



AVAYA Definity G3 Release CM 2.0 using T1 QSIG to Cisco Unified Communications Manager 5.1.2 and Cisco Emergency Responder 2.0.

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Introduction

The following is an Application Note for E911 Interoperability of a Cisco Unified Communications Manager (CUCM) 5.1.2 and Cisco Emergency Responder (CER) 2.0 to an AVAYA G3si CM2.0 via a Cisco 3825 T1-QSIG trunk as MGCP gateway. The CUCM system is connected to a simulated E911 Public Safety Answering Point (PSAP) via a Cisco 3825 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 Cisco 3825 (MGCP gateway) T1 QSIG trunk and connected to E911 PSAP using a Cisco 3825 H323 gateway via a CAMA trunk.

This Application Note uses the C3825 IOS-voice-gateway, however other Cisco voice gateways are also an option to use since the voice gateway implementation does not depend on the platform. Here is a list of Cisco Products capable of voice gateway functionality: Care must be taken when selecting a voice gateway platform depending of the capacity required for the intended deployments

[Cisco 2800 Series Integrated Services Routers](#)

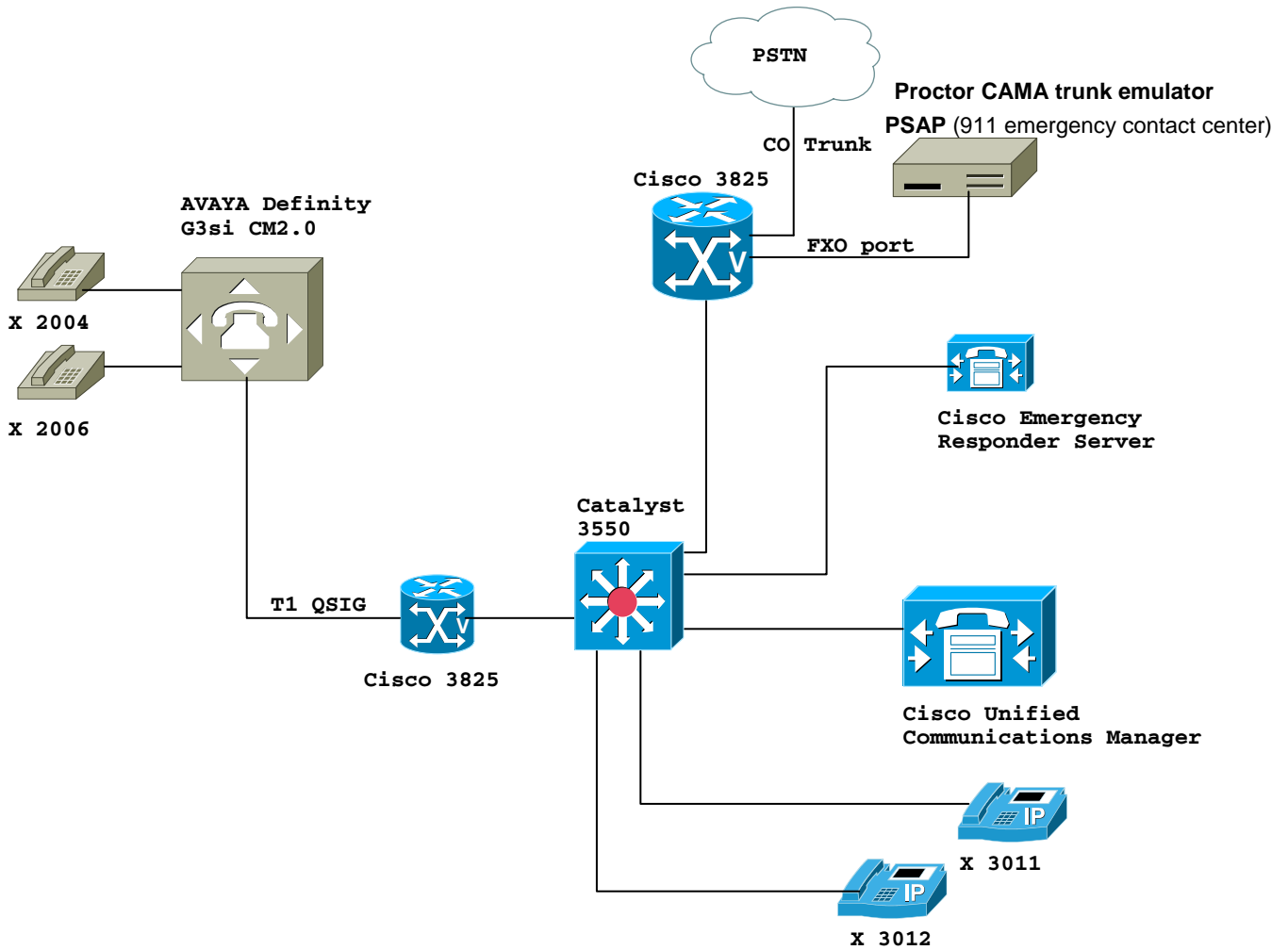
[Cisco 3800 Series Integrated Services Routers](#)

[Cisco 2600XM Series Multiservice Platforms](#)

[Cisco 3700 Series Routers](#)



Network Topology



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 3825 Gateway with VIC2-4FXO (CAMA trunk)
- Cisco 3825 Gateway with VWIC-2MFT-T1 (QSIG)
- Cisco Cat3500 switch
- Cisco Unified Communications Manager server
- Cisco Emergency Responder server
- AVAYA Definity G3si CM 2.0 PBX

Software Requirements

- IOS Software release "C3825-ipvoiceK9-m.12.4 (15)T1"
- IOS Software release "C3825-ADVENTERPRISEK9_IVS-M.12.4(11).T1"
- Cisco Unified Communications Manager 5.1.2
- Cisco Emergency Responder 2.0
- PBX Software: Release CM 2.0

Features

Features Supported

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

Conclusion

Test emergency 911 call from a PBX digital station was routed to the T1 QSIG trunk, of the Cisco Voice MGCP gateway, and was correctly associated to the appropriate Emergency Response Location. The call was connected through the Cisco 3825 CAMA trunk to the PSAP Emulator. The Emergency Response Location associated the ten digit DID call back number (ELIN) correctly and sent it to the PSAP, audio connection was also achieved. The PBX digital station was then disconnected.

