



Integrating Cisco Unified CallConnector for Microsoft Dynamics CRM with Cisco Unified IPCC Express

This chapter addresses the desktop integration between Cisco Agent Desktop, the desktop component of Cisco Unified IPCC Express, and Microsoft Customer Relationship Management. This integration is based on the CTI capabilities in Cisco Agent Desktop Enhanced and Premium services offered under Cisco Unified IPCC Express. This integration uses a utility program included with Cisco Unified CallConnector for Microsoft Dynamics CRM called CADLink.



Note

Cisco Unified IPCC Express integration is not necessary if you are just running Cisco Unified Communications Manager and Cisco Unified Communications Manager Express.

Contents

[CADLink, page 41](#)

[Integration Methodology, page 42](#)

[How to Integrate Cisco Unified CallConnector for Microsoft Dynamics CRM with Cisco Unified IPCC Express, page 42](#)

[What to Do Next, page 50](#)

CADLink

CADLink's primary purpose is to act as an intermediary between the capabilities of Cisco Agent Desktop and those of the Cisco Unified CallConnector for Microsoft Dynamics CRM. This link is needed because the Cisco Telephony Application Programming Interface (TAPI) cannot properly detect caller ID information from calls routed by Cisco Unified Contact Center Express. CADLink solves this by providing one-way communication of caller ID information from Cisco Agent Desktop to the Cisco Unified CallConnector for Microsoft Dynamics CRM when the agent receives calls through Cisco Unified IPCC Express.

Integration Methodology

To achieve the integration, the workflow events available in Cisco Unified IPCC Express pass inbound call information to CADLink, which is then passed to Cisco Unified CallConnector for Microsoft Dynamics CRM to be acted on. Outbound dialing and call recognition use TAPI.

Three events in every inbound call are of importance to Cisco Unified CRM Connector:

- **Ring**ing—CallerID information must be processed during the ringing phase of the phone call. At this event, the Cisco Unified CallConnector for Microsoft Dynamics CRM search window appears.
- **Answer**ed—At this event, the Cisco Unified CallConnector for Microsoft Dynamics CRM client knows that the phone call has begun.
- **Dro**pped—If the call is dropped, the Cisco Unified CallConnector for Microsoft Dynamics CRM client stores the appropriate information about call duration

These events correlate with those available in Cisco Unified IPCC Express. Each event uses the “Call external application” event action to enable CADLink with appropriate command-line parameters. However, because the “Call External Application” action is restricted in the available command-line parameters, CADLink relies on the number of command-line parameters to determine which event has occurred. For this reason, one of the events (Dropped) utilizes placeholder parameters, and you must follow these procedures.

How to Integrate Cisco Unified CallConnector for Microsoft Dynamics CRM with Cisco Unified IPCC Express



Note

Before beginning the integration procedures for Cisco Unified Contact Center Express and Cisco Agent Desktop, you must complete the preliminary installation and configuration steps for Cisco Unified Communications Manager available at the beginning of this document.

This section provides detailed instructions for the following:

- [Assigning a Workflow Agent, page 43](#)
- [Configuring a Ringing Event, page 44](#)
- [Configuring the Answered Event, page 47](#)
- [Configuring the Dropped Event, page 48](#)
- [Additional Configuration Steps for Cisco Unified CallConnector for Microsoft Dynamics CRM Client, page 49](#)

Each of the integrations is based on the CTI integration capabilities offered in Cisco Agent Desktop. For additional information, please refer to the [Cisco Agent Desktop Administration Guide](http://www.cisco.com/univercd/cc/td/doc/procut/voice/sw_ap_to/apps_3_5/english/admn_app/cad_admn.pdf) at http://www.cisco.com/univercd/cc/td/doc/procut/voice/sw_ap_to/apps_3_5/english/admn_app/cad_admn.pdf.

