



Cisco Unified Workforce Optimization

Monitoring and Recording Services CAD Integration Guide 8.0
June 2011

Americas Headquarters

Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
<http://www.cisco.com>
Tel: 408 526-4000
800 553-NETS (6387)
Fax: 408 527-0883

THE SPECIFICATIONS AND INFORMATION REGARDING THE PRODUCTS IN THIS MANUAL ARE SUBJECT TO CHANGE WITHOUT NOTICE. ALL STATEMENTS, INFORMATION, AND RECOMMENDATIONS IN THIS MANUAL ARE BELIEVED TO BE ACCURATE BUT ARE PRESENTED WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. USERS MUST TAKE FULL RESPONSIBILITY FOR THEIR APPLICATION OF ANY PRODUCTS.

THE SOFTWARE LICENSE AND LIMITED WARRANTY FOR THE ACCOMPANYING PRODUCT ARE SET FORTH IN THE INFORMATION PACKET THAT SHIPPED WITH THE PRODUCT AND ARE INCORPORATED HEREIN BY THIS REFERENCE. IF YOU ARE UNABLE TO LOCATE THE SOFTWARE LICENSE OR LIMITED WARRANTY, CONTACT YOUR CISCO REPRESENTATIVE FOR A COPY.

The Cisco implementation of TCP header compression is an adaptation of a program developed by the University of California, Berkeley (UCB) as part of UCB's public domain version of the UNIX operating system. All rights reserved. Copyright © 1981, Regents of the University of California.

NOTWITHSTANDING ANY OTHER WARRANTY HEREIN, ALL DOCUMENT FILES AND SOFTWARE OF THESE SUPPLIERS ARE PROVIDED "AS IS" WITH ALL FAULTS. CISCO AND THE ABOVE-NAMED SUPPLIERS DISCLAIM ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, THOSE OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT OR ARISING FROM A COURSE OF DEALING, USAGE, OR TRADE PRACTICE.

IN NO EVENT SHALL CISCO OR ITS SUPPLIERS BE LIABLE FOR ANY INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES, INCLUDING, WITHOUT LIMITATION, LOST PROFITS OR LOSS OR DAMAGE TO DATA ARISING OUT OF THE USE OR INABILITY TO USE THIS MANUAL, EVEN IF CISCO OR ITS SUPPLIERS HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Cisco and the Cisco Logo are trademarks of Cisco Systems, Inc. and/or its affiliates in the U.S. and other countries. A listing of Cisco's trademarks can be found at <http://www.cisco.com/go/trademarks>. Third party trademarks mentioned are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (1005R)

CAD Integration Guide

© 2008, 2009, 2010, 2011 Cisco Systems, Inc. All rights reserved.

© 2008, 2009, 2010, 2011 Calabrio, Inc. All rights reserved.

Contents

Introduction 5

Understanding Recording Commands 7

- Recording Commands 8
- Quality Management Workflows 11
- Active and Last Call 13
- Audio and Screen Recordings 14
 - Command Precedence 15

Integrating CAD with the Recording API commands 17

- Requirements 17
 - Desktop Recording (Endpoint) Service Requirements 17
 - Recording Server Requirements 17
- Configuring an IPC Send Command to Invoke the Tag Command 18
- Configuring an IPC Send Action to Invoke the Metadata Command to the Desktop Recording Service 20
- Configuring an IPC Send Action to Invoke the Metadata Command to the Recording Server 24

Introduction

You can integrate Cisco Agent Desktop (CAD) with Cisco Unified Workforce Optimization Monitoring and Recording via the Recording API. CAD does this via its interprocess communication (IPC) Send action. IPC Send actions pass information in the form of user datagram protocol (UDP) messages from the agent desktop to a third-party application (in this case, the Recording API) using IPC methods.

Cisco Monitoring and Recording can record an agent's calls from the agent's desktop or from a server. Cisco Monitoring and Recording supports the following recording scenarios.

- Desktop Recording service (Endpoint)
- Server Recording (SPAN)
- Network Recording

Understanding Recording Commands

This section explains the following concepts:

- Function of each recording command
- Active and last calls
- Effect of sending multiple recording commands to a single call recording

Recording Commands

Recording commands allow you to control a recording. For example, you can use recording commands to record a call, pause the recording, and attach metadata to a call.

[Table 1](#) describes how the recording commands interact with each other and the Cisco Monitoring and Recording components.