A return call was originated from an incoming trunk (PSTN side) in the same Cisco Unified Communications Manager Partition. The number dialed was the DID digits of the 10 digit call back number sent to the PSAP on the previous 911 call (ELIN number). The call was routed through to the PBX digital station that had originated the E911 call. The call was disconnected and an alternate trunk was used to dial the same DID number and the call was routed through, again, to the PBX digital station that had originated the E911 call.

Test emergency 911 calls were made from each PBX digital station and Cisco IP phone. All calls were confirmed to select its associated Emergency Response Location and the associated 10 digit DID call back number. In each case, the call was disconnected and the call back number was confirmed to reach the phone that had originated the E911 call.

Emergency 911 calls made from an AVAYA Definity G3si PBX utilizing a T1 QSIG trunk configured as ISO, associates with the correct Emergency Response Location and routes to the associated PSAP with the correctly formatted 10 digit DID call back number.

The call back DID number routes the return call to the correct phone that had originated the E911 call from the PBX digital phone.



Configuration

Configuring Cisco Communications Manager

Partitions

The screenshot displays the Cisco Unified CallManager Administration web interface. At the top, there is a navigation bar with the title "Cisco Unified CallManager Administration" and a "Go" button. Below this is a secondary navigation bar with the text "For Cisco Unified Communications Solutions" and "Logged in as: CCMAAdministrator". A main navigation menu includes options like System, Call Routing, Media Resources, Voice Mail, Device, Application, User Management, Bulk Administration, and Help, along with a "Log Off" button.

The main content area is titled "Find and List Partitions". It features a search interface with a "Status" section indicating "2 records found". The "Search Options" section includes a dropdown for "Find partition where Name" (set to "begins with"), a text input field, a "Find" button, and a checkbox for "Search Within Results".

The "Search Results" section contains a table with two columns: "Partition Name" and "Description". The table lists two entries: "E911" and "Phones". Below the table are several action buttons: "Add New", "Select All", "Clear All", and "Delete Selected". A "Rows per Page" dropdown is set to "50".

Partition Name	Description
E911	E911
Phones	Phones



Phone Partition

Navigation Cisco Unified CallManager Administration

Cisco Unified CallManager Administration For Cisco Unified Communications Solutions Logged in as: CCAdministrator

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

Partition Configuration Related Links:

Status

Status: Ready

Partition Information

Name*

Description

Time Schedule

Time Zone Originating Device Specific Time Zone

*- indicates required item.



E911 Partition

Navigation Cisco Unified CallManager Administration Go

Cisco Unified CallManager Administration For Cisco Unified Communications Solutions Logged in as: CCAdministrator

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

Partition Configuration Related Links: Back To Find/List Go

Status
Status: Ready

Partition Information

Name*

Description

Time Schedule

Time Zone Originating Device
 Specific Time Zone

*- indicates required item.

Calling Search Space

Navigation Cisco Unified CallManager Administration Go

Cisco Unified CallManager Administration For Cisco Unified Communications Solutions Logged in as: CCAdministrator

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

Find and List Calling Search Spaces

Status
2 records found

Search Options

Find where Name begins with Search Within Results
(name begins with any)

Search Results

	CSS Name	Description	Copy
<input type="checkbox"/>	E911css	E911css	
<input type="checkbox"/>	Phonecss	Phonecss	

Rows per Page 50



CSS phones

Navigation Cisco Unified CallManager Administration

Cisco Unified CallManager Administration For Cisco Unified Communications Solutions Logged in as: CCMAAdministrator

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

Calling Search Space Configuration Related Links:

Status
 Status: Ready

Calling Search Space Information
Name*
Description

Route Partitions for this Calling Search Space
Available Partitions**

Selected Partitions

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



CSS E911

Navigation Cisco Unified CallManager Administration

Cisco Unified CallManager Administration For Cisco Unified Communications Solutions Logged in as: CCMAdministrator

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

Calling Search Space Configuration Related Links:

Status
 Status: Ready

Calling Search Space Information
Name*
Description

Route Partitions for this Calling Search Space

Available Partitions**

v v

Selected Partitions

*- indicates required item.



CUCM IP phones

Navigation Cisco Unified CallManager Administration

Cisco Unified CallManager Administration For Cisco Unified Communications Solutions Logged in as: CCMAAdministrator

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

Phone Configuration Related Links:

Status
Status: Ready

Association Information

1	Line [1] - 3011 in Phones
2	Line [2] - Add a new DN
3	Add a new SD
4	Add a new SD
5	Add a new SD
6	Add a new SD
----- Unassigned Associated Items -----	
7	Add a new SD
8	Add a new SURL
9	Add a new BLF SD
10	Privacy
11	None

