



# NEC IPX2400 Release 15 using T1 QSIG to Cisco Unified Communications Manager 6.0 and Cisco Emergency Responder 2.0

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## July 11, 2007 Initial version

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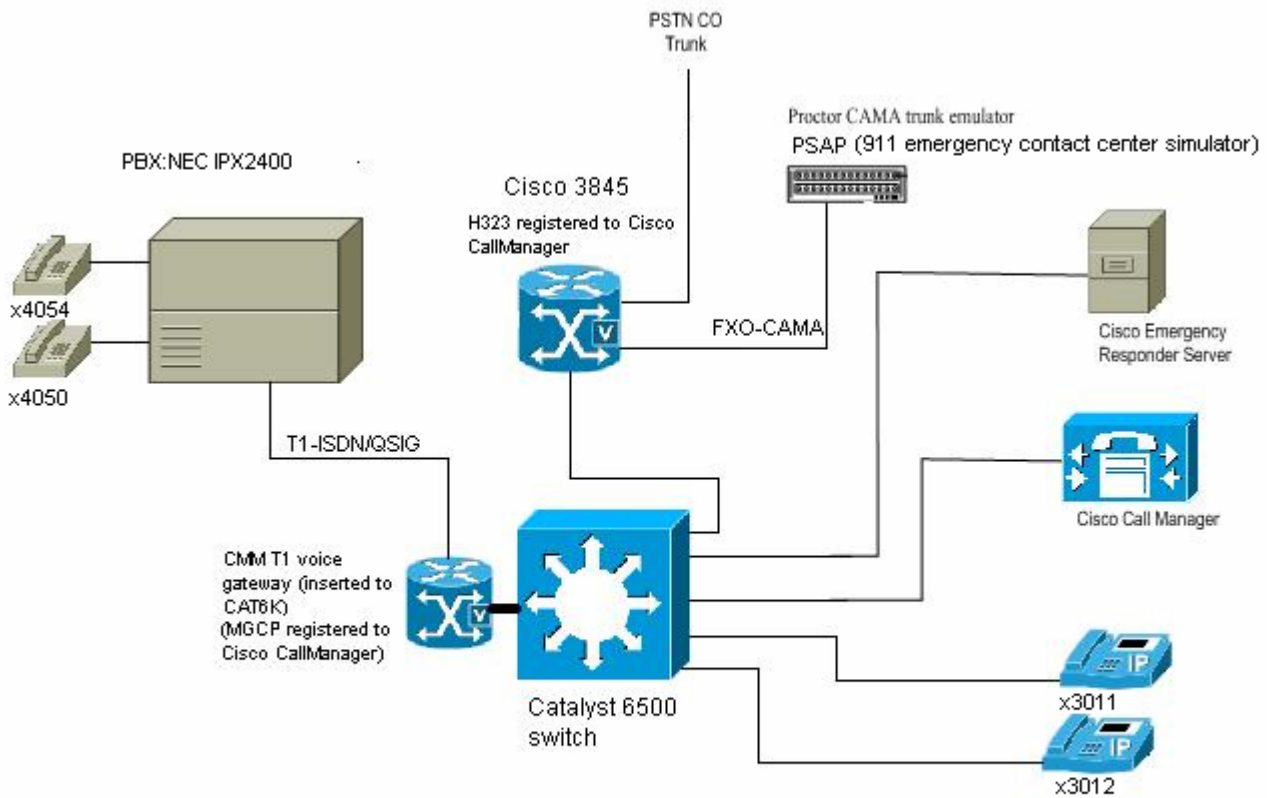


## Introduction

The following is an Application Note for E911 Interoperability of a Cisco Unified Communications Manager 6.0 and Cisco Emergency Responder 2.0 to a NEC IPX2400 PBX via a Cisco Media Module CMM T1-QSIG trunk. The CUCM system is connected to a simulated E911 PSAP (Public Safety Answering Point) via a Cisco 3845 w/ CAMA trunk registered using H323. The Network Topology diagram shows the test set-up for interoperability between the Cisco Unified Communications Manager and Cisco Emergency Responder connected to the PBX via a T1 QSIG trunk using Cisco WS-SVC-CMM-6T1 MGCP Gateway.

## Network Topology

Figure 1. Network Topology or Test Setup



## Limitations

Unique DID numbers must be used to associate with each Emergency Response Location to allow the return call if the 911 caller is disconnected.

Each available calling party that might dial 911 from the PBX side must have that calling party number configured in the Manually Configured Phones screen of the Cisco Emergency Responder.



## System Components

### Hardware Requirements

#### Cisco Hardware

- Cisco 3825 Gateway with NM-HD-V2/VIC2-4FXO (CAMA trunk)
- Cisco Cat6K switch
- Cisco Unified Communications Manager server
- Cisco Emergency Responder server
- Cisco WS-SVC-CMM-6T1 Communications Media Module (inserted into cat6K)
- NEC IPX2400

### Software Requirements

- Cisco IOS Software release "c3825-ipvoice-mz.124-11.T"
- Cisco IOS Software release "wscmm-ipvoicek9-mz.124-11.T"
- PBX Software: Version Release 15
- Cisco Unified Communications Manager 6.0
- Cisco Emergency Responder 2.0

## Features

### Features Supported

- Calling Number
- E911 ERL DID number passed to PSAP
- Incoming DID calling to disconnected 911 originating caller



## Configuration

### Configuring Cisco Unified Communications Manager

#### Partitions

The screenshot shows the Cisco Unified CM Administration interface in Microsoft Internet Explorer. The browser address bar shows the URL: `https://172.20.110.254:8443/ccmadmin/partitionFindList.do?<%=reqParams%>&recCnt=0&colCnt=3`. The page title is "Find and List Partitions - Microsoft Internet Explorer".

The interface includes a navigation menu with the following items: System, Call Routing, Media Resources, Voice Mail, Device, Application, User Management, Bulk Administration, and Help. The user is logged in as "CCMAdministrator".

The main content area is titled "Find and List Partitions" and includes the following controls:

- Buttons: Add New, Select All, Clear All, Delete Selected
- Status: 2 records found
- Search: Find Partition where Name begins with [ ] [Find] [Clear Filter] [ ] [ ]
- Table with columns: Partition Name, Description
- Buttons: Add New, Select All, Clear All, Delete Selected

Partition Name	Description
<a href="#">E911</a>	E911
<a href="#">Phones</a>	Phones



## Phone Partition

Partition Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Refresh Print Mail

Address <https://172.20.110.254:8443/ccadmin/partitionEdit.do?key=99eaf347-e7cd-9b0f-f20c-202553dd382a> Go Links

**Cisco Unified CM Administration**  
For Cisco Unified Communications Solutions

Navigation Cisco Unified CM Administration Go

CCMAdministrator About Logout

System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help

Partition Configuration Related Links: Back To Find/List Go

Save Delete Reset Add New

**Status**  
Status: Ready

**Partition Information**

Name\*

Description

Time Schedule

Time Zone  Originating Device  
 Specific Time Zone

Save Delete Reset Add New

**i** \*- indicates required item.

Done Local intranet



## E911 Partition

Partition Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites Recycle Bin Mail Print

Address <https://172.20.110.254:8443/ccadmin/partitionEdit.do?key=85f12aea-2767-799f-5769-ebb3817b10f9> Go Links

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Partition Configuration Related Links: Back To Find/List Go

Save Delete Reset Add New

**Status**  
Status: Ready

**Partition Information**

Name\*

Description

Time Schedule

Time Zone  Originating Device  Specific Time Zone

Save Delete Reset Add New

**i** \*- indicates required item.

Done Local Intranet



## Calling Search Space

Find and List Calling Search Spaces - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Refresh Print Mail

Address <https://172.20.110.254:8443/ccmadmin/cssFindList.do?<%=reqParams%>&recCnt=0&colCnt=3> Go Links

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System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help

### Find and List Calling Search Spaces

+ Add New Select All Clear All Delete Selected

**Status**  
2 records found

#### Calling Search Space (1 - 2 of 2)

Rows per Page 50

Find Calling Search Space where CSS Name begins with Find Clear Filter

<input type="checkbox"/>	CSS Name ^	Description	Copy
<input type="checkbox"/>	<a href="#">E911CSS</a>		
<input type="checkbox"/>	<a href="#">PhonesCSS</a>	PhonesCSS	

Add New Select All Clear All Delete Selected

Done Local Intranet



## CSS phones

Calling Search Space Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Refresh Print Mail

Address <https://172.20.110.254:8443/ccmadmin/cssEdit.do?key=c6323d13-33f1-643e-ee5a-4bbde3d51fe4> Go Links

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CCMAdministrator | About | Logout

System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help

Calling Search Space Configuration Related Links: Back To Find/List Go

Save Delete Copy Add New

**Status**  
Status: Ready

**Calling Search Space Information**

Name\* PhonesCSS  
Description PhonesCSS

**Route Partitions for this Calling Search Space**

Available Partitions\*\* E911

Selected Partitions Phones

Save Delete Copy Add New

**i** \*- indicates required item.  
**i** \*\*Selected Partitions are ordered by highest priority

Done Local intranet





## CSS E911

Calling Search Space Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites Recycle Bin Mail Print

Address <https://172.20.110.254:8443/ccmadmin/cssEdit.do?key=5971417e-af33-5df0-cac6-a976303fe2cf> Go Links

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System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help

Calling Search Space Configuration Related Links: Back To Find/List Go

Save Delete Copy Add New

**Status**  
Status: Ready

**Calling Search Space Information**

Name\* E911CSS  
Description

**Route Partitions for this Calling Search Space**

Available Partitions\*\*

Selected Partitions  
E911  
Phones

Save Delete Copy Add New

\*- indicates required item.  
\*\*Selected Partitions are ordered by highest priority

Done Local Intranet



## CCM IP phones

Phone Configuration - Microsoft Internet Explorer

Address: <https://172.20.110.254:8443/ccmadmin/deviceEdit.do?key=a0eae5b-6d54-439b-8063-73426cffe3c>

**Cisco Unified CM Administration**  
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System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help

Phone Configuration Related Links: Back To Find/List Go

Save Delete Copy Reset Add New

**Status**  
Status: Ready

**Association Information**  
Modify Button Items

1	<a href="#">Line [1] - 3011 in Phones</a>
2	<a href="#">Line [2] - Add a new DN</a>
3	<a href="#">Add a new SD</a>
4	<a href="#">Add a new SD</a>
5	<a href="#">Add a new SD</a>
6	<a href="#">Add a new SD</a>
----- Unassigned Associated Items -----	
7	<a href="#">Add a new SD</a>
8	<a href="#">Add a new SURL</a>
9	<a href="#">Add a new BLF SD</a>
10	<a href="#">Add a new BLF Directed Call Park</a>
11	Privacy
12	None

**Phone Type**  
Product Type: Cisco 7960  
Device Protocol: SCCP

**Device Information**

Registration	Registered with Cisco Unified Communications Manager CM-BARZA
IP Address	<a href="#">172.20.110.253</a>
MAC Address*	000A416B8539
Description	Auto 3011
Device Pool*	Default <a href="#">View Details</a>
Common Device Configuration	MigratedCommonDeviceConfig1 <a href="#">View Details</a>
Phone Button Template*	Standard 7960 SCCP
Softkey Template	Standard User_CallBack
Common Phone Profile*	Standard Common Phone Profile
Calling Search Space	PhonesCSS
AAR Calling Search Space	< None >
Media Resource Group List	< None >
User Hold MOH Audio Source	< None >
Network Hold MOH Audio Source	< None >
Location*	Hub_None
AAR Group	< None >
User Locale	< None >
Network Locale	< None >
Built In Bridge*	Default
Privacy*	Default
Device Mobility Mode*	Default <a href="#">View Current Device Mobility Settings</a>
Owner User ID	< None >
Phone Load Name	

Done Local Intranet



Phone Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Refresh Print Mail Phone

Address <https://172.20.110.254:8443/ccmadmin/deviceEdit.do?key=a0eae5b-6d54-439b-8063-73426cffe3c> Go Links

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Phone Configuration Related Links: Back To Find/List Go

Save Delete Copy Reset Add New

Retry Video Call as Audio  
 Ignore Presentation Indicators (internal calls only)  
 Allow Control of Device from CTI  
 Logged Into Hunt Group  
 Remote Device

**Protocol Specific Information**

Packet Capture Mode\* None  
Packet Capture Duration 0  
Presence Group\* Standard Presence group  
Device Security Profile\* Cisco 7960 - Standard SCCP Non-Secure Profile  
SUBSCRIBE Calling Search Space < None >

Unattended Port  
 Require DTMF Reception  
 RFC2833 Disabled

**Certification Authority Proxy Function (CAPF) Information**

Certificate Operation\* No Pending Operation  
Authentication Mode\* By Null String  
Authentication String  
Generate String  
Key Size (Bits)\* 1024  
Operation Completes By 2007 6 25 12 (YYYY:MM:DD:HH)  
Certificate Operation Status: None  
Note: Security Profile Contains Addition CAPF Settings.