Table 1. Recording commands

Command	Function
Tag	<p>Marks a recording for retention, even if archiving is not enabled and the call does not meet workflow criteria. This command stores agent-tagged calls with the Agent Tagged reason code, and saves it for the retention time specified in Monitoring and Recording Administrator.</p> <ul style="list-style-type: none">• The Tag command is valid for the active call and the last call.• If Monitoring and Recording is already recording a call, the Tag command adds the Agent Tagged reason code to the data associated with the call.• If Monitoring and Recording is currently not recording the active call, issuing the Tag command starts a recording command and adds the Agent Tagged reason code to it.• If Monitoring and Recording recorded the last call, the Tag command updates the reason code for the last call to the Agent Tagged reason.• If Monitoring and Recording did not record the last call, nothing happens. There is no recording available whose reason code can be updated.• If Monitoring and Recording is currently recording two active calls (for example, an inbound ACD call and an outbound consultation call), the Tag command tags the call that triggered recording.• If there are two active calls (for example, an inbound ACD call and an outbound consultation call) and Monitoring and Recording is not recording either call, the call delivered to the agent first, based on the call start time, is recorded and tagged with the Agent Tagged reason code when you invoke the Tag command.

Command	Function
Pause	<p>Temporarily halts the recording of the audio portion of a call.</p> <ul style="list-style-type: none"> • The Pause command does not affect the video portion of the contact. • The Pause command is valid for active calls only. • If a call is already paused, the Pause command has no affect. • When you play back a paused recording, the video portion of the recording continues to play during the paused audio portion.
Resume	<p>Resumes recording the audio portion of a contact after you issued a Pause command to stop the recording.</p> <ul style="list-style-type: none"> • If the call is not currently paused, the Resume command has no affect. • The Resume command does not affect video recording. • The Resume command is valid for active calls only. • If you do not use the Resume command, after issuing the Pause command, the point at which you paused the recording is the end of the audio recording. Monitoring and Recording continues recording the video portion of the call.
Restart	<p>Restarts or starts the recording of a call.</p> <ul style="list-style-type: none"> • If Monitoring and Recording is currently recording an active call, the Restart command stops the audio and video recording, deletes that recording, and restarts recording the call from the point when you issued the Restart command. • If Monitoring and Recording is not currently recording an active call, the Restart command starts audio and video recording. • The Restart command is valid for active calls only. • Monitoring and Recording assigns an Agent Tagged reason code to calls recorded using the Restart command. Monitoring and Recording saves the agent tagged calls even if archiving is not enabled and the call does not meet workflow criteria.

Command	Function
Delete	<p>Marks a recording for deletion, even if archiving is enabled, the call meets workflow criteria, the extension is in the inclusion list, or it is tagged for retention. The Delete command deletes the recorded files and any metadata, and uploads the basic contact data to Cisco Monitoring and Recording to maintain accurate call counts.</p> <ul style="list-style-type: none">• The Delete command is valid for the active call only.• The Delete command has precedence over all other commands.• Once you delete a call you cannot record it by issuing the Tag command.• Deleted calls are not available for archive purposes or quality management purposes.• You cannot view deleted calls in Cisco Unified Workforce Optimization.
Metadata	<p>Allows you to attach metadata to a call. The Metadata command is valid for the active call and the last call. If Cisco Monitoring and Recording uploads a call because archiving is enabled or it matches workflow criteria, then Cisco Monitoring and Recording uploads the metadata as well. If Cisco Monitoring and Recording does not upload the call, the metadata is discarded.</p> <ul style="list-style-type: none">• You can associate maximum of 10 metadata items with a call. You can accomplish this by issuing 10 Metadata commands containing one key/value pair each. Refer to the <i>Administrator User Guide</i> for more information on defining metadata.• The Metadata command interacts with the active call, including the time up until the next call starts. If you issue the Metadata command during the call, Cisco Monitoring and Recording uploads the metadata to the database at the same time as the rest of the call data. If you issue the Metadata command after the call but before the next call, Cisco Monitoring and Recording uploads the metadata separately at the time you issued the Metadata command, and stores the metadata with the last known call. <p>NOTE: Cisco Monitoring and Recording resets the last known call when a user logs in, so Cisco Monitoring and Recording cannot attach to the last known call before a user logs out logs out and logs in again. Cisco Monitoring and Recording attaches metadata to calls that span the configured end of day/upload time.</p> <ul style="list-style-type: none">• Successive calls to the Metadata command using the same key name updates the existing metadata for that call.

Command	Function
Metadata (cont'd)	<ul style="list-style-type: none"> • Specifying an empty value for a key removes that metadata field association for the call. • Valid formats for metadata are as follows. <ul style="list-style-type: none"> - Dates – Dates must be in yyyy-mm-dd format (for example 2009-09-24). - Numbers – Numbers can start with and contain a decimal point (for example, valid numbers are .30 10.7 2500). Numbers cannot end with a decimal point or contain a comma (for example, invalid numbers are 30 2,500). - Text key values cannot contain the following reserved characters (for example, & =). <p>All other alphanumeric characters are valid.</p> <p>You can find the decimal point in the * key menu and the dash in the zero key menu on your phone.</p>

Quality Management Workflows

Cisco Monitoring and Recording records and retains users' calls. Cisco Monitoring and Recording can record both screen and audio for the call.