Phone Type
Product Type: Cisco 7961
Device Protocol: SCCP

Device Information

Registration	Registered with Cisco Unified CallManager CM-Titanic
IP Address	172.20.230.21
MAC Address*	00170EE67E8E
Description	CER SCCP 3011
Device Pool*	Default View Details
Phone Button Template*	Standard 7961 SCCP
Softkey Template	Standard Feature
Common Phone Profile*	Standard Common Phone Profile
Calling Search Space	Phonecss
AAR Calling Search Space	< None >
Media Resource Group List	Titanic-MRGL
User Hold MOH Audio Source	< None >
Network Hold MOH Audio Source	< None >
Location*	Hub_None
User Locale	< None >



Network Locale	< None >
Built In Bridge*	Default
Privacy*	Default
Owner User ID	< None >
Phone Load Name	
<input checked="" type="checkbox"/> Retry Video Call as Audio	
<input type="checkbox"/> Ignore Presentation Indicators (internal calls only)	
<input checked="" type="checkbox"/> Allow Control of Device from CTI	
Protocol Specific Information	
Packet Capture Mode*	None
Packet Capture Duration	0
Presence Group*	Standard Presence group
Device Security Profile*	Cisco 7961 - Standard SCCP Non-Secure Profile
SUBSCRIBE Calling Search Space	< None >
<input type="checkbox"/> Unattended Port	
<input type="checkbox"/> Require DTMF Reception	
<input type="checkbox"/> RFC2833 Disabled	
Certification Authority Proxy Function (CAPF) Information	
Certificate Operation*	No Pending Operation
Authentication Mode*	By Null String
Authentication String	
<input type="button" value="Generate String"/>	
Key Size (Bits)*	1024
Operation Completes By	2007 9 6 12 (YYYY:MM:DD:HH)
Certificate Operation Status: None	
Note: Security Profile Contains Addition CAPF Settings.	
Expansion Module Information	



Expansion Module Information	
Module 1	< None >
Module 1 Load Name	
Module 2	< None >
Module 2 Load Name	
External Data Locations Information (Leave blank to use default)	
Information	
Directory	
Messages	
Services	
Authentication Server	
Proxy Server	
Idle	
Idle Timer (seconds)	
Extension Information	
<input checked="" type="checkbox"/> Enable Extension Mobility	
Log Out Profile	-- Not Selected --
Login in User ID	< None >
Log in Time	< None >
Log out Time	< None >
MLPP Information	
MLPP Domain	< None >
MLPP Indication*	Default
MLPP Preemption*	Default
Secure Shell Information	
Secure Shell User	



MLPP Information	
MLPP Domain	< None >
MLPP Indication*	Default
MLPP Preemption*	Default
Secure Shell Information	
Secure Shell User	
Secure Shell Password	
Product Specific Configuration Layout	
?	
<input type="checkbox"/> Disable Speakerphone	
<input type="checkbox"/> Disable Speakerphone and Headset	
Forwarding Delay*	Disabled
PC Port *	Enabled
Settings Access*	Enabled
Gratuitous ARP*	Enabled
PC Voice VLAN Access*	Enabled
Video Capabilities*	Disabled
Auto Line Select*	Enabled
Web Access*	Enabled
Span to PC Port*	Disabled
Logging Display*	PC Controlled
Load Server	
Recording Tone*	Disabled
Recording Tone Local Volume*	100
Recording Tone Remote Volume*	50
Recording Tone Duration	



Web Access*	Enabled
Span to PC Port*	Disabled
Logging Display*	PC Controlled
Load Server	
Recording Tone*	Disabled
Recording Tone Local Volume*	100
Recording Tone Remote Volume*	50
Recording Tone Duration	
RTCP*	Disabled
"more" Soft Key Timer	5
Auto Call Select*	Enabled
Log Server	
Advertise G.722 Codec*	Use System Default
Wideband Headset UI Control*	Enabled
Wideband Handset UI Control*	Enabled
Wideband Headset*	Enabled
Wideband Handset*	Use Phone Default
Peer Firmware Sharing*	Disabled
Cisco Discovery Protocol (CDP): Switch Port*	Enabled
Cisco Discovery Protocol (CDP): PC Port*	Enabled

Save Delete Copy Reset Add New

- *- 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.

Cisco Unified CallManager Administration For Cisco Unified Communications Solutions Logged in as: CCMAAdministrator

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

Directory Number Configuration Related Links: Back To Find/List Go

Status
 Status: Ready

Directory Number Information

Directory Number* 3011
 Route Partition Phones
 Description CER SCCP 3011
 Alerting Name CER Alert 3011
 ASCII Alerting Name CER Alert 3011

Allow Control of Device from CTI

Associated Devices SEP00170EE67E8E

[Edit Device](#)
[Edit Line Appearance](#)

Dissociate Devices

Directory Number Settings

Voice Mail Profile < None > (Choose <None> to use system default)
 Calling Search Space Phonecss
 Presence Group* Standard Presence group



AAR Group	< None >
User Hold MOH Audio Source	< None >
Network Hold MOH Audio Source	< None >
Auto Answer*	Auto Answer Off

Call Forward and Call Pickup Settings			
	Voice Mail	Destination	Calling Search Space
Forward All	<input type="checkbox"/> or		< None >
Secondary Calling Search Space for Forward All			< None >
Forward Busy Internal	<input type="checkbox"/> or		< None >
Forward Busy External	<input type="checkbox"/> or		< None >
Forward No Answer Internal	<input type="checkbox"/> or		< None >
Forward No Answer External	<input type="checkbox"/> or		< None >
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		< None >
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 1 on Device SEP00170EE67E8E	
Display (Internal Caller ID)	CER SCCP 3011
ASCII Display (Internal Caller ID)	CER SCCP 3011

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.