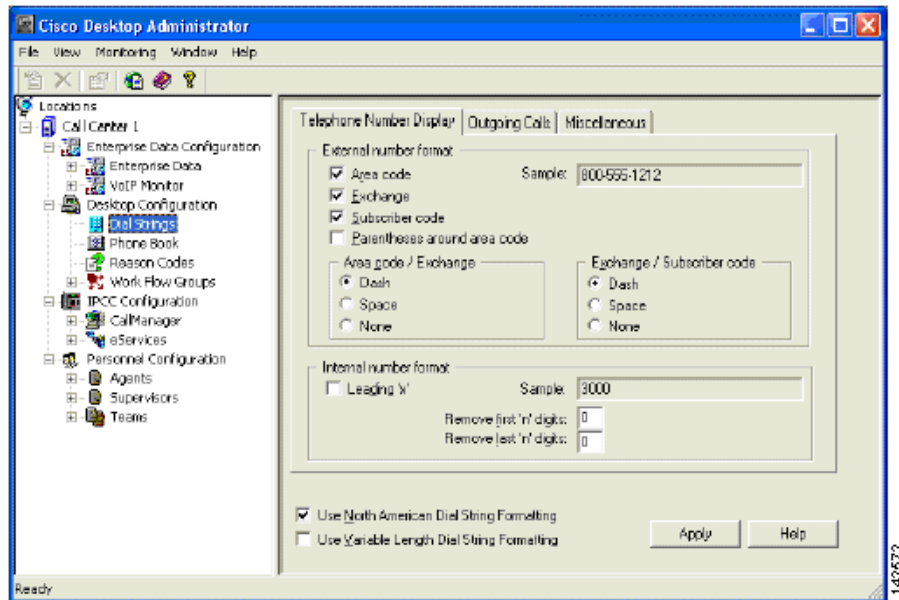
Perform the integration by administratively configuring of workflows in the Cisco Agent Desktop Manager. You must first assign the workflows to the agent.

Assigning a Workflow Agent

To assign a workflow agent, perform the following steps.

- Step 1** Open the Cisco Desktop Administrator window as seen in [Figure 34](#).

Figure 34 Cisco Desktop Administrator Window



- Step 2** Select **Work Flow Groups** from the left pane.

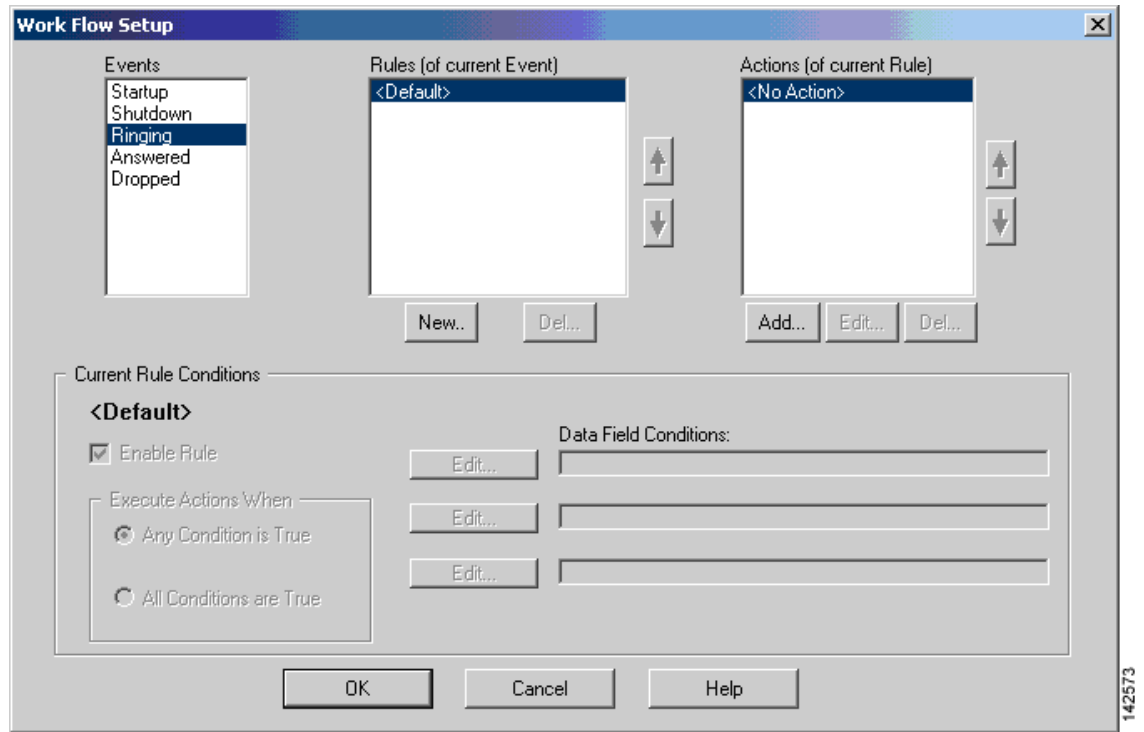
- Step 3** Select **Agents**.