Quality management (QM) workflows drive the activity of Cisco Monitoring and Recording. QM workflows contain business logic that tells Cisco Monitoring and Recording what calls to record and retain for each user.

Because workflows can use decision points like "Longest call of the day," "Random call," or "Last call of the day", Cisco Monitoring and Recording does not know at the time of the call whether or not to retain the call. It cannot evaluate the logic until the end of the user's day. This means that Cisco Monitoring and Recording must record all calls received by the user and only deletes recorded calls at the end of the day after the calls marked for retention are uploaded. There are a few caveats to this.

- QM workflows can contain logic eliminating a call from retention, so Cisco Monitoring and Recording does not record the call at all. This logic includes the idea of exclusion lists and call direction settings. Exclusion lists consist of phone numbers, or part of a phone number with wildcard characters, used at the time of the call to determine whether or not to record the call. If the called or calling number matches a phone number pattern in the exclusion list, there is no need to record the call because Cisco Monitoring and Recording does not upload the call at the end of the day.

- Call direction settings might indicate that Cisco Monitoring and Recording should only include inbound calls when it determines what calls to retain at the end of the day. In this case, Cisco Monitoring and Recording does not record outbound calls.

This information affects the result of any recording commands issued using the Recording API. If Cisco Monitoring and Recording does not eliminate an agent's call by using the exclusion lists or call direction, then it automatically records the call. Whether it retains the call is determined at the end of the day when Cisco Monitoring and Recording evaluates the workflow for other rules. If you issue a Tag command from the The Recording API while on the call, it has no effect on the call recording because the call is already being recorded. Recording API marks the call for retention at the end of the day, regardless of what the workflow says. However, if the QM workflow excluded the call, and Cisco Monitoring and Recording is not recording the call, then the Tag command starts recording the call when you issue the command. Cisco Monitoring and Recording records and retains the call, but the recording will be missing the portion of the call that occurred prior to when you issued the Tag command.

Understanding this behavior of the Cisco Monitoring and Recording system will help you understand the results of recordings manipulated using the Recording API.

[Table 2](#) indicates the effect of issuing a recording command when the call is currently being recorded, and when the call is not being recorded.

Table 2. Effect of issuing recording control commands on calls

Command	Currently Recording	Not Currently Recording
Tag	None	Call recording starts
Pause	Recording paused	None
Resume	Recording resumes (if previously paused)	None
Restart	Recording restarts	Recording starts
Delete	Call deleted	None
Metadata	Data added to call information	None

Active and Last Call

You must understand the difference between the terms *active call* and *last call*. Some commands can apply to either one of these call types. Some commands can apply to a single call type.

An active call occurs when the Cisco Monitoring and Recording user is on a call with one or more parties. A call on hold is still an active call. The active call starts when the Cisco Monitoring and Recording user receives the call (phone is ringing) or makes a new call. The active call ends when the agent hangs up the phone.

The last call is the previously recorded call. Any valid recording commands sent after a call ends, and until another call is received or made by the user, apply to the last call.

[Table 3](#) indicates whether the recording command applies to the active call, the last call, or both.

Table 3. Recording commands that support Active Calls or Last Calls

Command	Active Call	Last Call
Tag	Yes	No
Pause	Yes	No
Resume	Yes	No
Restart	Yes	No
Delete	Yes	No
Metadata	Yes	Yes

Audio and Screen Recordings

Cisco Monitoring and Recording can record both the audio from a call and the user's PC during a call. A call recording always contains the audio from the call. The recording might or might not include the screen recording as well. The recording depends on the settings in the QM workflow for that user.

In some cases, the recording commands issued through the Recording API affect screen recordings as well as the audio recordings. These are side effects of the commands. In no case can a recording command cause screen recording to start or be enabled if the QM workflow does not dictate that screens will be recorded.

[Table 4](#) indicates the effect a recording command has on a screen recording when screens are being recorded with the audio of a call.

Table 4. Effect of issuing record controls commands on different call types

Command	Effect on Screen Recording
Tag	If the audio is not being recorded, both audio and screen recording start. Otherwise, there is no effect.
Pause	None. While the audio is silent during the a pause, the screen recording continues normally.
Resume	None.
Restart	Both audio and screen recording restarts (or starts if the call is not currently being recorded).
Delete	Deletes both audio recording and screen recording.
Metadata	None.

Command Precedence

While you are free to issue Recording API commands, it can cause unexpected behavior. What would happen if you issue the following commands during a call?

Restart, Resume, Metadata, Delete, Tag, Delete, Restart.

[Table 5](#) lists each command and what effect other recording commands issued for the same call have on it, and show what would happen if you issued the following commands during a call.