MLPP No Answer Ring Duration (seconds)

Line 1 on Device SEP00170EE67E8E

Display (Internal Caller ID)	CER SCCP 3011	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)	CER SCCP 3011	
Line Text Label	CER SCCP 3011	
ASCII Line Text Label	CER SCCP 3011	
External Phone Number Mask		
Message Waiting Lamp Policy*	Use System Policy	
Ring Setting (Phone Idle)*	Use System Default	
Ring Setting (Phone Active)	Use System Default	Applies to this line when any line on the phone has a call in progress.

Multiple Call/Call Waiting Settings on Device SEP00170EE67E8E

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

Maximum Number of Calls*	4	
Busy Trigger*	2	(Less than or equal to Max. Calls)

Forwarded Call Information Display on Device SEP00170EE67E8E

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

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



CTI Route Points

Navigation Cisco Unified CallManager Administration

Cisco Unified CallManager Administration For Cisco Unified Communications Solutions Logged in as: CCMAAdministrator

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

Find and List CTI Route Points

Status
 2 records found

Search Options
Find CTI Route Point where Device Name begins with Search Within Results
Select item or enter search text
(device.name begins with any)

Search Results

Device Name	Description	Device Pool	Calling Search Space	Status	IP Address	Copy
<input type="checkbox"/> RP911	RP911	Default	E911css	Registered with CM-Titanic	172.20.140.254	<input type="button" value="Copy"/>
<input type="checkbox"/> RPELIN913	RPELIN913	Default	E911css	Registered with CM-Titanic	172.20.140.254	<input type="button" value="Copy"/>

Rows per Page 50



CTI Route Point 911

Navigation Cisco Unified CallManager Administration

Cisco Unified CallManager Administration For Cisco Unified Communications Solutions Logged in as: CCMAdministrator

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

CTI Route Point Configuration Related Links:

Status
Status: Ready

Device Information

Registration	Registered with Cisco Unified CallManager CM-Titanic
IP Address	172.20.140.254
Device Name*	RP911
Description	RP911
Device Pool*	Default View Details
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

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

i *- indicates required item.



Navigation Cisco Unified CallManager Administration Go

Cisco Unified CallManager Administration For Cisco Unified Communications Solutions Logged in as: CCAdministrator

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

Directory Number Configuration Related Links: [Back To Find/List](#) Go

Status
 ⓘ Status: Ready

Directory Number Information

Directory Number* 911

Route Partition Phones

Description

Alerting Name

ASCII Alerting Name

Associated Devices RP911

[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

Presence Group* Standard Presence group

AAR Group < None >

User Hold MOH Audio Source < None >

Network Hold MOH Audio Source < None >

Call Forward and Call Pickup Settings

	Voice Mail	Destination	Calling Search Space
Forward All	<input type="checkbox"/> or		< None >
Secondary Calling Search Space for Forward All			< None >
Forward Busy Internal	<input checked="" type="checkbox"/> or	912	E911css
Forward Busy External	<input checked="" type="checkbox"/> or	912	E911css
Forward No Answer Internal	<input checked="" type="checkbox"/> or	912	E911css
Forward No Answer External	<input checked="" type="checkbox"/> or	912	E911css
Forward No Coverage Internal	<input checked="" type="checkbox"/> or		< None >
Forward No Coverage External	<input checked="" type="checkbox"/> or		< None >
Forward on CTI Failure	<input checked="" 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 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



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 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)	
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*	5000
Busy Trigger*	4500 (Less than or equal to Max. Calls)
Forwarded Call Information Display on Device RP911	
<input checked="" type="checkbox"/> Caller Name	
<input type="checkbox"/> Caller Number	
<input type="checkbox"/> Redirected Number	
<input checked="" type="checkbox"/> Dialed Number	
Save Delete Reset Add New	
i *- indicates required item.	
i ** - Changes to Line or Directory Number settings require restart.	



CTI Route Point 913

Cisco Unified CallManager Administration For Cisco Unified Communications Solutions Logged in as: CCMAdministrator

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

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

Status
Status: Ready

Device Information

Registration	Registered with Cisco Unified CallManager CM-Titanic
IP Address	172.20.140.254
Device Name*	RPELIN913
Description	RPELIN913
Device Pool*	Default View Details
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.



Cisco Unified CallManager Administration For Cisco Unified Communications Solutions Logged in as: CCMAdministrator

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

Directory Number Configuration Related Links: [Back To Find/List](#)

Status
i Status: Ready

Directory Number Information

Directory Number* 913XXXXXXXXX

Route Partition E911 ▾

Description

Alerting Name

ASCII Alerting Name

Associated Devices RPELIN913

▼ ▲

Dissociate Devices

Directory Number Settings

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

Calling Search Space E911css ▾

Presence Group* Standard Presence group ▾

Presence Group* Standard Presence group ▾

AAR Group < None > ▾

User Hold MOH Audio Source < None > ▾

Network Hold MOH Audio Source < None > ▾

Call Forward and Call Pickup Settings

	Voice Mail	Destination	Calling Search Space
Forward All	<input type="checkbox"/> or <input type="checkbox"/>	<input type="text"/>	< None > ▾
Secondary Calling Search Space for Forward All			< None > ▾
Forward Busy Internal	<input type="checkbox"/> or <input type="checkbox"/>	<input type="text"/>	< None > ▾
Forward Busy External	<input type="checkbox"/> or <input type="checkbox"/>	<input type="text"/>	< None > ▾
Forward No Answer Internal	<input type="checkbox"/> or <input type="checkbox"/>	<input type="text"/>	< None > ▾
Forward No Answer External	<input type="checkbox"/> or <input type="checkbox"/>	<input type="text"/>	< None > ▾
Forward No Coverage Internal	<input type="checkbox"/> or <input type="checkbox"/>	<input type="text"/>	< None > ▾
Forward No Coverage External	<input type="checkbox"/> or <input type="checkbox"/>	<input type="text"/>	< None > ▾
Forward on CTI Failure	<input type="checkbox"/> or <input type="checkbox"/>	<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 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



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 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 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*	5000
Busy Trigger*	4500 (Less than or equal to Max. Calls)
Forwarded Call Information Display on Device RPELIN913	
<input checked="" type="checkbox"/> Caller Name	
<input type="checkbox"/> Caller Number	
<input type="checkbox"/> Redirected Number	
<input checked="" type="checkbox"/> Dialed Number	
Save Delete Reset Add New	
i *- indicates required item.	
i **- Changes to Line or Directory Number settings require restart.	

