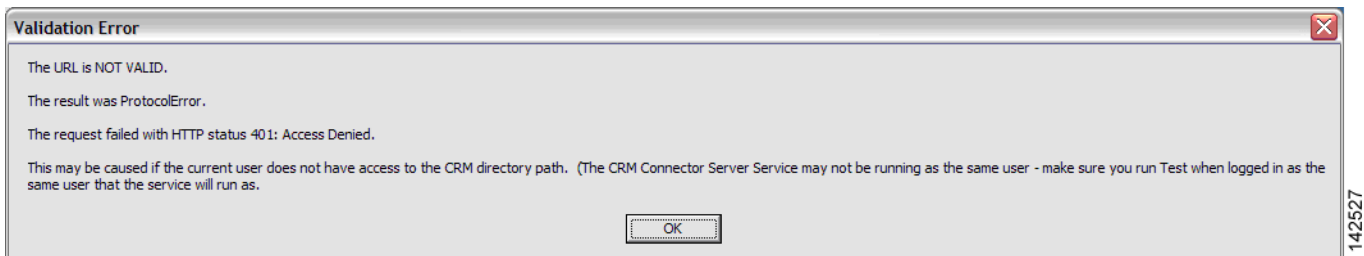
If successful, The URL is Valid message appears (see [Figure 9](#)).

*Figure 9 C4 Server Contact Successful Window*



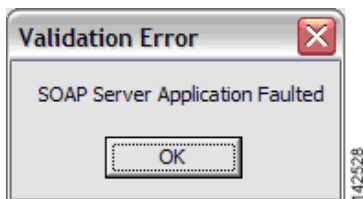
If you receive a Validation Error (see [Figure 10](#)), the URL is probably not the correct location to the Cisco CRM Communications Connector Web Services.

*Figure 10 URL Error Window*



If you receive a SOAP Server Application error (see [Figure 11](#)), you do not have access to Microsoft CRM.

*Figure 11 SOAP Server Application Error Window*



Step 8 Click **OK**.

Step 9 Click the **Edit Phone Number Processor Configuration** button (see [Figure 12](#)).

*Figure 12 Edit Phone Number Processor Configuration Button*

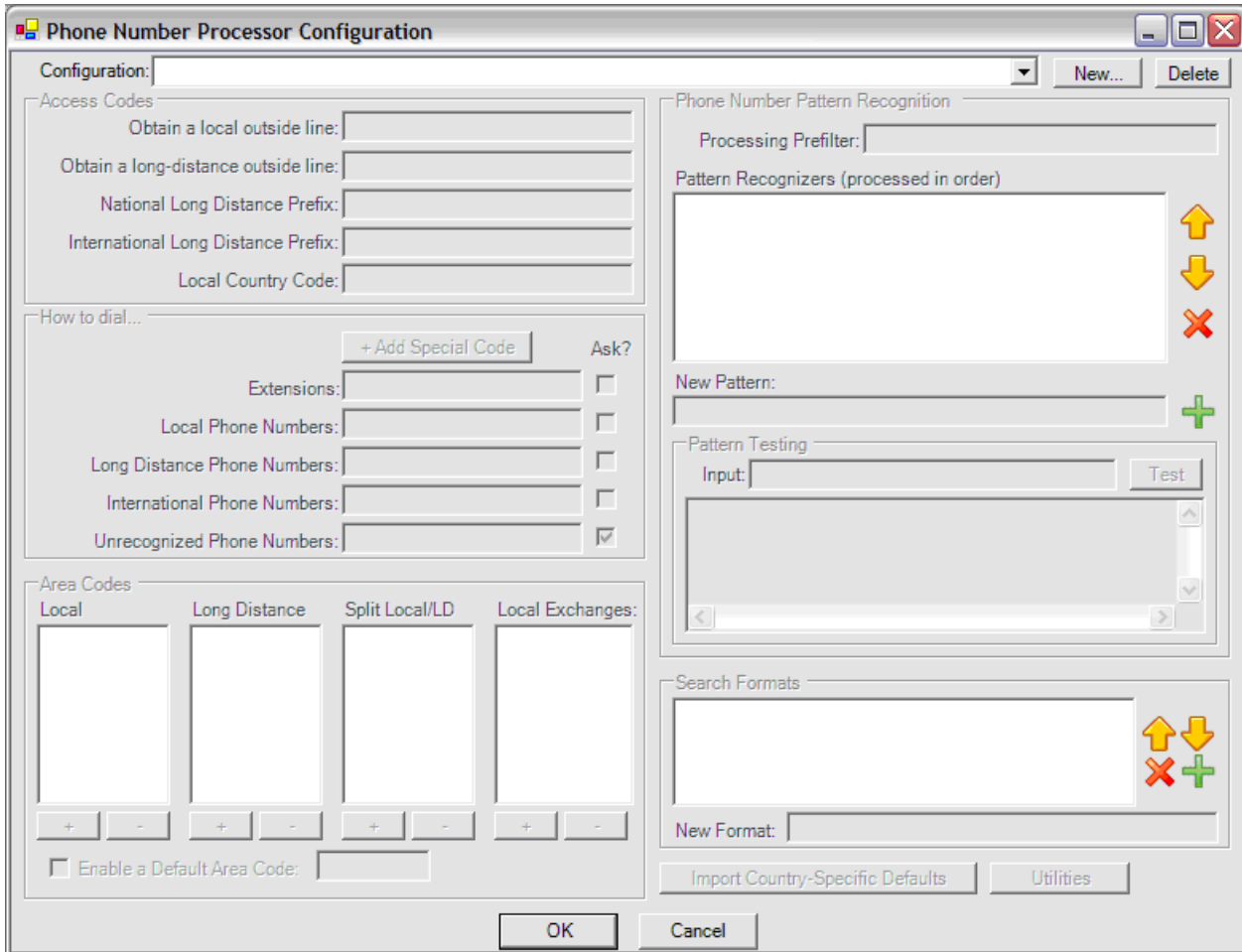


The Cisco Phone Number Processor (PNP) Configuration window appears (see [Figure 13](#)).



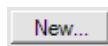
**Note** The Cisco PNP Configuration window is initially disabled until you create a new PNP configuration.

**Figure 13** Cisco Phone Number Processor Configuration Window



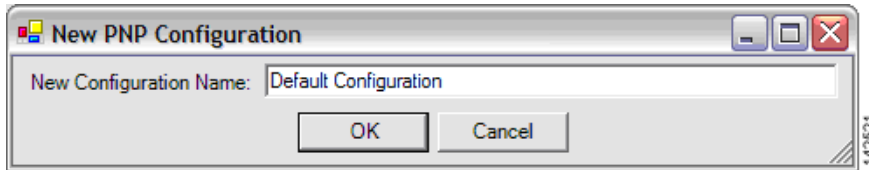
**Step 10** Click the **New** button to begin a new PNP Configuration (see [Figure 14](#)).

**Figure 14** New PNP Configuration Button



The New PNP Configuration window appears (see [Figure 15](#)).

