



# CTI Toolkit Desktop Client Installation

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## CTI Toolkit Desktop Client

The CTI Toolkit Desktop Client consists of the following components:

- CTI Toolkit Desktop applications:
  - Agent desktop (including silent monitor)
  - UCCE Supervisor Desktop (including silent monitor)
  - Tools
- CTI Toolkit SDK (previously the CTI OS Developer's Toolkit, including necessary files, controls, documentation, and samples needed to write custom applications):
  - Win32
  - Java
  - .NET

**Note**

Before you begin installation, verify that your system meets the hardware and software requirements for the components that you plan to install. See the *Compatibility Matrix for Unified CCE* *Unified CCE Solution Compatibility Matrix* at <https://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-enterprise/products-device-support-tables-list.html>. For details on using Unified CCE in a virtualized environment, see the *Virtualization for Unified Cisco Contact Center Enterprise* at [http://www.cisco.com/c/dam/en/us/td/docs/voice\\_ip\\_comm/uc\\_system/virtualization/virtualization-unified-contact-center-enterprise.html](http://www.cisco.com/c/dam/en/us/td/docs/voice_ip_comm/uc_system/virtualization/virtualization-unified-contact-center-enterprise.html).

## Upgrade from Previous Version

You can upgrade from previous version, CTI OS 11.0(x), 11.5(x) to 11.6(1).

The supported upgrade paths to 11.0(x) are as following:

- Release 10.0(x) to Release 11.0(x)
- Release 10.5(x) to Release 11.0(x)

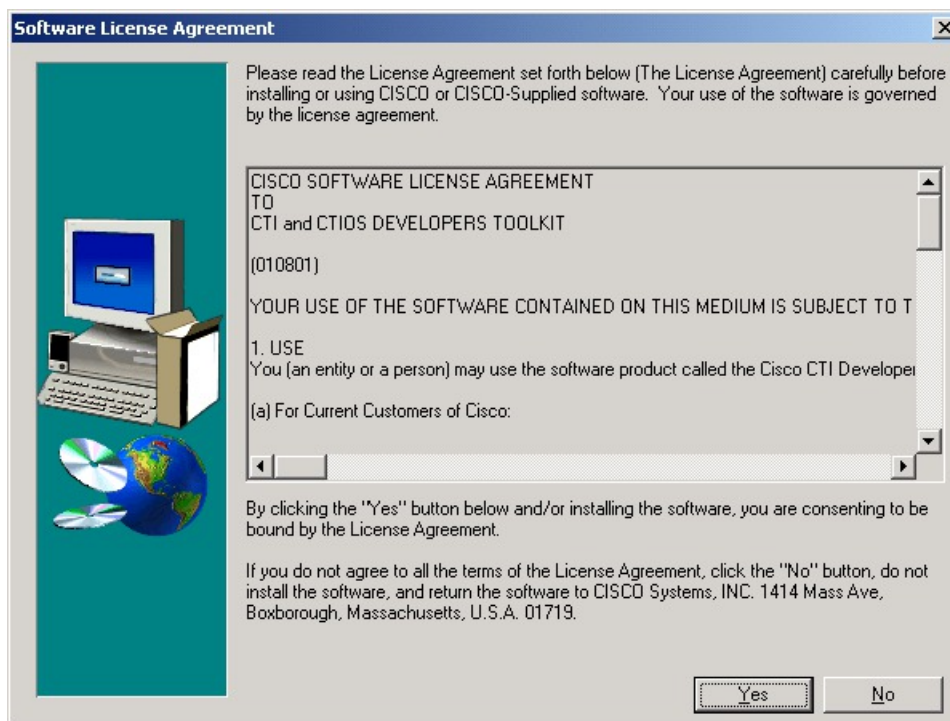
## Install Cisco CTI Toolkit Desktop Client Component

To install the CTI Toolkit Desktop Client components, perform the following steps.

## Procedure

- Step 1** From the CTIOSClient directory on the CD, run **Setscreenup.exe**.
- Step 2** Click the **Next** button on the Welcome . The Software License Agreement screen appears.