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



CTI Port

Navigation Cisco Unified CallManager Administration Go

Cisco Unified CallManager Administration For Cisco Unified Communications Solutions Logged in as: CCMAdministrator

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

Phone Configuration Related Links: Back To Find/List Go

Status
Status: Ready

Association Information
1 [7715 Line \[1\] - 6050 in Phones](#)
2 [7715 Line \[2\] - Add a new DN](#)

Phone Type
Product Type: CTI Port
Device Protocol: SCCP

Device Information
Registration Registered with Cisco Unified CallManager CM-Titanic
IP Address 172.20.8.50
Device Name* CERSec1
Description
Device Pool* Default [View Details](#)
Common Phone Profile* Standard Common Phone Profile
Calling Search Space Phonecss
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
User Locale < None >

Calling Search Space Phonecss
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
User Locale < None >
Network Locale < None >
Privacy* Default
Owner User ID < None >
 Ignore Presentation Indicators (internal calls only)

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

*- 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.



Navigation Cisco Unified CallManager Administration

Cisco Unified CallManager Administration For Cisco Unified Communications Solutions Logged in as: CCMAAdministrator

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

Directory Number Configuration Related Links:

Status
 Status: Ready

Directory Number Information

Directory Number*
 Route Partition
 Description
 Alerting Name
 ASCII Alerting Name
 Associated Devices

 Dissociate Devices

Directory Number Settings

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

Presence Group*
 AAR Group
 User Hold MOH Audio Source
 Network Hold MOH Audio Source

Call Forward and Call Pickup Settings

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

MLPP Alternate Party Settings

Target (Destination)
 MLPP Calling Search Space
 MLPP No Answer Ring Duration (seconds)

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.



MLPP Calling Search Space < None >
MLPP No Answer Ring Duration (seconds)

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
ASCII Line Text Label
External Phone Number Mask
Message Waiting Lamp Policy* Use System Policy

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

Forwarded Call Information Display on Device CERSec1
 Caller Name
 Caller Number
 Redirected Number
 Dialed Number

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



Route Patterns for ELINs

Navigation Cisco Unified CallManager Administration

Cisco Unified CallManager Administration For Cisco Unified Communications Solutions Logged in as: CCMAAdminstrat

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

Find and List Route Patterns

Status
5 records found

Search Options
Find Route Patterns where Pattern begins with **Find** Search Within Results
(numplan.dnorpattern begins with any)

Search Results

Pattern	Description	Partition	Route Filter	Associated Device	Copy
<input type="checkbox"/> 10.911		E911		172.20.192.102	
<input type="checkbox"/> 11.911		E911		172.20.192.102	
<input type="checkbox"/> 13.911		E911		172.20.192.102	
<input type="checkbox"/> 3333				172.20.192.102	
<input type="checkbox"/> 4XXX	NEC route 4xxx			S1/SU0/DS1-0@Ri-3825	

Rows per Page 50



Route Pattern 10911

Navigation Cisco Unified CallManager Administration

Cisco Unified CallManager Administration For Cisco Unified Communications Solutions Logged in as: CCAdmin

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

Route Pattern Configuration Related Links: [Back To Find/List](#)

Status
Status: Ready

Pattern Definition

Route Pattern* 10.911

Route Partition E911

Description

Numbering Plan -- Not Selected --

Route Filter < None >

MLPP Precedence* Default

Gateway/Route List* 172.20.192.102 (Edit) Find

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 N12

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

The screenshot displays the Cisco Unified CallManager Administration web interface. At the top, the navigation bar includes 'Cisco Unified CallManager Administration' and 'For Cisco Unified Communications Solutions'. The user is logged in as 'CCAdmin'. A menu bar contains options like 'System', 'Call Routing', 'Media Resources', 'Voice Mail', 'Device', 'Application', 'User Management', 'Bulk Administration', and 'Help'. The main content area is titled 'Route Pattern Configuration' and shows the configuration for a route pattern with the value '11.911'. The configuration includes fields for 'Route Partition' (E911), 'Description', 'Numbering Plan' (Not Selected), 'Route Filter' (None), 'MLPP Precedence' (Default), and 'Gateway/Route List' (172.20.192.102). Under 'Route Option', 'Route this pattern' is selected. 'Call Classification' is set to 'OffNet'. There are several checkboxes for advanced settings: 'Allow Device Override', 'Provide Outside Dial Tone' (checked), 'Allow Overlap Sending', 'Urgent Priority', 'Require Forced Authorization Code', and 'Require Client Matter Code'. The 'Authorization Level' is set to 0.

Status
Status: Ready

Pattern Definition

Route Pattern* 11.911

Route Partition E911

Description

Numbering Plan -- Not Selected --

Route Filter < None >

MLPP Precedence* Default

Gateway/Route List* 172.20.192.102 (Edit) Find

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



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* ▼

Calling Name Presentation* ▼

Connected Party Transformations

Connected Line ID Presentation* ▼

Connected Name Presentation* ▼

Called Party Transformations

Discard Digits ▼

Called Party Transform Mask

Prefix Digits (Outgoing Calls)

ISDN Network-Specific Facilities Information Element

Network Service Protocol ▼

Carrier Identification Code

Network Service	Service Parameter Name	Service Parameter Value
Foreign Exchange Selection ▼	<input type="text" value="Foreign Exchange"/>	<input type="text"/>

*- indicates required item.