**Expansion Module Information**

Module 1 < None >  
Module 1 Load Name  
Module 2 < None >  
Module 2 Load Name

Local intranet



Phone Configuration - Microsoft Internet Explorer

Address: https://172.20.110.254:8443/ccadmin/deviceEdit.do?key=a0eae5b-6d54-439b-8063-73426cffe3c

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System | Call Routing | Media Resources | Voice Mail | Device | Application | User Management | Bulk Administration | Help

Phone Configuration | Related Links: Back To Find/List

Save | Delete | Copy | Reset | Add New

**External Data Locations Information (Leave blank to use default)**

Information:   
Directory:   
Messages:   
Services:   
Authentication Server:   
Proxy Server:   
Idle:   
Idle Timer (seconds):

**Extension Information**

Enable Extension Mobility  
Log Out Profile: -- Use Current Device Settings --  
Log in Time: < None >  
Log out Time: < None >

**MLPP Information**

MLPP Domain: < None >  
MLPP Indication\*: Default  
MLPP Preemption\*: Default

**Do Not Disturb**

Do Not Disturb  
DND Option\*: Ringer Off  
DND Incoming Call Alert: < None >

**Product Specific Configuration Layout**

Disable Speakerphone  
 Disable Speakerphone and Headset  
PC Port \*: Enabled

Settings Access\*: Enabled  
Gratuitous ARP\*: Enabled  
PC Voice VLAN Access\*: Enabled  
Video Capabilities\*: Disabled  
Auto Line Select\*: Disabled  
Web Access\*: Enabled

Save | Delete | Copy | Reset | Add New

**i** \*- indicates required item.  
**i** \*\*- Device reset is not required for changes to Packet Capture Mode and Packet Capture Duration.  
**i** \*\*\*Note: Security Profile Contains Addition CAPF Settings.



Directory Number Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Refresh Print Mail

Address: https://172.20.110.254:8443/ccmadmin/directoryNumberEdit.do?key=2f71871e-ecb0-925d-1bd1-23c94081253e&mapkey=84314f31-503d-204f-19e2-0256504c17cd&devicekey=a0eae5b-6d54-439b-8063-73426cffe3c&inc

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System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help

**Directory Number Configuration** Related Links: Configure Device (SEP000A416B8539) Go

Save Delete Reset Add New

**Status**  
Status: Ready

**Directory Number Information**

Directory Number\* 3011

Route Partition Phones

Description

Alerting Name Rafa Marquez

ASCII Alerting Name Rafa Marquez

Allow Control of Device from CTI

Associated Devices SEP000A416B8539

Dissociate Devices

**Directory Number Settings**

Voice Mail Profile < None > (Choose <None> to use system default)

Calling Search Space PhonesCSS

Presence Group\* Standard Presence group

User Hold MOH Audio Source < None >

Network Hold MOH Audio Source < None >

Auto Answer\* Auto Answer Off

**AAR Settings**

	Voice Mail	AAR Destination Mask	AAR Group
AAR	<input type="checkbox"/> or		< None >

Retain this destination in the call forwarding history

Done Local intranet



Directory Number Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites Print Mail News RSS

Address <https://172.20.110.254:8443/ccmadmin/directoryNumberEdit.do?key=2f71871e-ecb0-925d-1bd1-23c94081253e&mapkey=84314f31-503d-204f-19e2-0256504c17cd&devicekey=a0eae5b-6d54-439b-8063-73426cffe3c8inc> Go Links

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Directory Number Configuration Related Links: Configure Device (SEP000A416B8539) Go

Save Delete Reset Add New

### Call Forward and Call Pickup Settings

	Voice Mail	Destination	Calling Search Space
Calling Search Space Activation Policy			Use System Default
Forward All	<input type="checkbox"/> or	<input type="text"/>	< None >
Secondary Calling Search Space for Forward All			< None >
Forward Busy Internal	<input type="checkbox"/> or	<input type="text"/>	< None >
Forward Busy External	<input type="checkbox"/> or	<input type="text"/>	< None >
Forward No Answer Internal	<input type="checkbox"/> or	<input type="text"/>	< None >
Forward No Answer External	<input type="checkbox"/> or	<input type="text"/>	< None >
Forward No Coverage Internal	<input type="checkbox"/> or	<input type="text"/>	< None >
Forward No Coverage External	<input type="checkbox"/> or	<input type="text"/>	< None >
Forward on CTI Failure	<input type="checkbox"/> or	<input type="text"/>	< None >
Forward Unregistered Internal	<input type="checkbox"/> or	<input type="text"/>	< None >
Forward Unregistered External	<input type="checkbox"/> or	<input type="text"/>	< None >
No Answer Ring Duration (seconds)	<input type="text"/>		
Call Pickup Group			< None >

### MLPP Alternate Party Settings

Target (Destination)

MLPP Calling Search Space < None >

MLPP No Answer Ring Duration (seconds)

### Line Settings for All Devices

Hold Reversion Ring Duration (seconds)  Setting the Hold Reversion Ring Duration to zero will disable the feature

Hold Reversion Notification Interval (seconds)  Setting the Hold Reversion Notification Interval to zero will disable the feature

### Line 1 on Device SEP000A416B8539

Display (Internal Caller ID)  Display text for a line appearance is intended for displaying text such as a name instead of a directory number for internal calls. If you specify a number, the person receiving a call may not see the proper identity of the caller.

Done Local intranet



Directory Number Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address: https://172.20.110.254:8443/ccmadmin/directoryNumberEdit.do?key=2f71871e-ecb0-925d-1bd1-23c94081253e&mapkey=84314f31-503d-204f-19e2-0256504c17cd&devicekey=a0eae5b-6d54-439b-8063-73426cffe3c8inc

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Directory Number Configuration Related Links: Configure Device (SEP000A416B8539)

Save Delete Reset Add New

ASCII Display (Internal Caller ID)

Line Text Label

ASCII Line Text Label

External Phone Number Mask

Visual Message Waiting Indicator Policy\*

Ring Setting (Phone Idle)\*

Ring Setting (Phone Active)  Applies to this line when any line on the phone has a call in progress.

Call Pickup Group Audio Alert Setting(Phone Idle)

Call Pickup Group Audio Alert Setting(Phone Active)

Monitoring Calling Search Space

**Multiple Call/Call Waiting Settings on Device SEP000A416B8539**

Note: The range to select the Max Number of calls is: 1-200

Maximum Number of Calls\*

Busy Trigger\*  (Less than or equal to Max. Calls)

**Forwarded Call Information Display on Device SEP000A416B8539**

Caller Name

Caller Number

Redirected Number

Dialed Number

**Users Associated with Line**

\*. indicates required item.

Done Local intranet



## CTI Route Points

Find and List CTI Route Points - Microsoft Internet Explorer

Address: <https://172.20.110.254:8443/ccmadmin/ctiRoutePointFindList.do?<%=reqParams%>&recCnt=0&colCnt=3>

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System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help

### Find and List CTI Route Points

+ Add New Select All Clear All Delete Selected Reset Selected

**Status**  
2 records found

**CTI Route Point (1 - 2 of 2)** Rows per Page 50

Find CTI Route Point where Device Name begins with Find Clear Filter Select item or enter search text

<input type="checkbox"/>	Device Name ^	Description	Device Pool	Calling Search Space	Partition	Extension	Status	IP Address	Copy
<input type="checkbox"/>	<a href="#">RP911</a>	RP911	Default	E911CSS	Phones	911	Registered with CM-BARZA	172.20.110.254	
<input type="checkbox"/>	<a href="#">RPELIN913</a>	RPELIN913	Default	E911CSS	E911	913XXXXXXXXXX	Registered with CM-BARZA	172.20.110.254	

Add New Select All Clear All Delete Selected Reset Selected

Done Local Intranet





## CTI Route Point 911

CTI Route Point Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites

Address <https://172.20.110.254:8443/ccmadmin/ctiRoutePointEdit.do?key=7c251286-8dd7-d6eb-3273-3b9866451bfe> Go Links

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**CTI Route Point Configuration** Related Links: Back To Find/List Go

Save Delete Copy Reset Add New

**Status**  
Status: Ready

**Device Information**

Registration	Registered with Cisco Unified Communications Manager CM-BARZA
IP Address	172.20.110.254
Device Name*	RP911
Description	RP911
Device Pool*	Default <a href="#">View Details</a>
Common Device Configuration	MigratedCommonDeviceConfig1 <a href="#">View Details</a>
Calling Search Space	E911CSS
Location*	Hub_None
User Locale	< None >
Media Resource Group List	< None >
Network Hold MOH Audio Source	< None >
User Hold MOH Audio Source	< None >

**Association Information**

- Line [1] - 911 in Phones
- Line [2] - Add a new DN

Save Delete Copy Reset Add New

\* - indicates required item.