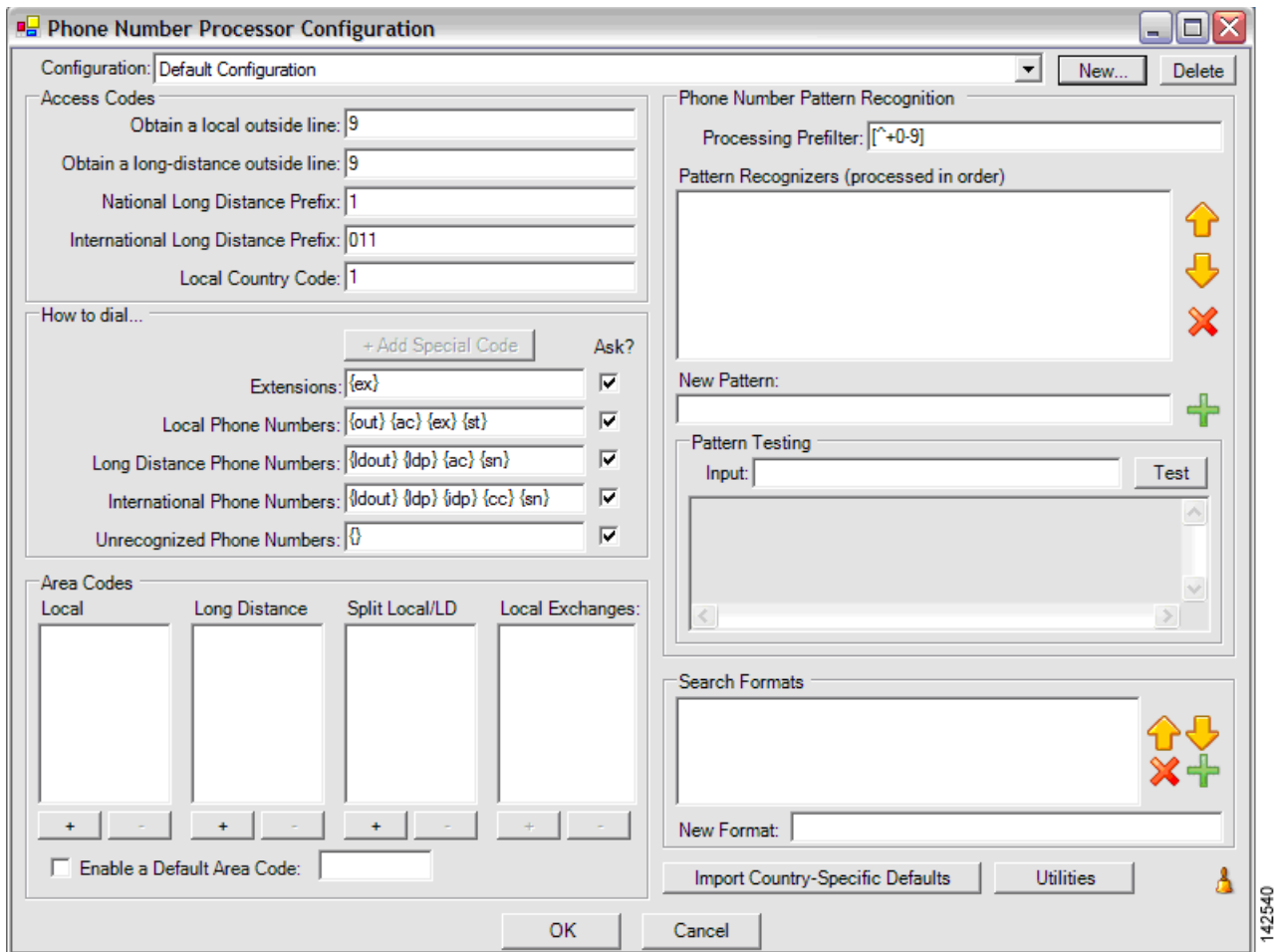
**Figure 15** *New PNP Configuration Window*



**Step 11** Enter a new configuration name and click **OK**.

The Cisco Phone Number Processor Configuration window appears (see [Figure 16](#)).

**Figure 16** *Cisco Phone Number Processor Configuration Window*



**Note**

Some defaults will load automatically. The defaults are based on the US 10-digit dialing rules.

You can define multiple configurations and use them on any PC. For example, you can define additional configuration as remote locations, for use with branch or remote offices which have a different area code than the main business location where the Microsoft CRM server is located.

Table 3 summarizes the Cisco Phone Number Processor Configuration window options.

**Table 3** *Cisco Phone Number Processor Configuration Window Field Descriptions*

Field	Description
<b>Area Codes Information</b>	
Five access codes that can be defined are listed below. Their use is dictated by the values provided in the How to dial... section of the Phone Number Processor Configuration Window, but their general use is as described below. Each access code has a mnemonic associated with it, which is shown in curly braces.	
Obtain a local outside line {out}	The digit string that is typically dialed before placing local calls.
Obtain a long-distance outside line {ldout}	This digit string will be the digit string that is typically dialed before placing long-distance (and international) calls.
National Long Distance Prefix {ldp}	The digit string that is typically dialed ahead of the area code when dialing long-distance (and international) calls.
International Long Distance Prefix {idp}	The digit string that is typically dialed to indicate that the call is international.
Local Country Code {localcc}	The digit string that represents the country the user is located in when being dialed from another country.

#### How To Dial...

Each box in this section defines how to dial a phone number once it has been broken into parts (country code, area code, and so forth). Typically, the values provided in each style phone number field will be various combinations of codes that are built into the program, although you could also provide numbers directly in each box. The codes that are available are the same codes that are shown in the Access Codes and Pattern Recognition sections, plus one special code, '{ }' that means all digits.

The Ask checkbox next to each field instructs the client whether it should still ask the user to verify the phone number before dialing when using click-to-dial, and when there is only one phone number for the requested click-to-dial contact.

#### Area Code Information

The values provided in these boxes are used by the Pattern Recognition section to determine the accurate parts of each phone number, and to determine the style (local, long distance, and so forth) of the phone number being processed. The exact manner in which these area codes are utilized are dictated by the Pattern Recognition section of the Phone Number Processor Configuration Window, but the intended meaning of values in each box are the following:

Local	Values placed in this box considered local area codes.
Long Distance	Values placed in this box are considered long-distance area codes.
Split Local/LD	Values placed in this box are area codes in which some numbers are local and others are long distance.
Local Exchange	For each area code in the Split Local/LD box, values placed in the box are the local exchanges for that area code. Note that the values in this box are maintained individually for each area code in the Split Local/LD box.
Enable a Default Area Code	The Enable Default Area Code allows the system to assign the users local area code when it is not provided in the contacts record. If the area code is provided in the CRM contact record, then this field is not used during processing.

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### Phone Number Pattern Information

The Pattern Recognition area allows the client to pick out the parts of the phone number for efficient CRM searching and for accurate no-touch click-to-dial functionality. It utilizes [Microsoft.NET Regular Expressions](#) to identify each part of the phone number. The patterns are used during both incoming/outgoing phone call detection for efficient CRM Searches, as well as click-to-dial functionality.

First, the phone number is filtered according to the prefilter. Anything that matches the prefilter is removed from the digit string being considered. Then, the digit string is tested against each pattern in order until a match is found. Each pattern should result in at least one named match for the following values:

- **AC**—Area code
- **CC**—Country code
- **EX**—Exchange
- **EXT**—Extension
- **SN**—Generic subscriber number
- **ST**—Station

Note that the subscriber number may or may not follow the typical definition of subscriber number. It is a generic container.