Route Pattern 13911

Navigation Cisco Unified CallManager Administration
Cisco Unified CallManager Administration For Cisco Unified Communications Solutions Logged in as: CCAdmin

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

Route Pattern Configuration Related Links: [Back To Find/List](#)

Status
Status: Ready

Pattern Definition

Route Pattern* 13.911
Route Partition E911
Description
Numbering Plan -- Not Selected --
Route Filter < None >
MLPP Precedence* Default
Gateway/Route List * 172.20.192.102 (Edit) Find
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 Foreign Exchange Selection Service Parameter Name Foreign Exchange Service Parameter Value

Save Delete Copy Add New

*- indicates required item.



Translation Pattern for ELINs

Navigation Cisco Unified CallManager Administration

Cisco Unified CallManager Administration For Cisco Unified Communications Solutions Logged in as: CCAdmin

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

Translation Pattern Configuration Related Links: [Back To Find/List](#)

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:



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

*- indicates required item.



PSAP Gateway configuration (CAMA TRUNK)

Navigation Cisco Unified CallManager Administration Go

Cisco Unified CallManager Administration For Cisco Unified Communications Solutions Logged in as: CCMAAdministrator

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

Gateway Configuration

Related Links: Back To Find/List Go

Status
Status: Ready

Device Information

Product	H.323 Gateway
Device Protocol	H.225
Registration	Unknown
IP Address	172.20.192.102
Device Name*	172.20.192.102
Description	172.20.192.102
Device Pool*	Default
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

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

Call Routing Information - Inbound Calls

Significant Digits* All

Calling Search Space E911css

AAR Calling Search Space < None >

Prefix DN

Redirecting Number IE Delivery - Inbound

Enable Inbound FastStart



Redirecting Number IE Delivery - Inbound
 Enable Inbound FastStart

Call Routing Information - Outbound Calls

Calling Party Selection* Originator
Calling Party Presentation* Default
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
Caller ID DN

Display IE Delivery
 Redirecting Number IE Delivery - Outbound
 Enable Outbound FastStart
Codec For Outbound FastStart G711 u-law 64K

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.

Cisco Unified Communications Manager User

Navigation Cisco Unified CallManager Administration Go

Cisco Unified CallManager Administration For Cisco Unified Communications Solutions Logged in as: CCMAAdministrator

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

End User Configuration Related Links: Back to Find List Users Go

Status
i Status: Ready

User Information

User ID*	certest
Password*
Confirm Password*
PIN*
Confirm PIN*
Last name*	CER
Middle name	
First name	
Telephone Number	
Mail ID	
Manager User ID	
Department	



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	<div style="border: 1px solid black; padding: 2px;">CERSec1 RP911 RPELIN913</div>
	<input type="button" value="Device Association"/>
Extension Mobility	
Available Profiles	<div style="border: 1px solid black; height: 40px;"></div>
Controlled Profiles	<div style="border: 1px solid black; height: 40px;"></div>
Default Profile	-- Not Selected --
Presence Group*	Standard Presence group
Presence Group*	Standard Presence group
SUBSCRIBE Calling Search Space	< None >
<input checked="" type="checkbox"/> Allow Control of Device from CTI	
Directory Number Associations	
Primary Extension	< None >
CAPF Information	
Associated CAPF Profiles	<div style="border: 1px solid black; height: 40px;"></div>
	View Details
Permissions Information	
Groups	<div style="border: 1px solid black; padding: 2px;">Standard CTI Allow Calling Number Modification Standard CTI Enabled</div>
	View Details
Roles	<div style="border: 1px solid black; padding: 2px;">Standard CTI Allow Calling Number Modification Standard CTI Enabled</div>
	View Details
<input type="button" value="Save"/>	<input type="button" value="Delete"/> <input type="button" value="Add New"/>
*	indicates required item.



T1-QSIG Gateway

Navigation Cisco Unified CallManager Administration

Cisco Unified CallManager Administration For Cisco Unified Communications Solutions Logged in as: CCMAAdminstrator

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

Gateway Configuration

Related Links: Back To Find/List Go

Status: Ready

Gateway Details

Product	Cisco 3825
Gateway	Ri-3825
Protocol	MGCP
Domain Name*	Ri-3825
Description	MGCP 3825
Cisco Unified CallManager Group*	Default

Configured Slots, VICs and Endpoints

Module in Slot 0	< None >
Module in Slot 1	NM-HDV
Subunit 0	VVIC-2MFT-T1
Module in Slot 2	< None >

1/0/0 1/0/1

Product Specific Configuration Layout

Protocol	MGCP
Domain Name*	Ri-3825
Description	MGCP 3825
Cisco Unified CallManager Group*	Default

Configured Slots, VICs and Endpoints

Module in Slot 0	< None >
Module in Slot 1	NM-HDV
Subunit 0	VVIC-2MFT-T1
Module in Slot 2	< None >

1/0/0 1/0/1

Product Specific Configuration Layout

Global ISDN Switch Type	NI2
Switchback Timing*	Graceful
Switchback uptime-delay (min)	10
Switchback schedule (hh:mm)	12:00
Type Of DTMF Relay*	Current GW Config
Fax mode*	Fax Relay
Modem Passthrough*	Enable

Save Delete Reset Add New

*- indicates required item.