Done Local Intranet



Directory Number Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address: https://172.20.110.254:8443/ccmadmin/directoryNumberEdit.do?key=1c21adc8-4a7f-c542-1edc-48dae579453a&mapkey=079adbfb-093d-f2c8-582e-48360dc5096c&devicekey=7c251286-8dd7-d6eb-3273-3b9866451bfe&in

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Directory Number Configuration Related Links: Configure Device (RP911) Go

Save Delete Reset Add New

**Status**  
Status: Ready

**Directory Number Information**

Directory Number\*: 911  
Route Partition: Phones  
Description:  
Alerting Name:  
ASCII Alerting Name:  
Associated Devices: RP911  
Dissociate Devices:

Edit Device  
Edit Line Appearance

**Directory Number Settings**

Voice Mail Profile: < None > (Choose <None> to use system default)  
Calling Search Space: E911CSS  
Presence Group\*: Standard Presence group  
User Hold MOH Audio Source: < None >  
Network Hold MOH Audio Source: < None >

**AAR Settings**

	Voice Mail	AAR Destination Mask	AAR Group
AAR	<input type="checkbox"/>		< None >

Retain this destination in the call forwarding history

**Call Forward and Call Pickup Settings**

	Voice Mail	Destination	Calling Search Space
Calling Search Space Activation Policy			Use System Default

Done Local intranet



Directory Number Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address: https://172.20.110.254:8443/ccmadmin/directoryNumberEdit.do?key=1c21adc8-4a7f-c542-1edc-48dae579453a&mapkey=079adfbf-093d-f2c8-582e-48360dc5096c&devicekey=7c251286-8dd7-d6eb-3273-3b9866451bfe&in

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**Directory Number Configuration** Related Links: Configure Device (RP911) Go

Save Delete Reset Add New

	Voice Mail	Destination	Calling Search Space
Calling Search Space Activation Policy			Use System Default
Forward All	<input type="checkbox"/> or		< None >
Secondary Calling Search Space for Forward All			< None >
Forward Busy Internal	<input type="checkbox"/> or	912	E911CSS
Forward Busy External	<input type="checkbox"/> or	912	E911CSS
Forward No Answer Internal	<input type="checkbox"/> or	912	E911CSS
Forward No Answer External	<input type="checkbox"/> or	912	E911CSS
Forward No Coverage Internal	<input type="checkbox"/> or		< None >
Forward No Coverage External	<input type="checkbox"/> or		< None >
Forward on CTI Failure	<input type="checkbox"/> or	912	E911CSS
Forward Unregistered Internal	<input type="checkbox"/> or	912	E911CSS
Forward Unregistered External	<input type="checkbox"/> or	912	E911CSS
No Answer Ring Duration (seconds)			
Call Pickup Group			< None >

**MLPP Alternate Party Settings**

Target (Destination)

MLPP Calling Search Space < None >

MLPP No Answer Ring Duration (seconds)

**Line Settings for All Devices**

Hold Reversion Ring Duration (seconds)  Setting the Hold Reversion Ring Duration to zero will disable the feature

Hold Reversion Notification Interval (seconds)  Setting the Hold Reversion Notification Interval to zero will disable the feature

**Line 1 on Device RP911**

Display (Internal Caller ID)  Display text for a line appearance is intended for displaying text such as a name instead of a directory number for internal calls. If you specify a number, the person receiving a call may not see the proper identity of the caller.

ASCII Display (Internal Caller ID)

Done Local intranet



External Phone Number Mask

**Multiple Call/Call Waiting Settings on Device RP911**

Note: The range to select the Max Number of calls is: 1-10000

Maximum Number of Calls\*

Busy Trigger\*  (Less than or equal to Max. Calls)

**Forwarded Call Information Display on Device RP911**

- Caller Name
- Caller Number
- Redirected Number
- Dialed Number

**Users Associated with Line**

\* - indicates required item.

\*\* - Changes to Line or Directory Number settings require restart.



## CTI Route Point 913

CTI Route Point Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites

Address <https://172.20.110.254:8443/ccmadmin/ctiRoutePointEdit.do?key=1b95290e-3877-49e0-2105-fee98e3579dc> Go Links

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**CTI Route Point Configuration** Related Links: Back To Find/List Go

Save Delete Copy Reset Add New

**Status**  
Status: Ready

**Device Information**

Registration	Registered with Cisco Unified Communications Manager CM-BARZA
IP Address	172.20.110.254
Device Name*	<input type="text" value="RPELIN913"/>
Description	<input type="text" value="RPELIN913"/>
Device Pool*	Default <a href="#">View Details</a>
Common Device Configuration	MigratedCommonDeviceConfig1 <a href="#">View Details</a>
Calling Search Space	E911CSS
Location*	Hub_None
User Locale	< None >
Media Resource Group List	< None >
Network Hold MOH Audio Source	< None >
User Hold MOH Audio Source	< None >

**Association Information**

- Line [1] - 913XXXXXXXXX in E911
- Line [2] - Add a new DN

Save Delete Copy Reset Add New

\* - indicates required item.

Done Local Intranet



Directory Number Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Refresh Print Mail

Address: https://172.20.110.254:8443/ccmadmin/directoryNumberEdit.do?key=637289df-f3bc-5656-2c62-a2d2dfb4e0d8&mapkey=d2aa8772-1860-ea8b-9c50-4a07b3bb3081&devicekey=1b95290e-3877-49e0-2105-fee98e3579dc&ar Go Links

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**Directory Number Configuration** Related Links: Configure Device (RPELIN913) Go

Save Delete Reset Add New

**Status**  
Status: Ready

**Directory Number Information**

Directory Number\* 913XXXXXXXXXX

Route Partition E911

Description

Alerting Name

ASCII Alerting Name

Associated Devices: RPELIN913

Edit Device Edit Line Appearance

Dissociate Devices

**Directory Number Settings**

Voice Mail Profile < None > (Choose <None> to use system default)

Calling Search Space E911CSS

Presence Group\* Standard Presence group

User Hold MOH Audio Source < None >

Network Hold MOH Audio Source < None >

**AAR Settings**

	Voice Mail	AAR Destination Mask	AAR Group
AAR	<input type="checkbox"/> or		< None >

Retain this destination in the call forwarding history

**Call Forward and Call Pickup Settings**

	Voice Mail	Destination	Calling Search Space
Calling Search Space Activation Policy			Use System Default

Done Local intranet



Directory Number Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Refresh Mail Print

Address <https://172.20.110.254:8443/ccadmin/directoryNumberEdit.do?key=637289df-f3bc-5656-2c62-a2d2dfb4e0d8&mapkey=d2aa8772-1860-ea8b-9c50-4a07b3bb3081&devicekey=1b95290e-3877-49e0-2105-fee98e3579dc&sr> Go Links

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**Directory Number Configuration** Related Links: Configure Device (RPELIN913) Go

Save Delete Reset Add New

**Calling Search Space Activation Policy**

Forward All	<input type="checkbox"/> or	<input type="text"/>	Use System Default
Secondary Calling Search Space for Forward All			< None >
Forward Busy Internal	<input type="checkbox"/> or	<input type="text"/>	< None >
Forward Busy External	<input type="checkbox"/> or	<input type="text"/>	< None >
Forward No Answer Internal	<input type="checkbox"/> or	<input type="text"/>	< None >
Forward No Answer External	<input type="checkbox"/> or	<input type="text"/>	< None >
Forward No Coverage Internal	<input type="checkbox"/> or	<input type="text"/>	< None >
Forward No Coverage External	<input type="checkbox"/> or	<input type="text"/>	< None >
Forward on CTI Failure	<input type="checkbox"/> or	<input type="text"/>	< None >
Forward Unregistered Internal	<input type="checkbox"/> or	<input type="text"/>	< None >
Forward Unregistered External	<input type="checkbox"/> or	<input type="text"/>	< None >

No Answer Ring Duration (seconds)

Call Pickup Group

**MLPP Alternate Party Settings**

Target (Destination)

MLPP Calling Search Space

MLPP No Answer Ring Duration (seconds)

**Line Settings for All Devices**

Hold Reversion Ring Duration (seconds)  Setting the Hold Reversion Ring Duration to zero will disable the feature

Hold Reversion Notification Interval (seconds)  Setting the Hold Reversion Notification Interval to zero will disable the feature

**Line 1 on Device RPELIN913**

Display (Internal Caller ID)  Display text for a line appearance is intended for displaying text such as a name instead of a directory number for internal calls. If you specify a number, the person receiving a call may not see the proper identity of the caller.

ASCII Display (Internal Caller ID)

External Phone

Done Local intranet



External Phone Number Mask

---

**Multiple Call/Call Waiting Settings on Device RPELIN913**  
Note: The range to select the Max Number of calls is: 1-10000  
Maximum Number of Calls\*   
Busy Trigger\*  (Less than or equal to Max. Calls)

---

**Forwarded Call Information Display on Device RPELIN913**  
 Caller Name  
 Caller Number  
 Redirected Number  
 Dialed Number

---

**Users Associated with Line**

---

\*- indicates required item.  
 \*\*- Changes to Line or Directory Number settings require restart.

Done Local intranet

Note: A Backup CER server was not used during testing therefore CTI route point for 912 was not created.





## CTI Port

Phone Configuration - Microsoft Internet Explorer

Address: https://172.20.110.254:8443/ccmadmin/deviceEdit.do?key=a9bc72f0-90ea-7ed2-cd27-745866143128

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Phone Configuration | Related Links: Back To Find/List | Go

Save | Delete | Copy | Reset | Add New

**Status**  
Status: Ready

**Association Information**

- 1 [Line \[1\] - 4250 in Phones](#)
- 2 [Line \[2\] - Add a new DN](#)
- 3 [Intercom \[1\] - Add a new Intercom](#)

**Phone Type**  
Product Type: CTI Port  
Device Protocol: SCCP

**Device Information**

Registration: Registered with Cisco Unified Communications Manager CM-BARZA

IP Address: 172.20.8.50

Device Name\*: CERSec1

Description:

Device Pool\*: Default [View Details](#)

Common Device Configuration: MigratedCommonDeviceConfig1 [View Details](#)

Common Phone Profile\*: Standard Common Phone Profile

Calling Search Space: PhonesCSS

AAR Calling Search Space: < None >

Media Resource Group List: < None >

User Hold MOH Audio Source: < None >

Network Hold MOH Audio Source: < None >

Location\*: Hub\_None

AAR Group: < None >

User Locale: < None >

Network Locale: < None >

Privacy\*: Default

Device Mobility Mode\*: Default [View Current Device Mobility Settings](#)

Owner User ID: < None >

Ignore Presentation Indicators (internal calls only)

Logged Into Hunt Group

Remote Device

**Protocol Specific Information**

Presence Group\*: Standard Presence group

Device Security Profile\*: Cisco CTI Port - Standard SCCP Non-Secure Profil

SUBSCRIBE Calling Search Space: < None >

Unattended Port

**MLPP Information**

MLPP Domain: < None >

Save | Delete | Copy | Reset | Add New

**Legend:**

- \* - indicates required item.
- \*\* - Device reset is not required for changes to Packet Capture Mode and Packet Capture Duration.
- \*\*\*Note: Security Profile Contains Addition CAPF Settings.