Once a pattern is found that matches the digit string, and it is broken out into its parts, one of two things occurs:

- If the number is being processed for click-to-dial, the style of the phone number is determined by specific rules. The phone number is then dialed as specified in the How to dial... section of the Phone Number Processor Configuration Window.
- If the number is being processed for searching CRM, it is formatted and searched according to the patterns specified in the Search Formats section of the Phone Number Processor Configuration window.

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### Search Formats Information

The search formats allow the administrator to maximize efficiency and accuracy when searching CRM. After a phone number is processed by the Pattern Recognizers, the list of Search Formats is processed in order until one is found in which all components of the search format can be provided. Each search format component is a code that matches the named match values that are detected by the pattern recognizers. Each matching value is then replaced with that portion of the phone number. There are two formats for each search component, using AC as demonstration:

- **{ac}**—Replaces {ac} with the area code detected from the phone number.
- **{%ac%}**—Replaces {%ac%} with the area code detected from the phone number with '%' symbols interspaced between each digit.

The difference between the two formats is that the first format provides the most accurate searching, but in some cases may not find the correct records if there are other characters interspersed in the text stored in Cisco CCC. Normally this will not occur if Cisco CRM 2.1 users are diligent about how they input phone numbers into the Cisco CCC system. If there are cases in which there are other characters interspersed in the text in Cisco CCC, the {%ac%} format can help because it will catch those values and probably produce results that are not true matches.

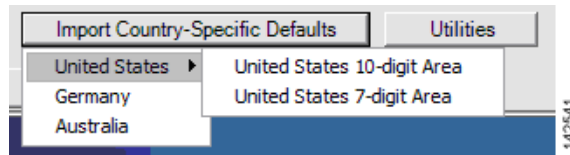
---

**Step 12** Click **Import Country-Specific Defaults** and select one of the predefined configurations appropriate for your area (see [Figure 17](#)).

The supported predefined configurations are:

- US 10-digit dialing
- US 7-digit dialing
- Germany
- Australia

*Figure 17 Import Country-Specific Defaults Menu*



The specified Phone Number Processor Configuration window appears (see [Figure 18](#)).



**Note**

All predefined configurations require additional information for your specific area.

**Figure 18** *Import Country-Specific Defaults Selection*

Configuration: Default Configuration

Access Codes

Obtain a local outside line: 9

Obtain a long-distance outside line: 9

National Long Distance Prefix: 1

International Long Distance Prefix: 011

Local Country Code: 1

How to dial...

+ Add Special Code Ask?

Extensions: {ext}

Local Phone Numbers: {out} {ac} {ex} {st}

Long Distance Phone Numbers: {ldout} {ldp} {ac} {ex} {st}

International Phone Numbers: {idout} {ldp} {idp} {cc} {sn}

Unrecognized Phone Numbers: {}

Area Codes

Local	Long Distance	Split Local/LD	Local Exchanges:

Enable a Default Area Code:

Phone Number Pattern Recognition

Processing Prefilter: [^+x0-9]

Pattern Recognizers (processed in order)

```
(\+|{\LDOUT}|?{\LDP})?{\IDP})?<CC>{\LOCALCC})?<REP>.+
(\+|{\LDOUT}|?{\LDP})?{\IDP})?<CC>{\CCODES})?<SN>\d+){x(?
{\LDOUT}|?{\LDP})?<AC>{\LOCALACS})?<SN>?<EX>\d{3})|
{\LDOUT}|?{\LDP})?<AC>{\SPLITACS})?<SN>?<EX>{\LOCA
{\LDOUT}|?{\LDP})?<AC>\d{3})?<SN>?<EX>\d{3})?<ST>\d
?<SN>?<EX>\d{3})?<ST>\d{4})}{x(?<EXT>\d{1,5})?}
```

New Pattern:

Pattern Testing

Input:  Test

Search Formats

```
%{cc}%{ac}%{ex}%{st}%
%{cc}%{sn}%
%{ac}%{ex}%{st}%
%{sn}%
%{ext}%
```

New Format:

Import Country-Specific Defaults Utilities

OK Cancel

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**Step 13** Make further optional changes to the Phone Number Processor Configuration window. (See [Table 3](#) on [page 23](#) for a description of each field.)



Figure 19 shows an example of a typical basic Phone Number Processor configuration window.



**Note**

If you make any updates to an existing configuration, the original configuration will be overwritten, and you may lose custom dialing rules (pattern recognizers and search formats).

Figure 19 Basic PNP Configuration

Configuration: Default Configuration

Access Codes

Obtain a local outside line: 9

Obtain a long-distance outside line: 9

National Long Distance Prefix: 1

International Long Distance Prefix: 011

Local Country Code: 1

How to dial...

+ Add Special Code Ask?

Extensions: {ext}

Local Phone Numbers: {out} {ac} {ex} {st}

Long Distance Phone Numbers: {ldout} {ldp} {ac} {ex} {st}

International Phone Numbers: {ldout} {ldp} {ldp} {cc} {sn}

Unrecognized Phone Numbers: {}

Area Codes

Local	Long Distance	Split Local/LD	Local Exchanges:
407			

Enable a Default Area Code: 407

Phone Number Pattern Recognition

Processing Prefilter: [^\*x0-9]

Pattern Recognizers (processed in order)

```
(\+{{LDOUT}}?{{LDP}})?{{IDP}}(?<CC>{{LOCALCC}})?<REP>.+
(\+{{LDOUT}}?{{LDP}})?{{IDP}}(?<CC>{{CCODES}})?<SN>\d+{{x}}?
{{LDOUT}}?{{LDP}})?<AC>{{LOCALACS}})?<SN>(?<EX>\d{3})
{{LDOUT}}?{{LDP}})?<AC>{{SPLITACS}})?<SN>(?<EX>{{LOCA
{{LDOUT}}?{{LDP}})?<AC>\d{3})?<SN>(?<EX>\d{3})?<ST>\d
(?<SN>(?<EX>\d{3})?<ST>\d{4}){{x}}(?<EXT>\d{1,5})?

```

New Pattern:

Pattern Testing

Input: Test

Search Formats

```
%{cc}%{ac}%{ex}%{st}%
%{cc}%{sn}%
%{ac}%{ex}%{st}%
%{sn}%
%{ext}%

```

New Format:

Import Country-Specific Defaults Utilities

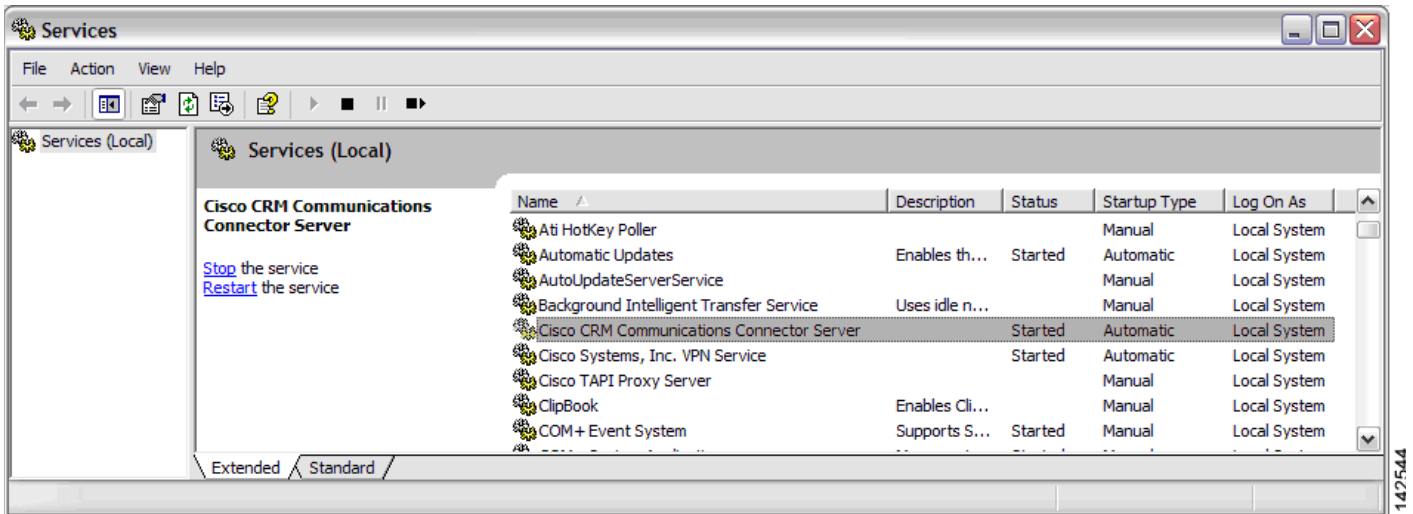
OK Cancel

**Step 14** When you finish the Phone Number Processor configuration, click **OK**.

**Step 15** Click **OK** to exit the installation program.

The Cisco CRM Communications Connector Server installs and starts automatically (see [Figure 20](#)).

*Figure 20 Cisco CRM Communications Connector Server Service Window*



You are now ready to install the Cisco CRM Communications Connector Server Web (see the [“Installing the Cisco CRM Communications Connector Server Web Installer”](#) section on page 29).

# Installing the Cisco CRM Communications Connector Server Web Installer

The Cisco CRM Communications Connector Server Web Installer adds the Call This Person customization button within the Microsoft CRM contact records. The integration uses the ISV.config file on the Microsoft CRM server to customize the contact records.

Perform following steps to install the Cisco CRM Communications Connector 2.1.2 with Cisco CallManager, Cisco CallManager Express, and Cisco IPCC Express.

- Step 1** In the CRM\_Server\_Web\_Installer folder, double-click the **Setup.exe** file for the Cisco CRM Communications Connector Server Web installer (see [Figure 21](#)).

**Figure 21** Cisco CRM Communications Connector Server Web Extracted Files

C4ServerWebInstaller.msi	566 KB	Windows Installer P...	10/12/2005 10:27 AM	
Setup.Exe	108 KB	Application	3/19/2003 1:03 AM	146200
Setup.Ini	1 KB	Configuration Settings	10/12/2005 10:27 AM	

The Cisco CRM Communications Connector Server Web Installer Setup Wizard appears (see [Figure 22](#)).

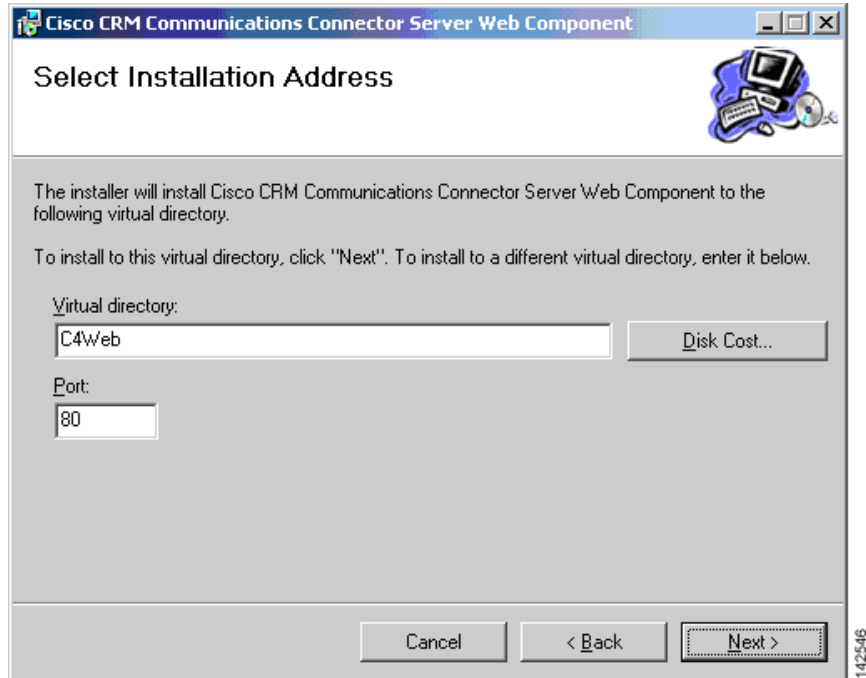
**Figure 22** Cisco CRM Communications Connector Server Web Component Window Setup Wizard



- Step 2** Click **Next** to proceed with the installation.

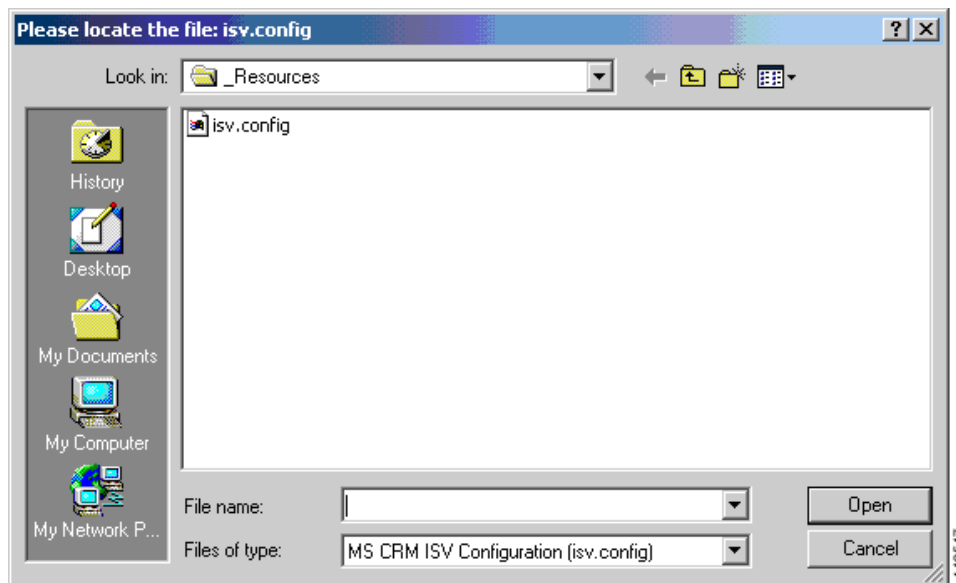
**Step 3** Select an installation address. We recommend the default address C4Web (see [Figure 23](#)).