**Figure 1: CTI Toolkit Desktop Client Component Installation License Agreement**



- Step 3** Click the **Yes** button.  
A window displays the destination directory of the CTI Toolkit Desktop Client.
- Note** If you want to change the destination directory, you must uninstall and reinstall the Cisco CTI Toolkit Desktop Client Component.
- Step 4** Click **OK**.  
The **Select Features** window appears.
- Step 5** Select the CTI Toolkit Desktop Client features that you want to install.  
**Note** If you plan to use the Silent Monitor Service, you must select at least one of the CTI Toolkit Desktop Software components or the CTI Desktop SDK Win32 component.
- Step 6** Click **Next**.  
The **IMPORTANT NOTE** window appears.
- Step 7** Click **Next**.  
If you select CTI Toolkit Agent Desktop or CTI Toolkit UCCE Supervisor Desktop, the CTIOS Server Information window appears.

**Note** Phones that are configured to use SRTP cannot be silently monitored. Customers who wish to silently monitor agents must not configure the agent phones to use SRTP.

**Figure 2: CTI OS Server Information**

Enter the Name or IP Address and the Port Number for your CTI OS systems.

**Note** If you enable the QoS checkbox during the CTI OS Server Installation, you must select the checkbox at this stage.

**Step 8** Click the **Next** button.

The Start Copying Files window appears.

**Step 9** Click the **Next** button to begin installation.

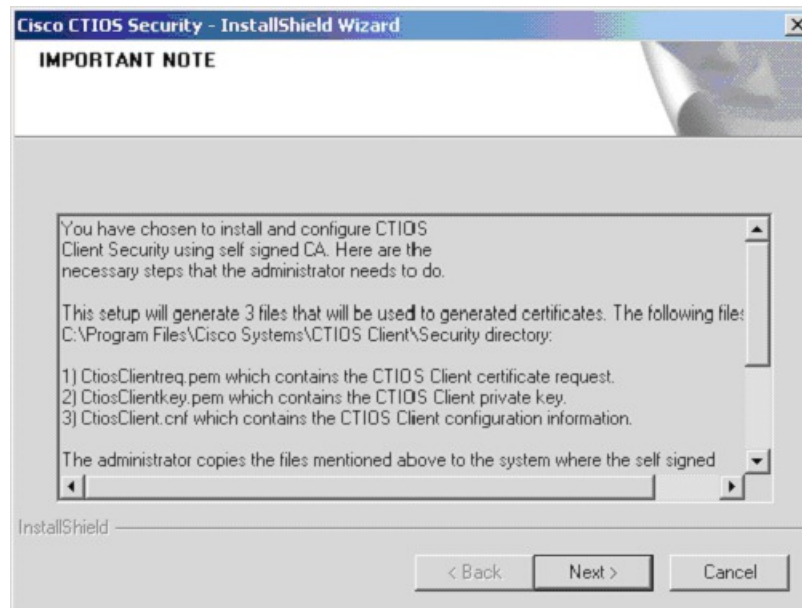
**Step 10** After the installation is complete, the following window appears, prompting you to install the Security feature. For more information about CTI OS Security, see [CTI OS Security](#).

**Figure 3: CTI OS Client Security**

For more information about what Security Certificate option you must select, see [CTI OS Security](#)

- Step 11** Click **OK**.  
The following window appears:

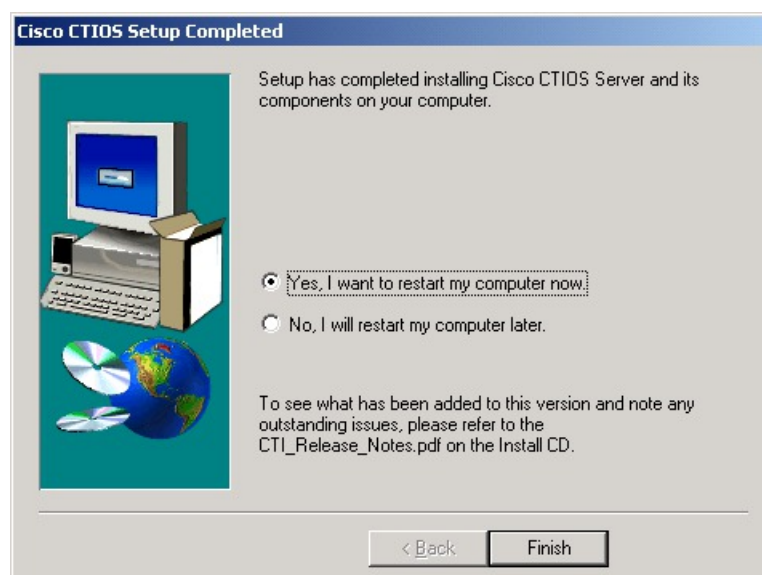
**Figure 4: CTI OS Security InstallShield Wizard**



While Security is being configured, several status messages appear.

- Step 12** Lastly, the CTIOS Setup Completed dialog box appears.

**Figure 5: CTI OS Server Setup Completion Dialog Box**



**Step 13** Specify whether or not you want to restart your computer. Click the **Finish** button to exit Setup.

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## Localization

Next, import the configLanguages.reg registry, which is the registry file to configure language libraries for the CTI OS Agent and Supervisor phones. The following example provides steps for setting the CTIOS desktop language to French Canadian.

- 1 Log out of the CTIOS desktop.
- 2 Open the Registry Editor.
- 3 Import the **ConfigLanguages.reg** from the location `C:\Program Files (x86)\Cisco Systems\CTIOS Client\CTIOS Toolkit\Win32 CIL\Internationalization Kit\Languages`.
- 4 Refresh the Registry Editor and navigate to `HKEY_CURRENT_USER\Software\Cisco Systems, Inc.\CTI Desktop\Shared\Languages\<LAN>` where **<LAN>** is the abbreviation for the language code. In this example it will be **FRC**, as this customer is setting a French Canadian Localization.
- 5 Set the value of the DLL Key using the following path: `C:\Program Files (x86)\Cisco Systems\CTIOS Client\CTIOS Toolkit\Win32 CIL\Internationalization Kit\Languages\ctioslanguage.FRC.dll`.
- 6 Set the value of the Language Code key to **c0c (Hexadecimal)**.
- 7 Navigate to the `HKEY_CURRENT_USER\Software\Cisco Systems, Inc.\CTI Desktop\Shared\Languages\Last Language` and set the value of Language Code to **c0c (Hexadecimal)**.




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**Note** If the value Last Language key is not set, the CTIOS uses the default locale of the Windows operating system.

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- 8 Re-launch the CTIOS client desktop.

## Installed Files

When you install the CTI Toolkit Agent Desktop or the CTI Toolkit UCCE Supervisor Desktop, the CTI Toolkit installation process installs a number of dynamic link libraries (DLLs). The installation process registers many of these DLLs automatically, but you must manually register some of these DLLs to work correctly.

The following table lists the Windows DLLs that are installed with the CTI Toolkit Agent Desktop or the CTI Toolkit UCCE Supervisor Desktop, along with the command line entry for manually registering the DLL (if needed).

**Table 1: Windows DLLs**

<b>DLL</b>	<b>Command Line Entry For Manually Registering</b>
msvcrt.dll	Registration not needed.
msvcrt.d.dll	Registration not needed.
msvcp60.dll	Registration not needed.
msvcp60d.dll	Registration not needed.
mfc42.dll	Registration not needed.
mfc42d.dll	Registration not needed.
atl.dll	regsvr32 atl.dll
msvbvm60.dll	regsvr32 msvbvm60.dll

The following Softphone Controls DLLs are installed with the CTI Toolkit Agent Desktop or the CTI Toolkit UCCE Supervisor Desktop:

- CtiosStatusbar.dll
- EmergencyAssistCtl.dll
- AgentSelectCtl.dll
- GridControl.dll
- AgentStateCtl.dll
- HoldCtl.dll
- AlternateCtl.dll
- IntlResourceLoader.dll
- AnswerCtl.dll
- Arguments.dll
- BadLineCtl.dll
- ButtonControl.dll
- ChatCtl.dll
- ConferenceCtl.dll
- CtiCommonDlgs.dll
- MakeCallCtl.dll
- ReconnectCtl.dll
- CTIOSAgentStatistics.dll

- RecordCtl.dll
- CTIOSCallAppearance.dll
- SubclassForm.dll
- CTIOSClient.dll
- SupervisorOnlyCtl.dll
- CTIOSSessionResolver.dll
- TransferCtl.dll
- CTIOSSkillGroupStatistics.dll

If the CTI Toolkit Agent Desktop or the CTI Toolkit UCCE Supervisor Desktop indicate that a given DLL is not registered, you can manually register the DLL by using the following command:

```
regsvr32 <DLL filename>
```

For example, you can register CtiosStatusbar.dll by using the following command:

```
regsvr32 CtiosStatusbar.dll
```

With interoperability, the Win32 COM controls work under the .NET framework. The installation lays down the following files and installs them into the Global Access Cache (GAC):

AxInterop.AgentSelectCtl.dll	Cisco.CTICOMMONDLGSLib.dll	Interop.AgentSelectCtl.dll
AxInterop.AgentStateCtl.dll	Cisco.CTIOSARGUMENTSLib.dll	Interop.AgentStateCtl.dll
AxInterop.AlternateCtl.dll	Cisco.CTIOSCLIENTLib.dll	Interop.AlternateCtl.dll
AxInterop.AnswerCtl.dll	Cisco.CTIOSSSESSIONRESOLVERLib.dll	Interop.AnswerCtl.dll
AxInterop.BadLineCtl.dll	Cisco.INTLRESOURCELOADERLib.dll	Interop.BadLineCtl.dll
AxInterop.ButtonControl.dll		Interop.ButtonControl.dll
AxInterop.ChatCtl.dll		Interop.ChatCtl.dll
AxInterop.ConferenceCtl.dll		Interop.ConferenceCtl.dll
AxInterop.CTIOSSAgentStatistics.dll		Interop.CTIOSSAgentStatistics.dll
AxInterop.CTIOSCallAppearance.dll		Interop.CTIOSCallAppearance.dll
AxInterop.CTIOSSkillGroupStatistics.dll		Interop.CTIOSSkillGroupStatistics.dll
AxInterop.CTIOSSStatusBar.dll		Interop.CTIOSSStatusBar.dll
AxInterop.EmergencyAssistCtl.dll		Interop.EmergencyAssistCtl.dll
AxInterop.GridControl.dll		Interop.GridControl.dll



AxInterop.HoldCtl.dll		Interop.HoldCtl.dll
AxInterop.MakeCallCtl.dll		Interop.MakeCallCtl.dll
AxInterop.ReconnectCtl.dll		Interop.ReconnectCtl.dll
AxInterop.RecordCtl.dll		Interop.RecordCtl.dll
AxInterop.SilentMonitorCtl.dll		Interop.SilentMonitorCtl.dll
AxInterop.SubclassForm.dll		Interop.SubclassForm.dll
AxInterop.SupervisorOnlyCtl.dll		Interop.SupervisorOnlyCtl.dll
AxInterop.TransferCtl.dll		Interop.TransferCtl.dll

## Uninstall CTI Toolkit

To uninstall the CTI Toolkit, run **Add/Remove** programs from the Windows Control Panel and select **Cisco CTI Toolkit Uninstall**.

## Determine Version Number of Installed CTI Toolkit Files

If the CTI Toolkit Agent Desktop or the CTI Toolkit Supervisor Desktop for UCCE are currently running, the title bars of the desktop windows display the CTI Toolkit version number.

If these desktops are *not* currently running, you can determine the version number of an installed CTI Toolkit file by performing the following steps.