Directory Number Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address: https://172.20.110.254:8443/ccmadmin/directoryNumberEdit.do?key=c779c4ae-5c60-faad-0f80-024fd981d9c8mapkey=a8098e38-7fd2-da50-a860-92f9a2d6b4a4&devicekey=a9bc72f0-90ea-7ed2-cd27-745866143128&inc

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Directory Number Configuration Related Links: Configure Device (CERSec1) Go

Save Delete Reset Add New

**Status**  
Status: Ready

**Directory Number Information**

Directory Number\* 4250

Route Partition Phones

Description

Alerting Name

ASCII Alerting Name

Associated Devices: CERSec1

Edit Device Edit Line Appearance

Dissociate Devices

**Directory Number Settings**

Voice Mail Profile < None > (Choose <None> to use system default)

Calling Search Space PhonesCSS

Presence Group\* Standard Presence group

User Hold MOH Audio Source < None >

Network Hold MOH Audio Source < None >

**AAR Settings**

	Voice Mail	AAR Destination Mask	AAR Group
AAR	<input type="checkbox"/> or		< None >

Retain this destination in the call forwarding history

**Call Forward and Call Pickup Settings**

	Voice Mail	Destination	Calling Search Space
Calling Search Space Activation Policy			Use System Default

Done Local intranet



Directory Number Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address: https://172.20.110.254:8443/ccmadmin/directoryNumberEdit.do?key=c779c4ae-5c60-faad-0f80-024fd981d9c8mapkey=a8098e38-7fd2-da50-a860-92f9a2d6b4a4&devicekey=a9bc72f0-90ea-7ed2-cd27-745866143128&inc

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**Directory Number Configuration** Related Links: Configure Device (CERSec1) Go

Save Delete Reset Add New

**Calling Search Space Activation Policy**

Forward All	<input type="checkbox"/> or	<input type="text"/>	Use System Default
Secondary Calling Search Space for Forward All			< None >
Forward Busy Internal	<input type="checkbox"/> or	<input type="text"/>	< None >
Forward Busy External	<input type="checkbox"/> or	<input type="text"/>	< None >
Forward No Answer Internal	<input type="checkbox"/> or	<input type="text"/>	< None >
Forward No Answer External	<input type="checkbox"/> or	<input type="text"/>	< None >
Forward No Coverage Internal	<input type="checkbox"/> or	<input type="text"/>	< None >
Forward No Coverage External	<input type="checkbox"/> or	<input type="text"/>	< None >
Forward on CTI Failure	<input type="checkbox"/> or	<input type="text"/>	< None >
Forward Unregistered Internal	<input type="checkbox"/> or	<input type="text"/>	< None >
Forward Unregistered External	<input type="checkbox"/> or	<input type="text"/>	< None >

No Answer Ring Duration (seconds)

Call Pickup Group

**MLPP Alternate Party Settings**

Target (Destination)

MLPP Calling Search Space

MLPP No Answer Ring Duration (seconds)

**Line Settings for All Devices**

Hold Reversion Ring Duration (seconds)  Setting the Hold Reversion Ring Duration to zero will disable the feature

Hold Reversion Notification Interval (seconds)  Setting the Hold Reversion Notification Interval to zero will disable the feature

**Line 1 on Device CERSec1**

Display (Internal Caller ID)  Display text for a line appearance is intended for displaying text such as a name instead of a directory number for internal calls. If you specify a number, the person receiving a call may not see the proper identity of the caller.

ASCII Display (Internal Caller ID)

Line Text Label

Done Local intranet



Line Text Label	<input type="text"/>
ASCII Line Text Label	<input type="text"/>
External Phone Number Mask	<input type="text"/>
Visual Message Waiting Indicator Policy*	<input type="text" value="Use System Policy"/>
Monitoring Calling Search Space	<input type="text" value="&lt; None &gt;"/>

**Multiple Call/Call Waiting Settings on Device CERSec1**

Note: The range to select the Max Number of calls is: 1-200

Maximum Number of Calls*	<input type="text" value="4"/>
Busy Trigger*	<input type="text" value="2"/> (Less than or equal to Max. Calls)

**Forwarded Call Information Display on Device CERSec1**

- Caller Name
- Caller Number
- Redirected Number
- Dialed Number

**Users Associated with Line**

- \*- indicates required item.
- \*\*- Changes to Line or Directory Number settings require restart.



## Route Patterns for ELINs

Find and List Route Patterns - Microsoft Internet Explorer

Address: <https://172.20.110.254:8443/ccmadmin/routePattern2FindList.do>

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### Find and List Route Patterns

+ Add New | Select All | Clear All | Delete Selected

**Status**  
9 records found

#### Route Patterns (1 - 9 of 9)

Rows per Page: 50

Find Route Patterns where: Pattern begins with Find Clear Filter

<input type="checkbox"/>	Pattern ^	Description	Partition	Route Filter	Associated Device	Copy
<input type="checkbox"/>	<a href="#">10.911</a>		<a href="#">E911</a>		<a href="#">172.20.8.26</a>	
<input type="checkbox"/>	<a href="#">11.911</a>		<a href="#">E911</a>		<a href="#">172.20.8.26</a>	
<input type="checkbox"/>	<a href="#">13.911</a>		<a href="#">E911</a>		<a href="#">172.20.8.26</a>	
<input type="checkbox"/>	<a href="#">2XXX</a>		<a href="#">Phones</a>			
<input type="checkbox"/>	<a href="#">40XX</a>				<a href="#">S1/DS1-0@tonycmm</a>	
<input type="checkbox"/>	<a href="#">41XXX</a>					
<input type="checkbox"/>	<a href="#">42XX</a>				<a href="#">172.20.3.225</a>	
<input type="checkbox"/>	<a href="#">7XXX</a>					
<input type="checkbox"/>	<a href="#">9.2</a>		<a href="#">Phones</a>		<a href="#">S0/DS1-0@SDA00027E399AFA</a>	

Add New | Select All | Clear All | Delete Selected

Done Local Intranet



## Route Pattern 10911

Route Pattern Configuration - Microsoft Internet Explorer

Address: https://172.20.110.254:8443/ccmadmin/routePattern2Save.do

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Route Pattern Configuration Related Links: Back To Find/List Go

Save Delete Copy Add New

**Status**  
Update successful

**Pattern Definition**

Route Pattern\* 10\_911  
Route Partition E911  
Description  
Numbering Plan -- Not Selected --  
Route Filter < None >  
MLPP Precedence\* Default  
Gateway/Route List\* 172.20.8.26 (Edit)  
Route Option  
 Route this pattern  
 Block this pattern No Error  
Call Classification\* OffNet  
 Allow Device Override  Provide Outside Dial Tone  Allow Overlap Sending  Urgent Priority  
 Require Forced Authorization Code  
Authorization Level\* 0  
 Require Client Matter Code

**Calling Party Transformations**

Use Calling Party's External Phone Number Mask  
Calling Party Transform Mask  
Prefix Digits (Outgoing Calls)  
Calling Line ID Presentation\* Allowed  
Calling Name Presentation\* Default

**Connected Party Transformations**

Connected Line ID Presentation\* Default  
Connected Name Presentation\* Default

**Called Party Transformations**

Discard Digits PreDot  
Called Party Transform Mask  
Prefix Digits (Outgoing Calls)

**ISDN Network-Specific Facilities Information Element**

Network Service Protocol PRI NI2  
Carrier Identification Code < Not Configurable >  
Network Service Service Parameter Name Service Parameter Value  
Foreign Exchange Selection Foreign Exchange

Save Delete Copy Add New

\* - indicates required item.



## Route Pattern 11911

Route Pattern Configuration - Microsoft Internet Explorer

Address: https://172.20.110.254:8443/ccmadmin/routePattern2Save.do

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Route Pattern Configuration Related Links: Back To Find/List Go

Save Delete Copy Add New

**Status**  
Update successful

**Pattern Definition**

Route Pattern\* 11.911  
Route Partition E911  
Description  
Numbering Plan -- Not Selected --  
Route Filter < None >  
MLPP Precedence\* Default  
Gateway/Route List\* 172.20.8.26 (Edit)  
Route Option  
 Route this pattern  
 Block this pattern No Error  
Call Classification\* OffNet  
 Allow Device Override  Provide Outside Dial Tone  Allow Overlap Sending  Urgent Priority  
 Require Forced Authorization Code  
Authorization Level\* 0  
 Require Client Matter Code

**Calling Party Transformations**

Use Calling Party's External Phone Number Mask  
Calling Party Transform Mask  
Prefix Digits (Outgoing Calls)  
Calling Line ID Presentation\* Default  
Calling Name Presentation\* Default

**Connected Party Transformations**

Connected Line ID Presentation\* Default  
Connected Name Presentation\* Default

**Called Party Transformations**

Discard Digits PreDot  
Called Party Transform Mask  
Prefix Digits (Outgoing Calls)

**ISDN Network-Specific Facilities Information Element**

Network Service Protocol PRI NI2  
Carrier Identification Code < Not Configurable >  
Network Service Service Parameter Name Service Parameter Value  
Foreign Exchange Selection Foreign Exchange

Save Delete Copy Add New

\* - indicates required item.



## Route Pattern 13911

Route Pattern Configuration - Microsoft Internet Explorer

Address: https://172.20.110.254:8443/ccmadmin/routePattern2Save.do

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Route Pattern Configuration Related Links: Back To Find/List Go

Save Delete Copy Add New

**Status**  
Update successful

**Pattern Definition**

Route Pattern\* 13.911  
Route Partition E911  
Description  
Numbering Plan -- Not Selected --  
Route Filter < None >  
MLPP Precedence\* Default  
Gateway/Route List\* 172.20.8.26 (Edit)  
Route Option  
 Route this pattern  
 Block this pattern No Error  
Call Classification\* OffNet  
 Allow Device Override  Provide Outside Dial Tone  Allow Overlap Sending  Urgent Priority  
 Require Forced Authorization Code  
Authorization Level\* 0  
 Require Client Matter Code

**Calling Party Transformations**

Use Calling Party's External Phone Number Mask  
Calling Party Transform Mask  
Prefix Digits (Outgoing Calls)  
Calling Line ID Presentation\* Allowed  
Calling Name Presentation\* Default

**Connected Party Transformations**

Connected Line ID Presentation\* Default  
Connected Name Presentation\* Default

**Called Party Transformations**

Discard Digits PreDot  
Called Party Transform Mask  
Prefix Digits (Outgoing Calls)

**ISDN Network-Specific Facilities Information Element**

Network Service Protocol PRI NI2  
Carrier Identification Code < Not Configurable >  
Network Service Service Parameter Name Service Parameter Value  
Foreign Exchange Selection Foreign Exchange

Save Delete Copy Add New

\* - indicates required item.





## Translation Pattern for ELINs

Translation Pattern Configuration - Microsoft Internet Explorer

Address: https://172.20.110.254:8443/ccmadmin/translationEdit.do?key=b26f7d56-8ca5-a20d-5ba3-bf5c8974e01a

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### Translation Pattern Configuration

Related Links: Back To Find/List | Go

Save | Delete | Copy | Add New

**Status**  
Status: Ready

**Pattern Definition**

Translation Pattern: 408527XXXX

Partition: E911

Description:

Numbering Plan: < None >

Route Filter: < None >

MLPP Precedence\*: Default

Calling Search Space: E911CSS

Route Option:  
 Route this pattern  
 Block this pattern: No Error

Provide Outside Dial Tone  
 Urgent Priority

**Calling Party Transformations**

Use Calling Party's External Phone Number Mask

Calling Party Transform Mask:

Prefix Digits (Outgoing Calls):

Calling Line ID Presentation\*: Default

Calling Name Presentation\*: Default

**Connected Party Transformations**

Connected Line ID Presentation\*: Default

Connected Name Presentation\*: Default

**Called Party Transformations**

Discard Digits: < None >

Called Party Transform Mask:

Prefix Digits (Outgoing Calls): 913

Done

Done

Save | Delete | Copy | Add New

\* - indicates required item.