**Figure 23** *Cisco CRM Communications Connector Server Web Component Select Installation Address Window*



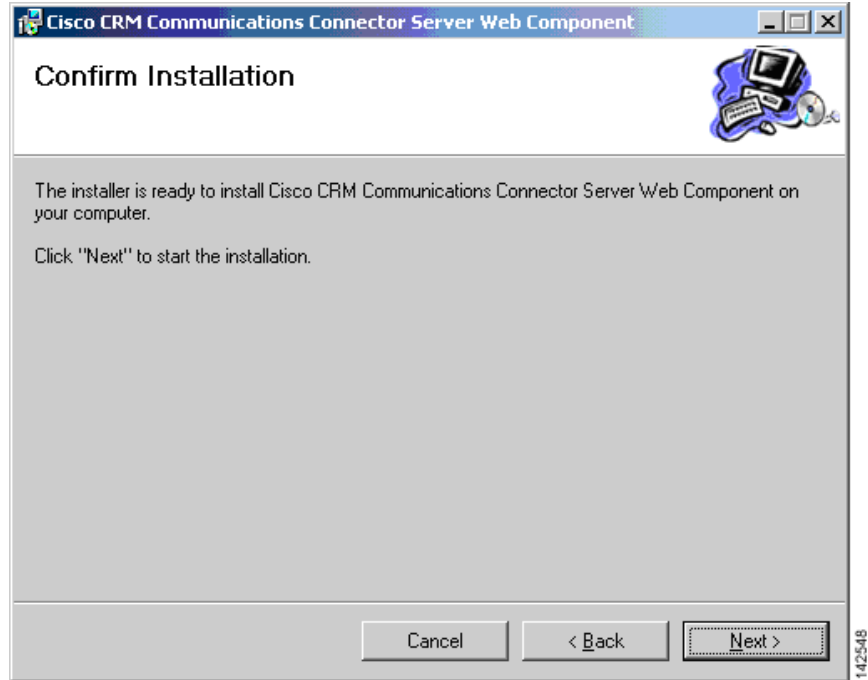
**Step 4** When prompted, browse to the isv.config file located on the Microsoft CRM server (see [Figure 24](#)).

**Figure 24** *File Selection Window*



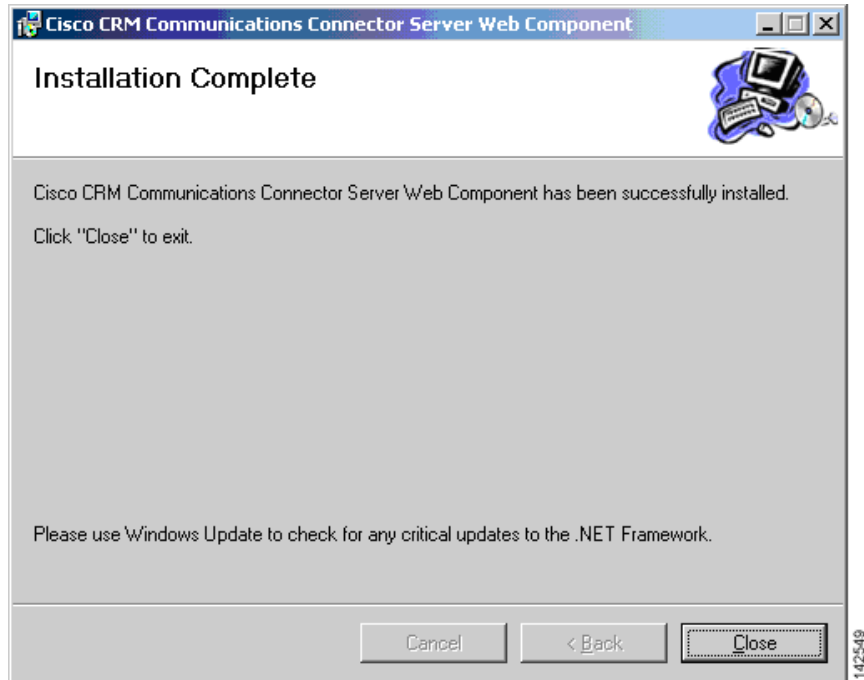
Step 5 Click **Next** to confirm the installation (see [Figure 25](#)).

*Figure 25 Cisco CRM Communications Connector Server Web Component Confirm Installation Window*



**Step 6** The installer displays that the installation is complete (see [Figure 26](#)).

*Figure 26 Cisco CRM Communications Connector Server Web Component Installation Complete Window*



**Step 7** Click **Close** to exit the installer.

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You are now ready to install the Cisco CRM Communications Connector Client (see the [“Installing the Cisco CRM Communications Connector Client Software”](#) section on page 33).

# Installing the Cisco CRM Communications Connector Client Software



## Note

The Cisco CRM Communications Connector Server Service should be installed and operational before clients are installed because clients will attempt to contact the Cisco CRM Communications Connector Server during their installation.

Install the following software for the Cisco CRM Communications Connector Client.




- Install one of the following:
  - Cisco CallManager Telephony Application Programming Interface (TAPI) Client (if integrating with Cisco CallManager, with or without IPCC Express integration)
  - Cisco CallManager Express IOS TAPI Service Provider (IOSTSP) Client (if integrating with Cisco CallManager Express) You can obtain the latest version of this file from:
 

<http://www.cisco.com/cgi-bin/Software/Tablebuild/dofp.pl?ftpfile=cisco/voice/ip-phone/ip-io stp/CiscoIOSTSP1.3.zip&app=Tablebuild&status=showC2A>
- Install Microsoft .NET Framework v1.1

Perform the following steps to install the Cisco CRM Communications Connector Client with Cisco CallManager, Cisco CallManager Express, and Cisco IPCC Express.

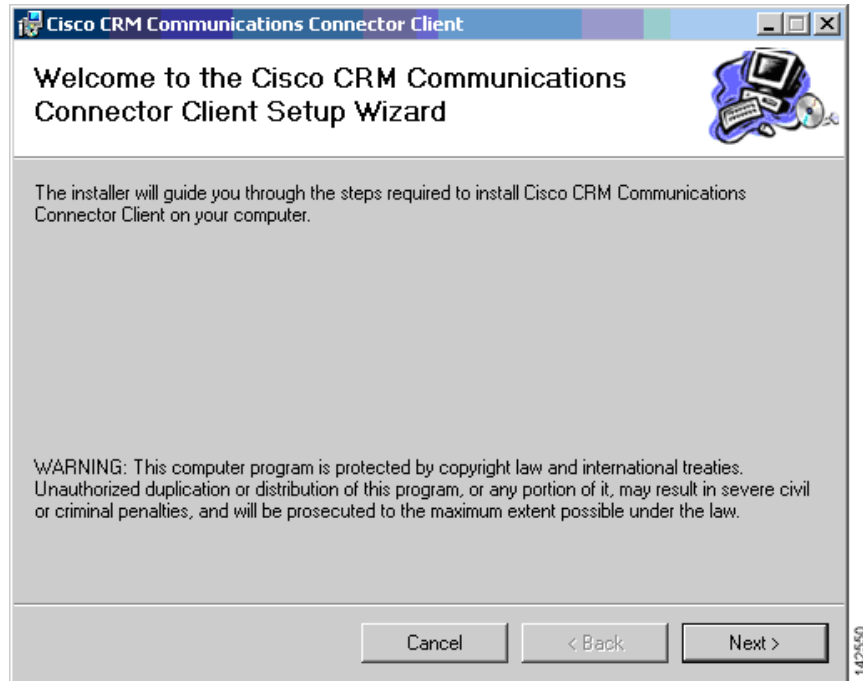
- Step 1** Log in to your PC as administrator, locate and double-click the **Setup.exe** file for the Cisco CRM Communications Connector Client installer (see [Figure 27](#)).