### Procedure

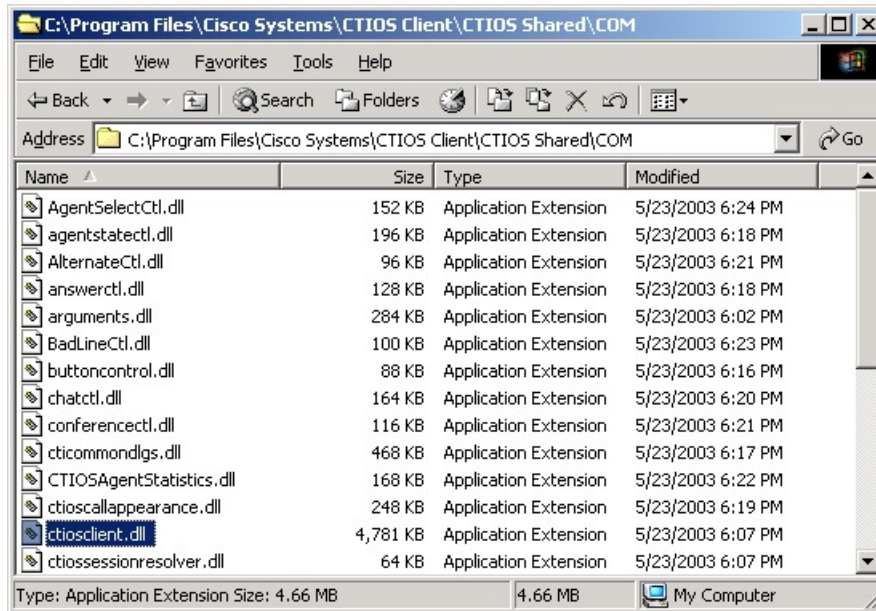
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**Step 1** Go to the directory:

Program Files\Cisco Systems\CTIOS Client\CTIOS Toolkit\Win32 CIL\COM Servers and Activex Controls

**Step 2** Highlight, and then right-click the **ctiosclient.dll** file.

**Figure 6: CTI OS COM Directory**

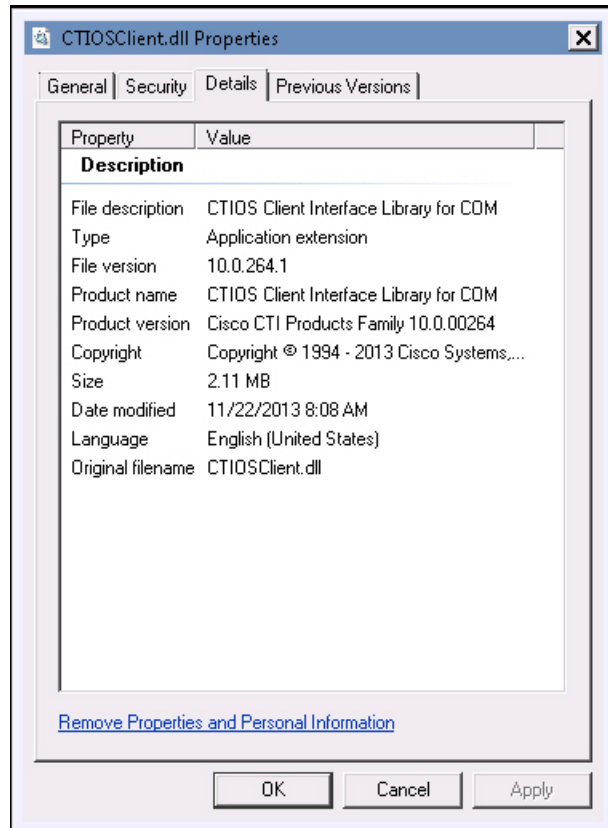


**Step 3** Select **Properties** from the drop-down menu.  
The Properties dialog box appears.

**Step 4** Select the **Version** tab.

This tab contains version information (release number and build number) for the file.

**Figure 7: CTI OS Client Properties**



## Unified CM Intercept Configuration Requirement

You must set the Cisco Unified CM service parameter named Drop Ad Hoc Conference to “never” (the default value), otherwise during the Intercept function, all the parties in the call get dropped.