- Step 4** Select the agent type to configure.

- Step 5** Click **Work Flow** in the right pane.

The Work Flow Setup window appears, as shown in [Figure 35](#).

Figure 35 Work Flow Setup Window

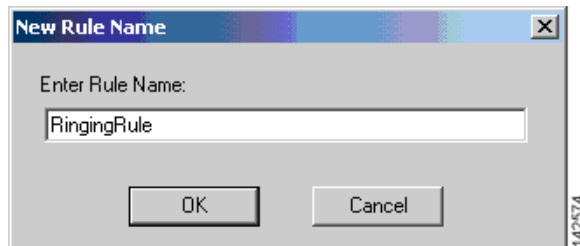


Configuring a Ringing Event

To configure a ringing event, perform the following steps.

- Step 1 Select **Ringing** from the Events list, as shown in [Figure 35](#).
- Step 2 Click **New...** to add a new Rule (middle list).
- Step 3 Name the rule RingingRule, or something similar that describes the rule (see [Figure 36](#)).

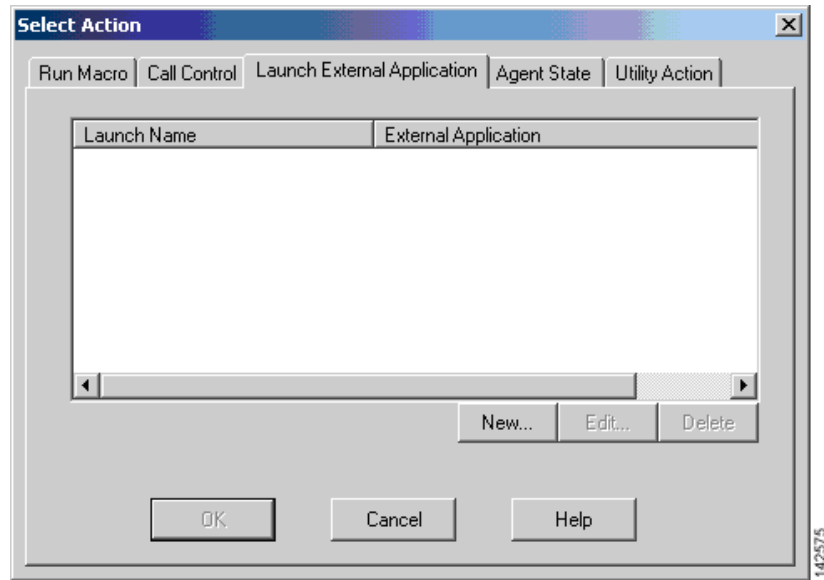
Figure 36 Create RingingRule



- Step 4 Select the **RingingRule** from the list of rules and click **New...** to add a new action (from the right list in [Figure 35](#)).

The Select Action window appears, as shown in [Figure 37](#).

Figure 37 Select Action Window

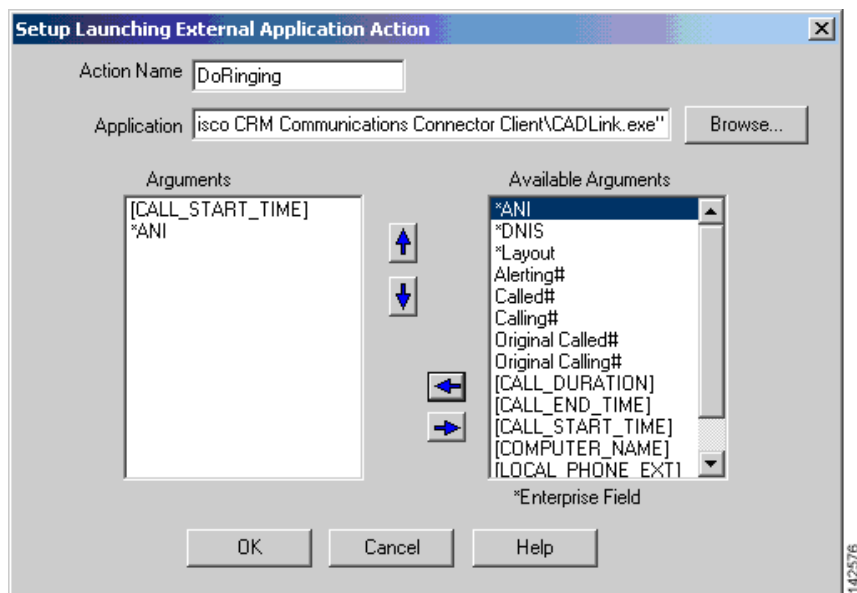


Step 5 Select the **Launch External Application** tab.