Navigation Cisco Unified CallManager Administration Go

Cisco Unified CallManager Administration For Cisco Unified Communications Solutions Logged in as: CCMAAdministrator

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

Gateway Configuration Related Links: [Back to MGCP Configuration](#) Go

Status
Status: Ready

Device Information

Product	Cisco MGCP T1 Port
Gateway	Ri-3825
Device Protocol	Digital Access PRI
Registration	Registered with Cisco Unified CallManager CM-Titanic
IP Address	172.20.192.21
End-Point Name *	S1/SU0/DS1-0@Ri-3825
Description	S1/SU0/DS1-0@MGCP 3825
Device Pool*	Default
Call Classification*	Use System Default
NetworkLocale	< None >
Packet Capture Mode*	None
Packet Capture Duration	0
Media Resource Group List	< None >
Location*	Hub_None
AAR Group	< None >
Load Information	

Transmit UTF-8 for Calling Party Name
 V150 (subset)

Multilevel Precedence and Preemption (MLPP) Information

MLPP Domain	< None >
MLPP Indication	Off
MLPP Preemption	Disabled

Interface Information

PRI Protocol Type*	PRI ISO QSIG T1
Protocol Side*	Network
Channel Selection Order*	Bottom Up
Channel IE Type*	Timeslot Number
PCM Type*	μ-law
Delay for first restart (1/8 sec ticks)*	32
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	Phoneccss
AAR Calling Search Space	< None >
Prefix DN	

Call Routing Information - Outbound Calls



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	
<input type="checkbox"/> Display IE Delivery	
<input checked="" type="checkbox"/> Redirecting Number IE Delivery - Outbound	
<input checked="" type="checkbox"/> Redirecting Number IE Delivery - Inbound	
<input type="checkbox"/> Send Extra Leading Character in Display IE***	
<input type="checkbox"/> Setup non-ISDN Progress Indicator IE Enable****	
<input type="checkbox"/> MCDN Channel Number Extension Bit Set to Zero**	
<input type="checkbox"/> Send Calling Name In Facility IE	
<input type="checkbox"/> Interface Identifier Present**	
Interface Identifier Value**	0
Connected Line ID Presentation (QSIG Inbound Call)*	Default

UUIE Configuration	
<input type="checkbox"/> Passing Precedence Level Through UUIE	
Security Access Level*	2

Interface Identifier Value**	0
Connected Line ID Presentation (QSIG Inbound Call)*	Default

UUIE Configuration	
<input type="checkbox"/> 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 Cancellation Coverage (ms)*	8

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



Route Pattern to QSIG Trunk

Navigation Cisco Unified CallManager Administration Go

Cisco Unified CallManager Administration For Cisco Unified Communications Solutions Logged in as: CCAdministrator

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

Route Pattern Configuration Related Links: [Back To Find/List](#) Go

Status
Status: Ready

Pattern Definition

Route Pattern* 2XXX

Route Partition < None >

Description Route to Nortel cs101 2213 14 Avaya 2004 06

Numbering Plan -- Not Selected --

Route Filter < None >

MLPP Precedence* Default

Gateway/Route List * S1/SU0/DS1-0@Ri-3825 (Edit) Find

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



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*

Calling Name Presentation*

Connected Party Transformations

Connected Line ID Presentation*

Connected Name Presentation*

Called Party Transformations

Discard Digits

Called Party Transform Mask

Prefix Digits (Outgoing Calls)

ISDN Network-Specific Facilities Information Element

Network Service Protocol

Carrier Identification Code

Network Service	Service Parameter Name	Service Parameter Value
<input type="text" value="-- Not Selected --"/>	<input type="text" value="< Not Exist >"/>	<input type="text"/>

*. indicates required item.

Note: For detailed information regarding QSIG interoperability between CUCM and AVAYA G3si PBX go to:
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

Security Services	
Service Name	Activation Status
<input checked="" type="checkbox"/> Cisco CTL Provider	Activated
<input checked="" type="checkbox"/> Cisco Certificate Authority Proxy Function	Activated

Directory Services	
Service Name	Activation Status
<input checked="" type="checkbox"/> Cisco DirSync	Activated

While deactivating a service, make sure to deactivate all of the services that are dependent on this service. Please refer to on-line help for service dependencies for single-server and multi-server configuration

* - indicates required item.



Configuring Cisco Emergency Responder

Cisco Unified Communications Manager Details

Cisco Emergency Responder Administration
For Cisco Unified Communications Solutions

Navigation: Cisco ER Administration

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

Logged in as: CERAdministrator | [About](#) | [Logout](#)

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 * **172.20.140.254** [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
172.20.140.254		

i * indicates required item ** required if Secure Connection is Enabled



Cisco Emergency Responder Server group

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 ▾

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



Telephony Settings

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 ▾

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 type="checkbox"/> Enable (Effective only for Cisco Unified Communications Manager 6.0 and above)

* indicates required item



Server Settings

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 ▾

Server Settings for CERServerGroup

Status
Ready

Select Server
 [_Publisher \(primary\)](#)

Modify Server Settings

Server Name *

Host Name

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

* indicates required item



ERLs List

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 ▾

Find ERL Data [Export](#) [Import](#)

Status
Updated successfully.

ERL Search Parameters
Find ERL where contains and show 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
Default	100911--4000		tasman	cisco	ca				view..
Test 1	10911--4085272....		tasman	big sky	ca				view..
test 2	11911--4085272....		tasman	cisco	ca				view..
test 3	13911--4085273....		tasmsan	cisco	ca				view..