**Figure 27** Cisco CRM Communications Connector Client Installer Extracted Files

 C4ClientInstaller.msi	2,402 KB	Windows Installer P...	10/12/2005 10:27 AM	
 Setup.Exe	108 KB	Application	3/19/2003 1:03 AM	
 Setup.Ini	1 KB	Configuration Settings	10/12/2005 10:27 AM	146198

The Cisco CRM Communications Connector Client Setup Wizard appears (see [Figure 28](#)).

*Figure 28 Cisco CRM Communications Connector Client Setup Wizard*



**Step 2** Click **Next**.



The License Agreement dialog appears (see [Figure 29](#)).

*Figure 29 Cisco CRM Communications Connector Client Licence Agreement Window*

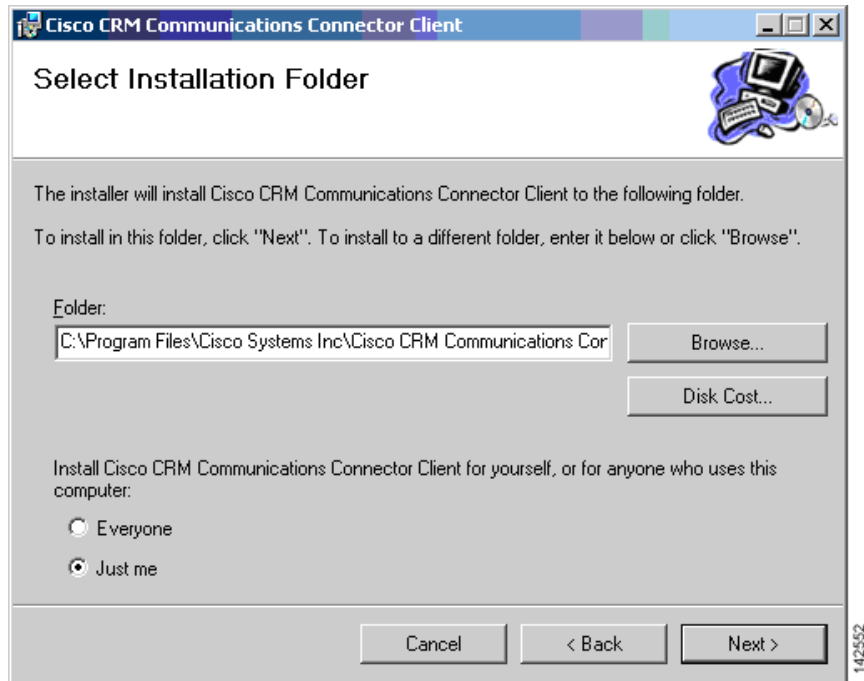


**Step 3** Select **I Agree** to accept the licensing agreement.

**Step 4** Click **Next**.

The Cisco CRM Communications Connector Select Installation Folder window appears (see [Figure 30](#)).

*Figure 30 Cisco CRM Communications Connector Client Select Installation Folder Window*

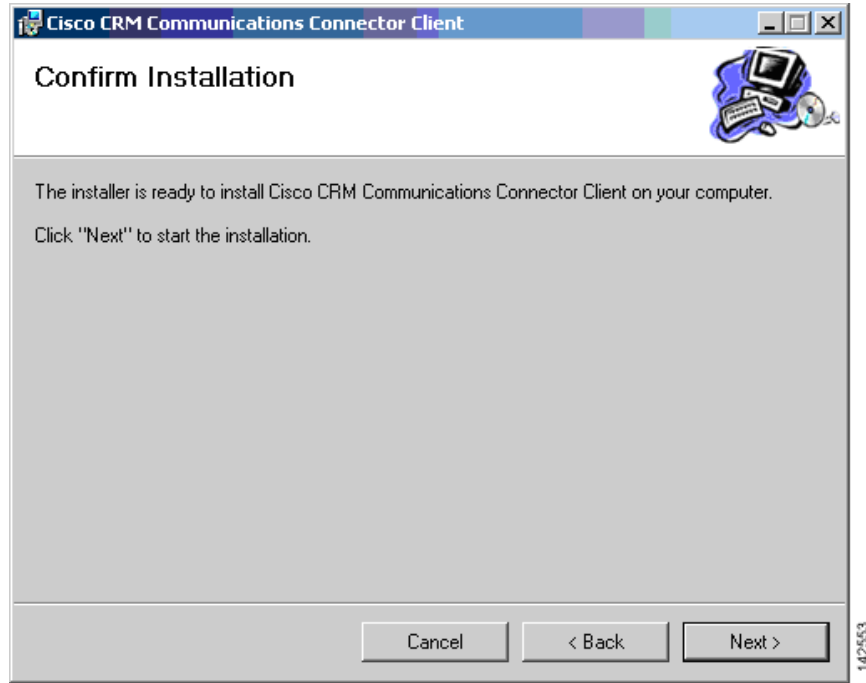


**Step 5** Click **Just me**.

**Step 6** Click **Next** to accept the default installation folder.

The Cisco CRM Communications Connector Client Confirm Installation window appears (see [Figure 31](#)).

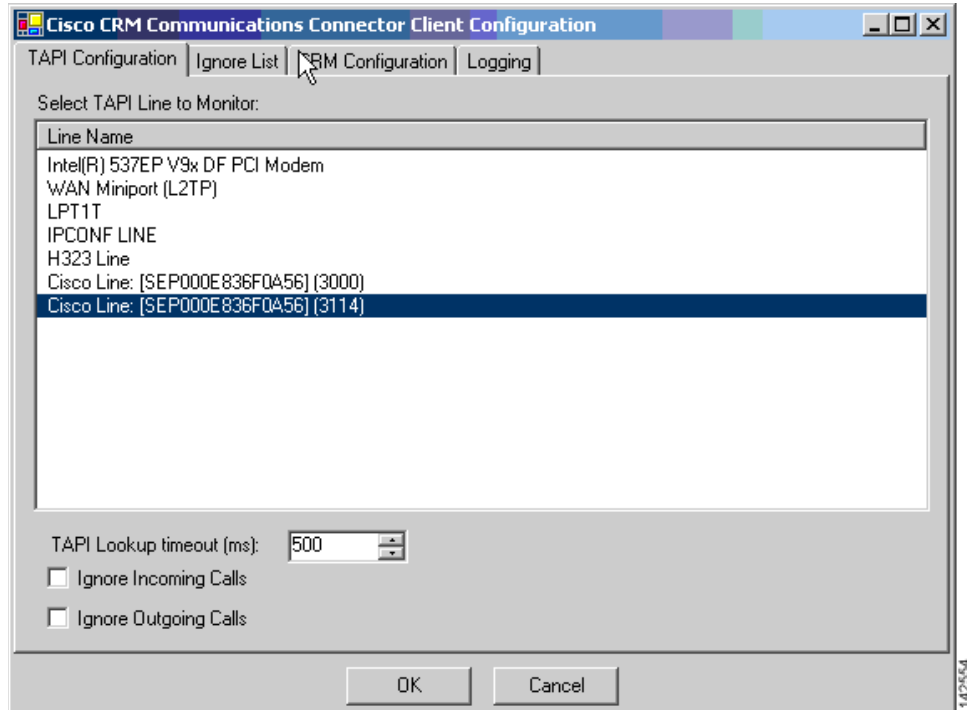
*Figure 31 Cisco CRM Communications Connector Client Confirm Installation Window*



- Step 7** Click **Next** to confirm the installation.  
The installation is now ready to begin copying files.