Step 6 Click the **New** button to add a new Launch External Application action.

The Setup Launching External Application Action window appears, as shown in [Figure 38](#).

Figure 38 Setup Launching External Application Action Window



Step 7 In the Action Name field enter **DoRinging**.

Step 8 In the Application field, enter **C:\Program Files\Cisco Systems\Cisco Unified CRM Connector Client\CADLink.exe**, or your path to the CADLink.exe executable file on the client machines.



Note

You must install the Cisco Unified CallConnector for Microsoft Dynamics CRM client application in the same physical location on all clients that will use CADLink.

Step 9 Select **[CALL_START_TIME]** as the first argument.

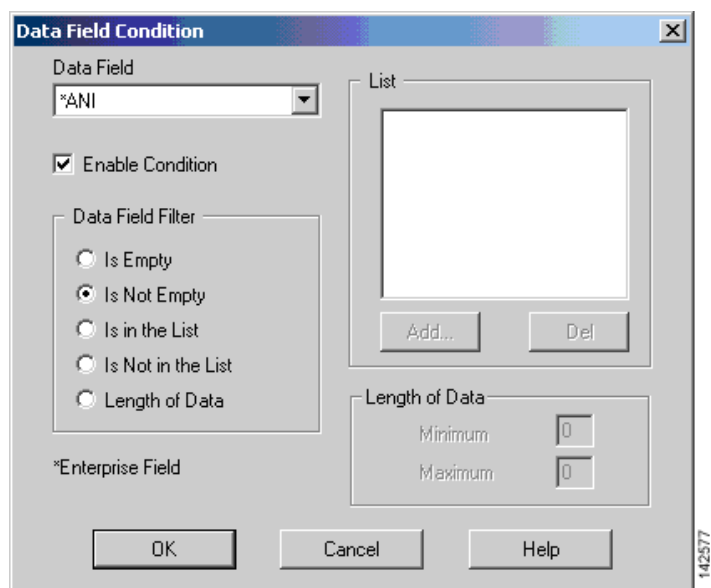
Step 10 Select ***ANI** as the second argument.

Step 11 Click **OK** to accept the configuration.

Step 12 In the Work Flow Setup window (Figure 35), enable RingingRule by clicking the first Edit box in the Current Rule Conditions.

The Data Field Condition window appears, as shown in Figure 39.

Figure 39 Data Field Condition Window



Step 13 Select ***ANI** from the Data Field.

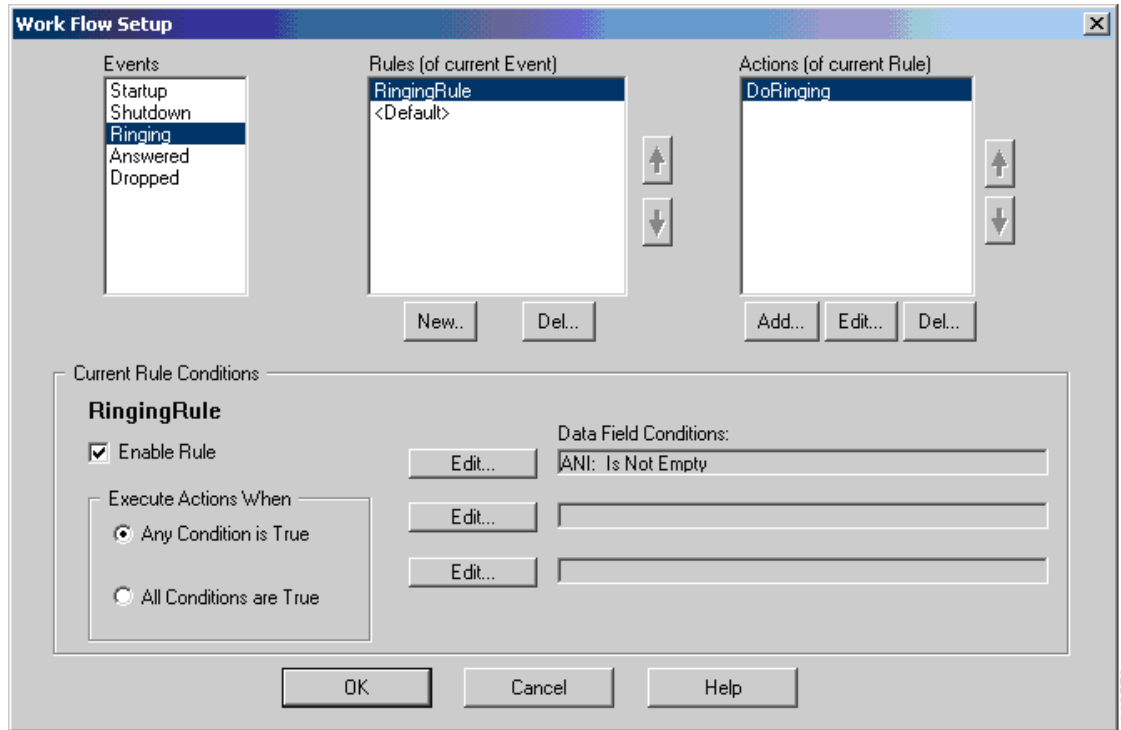
Step 14 Select **Is Not Empty** in the Data Field Filter list.