Done



## PSAP Gateway configuration (CAMA TRUNK)

Gateway Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <https://172.20.110.254:8443/ccmadmin/gatewayEdit.do?key=f35658cd-ed4f-1059-5a93-4d638375eca1>

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**Gateway Configuration** Related Links: Back To Find/List Go

Save Delete Copy Reset Add New

**Status**  
Status: Ready

**Device Information**

Product	H.323 Gateway
Device Protocol	H.225
Registration	Unknown
IP Address	172.20.8.26
Device Name*	<input type="text" value="172.20.8.26"/>
Description	<input type="text" value="172.20.8.26"/>
Device Pool*	Default
Common Device Configuration	< None >
Call Classification*	Use System Default
Media Resource Group List	< None >
Packet Capture Mode*	None
Packet Capture Duration	0
Location*	Hub_None
AAR Group	< None >
Tunneled Protocol*	None
Signaling Port*	1720

Media Termination Point Required  
 Retry Video Call As Audio  
 Wait for Far End H.245 Terminal Capability Set  
 Path Replacement Support  
 Transmit UTF-8 for Calling Party Name  
 SRTP Allowed - When this flag is checked, IPSec needs to be configured in the network to provide end to end security. Failure to do so will expose keys and other information.

**Multilevel Precedence and Preemption (MLPP) Information**

MLPP Domain	< None >
MLPP Indication	Not available on this device
MLPP Preemption	Not available on this device

Done Local Intranet



**Call Routing Information - Inbound Calls**

Significant Digits\*

Calling Search Space

AAR Calling Search Space

Prefix DN

Redirecting Number IE Delivery - Inbound

Enable Inbound FastStart

**Call Routing Information - Outbound Calls**

Calling Party Selection\*

Calling Party Presentation\*

Called party IE number type unknown\*

Calling party IE number type unknown\*

Called Numbering Plan\*

Calling Numbering Plan\*

Caller ID DN

Display IE Delivery

Redirecting Number IE Delivery - Outbound

Enable Outbound FastStart

Codec For Outbound FastStart

\* - indicates required item.

\*\* - Device reset is not required for changes to Packet Capture Mode and Packet Capture Duration.



## Cisco Unified Communications Manager User

End User Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites Recycle Bin Mail Print

Address <https://172.20.110.254:8443/ccmadmin/userEdit.do?key=f6956e8e-2b2b-11f5-ca9c-d43e77ee2718> Go Links >>

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**End User Configuration** Related Links: [Back to Find List Users](#) Go

Save Delete Add New

**Status**  
Status: Ready

**User Information**

User ID *	<input type="text" value="certest"/>
Password	<input type="password" value="....."/> <input type="button" value="Edit Credential"/>
Confirm Password	<input type="password" value="....."/>
PIN	<input type="password" value="....."/> <input type="button" value="Edit Credential"/>
Confirm PIN	<input type="password" value="....."/>
Last name *	<input type="text" value="CER"/>
Middle name	<input type="text"/>
First name	<input type="text"/>
Telephone Number	<input type="text"/>
Mail ID	<input type="text"/>
Manager User ID	<input type="text"/>
Department	<input type="text"/>
User Locale	< None >
Associated PC	<input type="text"/>
Digest Credentials	<input type="text"/>
Confirm Digest Credentials	<input type="text"/>

**Device Associations**

Controlled Devices	<input type="text" value="CERSec1&lt;br/&gt;RP911&lt;br/&gt;RPELIN913"/> <input type="button" value="Device Association"/>
--------------------	--

**Extension Mobility**

Available Profiles

Done Local Intranet



End User Configuration - Microsoft Internet Explorer

Address: https://172.20.110.254:8443/ccadmin/userEdit.do?key=f6956e8e-2b2b-11f5-ca9c-d43e77ee2718

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#### End User Configuration

Related Links: Back to Find List Users

Save | Delete | Add New

##### Extension Mobility

Available Profiles

Controlled Profiles

Default Profile: -- Not Selected --

Presence Group\*: Standard Presence group

SUBSCRIBE Calling Search Space: < None >

Allow Control of Device from CTI

##### Directory Number Associations

Primary Extension: < None >

##### Mobility Information

Enable Mobility

Enable Mobile Voice Access

Maximum Wait Time for Desk Pickup\*: 10000

Remote Destination Limit\*: 4

Remote Destination Profiles

Access Lists

[View Details](#)

[View Details](#)

##### CAPF Information

Associated CAPF Profiles

##### CAPF Information

Associated CAPF Profiles

[View Details](#)

##### Permissions Information

Groups	Standard CTI Allow Calling Number Modification Standard CTI Enabled	<a href="#">View Details</a>
Roles	Standard CTI Allow Calling Number Modification Standard CTI Enabled	<a href="#">View Details</a>

Save | Delete | Add New

**i** \*- indicates required item.



## T1-QSIG Gateway

Gateway Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Refresh Print Mail

Address <https://172.20.110.254:8443/ccadmin/gatewayEdit.do?key=8c8d2ef3-34f2-ad6a-956e-de05a3c92784> Go Links

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Gateway Configuration Related Links: Back to MGCP Configuration Go

Save Delete Reset

**Status**  
Status: Ready

**Device Information**

Product	Cisco MGCP T1 Port
Gateway	tonycmm
Device Protocol	Digital Access PRI
Registration	Registered with Cisco Unified Communications Manager CM-BARZA
IP Address	172.20.8.253
End-Point Name *	S1/DS1-0@tonycmm
Description	<input type="text" value="S1/DS1-0@tonycmm"/>
Device Pool*	<input type="text" value="Default"/>
Common Device Configuration	<input type="text" value="MigratedCommonDeviceConfig1"/>
Call Classification*	<input type="text" value="Use System Default"/>
NetworkLocale	<input type="text" value="&lt; None &gt;"/>
Media Resource Group List	<input type="text" value="&lt; None &gt;"/>
Location*	<input type="text" value="Hub_None"/>
AAR Group	<input type="text" value="&lt; None &gt;"/>
Load Information	<input type="text" value=""/>

Transmit UTF-8 for Calling Party Name

**Multilevel Precedence and Preemption (MLPP) Information**

MLPP Domain	<input type="text" value="&lt; None &gt;"/>
MLPP Indication	Not available on this device
MLPP Preemption	Not available on this device

**Interface Information**

PRI Protocol Type*	<input type="text" value="PRI ISO QSIG T1"/>
Protocol Side*	<input type="text" value="Network"/>
Channel Selection Order*	<input type="text" value="Bottom Up"/>
Channel IE Type*	<input type="text" value="Timeslot Number"/>
PCM Type*	<input type="text" value="μ-law"/>
Delay for first restart (1/8 sec ticks)*	<input type="text" value="32"/>

Done Local intranet



Gateway Configuration - Microsoft Internet Explorer

Address: https://172.20.110.254:8443/ccmadmin/gatewayT1E1PriSave.do?product=52&slot=1&subunit=0&port=0&endpoint=51/D51-08mgcpid=93d44834-ab29-4c9f-56ba-379879e108c0

**Cisco Unified CM Administration**  
For Cisco Unified Communications Solutions

Navigation: Cisco Unified CM Administration Go

CCMAdministrator | About | Logout

System | Call Routing | Media Resources | Voice Mail | Device | Application | User Management | Bulk Administration | Help

**Gateway Configuration** Related Links: Back to MGCP Configuration Go

Save Delete Reset

Delay between restarts (1/8 sec ticks)\* 4

Inhibit restarts at PRI initialization

Enable status poll

Unattended Port

**Call Routing Information - Inbound Calls**

Significant Digits\* All

Calling Search Space PhonesCSS

AAR Calling Search Space < None >

Prefix DN

**Call Routing Information - Outbound Calls**

Calling Party Presentation\* Default

Calling Party Selection\* Originator

Called party IE number type unknown\* Cisco CallManager

Calling party IE number type unknown\* Cisco CallManager

Called Numbering Plan\* Cisco CallManager

Calling Numbering Plan\* Cisco CallManager

Number of digits to strip\* 0

Caller ID DN

SMDI Base Port\* 0

**PRI Protocol Type Specific Information**

Display IE Delivery

Redirecting Number IE Delivery - Outbound

Redirecting Number IE Delivery - Inbound

Send Extra Leading Character in Display IE\*\*\*

Setup non-ISDN Progress Indicator IE Enable\*\*\*\*

MCDN Channel Number Extension Bit Set to Zero\*\*

Send Calling Name In Facility IE

Interface Identifier Present\*\*

Done Local intranet



Gateway Configuration - Microsoft Internet Explorer

Address: https://172.20.110.254:8443/ccmadmin/gatewayT1E1PriSave.do?product=52&slot=1&subunit=0&port=0&endpoint=51/D51-08mgcpid=93d44834-ab29-4c9f-56ba-379879e108c0

**Cisco Unified CM Administration**  
For Cisco Unified Communications Solutions

Navigation: Cisco Unified CM Administration Go

CCMAdministrator | About | Logout

System | Call Routing | Media Resources | Voice Mail | Device | Application | User Management | Bulk Administration | Help

Gateway Configuration Related Links: Back to MGCP Configuration Go

Save Delete Reset

Send Extra Leading Character in Display IE\*\*\*  
 Setup non-ISDN Progress Indicator IE Enable\*\*\*\*  
 MCDN Channel Number Extension Bit Set to Zero\*\*  
 Send Calling Name In Facility IE  
 Interface Identifier Present\*\*  
Interface Identifier Value\*\* 0  
Connected Line ID Presentation (QSIG Inbound Call)\* Default

**UUIE Configuration**

Passing Precedence Level Through UUIE  
Security Access Level\* 2

**Product Specific Configuration Layout**

Line Coding\* B8ZS  
Framing\* ESF  
Clock\* External  
Input Gain (-6..14 db)\* 0  
Output Attenuation (-6..14 db)\* 0  
Echo Cancellation Enable\* Enable  
Echo Cancel Coverage (ms)\* 64

Save Delete Reset

**Legend:**

- \* - indicates required item.
- \*\* - applies to DMS-100 protocol only.
- \*\*\* - applies to DMS-100 protocol and DMS-250 protocol only.
- \*\*\*\* - may be required to force ringback from some PBXs.
- \*\*\*\*\* - Device reset is not required for changes to Packet Capture Mode and Packet Capture Duration.

Done Local intranet





## Route Pattern to QSIG Trunk

The screenshot shows the Cisco Unified CM Administration web interface in Microsoft Internet Explorer. The browser title is "Route Pattern Configuration - Microsoft Internet Explorer". The address bar shows the URL: <https://172.20.110.254:8443/ccmadmin/routePattern2Edit.do?key=482e7089-863a-e4ee-c97a-48274ff7ac34>. The page title is "Route Pattern Configuration". The user is logged in as "CCMAdministrator".