After the files are copied, the Cisco CRM Communications Connector Client Configuration window appears allowing you to configure the Cisco CRM Communications Connector Client (see [Figure 32](#)).

**Figure 32** Cisco CRM Communications Connector Client Configuration TAPI Configuration Tab-View Window



**Step 8** Click the **TAPI Configuration** tab.

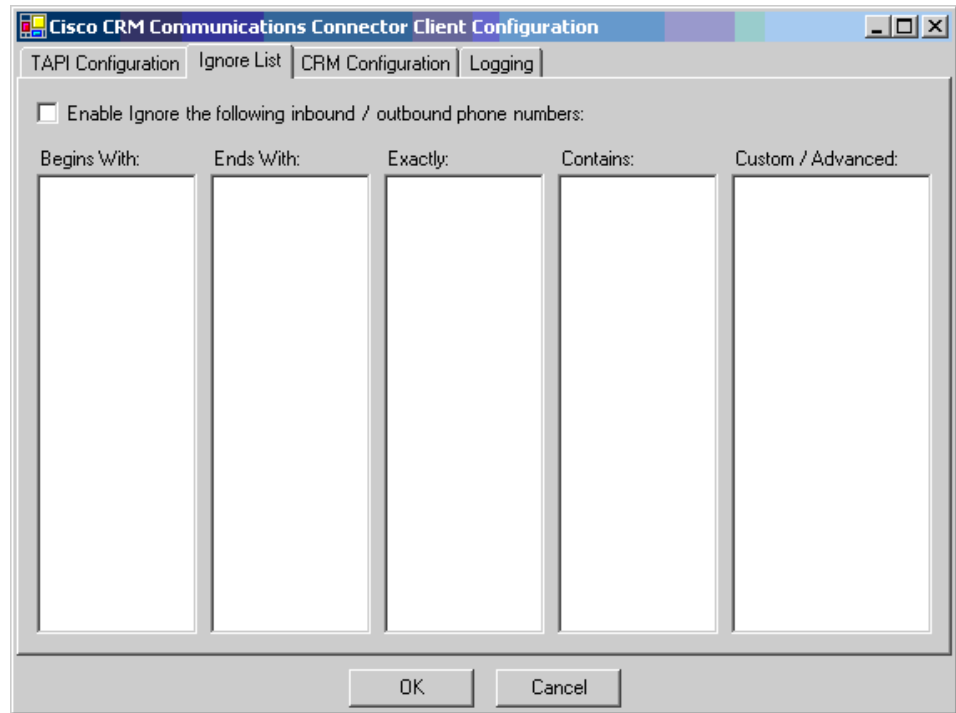
The TAPI Configuration tab allows you to specify which line should be monitored for incoming and outgoing calls. Optionally, you can also request to completely ignore either inbound or outbound calls (or both).

The TAPI Lookup timeout specifies a value, after which time (in milliseconds) if the TAPI client has not provided the Connector Client with Caller ID information, the Connector Client will manually ask the provider for the caller ID information. If you find that the client frequently reports the wrong phone number (such as the internal voice mail pilot extension) then try increasing this value.

**Step 9** Click the **Ignore List** tab.

The Cisco CRM Communications Connector Client Configuration Ignore List tab-view window appears (see [Figure 33](#)).

**Figure 33** *Cisco CRM Communications Connector Client Configuration Ignore List Tab-View Window*



The Ignore List tab allows you to specify specific phone numbers that the Connector Client should ignore when processing inbound/outbound phone numbers.

The first four boxes allow you to specify numbers to ignore when the phone number either begins with, ends with, is exactly, or contains the specified digit strings. In these four boxes, only digits are allowed.

The fifth box, Custom / Advanced, allows you to specify regular expressions of phone number digit strings to ignore.

For example, if you do not want to track internal phone call activity, In the Custom/Advanced box enter the following string:

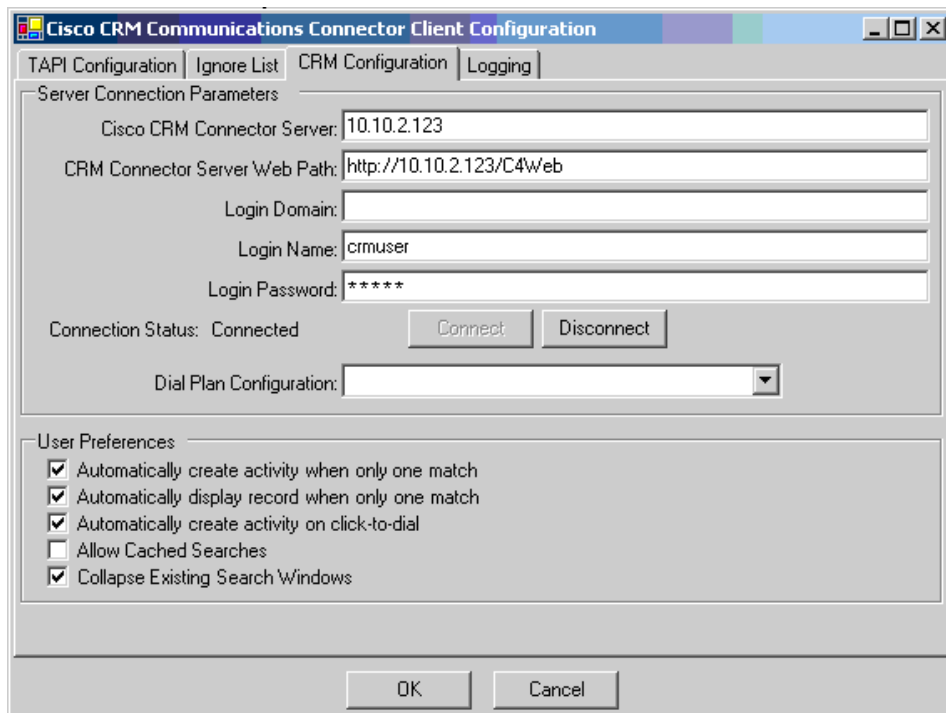
```
^\d{4}
```

This string instructs the Cisco CRM Communications Connector to ignore 4-digit internal phone-extension numbers. Depending on the number of digits of your internal phone-extension configuration, if necessary, replace the digit 4 with the digit corresponding to your configuration.

**Step 10** Click the **CRM Configuration** tab.

The Cisco CRM Communications Connector Client Configuration CRM Configuration tab-view window appears (see [Figure 34](#)).

**Figure 34** Cisco CRM Communications Connector Client Configuration CRM Configuration Tab-View Window



The CRM Configuration tab allows you to specify server and login information for both the Cisco CRM Communications Connector Server, and the Microsoft CRM server.

- Step 11** Specify the machine name or IP address that the Cisco CRM Communications Connector Server is installed on in the Cisco CRM Connector Server field.

On initial configuration, when you change the value in this field, the value in the “CRM Connector Server Web Path” will update with the same value. Change this value if the Server Connector Web Components were installed on a different server or have a different access URL.