## Configure Supervisory Assistance Features

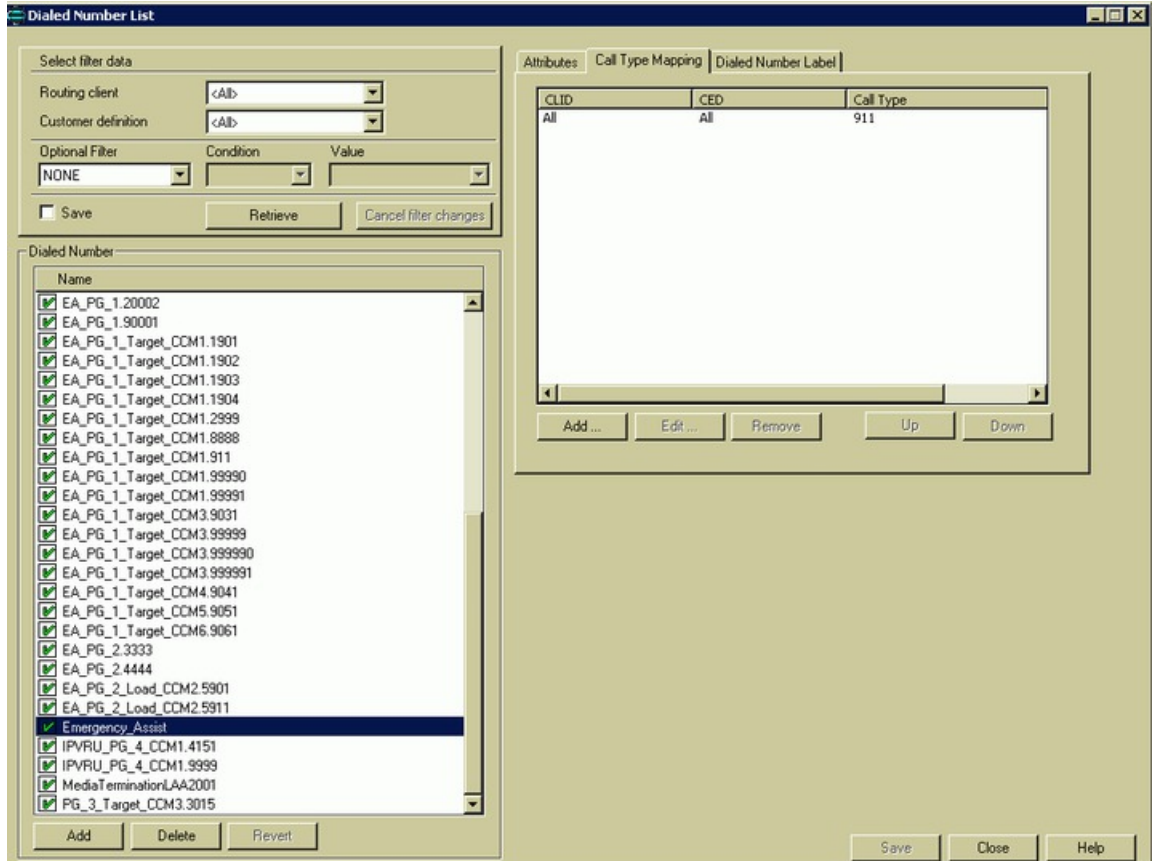
The CTI Toolkit Agent Desktop includes buttons that enable an agent to make an emergency call to a supervisor or to place a call to request assistance from a supervisor. To enable the functionality for these buttons, a *Unified ICM system administrator* must perform the following steps.

## Procedure

- Step 1** Perform the following tasks from the Unified ICM Configuration Manager (for more information, see *Configuration Guide for Cisco Unified ICM/Contact Center Enterprise & Hosted Configuration Guide for Cisco Unified ICM/Contact Center Enterprise*).
- On the Dialed Number List screen, create a Dialed Number for the supervisor, as shown in the following screens.