Table 5. Effect of issuing record multiple controls commands during a call

Command	Effect on Recording
Tag	If you previously issued the Delete command, the Tag command does nothing. If you already issued a Tag command to tag the call, subsequent Tag commands do nothing.
Pause	If you already paused the call, subsequent Pause commands do nothing. If you previously issued a Delete command, the Pause command does nothing.
Resume	If you did not pause the call, the Resume command does nothing. If you previously issued a Delete command, the Resume command does nothing.
Restart	If you previously issued a Delete command, the Restart command does nothing. Each Restart command you send starts the audio recording (and screen recording, if screen recording is enabled).
Delete	If you previously issued the Delete command, subsequent Delete commands do nothing.
Metadata	If you previously issued a Delete command, the Metadata command does nothing.

Integrating CAD with the Recording API commands

This section provides the information you need to integrate CAD with the Recording API commands. The information provided in this section includes:

- Requirements for the Desktop Recording service on the agent desktop and the Recording server
- Task for configuring an IPC Send Action to invoke the Tag command
- Tasks for configuring an IPC Send Action to invoke the Metadata command to the Desktop Recording service and the Recording Server

Requirements

Before sending a command to the Cisco Monitoring and Recording system, you need to know where to send that command. You need an IP address and a port number. The destination of these commands depends on how the Cisco Monitoring and Recording agent is configured for recording.

Desktop Recording (Endpoint) Service Requirements

If you configured agents so their calls are recorded on their desktops, you need the following information when sending a recording command.

- Loopback IP address for the agent's PC—The loopback IP address is 127.0.0.1. The loopback address routes a command back to the machine that sent the command.
- Port number for the agent's PC—The Desktop Recording services running on the agent's desktop listens on port 59001 for incoming recording commands.

Recording Server Requirements

If you are using a Recording Server to record the Cisco Monitoring and Recording agent, you need the following information when sending a recording command.

- IP address of the Recording Server—Cisco Monitoring and Recording supports multiple Recording Servers, but an agent and their device can only be assigned to one Recording Server at any time. Use Monitoring and Recording Administrator to assign users and devices to Recording Servers. Frequently, the Recording Servers are referred to by their host name rather than by their IP address. You need to convert the host names of the Recording Servers to IP addresses before you can set up an IPC Send action. Ask your system administrator to provide this information.
- Port number for the Recording Server—The Recording Server listens on port 65002 for recording commands.

- **sender_id**—When sending recording commands to a Recording Server, you need to identify the Cisco Monitoring and Recording user associated with the command. You need to pass an additional parameter called “sender_id” and give it the value of the user's ID as known to the Monitoring and Recording Administrator. Fortunately, there is a variable available in the CAD system that you can use for this purpose. This will be shown below.
- **CAD workflow**—CAD workflows are usually assigned to more than one CAD agent. This becomes important when you send recording commands to a Recording Server. Because you create workflows with actions that target specific Recording Servers (via the IP address), only CAD agents that are configured to use the same Recording Servers can successfully run the workflow that uses that IP address. For CAD agents who are configured for a different Recording Server, you will need to create a workflow that uses the other Recording Server IP address and assign it to those agents. If you change a Cisco Monitoring and Recording user's configuration so they now use a different Recording Servers, you need to change which workflow that CAD agent uses or the IPC Send action will fail.

This issue does not affect workflows where the Recording commands are sent by the user's Desktop Recording service.

Configuring an IPC Send Command to Invoke the Tag Command

Use the following task to configure an IPC Send command to invoke a tag command to send to the user's desktop.

NOTE: You can use this same task to invoke the other Recording API commands (for example, Pause, Resume, Restart, and Delete commands with the exception of the metadata command). Simply replace the Tag command in the Action Name field ([Figure 1](#)) with the command you want to send.

For more information on creating and configuring actions, see the “Creating IPC Actions” section in the *Cisco Desktop Administrator User Guide*

TASK

1. In Cisco Desktop Administrator, create a new IPC Send command. In the IPC Action Setup dialog box (Figure 1), complete the fields as follows:
 - Action Name: Tag
 - Protocol: UDP
 - IP Address: 127.0.0.1 (the “localhost” IP address)
 - Port: 65001

Figure 1. IPC Action Setup dialog box

The screenshot shows the 'IPC Action Setup' dialog box. The fields are filled as follows:

- Action Name: Tag
- Protocol: UDP
- IP Address: 127 . 0 . 0 . 1
- Port: 65001

The 'Data' section contains an empty table with the following structure:

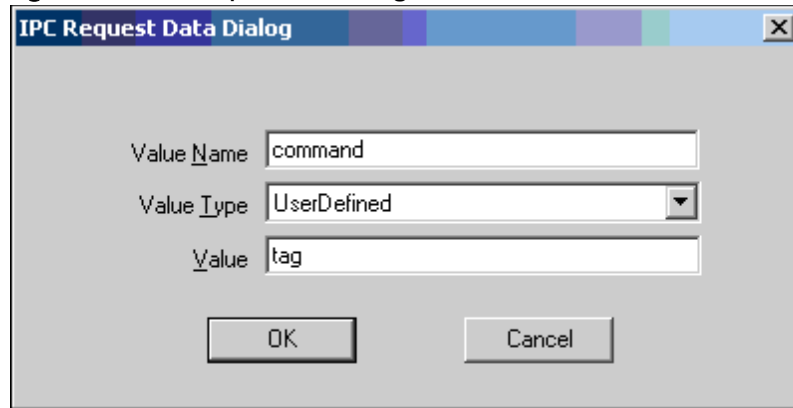
Name	Value	Value Type
------	-------	------------

Buttons at the bottom include 'Add...', 'Edit...', 'Del...', 'OK', and 'Cancel'.