Step 15 Check **Enable Condition**.

Step 16 Click **OK**.

The Work Flow Setup window appears, as shown in Figure 40.

Figure 40 Work Flow Setup Window



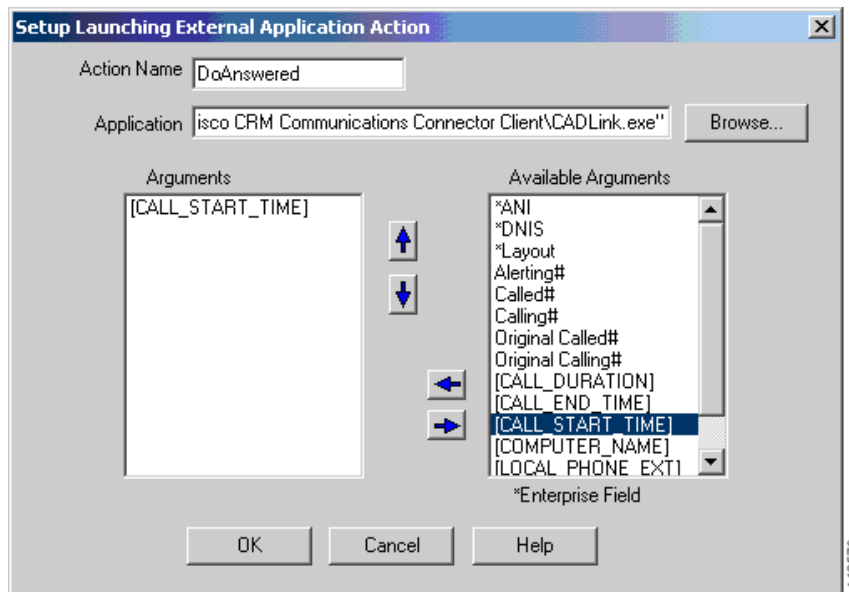
Step 17 Check **Enable Rule** to make the rule active.

Step 18 Repeat these steps for the Answered and Dropped events, making appropriate customizations as described in the next two sections.

Configuring the Answered Event

To configure the answered event, follow the same steps as for the Ringing event (see the [“Configuring a Ringing Event” section on page 44](#)), except call the rule “AnsweredRule,” and the action “DoAnswered.” The parameter for the DoAnswered event is [CALL_START_TIME], as shown in [Figure 41](#).