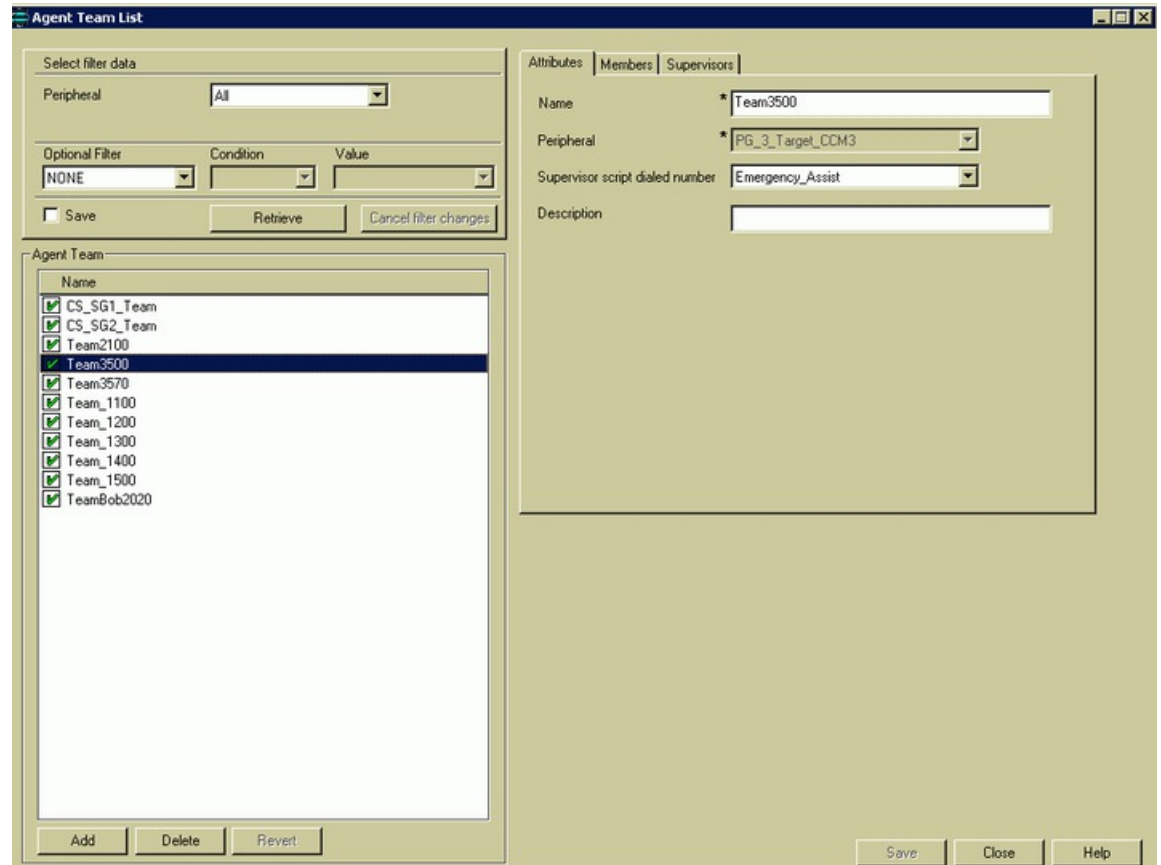
**Figure 8: Dialed Number List**

The screenshot shows the 'Dialed Number List' configuration window. The 'Attributes' tab is selected, and the 'Dialed Number Label' sub-tab is active. The 'Routing client' is set to 'PG\_3\_Target\_CCM3', the 'Dialed number string' is '911', and the 'Name' is 'Emergency\_Assist'. The 'Customer' and 'Default label' are set to '<None>', and the 'Description' is 'Emergency Assist Dialed Number'. The left pane shows a list of existing dialed numbers, with 'Emergency\_Assist' highlighted. The 'Save', 'Close', and 'Help' buttons are visible at the bottom right.



- b) On the Agent Team List screen, enter the Dialed Number in the Supervisor script dialed number field, as shown.