2. In the Data section, click Add.

STEP RESULT: The IPC Request Data Dialog box appears (Figure 2).

Figure 2. IPC Request Data Dialog box



3. Complete the fields as follows and then click OK to close the dialog box.
 - Value Name: command
 - Value Type: UserDefined
 - Value: tag
 4. Click OK on the IPC Action Setup dialog box to save the IPC Send command.
-

Configuring an IPC Send Action to Invoke the Metadata Command to the Desktop Recording Service

Use the following task to configure an IPC Send command to invoke a Metadata command if you are using the Desktop Recording service. The IPC Send command sends the Metadata command to the Desktop Recording service on the agent's desktop. The following task assumes the you configured the agent for the Desktop Recording service.

PREREQUISITE: Before configuring an IPC Send command in CAD, configure the user-defined metadata in Monitoring and Recording Administrator. See the *Monitoring and Recording Services Administrator User Guide* for more information. This example uses the following metadata:

- Balance
- CustomerID

TASK

1. In Cisco Desktop Administrator, create a new IPC Send command. In the IPC Action Setup dialog box (Figure 3), complete the fields as follows:
 - Action Name: Metadata
 - Protocol: UDP
 - IP Address: 127.0.0.1 (the “localhost” IP address)
 - Port: 65001

Figure 3. IPC Action Setup dialog box

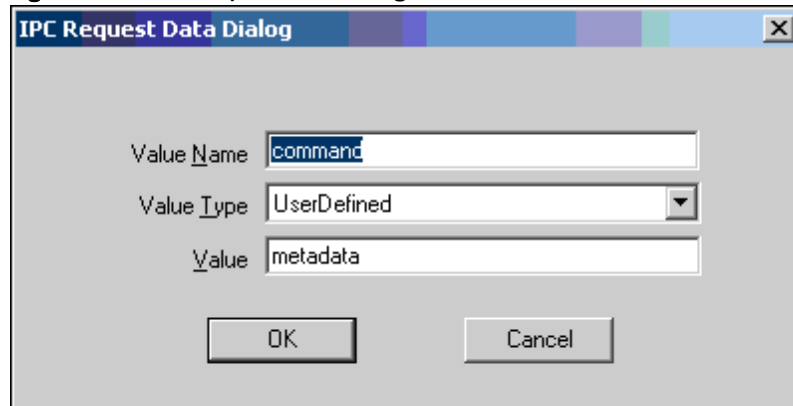
Name	Value	Value Type
command	metadata	UserDefined
custID	[ENTERPRISE FIELD:Account Number]	DataField
balance	[ENTERPRISE FIELD:Collected Digits]	DataField

2. In the Data section, click Add.

STEP RESULT: The IPC Request Data Dialog box appears.

3. Complete the fields as follows (Figure 4) and then click OK to close the IPC Request Data Dialog box.
 - Value Name: command
 - Value Type: UserDefined
 - Value: metadata

Figure 4. IPC Request Data Dialog box

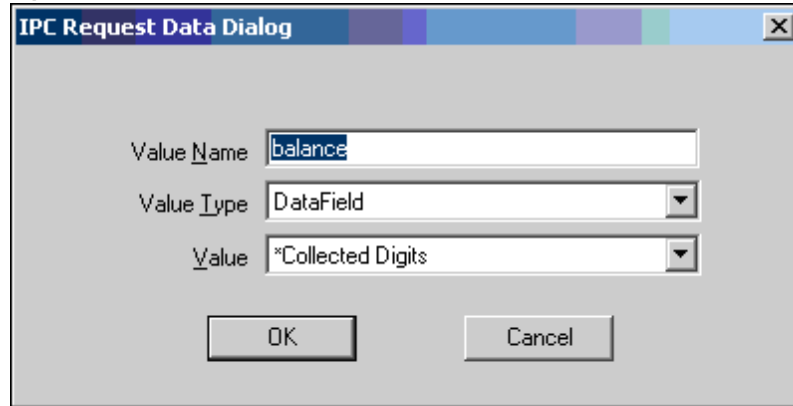


4. In the Data section of the IPC Action Setup dialog box, click Add again.

STEP RESULT: The IPC Request Data Dialog box appears.
5. In the IPC Request Data Dialog box, configure the information you want to pass to the Recording API and then click OK to close the IPC Request Data Dialog box. You need to provide the following information.
 - Value Name: Enter the Key Name configured in Monitoring and Recording Administrator
 - Value Type: Choose an option from the drop-down list
 - Value: Choose the CAD enterprise data from the drop-down list

STEP RESULT: Figure 5 shows an example of a completed dialog box for the “balance” metadata field.