The main content area is titled "Route Pattern Configuration" and includes a "Status: Ready" indicator. Below this, there are several sections for configuring the route pattern:

- Pattern Definition:**
  - Route Pattern\*: 40XX
  - Route Partition: < None >
  - Description: (empty)
  - Numbering Plan: -- Not Selected --
  - Route Filter: < None >
  - MLPP Precedence\*: Default
  - Gateway/Route List\*: S1/DS1-0@tonycmm (Edit)
  - Route Option:  Route this pattern,  Block this pattern (No Error)
  - Call Classification\*: OffNet
  - Allow Device Override,  Provide Outside Dial Tone,  Allow Overlap Sending,  Urgent Priority
  - Require Forced Authorization Code
  - Authorization Level\*: 0
  - Require Client Matter Code
- Calling Party Transformations:**
  - Use Calling Party's External Phone Number Mask
  - Calling Party Transform Mask: (empty)
  - Prefix Digits (Outgoing Calls): (empty)
  - Calling Line ID Presentation\*: Default
  - Calling Name Presentation\*: Default
- Connected Party Transformations:**
  - Connected Line ID Presentation\*: Default
  - Connected Name Presentation\*: Default

Note: For detailed information regarding QSIG interoperability between CCM and NEC PBX go to: [http://www.cisco.com/warp/public/779/largeent/avid/inter\\_operability/flash/portal.html](http://www.cisco.com/warp/public/779/largeent/avid/inter_operability/flash/portal.html)

## SNMP service must be active

Performance and Monitoring Services		
	Service Name	Activation Status
<input checked="" type="checkbox"/>	Cisco Serviceability Reporter	Activated
<input checked="" type="checkbox"/>	Cisco CallManager SNMP Service	Activated



## Configuring Cisco Emergency Responder

### Cisco Unified Communications Manager Details

Cisco Emergency Responder Administration - Microsoft Internet Explorer

Address: https://172.20.8.50:8443/ceradmin/servlet/CERAdminServlet

**Cisco Emergency Responder Administration**  
For Cisco Unified Communications Solutions

Navigation: Cisco ER Administration Go

Logged in as: CERAdministrator | About | Logout

System | ERL | Phone Tracking | ERL Membership | User Management | Reports | Tools | Help

#### Cisco Unified Communications Manager Clusters

**Status**  
Please enter any change for the current Cisco Unified Communications Manager

**Modify Cisco Unified Communications Manager Cluster**

Cisco Unified Communications Manager \* **172.20.110.254** [Cisco Unified Communications Managers List](#)

CTI Manager \*

CTI Manager User Name \*

CTI Manager Password \*

BackUp CTI Manager 1

BackUp CTI Manager 2

Telephony Port Begin Address

Number of Telephony Ports

**Secure Connection Parameters**

Enable Secure Connection \*\*

TFTP Server IP Address \*\*

TFTP Server Port \*\*

Backup TFTP Server IP Address

CAPF Server IP Address \*\*

CAPF Server Port \*\*

Instance ID for Publisher\*\*

Secure Authentication String for Publisher \*\*

#### Cisco Unified Communications Manager Clusters

Cisco Unified Communications Manager	Edit	Delete
<a href="#">172.20.110.254</a>		

Local intranet



## Cisco Emergency Responder Server group

Cisco Emergency Responder Administration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites Recycle Bin Mail Print

Address <https://172.20.8.50:8443/ceradmin/servlet/CERAdminServlet?formname=servergroupconfig> Go Links >>

**Cisco Emergency Responder Administration**  
For Cisco Unified Communications Solutions

Navigation Cisco ER Administration Go

Logged in as: CERAdministrator | About | Logout

System ERL Phone Tracking ERL Membership User Management Reports Tools Help

### Cisco ER Group Settings

**Status**  
Ready

**Specify server group attributes**

Cisco ER Group Name *	<input type="text" value="CERServerGroup"/>
Peer TCP Port *	<input type="text" value="17001"/>
Heart beat Count *	<input type="text" value="3"/>
Heart beat Interval (in sec) *	<input type="text" value="30"/>
Active Call Time out (in min) *	<input type="text" value="180"/>
SMTP Mail Server	<input type="text"/>
Source Mail ID	<input type="text"/>
System Administrator Mail ID	<input type="text"/>
SysLog	<input type="text" value="disable"/>
Syslog Server	<input type="text"/>
Notes	<input type="text"/>

**i** \* indicates required item \*\* required if SMTP Mail Server is configured \*\*\* required if SysLog is enabled

Done Local Intranet



## Telephony Settings

Cisco Emergency Responder Administration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites

Address <https://172.20.8.50:8443/ceradmin/servlet/CERAdminServlet?formname=telephony> Go Links

**Cisco Emergency Responder Administration**  
For Cisco Unified Communications Solutions

Navigation Cisco ER Administration Go

Logged in as: CERAdministrator | About | Logout

System ERL Phone Tracking ERL Membership User Management Reports Tools Help

### Telephony settings

**Status**  
Ready

**Specify telephony attributes**

Route Point for Primary Cisco ER Server *	<input type="text" value="911"/>
Route Point for Standby Cisco ER Server	<input type="text" value="912"/>
PSAP Callback Route Point Pattern *	<input type="text" value="913XXXXXXXXXX"/>
ELIN Digit Strip Pattern *	<input type="text" value="913"/>
UDP Port Begin *	<input type="text" value="32000"/>
Inter Cisco ER Group Route Pattern	<input type="text"/>
IP Type of service ( 00-FF ) *	<input type="text" value="0x b8"/>
Onsite Alert Prompt Repeat Count *	<input type="text" value="2"/>
Use IP Address from call signaling	<input checked="" type="checkbox"/> Enable (Effective only for Cisco Unified Communications Manager 6.0 and above)

**i** \* indicates required item

Done Local Intranet



## Server Settings

Cisco Emergency Responder Administration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites

Address <https://172.20.8.50:8443/ceradmin/servlet/CERAdminServlet?formname=server> Go Links

**Cisco Emergency Responder Administration**  
For Cisco Unified Communications Solutions

Navigation Cisco ER Administration Go

System ERL Phone Tracking ERL Membership User Management Reports Tools Help

Logged in as: CERAdministrator About Logout

### Server Settings for CERServerGroup

**Status**  
Ready

**Select Server**  
Publisher (primary)

**Modify Server Settings**

Server Name \* Publisher

Host Name CER

**Debug Package List**

<input checked="" type="checkbox"/> CER_DATABASE	<input checked="" type="checkbox"/> CER_SYSADMIN
<input checked="" type="checkbox"/> CER_REMOTEUPDATE	<input checked="" type="checkbox"/> CER_TELEPHONY
<input checked="" type="checkbox"/> CER_PHONETRACKINGENGINE	<input checked="" type="checkbox"/> CER_AGGREGATOR
<input checked="" type="checkbox"/> CER_ONSITEALERT	<input checked="" type="checkbox"/> CER_GROUP
<input checked="" type="checkbox"/> CER_CALLENGINE	<input checked="" type="checkbox"/> CER_CLUSTER

**Trace Package List**

<input checked="" type="checkbox"/> CER_DATABASE	<input checked="" type="checkbox"/> CER_SYSADMIN
<input checked="" type="checkbox"/> CER_REMOTEUPDATE	<input checked="" type="checkbox"/> CER_TELEPHONY
<input checked="" type="checkbox"/> CER_PHONETRACKINGENGINE	<input checked="" type="checkbox"/> CER_AGGREGATOR
<input checked="" type="checkbox"/> CER_ONSITEALERT	<input checked="" type="checkbox"/> CER_GROUP
<input checked="" type="checkbox"/> CER_CALLENGINE	<input checked="" type="checkbox"/> CER_CLUSTER

**i** \* indicates required item

Done Local Intranet



## ERLs List

Cisco Emergency Responder Administration - Microsoft Internet Explorer

Address: https://172.20.8.50:8443/ceradmin/servlet/CERAdminServlet?formname=zoneconfigframe

**Cisco Emergency Responder Administration**  
For Cisco Unified Communications Solutions

Navigation: Cisco ER Administration Go

Logged in as: CERAdministrator | About | Logout

System ▾ ERL ▾ Phone Tracking ▾ ERL Membership ▾ User Management ▾ Reports ▾ Tools ▾ Help ▾

Find ERL Data Export Import

**Status**  
Ready

**ERL Search Parameters**  
Find ERL where: ERL Name contains  Find and show 20 items per page

**ERL (1 - 4 of 4)**

ERL Name	Route/Translation Pattern--ELIN	Onsite Alert Ids.	Street Name	Community Name	State	Edit	Copy	Delete	Audit Trail
<a href="#">Default</a>	100911--4000		<a href="#">tasman</a>	<a href="#">cisco</a>	ca				<a href="#">view..</a>
<a href="#">Test 1</a>	10911--4085274....		<a href="#">tasman</a>	<a href="#">big sky</a>	ca				<a href="#">view..</a>
<a href="#">test 2</a>	11911--4085274....		<a href="#">tasman</a>	<a href="#">cisco</a>	ca				<a href="#">view..</a>
<a href="#">test 3</a>	13911--4085274....		<a href="#">tasman</a>	<a href="#">cisco</a>	ca				<a href="#">view..</a>

Go 1 of 1



ERL 1

Cisco Emergency Responder Administration - Microsoft Internet Explorer

**Cisco Emergency Responder Administration**  
For Cisco Unified Communications Solutions

ERL Information for Test 1

**ERL Settings**

ERL Name \* **Test 1**

Description

Test ERL (Used for Synthetic Testing)

**ELIN Settings**

Route/Translation pattern

ELIN

**Onsite Alert Settings**

Available Onsite Alert IDs

Onsite Alert IDs for the ERL

**ERL Address**

ALI Details

**i** \* indicates required item

Done Local intranet



ERL 2

Cisco Emergency Responder Administration - Microsoft Internet Explorer

**Cisco Emergency Responder Administration**  
For Cisco Unified Communications Solutions

ERL Information for test 2

**ERL Settings**

ERL Name \* **test 2**

Description

Test ERL (Used for Synthetic Testing)

**ELIN Settings**

Route/Translation pattern

ELIN

**Onsite Alert Settings**

Available Onsite Alert IDs

Onsite Alert IDs for the ERL

**ERL Address**

ALI Details

\* indicates required item

Done Local intranet





ERL 3

Cisco Emergency Responder Administration - Microsoft Internet Explorer

**Cisco Emergency Responder Administration**  
For Cisco Unified Communications Solutions

ERL Information for test 3

**ERL Settings**

ERL Name \* **test 3**

Description

Test ERL (Used for Synthetic Testing)

**ELIN Settings**

Route/Translation pattern

ELIN

**Onsite Alert Settings**

Available Onsite Alert IDs

Onsite Alert IDs for the ERL

**ERL Address**

ALI Details

**i** \* indicates required item

Done Local intranet



## SNMP connection

Cisco Emergency Responder Administration - Microsoft Internet Explorer

Address: https://172.20.8.50:8443/ceradmin/servlet/CERAdminServlet

**Cisco Emergency Responder Administration**  
For Cisco Unified Communications Solutions

Navigation: Cisco ER Administration

Logged in as: CERAdministrator | About | Logout

System | ERL | Phone Tracking | ERL Membership | User Management | Reports | Tools | Help

### SNMP Settings

**Status**  
Please enter any change for the current SNMP Setting

**Modify SNMP Community Setting**

IP Address/Host Name *	172.20.8.20
Timeout (in seconds) *	<input type="text" value="10"/>
Maximum Retry Attempts *	<input type="text" value="2"/>
Read Community	<input type="text" value="public"/>

### SNMP Settings

IP Address/Host Name	Timeout (in seconds)	Maximum Retry Attempts	Read Community	Delete
172.20.8.20	10	2	public	

\* indicates required item

Done | Local intranet



## LAN Switch identifying

Cisco Emergency Responder Administration - Microsoft Internet Explorer

Address: https://172.20.8.50:8443/ceradmin/servlet/CERAdminServlet

**Cisco Emergency Responder Administration**  
For Cisco Unified Communications Solutions

Navigation: Cisco ER Administration

Logged in as: CERAdministrator | About | Logout

System ▾ ERL ▾ Phone Tracking ▾ ERL Membership ▾ User Management ▾ Reports ▾ Tools ▾ Help ▾