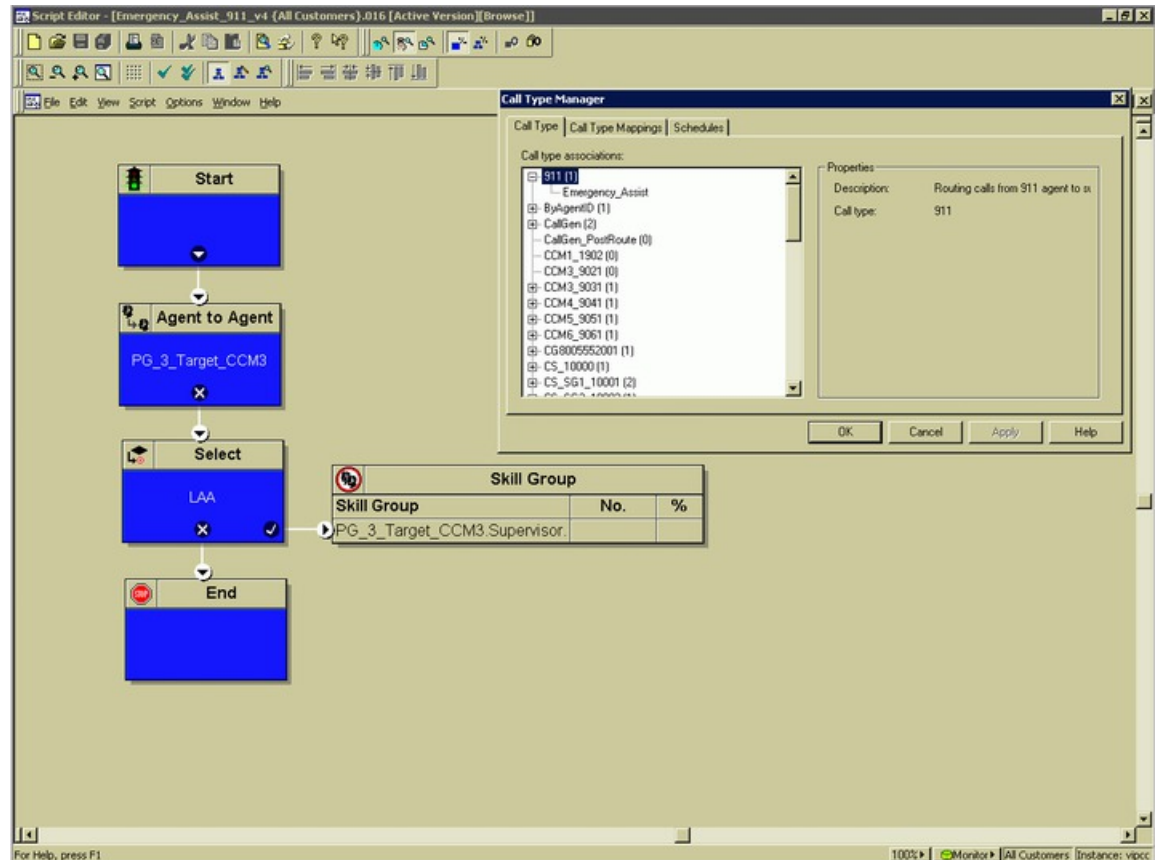
**Figure 9: Agent Team List**



- Step 2** Perform the following task from the Script Editor (for more information, see *Scripting and Media Routing Guide for Cisco Unified ICM/Contact Center Enterprise and Hosted Scripting and Media Routing Guide for Cisco Unified ICM/Contact Center Enterprise*).

- a) On the Call Type Manager screen, associate the Dialed Number with your script, as shown.

**Figure 10: Call Type Manager**



## Video Configuration

For more information about configuring video on CTI OS, see the associated topic in the *Configuration and Administration Guide for Cisco Unified Customer Voice Portal* at:

[http://www.cisco.com/en/US/products/sw/custcosw/ps1006/products\\_installation\\_and\\_configuration\\_guides\\_list.html](http://www.cisco.com/en/US/products/sw/custcosw/ps1006/products_installation_and_configuration_guides_list.html)