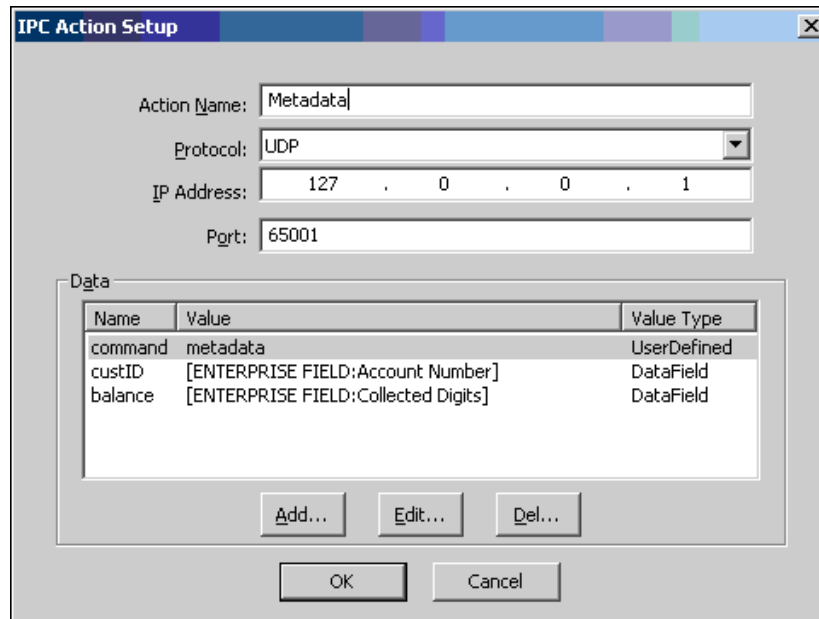
Figure 5. IPC Request Data Dialog box



6. Repeat adding more pieces of data to pass from CAD to Monitoring and Recording as desired, up to a total of 10 fields.

STEP RESULT: When finished, the IPC Action Setup dialog box resembles Figure 6.

Figure 6. Example of IPC Send command used to pass metadata from CAD to the Recording API



7. Click OK to save the IPC Action Setup.
-

Configuring an IPC Send Action to Invoke the Metadata Command to the Recording Server

Use the following task to configure an IPC Send command to invoke a Metadata command if you are using a Recording Server. The IPC Send command sends the Metadata command to the recording server assigned to the agent. The following task assumes the agent is configured for a Recording Server.

PREREQUISITE: Before configuring an IPC Send command in CAD, perform the following tasks:

- Associate a Cisco Monitoring and Recording user with a Recording Server. See “VoIP Devices” in the *Monitoring and Recording Services Administrator User Guide* for more information.

NOTE: If you change a Recording Server assigned to a specific CAD/Cisco Monitoring and Recording agent, you must change the CAD workflow assigned to the agent to specify the correct Recording Server. This ensures that the API calls are sent to the correct Recording Server.

- If you are using multiple recording servers, you must create a separate CAD workflow for each Recording Server, and then assign users to each CAD workflow. The users assigned to a CAD workflow are assigned to the Recording Server associated with that CAD workflow.
- Create a QM workflow for each group of CAD/Cisco Monitoring and Recording agents assigned to a specific Recording Server and assign a team to each workflow. See “Group Administration” in the *Monitoring and Recording Services Administrator User Guide* for more information.

NOTE: Assign all CAD/Cisco Monitoring and Recording agents in the group to the same recording server. The Recording API requires this because the IP address of the Recording Server is hard-coded as part of the IPC Send command.

- Configure the user-defined metadata in Quality Management Administrator. See “Metadata Fields” in the *Monitoring and Recording Services Administrator User Guide* for more information. This example uses the following metadata:
 - Balance
 - CustomerID