### LAN Switch Details

Export Import

**Status**  
Please enter any change for the current LAN Switch

**LAN Switch Details**

Switch Host Name / IP Address \* **172.20.8.20**

Description

Enable CAM based Phone Tracking

### LAN Switches

Switch Host Name / IP Address	Edit	Delete
<a href="#">172.20.8.20</a>		

\* indicates required item

Done Local intranet



## Switch Port Details

Cisco Emergency Responder Administration - Microsoft Internet Explorer

Address: https://172.20.8.50:8443/ceradmin/servlet/CERAdminServlet?formname=ports

Cisco Emergency Responder Administration  
For Cisco Unified Communications Solutions

Navigation: Cisco ER Administration

Logged in as: CERAdministrator | About | Logout

System ▾ ERL ▾ Phone Tracking ▾ ERL Membership ▾ User Management ▾ Reports ▾ Tools ▾ Help ▾

### Switch Port Details

<input type="checkbox"/>	172.20.8.20	3/20	<a href="#">View</a>				
<input type="checkbox"/>	172.20.8.20	3/21	<a href="#">View</a>				
<input type="checkbox"/>	172.20.8.20	3/22	<a href="#">View</a>				
<input type="checkbox"/>	172.20.8.20	3/23	<a href="#">View</a>				
<input type="checkbox"/>	172.20.8.20	3/24	<a href="#">View</a>				
<input type="checkbox"/>	172.20.8.20	3/25	<a href="#">View</a>				
<input type="checkbox"/>	172.20.8.20	3/26	<a href="#">View</a>				
<input type="checkbox"/>	172.20.8.20	3/27	<a href="#">View</a>				
<input type="checkbox"/>	172.20.8.20	3/28	<a href="#">View</a>				
<input type="checkbox"/>	172.20.8.20	3/29	<a href="#">View</a>				
<input type="checkbox"/>	172.20.8.20	3/30	<a href="#">View</a>				
<input type="checkbox"/>	172.20.8.20	3/31	<a href="#">View</a>				
<input type="checkbox"/>	172.20.8.20	3/32	<a href="#">View</a>				
<input type="checkbox"/>	172.20.8.20	3/33	<a href="#">View</a>				
<input type="checkbox"/>	172.20.8.20	3/34	<a href="#">View</a>				
<input type="checkbox"/>	172.20.8.20	3/35	<a href="#">View</a>				
<input type="checkbox"/>	172.20.8.20	3/36	<a href="#">View</a>				
<input type="checkbox"/>	172.20.8.20	3/37	<a href="#">View</a>				
<input type="checkbox"/>	172.20.8.20	3/38	<a href="#">View</a>				
<input type="checkbox"/>	172.20.8.20	3/39	<a href="#">View</a>				
<input type="checkbox"/>	172.20.8.20	3/40	<a href="#">View</a>				
<input type="checkbox"/>	172.20.8.20	3/41	<a href="#">View</a>	3014	172.20.110.250	Cisco 7971	
<input type="checkbox"/>	172.20.8.20	3/42	<a href="#">View</a>	3013	172.20.110.251	Cisco 7971	
<input type="checkbox"/>	test 3	172.20.8.20	3/43	<a href="#">View</a>	3012	172.20.110.252	Cisco 7940
<input type="checkbox"/>	172.20.8.20	3/44	<a href="#">View</a>				
<input type="checkbox"/>	172.20.8.20	3/45	<a href="#">View</a>				
<input type="checkbox"/>	test 3	172.20.8.20	3/46	<a href="#">View</a>	3011	172.20.110.253	Cisco 7960
<input type="checkbox"/>	172.20.8.20	3/47	<a href="#">View</a>				
<input type="checkbox"/>	172.20.8.20	3/48	<a href="#">View</a>				

Export Import

1 of 2

Loading search result will take time. Please wait.

Local intranet



## Defining Manual Phones (PBX Stations)

Cisco Emergency Responder Administration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address: https://172.20.8.50:8443/ceradmin/servlet/CERAdminServlet?formname=analog

**Cisco Emergency Responder Administration**  
For Cisco Unified Communications Solutions

Navigation: Cisco ER Administration Go

Logged in as: CERAdministrator | About | Logout

System ERL Phone Tracking ERL Membership User Management Reports Tools Help

Find and List Manually Configured Phones Export Import

**Status**  
Ready

**Manual Phone Search Parameters**  
Find manual phones where Line Number contains  Find and show 20 items per page

**Manually Configured Phones (1 - 2 of 2)**

Line Number	ERL Name	IP Address	MAC Address	Location	Edit	Delete
<a href="#">4050</a>	<a href="#">test_2</a>					
<a href="#">4054</a>	<a href="#">Test_1</a>					

Go 1 of 1

Done Local intranet



Cisco Emergency Responder Administration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <https://172.20.8.50:8443/ceradmin/servlet/CERAdminServlet> Go Links

**Cisco Emergency Responder Administration**  
For Cisco Unified Communications Solutions

Navigation Cisco ER Administration Go

System ERL Phone Tracking ERL Membership User Management Reports Tools Help

Logged in as: CERAdministrator About Logout

### Modify Manual Phone

**Status**  
Please enter any change for the current Manual Phone

**Modify Manual Phone**

Line Number *	4054
MAC Address	<input type="text"/>
IP Address	<input type="text"/>
Phone Type	<input type="text"/>
Version	<input type="text"/>
Location	<input type="text"/>
ERL Name *	Test 1 <input type="button" value="Search ERL"/>

\* indicates required item

Done Local intranet



Cisco Emergency Responder Administration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <https://172.20.8.50:8443/ceradmin/servlet/CERAdminServlet> Go Links

**Cisco Emergency Responder Administration**  
For Cisco Unified Communications Solutions

Navigation Cisco ER Administration Go

Logged in as: CERAdministrator | About | Logout

System ERL Phone Tracking ERL Membership User Management Reports Tools Help

### Modify Manual Phone

**Status**  
Please enter any change for the current Manual Phone

---

**Modify Manual Phone**

Line Number *	4050
MAC Address	<input type="text"/>
IP Address	<input type="text"/>
Phone Type	<input type="text"/>
Version	<input type="text"/>
Location	<input type="text"/>
ERL Name *	test 2 <input type="button" value="Search ERL"/>

\* indicates required item

Done Local intranet

Configuring the Cisco CMM IOS Gateway MGCP for QSIG connectivity

```
tonycmm#sh run
```

Building configuration...

Current configuration : 2077 bytes

!

version 12.4



```
no service pad
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname tonycmm
!
boot-start-marker
boot system bootflash:wscmm-ipvoicek9-mz.124-11.T.bin
boot-end-marker
!
logging buffered 10000000
no logging console
enable password cisco
!
no aaa new-model
mmi polling-interval 60
no mmi auto-configure
no mmi pvc
mmi snmp-timeout 180
!
!
no ip domain lookup
ip host CM-BARZA 172.20.110.254
multilink bundle-name authenticated
!
isdn switch-type primary-qsig
!
!
!
!
!
!
!
!
!
```





```
!  
!  
!  
!  
!  
!  
controller T1 1/0  
  pri-group timeslots 1-24 service mgcp  
!  
controller T1 1/1  
!  
controller T1 1/2  
!  
controller T1 1/3  
!  
controller T1 1/4  
!  
controller T1 1/5  
!  
!  
!  
!  
interface GigabitEthernet1/0  
  ip address 172.20.8.253 255.255.255.0  
  no ip proxy-arp  
  no negotiation auto  
  no keepalive  
!  
interface Serial1/0:23  
  no ip address  
  encapsulation hdlc  
  no logging event link-status  
  isdn switch-type primary-qsig  
  isdn protocol-emulate network  
  isdn incoming-voice voice  
  isdn bind-13 ccm-manager
```



```
no cdp enable
!
ip default-gateway 172.20.8.1
ip route 0.0.0.0 0.0.0.0 172.20.8.1
!
no ip http server
no ip http secure-server
!
!
control-plane
!
!
voice-port 1/0:23
!
ccm-manager mgcp
ccm-manager music-on-hold
ccm-manager config server CM-BARZA
ccm-manager config
!
mgcp
mgcp call-agent CM-BARZA 2427 service-type mgcp version 0.1
mgcp dtmf-relay voip codec all mode out-of-band
mgcp rtp unreachable timeout 1000 action notify
mgcp modem passthrough voip mode nse
mgcp package-capability rtp-package
no mgcp package-capability res-package
mgcp package-capability sst-package
mgcp package-capability pre-package
no mgcp timer receive-rtcp
mgcp sdp simple
mgcp fax t38 inhibit
mgcp rtp payload-type g726r16 static
!
mgcp profile default
!
!
```



```
!  
!  
!  
!  
line con 0  
password cisco  
transport output all  
line vty 0 4  
exec-timeout 0 0  
password cisco  
login  
transport input all  
transport output all  
!  
!  
end
```

tonycmm#

Cisco 3825 IOS Gateway H323 configuration for CAMA trunk connectivity

```
CAMA_GW#sh run  
Building configuration...
```

Current configuration : 1241 bytes

```
!  
version 12.4  
service timestamps debug datetime msec  
service timestamps log datetime msec  
no service password-encryption  
!  
hostname CAMA_GW  
!  
boot-start-marker  
boot-end-marker  
!
```



```
enable password cisco
```

```
!
```

```
no aaa new-model
```

```
ip cef
```

```
!
```

```
!
```

```
!
```

```
!
```

```
multilink bundle-name authenticated
```

```
!
```

```
voice-card 0
```

```
no dspfarm
```

```
!
```

```
!
```

```
!
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```
!
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```
!
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```
!
```

```
!
```

```
!
```

```
!
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!
```

```
!
```

```
!
```



```
!  
interface GigabitEthernet0/0  
ip address 172.20.8.26 255.255.255.0  
  
duplex auto  
speed auto  
media-type rj45  
no keepalive  
!  
interface GigabitEthernet0/1  
no ip address  
shutdown  
duplex auto  
speed auto  
media-type rj45  
no keepalive  
!  
ip route 0.0.0.0 0.0.0.0 172.20.8.1  
!  
!  
ip http server  
no ip http secure-server  
!  
!  
!  
!  
control-plane  
!  
!  
!  
voice-port 0/2/0  
signal cama KP-0-NPA-NXX-XXXX-ST  
dial-type mf  
timing hookflash-out 500  
description CAMA  
!  
voice-port 0/2/1
```



```
!  
voice-port 0/3/0  
!  
voice-port 0/3/1  
!  
!  
!  
!  
!  
dial-peer voice 911 pots  
destination-pattern 911  
no digit-strip  
port 0/2/0  
forward-digits all  
!  
dial-peer voice 999 voip  
description Call-in PSTN simulation  
destination-pattern .T  
session target ipv4:172.20.110.254  
!  
!  
!  
line con 0  
password cisco  
login  
stopbits 1  
line aux 0  
stopbits 1  
line vty 0 4  
password cisco  
login  
!  
scheduler allocate 20000 1000  
!  
end
```