Figure 41 Setup Launching External Application Action Window: Answered Event

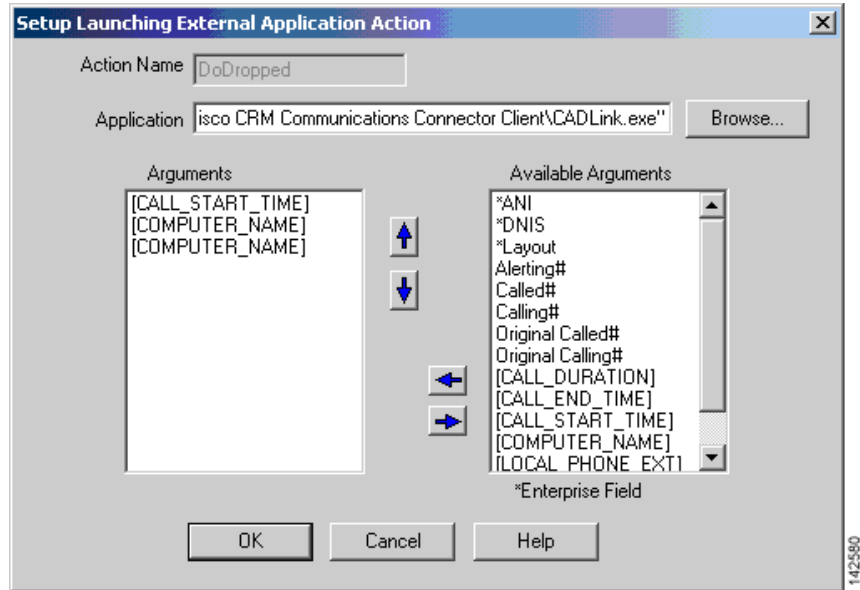


Configuring the Dropped Event

To configure the dropped event, follow the same steps as for the Ringing event (see the [“Configuring a Ringing Event”](#) section on page 44), except call the rule “DroppedRule,” and the action “DoDropped.” The parameters for the DoAnswered event are [CALL_START_TIME], [COMPUTER_NAME], and [COMPUTER_NAME].

As shown in [Figure 42](#), the COMPUTER_NAME parameter is repeated as a dummy placeholder to ensure that there are three parameters.

Figure 42 Launch External Application Window



Additional Configuration Steps for Cisco Unified CallConnector for Microsoft Dynamics CRM Client

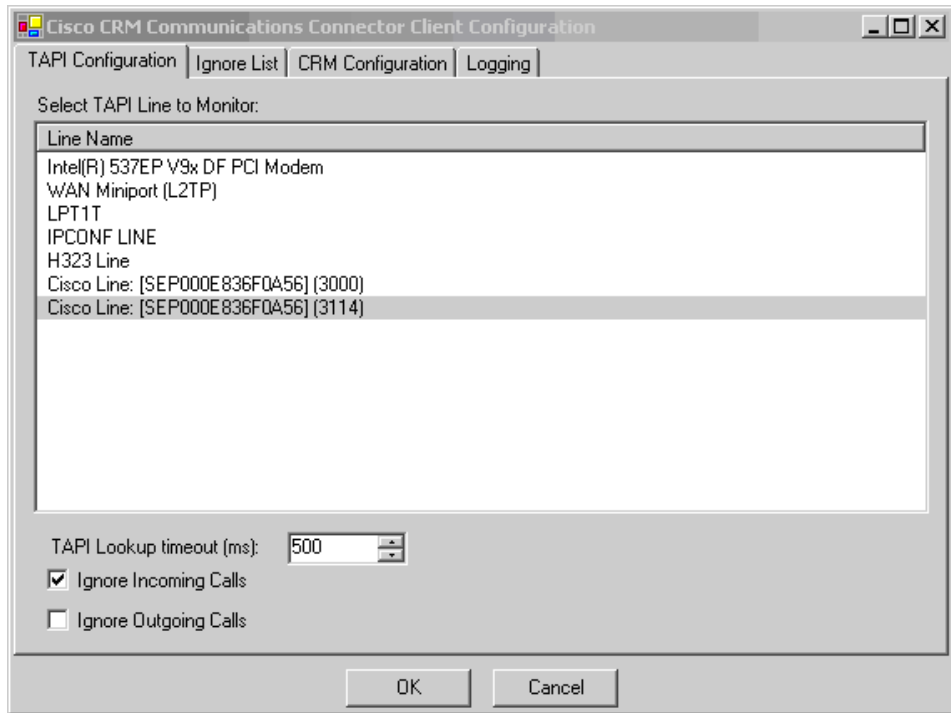
Inbound call information are received from the Cisco Agent Desktop. You must configure the client to ignore incoming TAPI call information so that the Cisco Unified CallConnector for Microsoft Dynamics CRM client will be able to process incoming calls routed by the automated call distributor (ACD), and not by the TAPI messages sent from Cisco Unified Communications Manager. Therefore, you must check “Ignore Incoming Calls,” as shown in [Figure 43](#).



Note

Failure to disable incoming TAPI messages results in double screen pops of the user-configured screen pops (specifically, Microsoft CRM contact records and phone call activity records).

Figure 43 Cisco Unified CallConnector for Microsoft Dynamics CRM—TAPI Tab Configuration



What to Do Next

You are now ready to use the Cisco Unified CallConnector for Microsoft Dynamics CRM (see the [“Using the Cisco Unified CallConnector for Microsoft Dynamics CRM Client”](#) section on page 51).