**Note**

The value in the “CRM Connector Server Web Path” should be a complete URL that points to the directory in which the C4Dial.aspx and C4Stub.aspx files are located.

- Step 12** Enter your Microsoft CRM login information in the Login Domain, Login Name, and Login Password fields. Single sign-on is not supported.

- Step 13** Specify your preferences by entering a check(s) in the User Preferences region.

- Step 14** Click the **Connect** button.

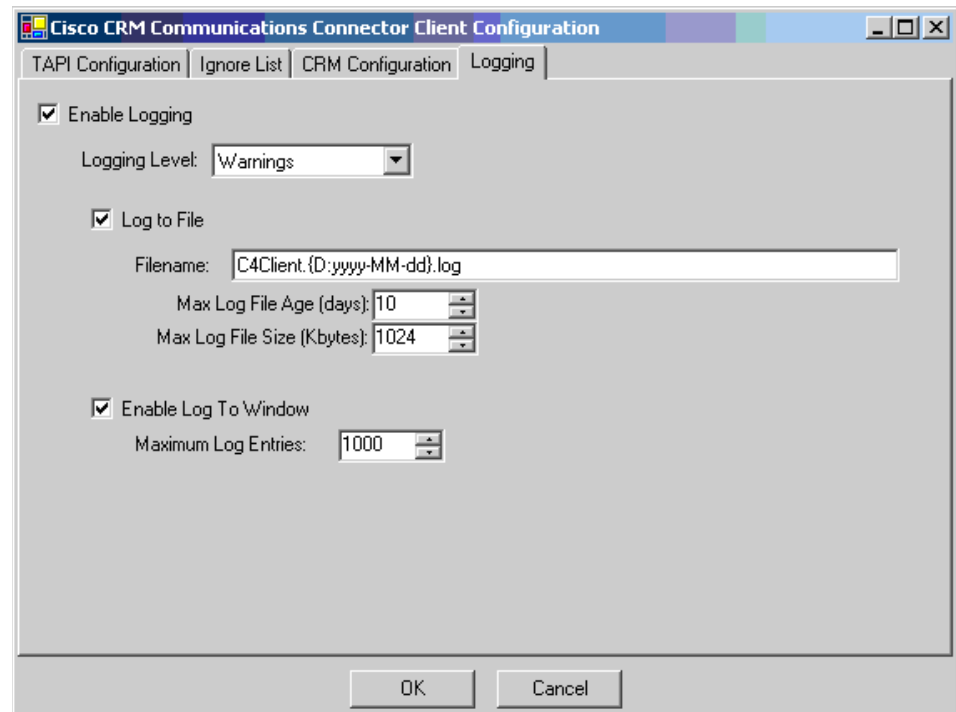
If successful, the status shows “Connected” and the “Dial Plan Configuration” drop-down menu becomes enabled.

- Step 15** Select the appropriate Dial Plan Configuration (Phone Number Processor Configuration) from the drop-down menu as dictated by the geographic location and as provided for by the Cisco CRM Communications Connector Server Service administrative configuration.

**Step 16** Click the **Logging** tab.

The Cisco CRM Communications Connector Client Configuration Logging tab-view window appears (see [Figure 35](#)).

*Figure 35 Cisco CRM Communications Connector Client Configuration Logging Tab-View Window*



The Logging tab allows you to configure how the client logs system events (available logging levels include messages from all previous levels).

**Step 17** To enable logging, enter a check in the Enable Logging box.

**Step 18** Specify the Logging Level from the drop-down menu.

The available logging levels are:

- Critical Errors
- Errors
- Warnings
- Info
- Debug
- Debug1 .. Debug 4

The “Critical Errors” level produces virtually no output, while the “Debug4” level produces large output.



**Note** The recommended setting is “Warnings” for normal operation.



**Note** There are some messages (primarily relating to TAPI events) that do not have message levels associated with them, and thus they are always logged.

**Step 19** Specify the way to collect logging information by entering a check in the desired box (see [Figure 36](#)). The two possible ways to collect the logging information are:

- Log to File
- Log to Window

**Figure 36** Specifying Logging Information Destination

Log to File

Enable Log To Window

If you check **Log to File** (see [Figure 37](#)):

**Figure 37** Log to File Field Options

Log to File

Filename: C4Client.{D:yyy-MM-dd}.log

Max Log File Age (days): 10

Max Log File Size (Kbytes): 1024

- The filename for the log appears in the Filename field.
- Specify the maximum age (in days) for the log file using the arrow keys.
- Specify the maximum size of the log file (in Kbytes) using the arrow keys.

If you check **Enable Log to Window** (see [Figure 38](#)):

**Figure 38** Enable Log to Window Field Option

Enable Log To Window

Maximum Log Entries: 1000

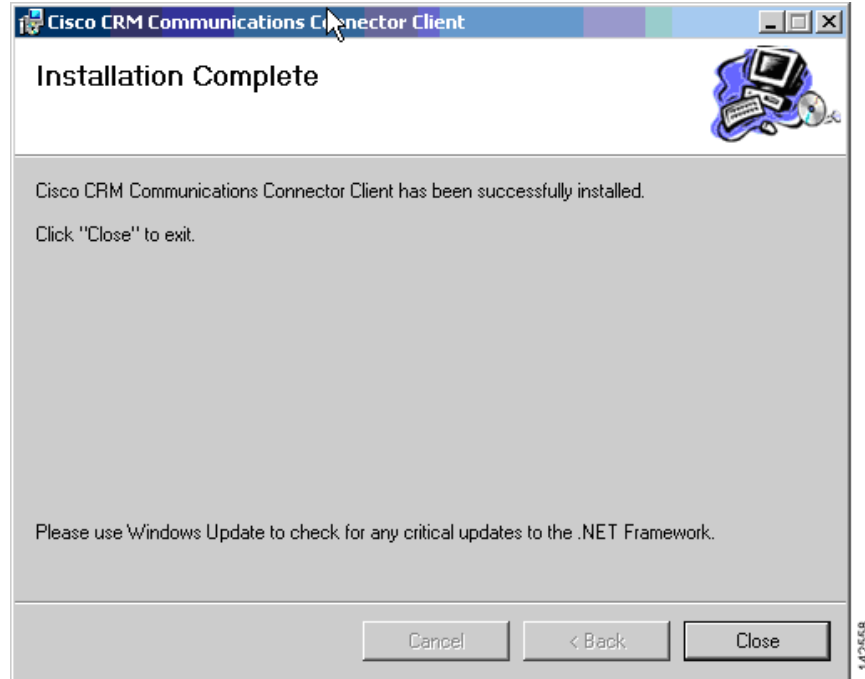
- Specify the maximum number of log entries using the arrow keys.

**Step 20** When you finish completing the information in the window, click **OK**.



The Installation Complete dialog appears (see [Figure 39](#)). The client is now installed and ready to run from the Start Menu on your PC.

*Figure 39 Cisco CRM Communications Connector Client Configuration Window Installation Complete*



**Step 21** Click **Close** to exit the installation.

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## What to Do Next

You are now ready to integrate Cisco CRM Communications Connector 2.1.2 with Cisco IPCC Express (see [“Integrating Cisco CRM Communications Connector with Cisco IPCC Express”](#) section on page 45).