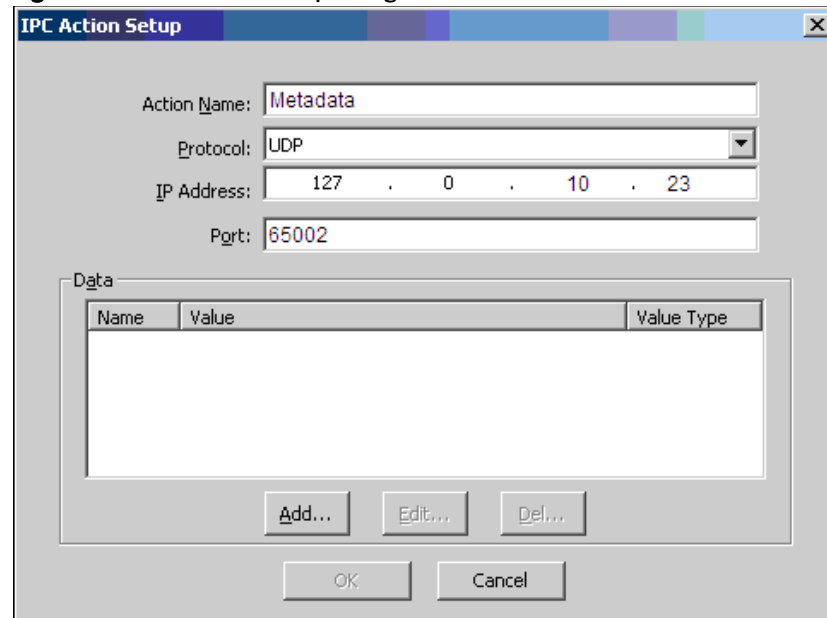
NOTE: You can use this same task to invoke the other Recording API commands (for example, Pause, Resume, Restart, and Delete commands). Simply replace the Tag command in the Action Name field with the command you want to send.

For more information on creating and configuring actions, see the “Creating IPC Actions” section in the *Cisco Desktop Administrator User Guide*

TASK

1. In Cisco Desktop Administrator, create a new IPC Send command. In the IPC Action Setup dialog box (Figure 7), complete the fields as follows:
 - Action Name: Metadata
 - Protocol: UDP
 - IP Address: Specify the IP address of the recording server that record calls for this agent. You can find this information on the VoIP Devices window in Monitoring and Recording Administrator. See the *Monitoring and Recording Services Administrator User Guide* for more information.
 - Port: 65002

Figure 7. IPC Action Setup dialog box

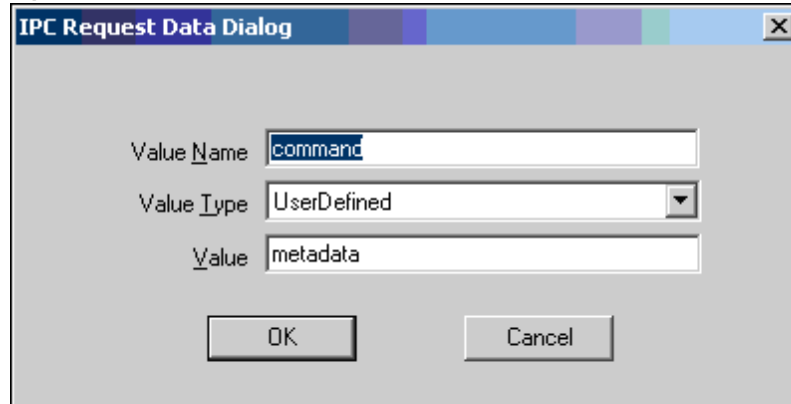


2. In the Data section, click Add.

STEP RESULT: The IPC Request Data Dialog box appears.

3. Complete the fields as follows (Figure 8) and then click OK to close the IPC Request Data Dialog box.
 - Value Name: command
 - Value Type: UserDefined
 - Value: metadata

Figure 8. IPC Request Data Dialog box



4. In the Data section of the IPC Action Setup dialog box, click Add again.
STEP RESULT: The IPC Request Data Dialog box appears.

5. In the IPC Request Data Dialog box, configure the information you want to pass to the Recording API and then click OK to close the IPC Request Data Dialog box. You need to provide the following information.

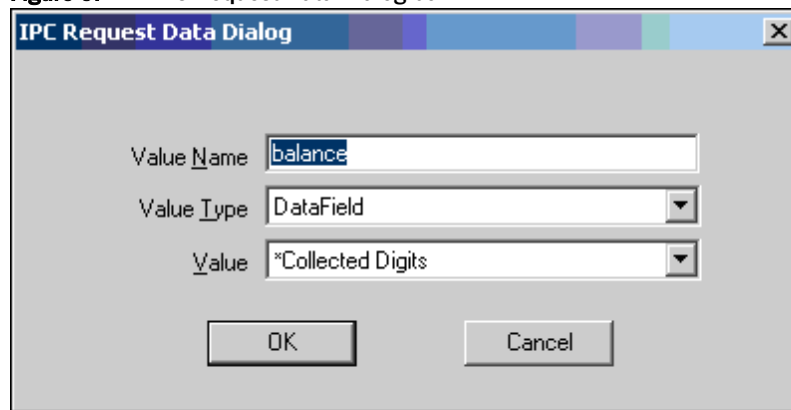
- Value Name: Enter the Key Name configured in Monitoring and Recording Administrator

NOTE: You must use the Key Name, not the Display Name.