CAMA\_GW#



CAMA voice-port config

CAMA\_GW#sh voice port 0/2/0

Foreign Exchange Office 0/2/0 Slot is 0, Sub-unit is 2, Port is 0

Type of VoicePort is FXO

Operation State is DORMANT

Administrative State is UP

The Last Interface Down Failure Cause is Administrative Shutdown

Description is CAMA

Noise Regeneration is enabled

Non Linear Processing is enabled

Non Linear Mute is disabled

Non Linear Threshold is -21 dB

Music On Hold Threshold is Set to -38 dBm

In Gain is Set to 0 dB

Out Attenuation is Set to 3 dB

Echo Cancellation is enabled

Echo Cancellation NLP mute is disabled

Echo Cancellation NLP threshold is -21 dB

Echo Cancel Coverage is set to 64 ms

Echo Cancel worst case ERL is set to 6 dB

Playout-delay Mode is set to adaptive

Playout-delay Nominal is set to 60 ms

Playout-delay Maximum is set to 250 ms

Playout-delay Minimum mode is set to default, value 40 ms

Playout-delay Fax is set to 300 ms

Connection Mode is normal

Connection Number is not set

Initial Time Out is set to 10 s





Interdigit Time Out is set to 10 s

Call Disconnect Time Out is set to 60 s

Ringing Time Out is set to 180 s

Wait Release Time Out is set to 30 s

Companding Type is u-law

Region Tone is set for US

Analog Info Follows:

Currently processing none

Maintenance Mode Set to None (not in mtc mode)

Number of signaling protocol errors are 0

Impedance is set to 600r Ohm

Station name None, Station number None

Translation profile (Incoming):

Translation profile (Outgoing):

Voice card specific Info Follows:

Signal Type is cama

Cama Type is KP-0-NPA-NXX-XXXX-ST

Battery-Reversal is enabled

Number Of Rings is set to 1

Supervisory Disconnect is signal

Answer Supervision is inactive

Hook Status is On Hook

Ring Detect Status is inactive

Ring Ground Status is inactive

Tip Ground Status is inactive

Dial Out Type is mf

Digit Duration Timing is set to 75 ms



InterDigit Duration Timing is set to 65 ms  
Pulse Rate Timing is set to 10 pulses/second  
InterDigit Pulse Duration Timing is set to 750 ms  
Percent Break of Pulse is 60 percent  
GuardOut timer is 2000 ms  
Minimum ring duration timer is 125 ms  
Hookflash-in Timing is set to 600 ms  
Hookflash-out Timing is set to 500 ms  
Supervisory Disconnct Timing is set to 350 ms  
OPX Ring Wait Timing is set to 6000 ms  
CAMA\_GW#

#### CAT6k configuration

```
Console> (enable) sh snmp
SNMP:           Enabled
RMON:           Disabled
Extended RMON Netflow Enabled : None.
Memory usage limit for new RMON entries: 85 percent
EngineId: 00:00:00:09:00:01:97:31:c8:00:00:00
Chassis Alias:
Traps Enabled: None
Port Traps Enabled: None
```

#### Community-Access Community-String

```
-----
read-only      public
read-write     private
read-write-all secret
```

```
Additional-      Access-
Community-String Access-Type Number View
-----
```

```
Trap-Rec-Address Trap-Rec-Community Trap-Rec-Port Trap-Rec-Owner Trap-Rec-Index
-----
```

```
Console> (enable) sh cdp
CDP           : enabled
```



Message Interval : 60  
Hold Time : 180  
Version : V2  
Device Id Format : Other  
Console> (enable)

set interface sc0 109 172.20.8.20/255.255.255.0 172.20.8.255



## Configuring the NEC IPX2400 PBX

The NEC requires a substantial amount of programming and circuit card switch settings to properly install T1 PRI. It is beyond the scope of this document to provide the entire configuration, therefore the NEC information below is directed to NEC techs

**The switch settings and software references in this document assume a familiarity with the NEC 2400. It is highly recommended to have a NEC ISDN certified technician setup the NEC portion.**

Configure in the following sequence:

Install Circuit Card

Configure all software

### Circuit Card Configuration (PA-24PRTB)

Switch	Position	Description	Settings
MB		Make Busy	Down
LB	0	Internal Loop Back	Off
	1	External Loop Back	Off
	2	Payload Loop Back	Off
	3	Dch Control Block MBR	Off
SENSE (Rotary)		Protocol 0 = CCIS (NEC proprietary) 1 = NI2 3 = INS1500 5 = AT&T (#4 & #5 ESS) 7 = Nortel DMS100/DMS250 A = Q.SIG	A
SW0	1	ON = Impedance 100 ohms OFF = Impedance 110 ohms	ON
	2	XMT XFMR Ground	OFF
	3	RCV XFMR Ground	OFF
	4	Fixed On	ON
SW1	1	Digital PAD ROM Count Off = 2 ROM chips on board On = 3 ROM chips on board	OFF
	2	Fixed On	ON
	3	ON = 24B OFF = 23B + D	OFF
	4	D-Channel Packet Service	OFF
SW2	1	Equalizer	ON
	2	Equalizer	ON
	3	Equalizer	ON
	4	12/24 Multiframe	ON
	5	AMI/B8ZS	ON
	6	4K Data Link Control	ON
	7	4K Data Link Control	OFF
	8	Fixed ON	ON
SW3	1	RMT Alarm	OFF
	2	RMT Alarm	OFF
	3	Fixed Off	OFF
	4	All "1" Supervision	OFF
	5	Fixed On	ON
	6	Fixed On	ON
	7	Fixed On	ON



	8	Fixed On	ON
SW4	1	Fixed Off (Protocol Selection)	OFF
	2	ON = User OFF = Network	ON
	3	Dch Signal Logic	OFF
	4	Dch Speed Selection	ON
	5	Dch Speed Selection	ON
	6	Fixed On	ON
	7	Fixed On	ON
	8	Fixed On	ON
SW5	1	PAD	ON
	2	PAD	ON
	3	PAD	ON
	4	PAD	ON
	5	PAD	ON
	6	PAD	ON
	7	PAD	ON
	8	Idle Code	OFF

### Route (ARTD) Configuration

[IPX-R15\_IP::LRTD]

January 27, 2006

\* Route Class Data List \*

Starting Ending

RT 2 RT 3

RT 2

CDN	Data	CDN	Data	CDN	Data
001	OSGS 0	043	BT 1	085	CSEU 0
002	ONSG 2	044	PRV 0	086	CSEL 0
003	ISGS 0	045	A/D 1	087	CMP 0
004	INSG 2	046	CW 0	088	TALK 0
005	TF 3	047	TPQ 0	089	FOT 0
006	TCL 4	048	BL 0	090	RST 0
007	L/T 1	049	TRKS 0	091	TOCI 0
008	RLP 2	050	DPLY 1	092	TOCD 0
009	TQ 0	051	ACD 0	093	ODGD 0
010	SMDR 0	052	2W/4W 0	094	RLS 0
011	TD 0	053	FAAT 0	095	GWD 0
012	DR 0	054	GW 0	096	H1 0
013	AC 1	055	TCMA 0	097	DT 0
014	TNT 0	056	SMDR3 0	098	CI 0
015	LSG 12	057	HDT 0	099	OID 0
016	SMDR2 0	058	CD 0	100	TKS 0
017	H/M 0	059	CCH 0	101	PAD2 0
018	MC 0	060	TC/EC 0	102	TRM 0
019	ANI 0	061	IRE 0	103	TRPX 0
020	D 0	062	SCR 0	104	LDR 0
021	MSB 0	063	LYER1 0	105	TSC 0
022	MSW 0	064	NET 0	106	SATS 0
023	TR 0	065	INT 10	107	RVPX 0
024	OC 0	066	DC 4	108	DQ 0
025	R/L 0	067	HKS 0	109	SLOV 0
026	RVSD 0	068	SCF 0	110	SDTO 0
027	TL 0	069	SMDR4 0	111	ADVPR 0
028	ANS 1	070	TCMN 0	112	IND 1
029	TELP 0	071	TCMC 0	113	UUI 0
030	PAD 4	072	MFSP 0	114	DCH 0
031	OGRL 1	073	KPST 0	115	CMRT 0
032	ICRL 1	074	KPPT 0	116	PREF 0



033	HD	0	075	STC	0	117	DFS	0
034	GUARD	1	076	MC2	0	118	BOB	0
035	WINK	0	077	MT	0	119	H01CH	0
036	VAD	0	078	TONE	0	120	IFR	0
037	CLD	0	079	PPTM	0	121	CONV	0
038	FA	0	080	MPTM	0	122	ORRT	0
039	BC	0	081	LPTM	0	123	CNI	0
040	TCM	0	082	RSAX	0	124	AOC	0
041	TDMQ	0	083	CST	0	125	MGCOT	0
042	TRSC	0	084	CSEG	0			

RT 3

CDN	Data	CDN	Data	CDN	Data
001	OSGS 0	043	BT 0	085	CSEU 0
002	ONSG 0	044	PRV 0	086	CSEL 0
003	ISGS 0	045	A/D 0	087	CMP 0
004	INSG 0	046	CW 0	088	TALK 0
005	TF 0	047	TPQ 0	089	FOT 0
006	TCL 4	048	BL 0	090	RST 0
007	L/T 1	049	TRKS 0	091	TOCI 0
008	RLP 0	050	DPLY 0	092	TOCD 0
009	TQ 0	051	ACD 0	093	ODGD 0
010	SMDR 0	052	2W/4W 0	094	RLS 0
011	TD 0	053	FAAT 0	095	GWD 0
012	DR 0	054	GW 0	096	H1 0
013	AC 0	055	TCMA 0	097	DT 0
014	TNT 0	056	SMDR3 0	098	CI 0
015	LSG 13	057	HDT 0	099	OID 0
016	SMDR2 0	058	CD 0	100	TKS 0
017	H/M 0	059	CCH 0	101	PAD2 0
018	MC 0	060	TC/EC 0	102	TRM 0
019	ANI 0	061	IRE 0	103	TRPX 0
020	D 0	062	SCR 0	104	LDR 0
021	MSB 0	063	LYER1 0	105	TSC 0
022	MSW 0	064	NET 0	106	SATS 0
023	TR 0	065	INT 10	107	RVPX 0
024	OC 0	066	DC 0	108	DQ 0
025	R/L 0	067	HKS 0	109	SLOV 0
026	RVSD 0	068	SCF 0	110	SDTO 0
027	TL 0	069	SMDR4 0	111	ADVPR 0
028	ANS 1	070	TCMN 0	112	IND 0
029	TELP 0	071	TCMC 0	113	UUI 0
030	PAD 7	072	MFSP 0	114	DCH 0
031	OGRL 0	073	KPST 0	115	CMRT 0
032	ICRL 0	074	KPPT 0	116	PREF 0
033	HD 0	075	STC 0	117	DFS 0
034	GUARD 0	076	MC2 0	118	BOB 0
035	WINK 0	077	MT 0	119	H01CH 0
036	VAD 0	078	TONE 0	120	IFR 0
037	CLD 0	079	PPTM 0	121	CONV 0
038	FA 0	080	MPTM 0	122	ORRT 0
039	BC 0	081	LPTM 0	123	CNI 0
040	TCM 0	082	RSAX 0	124	AOC 0
041	TDMQ 0	083	CST 0	125	MGCOT 0
042	TRSC 0	084	CSEG 0		

NEC Software Release:

DISS 03/31/05 10:08:19:965000 IPX-R15\_IP  
<Lookup:401A>  
Success:00:0000



Get: Main Memory

Type	Version	Issue	Date
Main Memory	15	02.00	2003/10/09
Boot ROM	H	02.00	2002/11/20
IP	-	-	-
ACDP	-	-	-
MAT	15	02.00	2003/09/05
TCP/IP	5	01.00	2003/09/04
PHDP	2	02.00	2003/08/08

### Acronyms

Acronym	Definitions
CAMA	Analog "Centralized Automatic Message Accounting" E911 Trunk
PSAP	Public Service Answering Point



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