- Value Type: Choose an option from the drop-down list
- Value: Choose the CAD enterprise data from the drop-down list

STEP RESULT: [Figure 9](#) shows an example of a completed dialog box for the “balance” metadata field.

Figure 9. IPC Request Data Dialog box



6. In the Data section of the IPC Action Setup dialog box, click Add again.

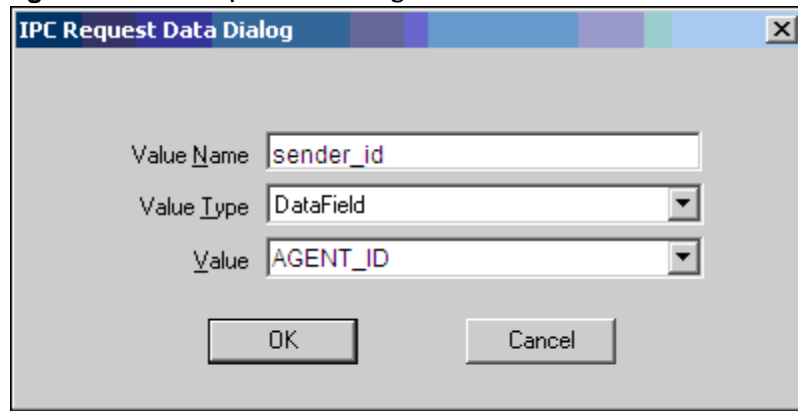
STEP RESULT: The IPC Request Data Dialog box appears.

7. In the IPC Request Data Dialog box, configure the information you want to pass to the Recording Server and then click OK to close the IPC Request Data Dialog box. You need to provide the following information.
 - Value Name: sender_id
 - Value Type: Choose DataField from the drop-down list
 - Value: Choose AGENT_ID from the drop-down list

NOTE: You must be running QM 2.7(2) or later to use the AGENT_ID variable to send API calls to a Recording Server.

STEP RESULT: [Figure 10](#) shows an example of a completed dialog box for the “sender_id” metadata field.

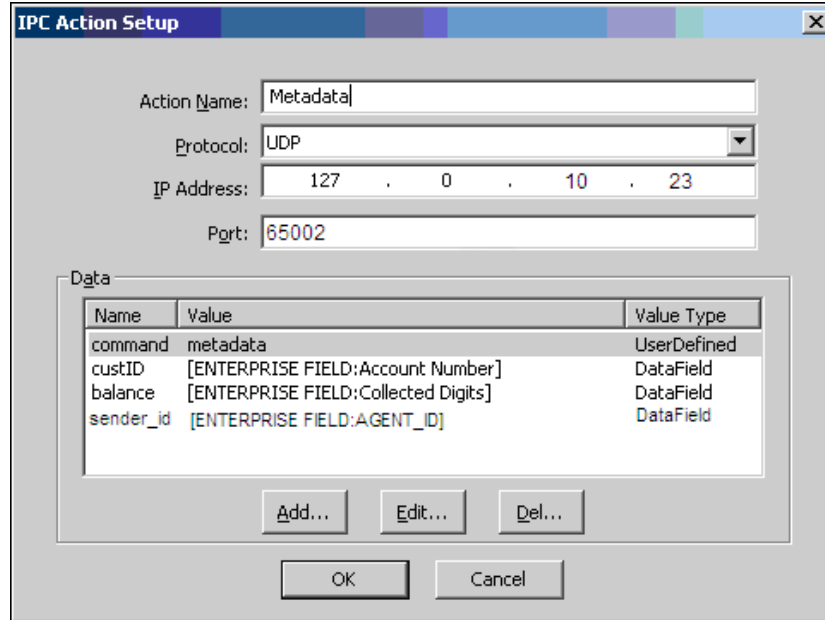
Figure 10. IPC Request Data dialog box



- Repeat adding more pieces of data to pass from CAD to Cisco Monitoring and Recording as desired, up to a total of 10 fields.

STEP RESULT: When finished, the IPC Action Setup dialog box resembles [Figure 11](#).

Figure 11. Example of IPC set up to pass metadata from CAD to the Recording API



- Click OK to save the IPC Action Setup.
-

Index

	A	port number agent's PC 17	
Active call 13			
Agent Tagged reason code 8			Q
audio recordings 14			
	C	QM workflows 11	
command precedence 15			R
configuring IPC action 19			
	D	Record command 8 recording commands about 7 requirements 17 Restart command 9 Resume command 9	
Delete command 10			S
	I		
invoking Metadata command 20, 24			
IPC Action Setup dialog box 19, 21, 23, 25, 29			
IPC Request Data Dialog box 20, 21, 22, 25, 26, 27, 28		screen recordings 14	
IPC Send command 18			U
tag command 20, 24			
	L	user-defined metadata 20, 24	
Last call 13			
loopback ip address 17			
	M		
Metadata command 10, 20, 24			
	P		
Pause command 9			