1 of 1



ERL 1



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

Add

Update

Remove

10911--4085272004

Onsite Alert Settings

Available Onsite Alert IDs

Onsite Alert IDs for the ERL

Add

Remove

ERL Address

ALI Details

Update

Copy


Cancel Changes

Close

* indicates required item



ERL 2



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

Add

Update

Remove

11911--4085272006

Onsite Alert Settings

Available Onsite Alert IDs

Add

Remove


Onsite Alert IDs for the ERL

ERL Address

ALI Details

Edit ALI

Update Copy Cancel Changes Close

 * indicates required item

ERL 3

ERL Information for test 3

ERL Settings

ERL Name * **test 3**

Description

Test ERL (Used for Synthetic Testing)

ELIN Settings


Route/Translation pattern <input type="text"/>	<input type="button" value="Add"/>	<div style="border: 1px solid black; padding: 5px;">13911--4085273011</div>
ELIN <input type="text"/>	<input type="button" value="Update"/>	
	<input type="button" value="Remove"/>	

Onsite Alert Settings

Available Onsite Alert IDs <div style="border: 1px solid black; height: 60px; width: 100%;"></div>	<input type="button" value="Add"/> <input type="button" value="Remove"/>	Onsite Alert IDs for the ERL <div style="border: 1px solid black; height: 60px; width: 100%;"></div>
---	---	---

ERL Address

ALI Details

 * indicates required item



SNMP connection

Cisco Emergency Responder Administration
For Cisco Unified Communications Solutions

Navigation: Cisco ER Administration

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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 *	172.20.230.250
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
172.20.230.250	10	2	public	

* indicates required item



LAN Switch identifying

Cisco Emergency Responder Administration
For Cisco Unified Communications Solutions

Navigation: Cisco ER Administration

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LAN Switch Details

[Export](#) [Import](#)

Status
Please enter any change for the current LAN Switch

LAN Switch Details

Switch Host Name / IP Address * **172.20.230.250**

Description

Enable CAM based Phone Tracking

LAN Switches

Switch Host Name / IP Address	Edit	Delete
172.20.230.250		

* indicates required item



Switch Port Details

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

[Export](#) [Import](#)

Status
Ready

Switch Port Search Parameters
Find ports where All Any ERL Name ▾ contains ▾ show 50 ▾ per page

Switch Ports (1 to 48 of 48) *Last phone tracking was done at August 27, 2007 5:42:05 PM PD*

Assign ERL to Selected Switch Ports

<input type="checkbox"/>	ERL Name	Switch IP Address	IfName	Location	Phone Extension	Phone IP Address	Phone Type
<input type="checkbox"/>		172.20.230.250	Fa0/1	View			
<input type="checkbox"/>		172.20.230.250	Fa0/2	View			
<input type="checkbox"/>		172.20.230.250	Fa0/3	View			
<input type="checkbox"/>		172.20.230.250	Fa0/4	View			
<input type="checkbox"/>		172.20.230.250	Fa0/5	View			
<input type="checkbox"/>	test_3	172.20.230.250	Fa0/6	View	3011	172.20.230.21	Cisco 7961
<input type="checkbox"/>		172.20.230.250	Fa0/7	View			



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

[Export](#) [Import](#)

	IP Address	Port	View			
<input type="checkbox"/>	172.20.230.250	Fa0/8	View			
<input type="checkbox"/>	172.20.230.250	Fa0/9	View			
<input type="checkbox"/>	172.20.230.250	Fa0/10	View			
<input type="checkbox"/>	172.20.230.250	Fa0/11	View			
<input type="checkbox"/>	172.20.230.250	Fa0/12	View			
<input type="checkbox"/>	172.20.230.250	Fa0/13	View			
<input type="checkbox"/>	172.20.230.250	Fa0/14	View			
<input type="checkbox"/>	172.20.230.250	Fa0/15	View			
<input type="checkbox"/>	172.20.230.250	Fa0/16	View			
<input type="checkbox"/>	172.20.230.250	Fa0/17	View			
<input type="checkbox"/>	172.20.230.250	Fa0/18	View			
<input type="checkbox"/>	172.20.230.250	Fa0/19	View			
<input type="checkbox"/>	172.20.230.250	Fa0/20	View			
<input type="checkbox"/>	172.20.230.250	Fa0/21	View			
<input type="checkbox"/>	172.20.230.250	Fa0/22	View			
<input type="checkbox"/>	172.20.230.250	Fa0/23	View			
<input type="checkbox"/>	test_3	Fa0/24	View	3012	172.20.230.33	Cisco 7961
<input type="checkbox"/>	172.20.230.250	Fa0/25	View			
<input type="checkbox"/>	172.20.230.250	Fa0/26	View			
<input type="checkbox"/>	172.20.230.250	Fa0/27	View			
<input type="checkbox"/>	172.20.230.250	Fa0/28	View			



Cisco Emergency Responder Administration
For Cisco Unified Communications Solutions

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

Switch Port Details [Export](#) [Import](#)

	IP Address	Port	View	MAC	VLAN	Device
<input type="checkbox"/>	172.20.230.250	Fa0/29	View			
<input type="checkbox"/>	172.20.230.250	Fa0/30	View			
<input type="checkbox"/>	172.20.230.250	Fa0/31	View			
<input type="checkbox"/>	172.20.230.250	Fa0/32	View			
<input type="checkbox"/>	172.20.230.250	Fa0/33	View			
<input type="checkbox"/>	172.20.230.250	Fa0/34	View			
<input type="checkbox"/>	172.20.230.250	Fa0/35	View			
<input type="checkbox"/>	172.20.230.250	Fa0/36	View			
<input type="checkbox"/>	172.20.230.250	Fa0/37	View			
<input type="checkbox"/>	172.20.230.250	Fa0/38	View	6008	172.20.230.32	Cisco 7961
<input type="checkbox"/>	172.20.230.250	Fa0/39	View			
<input type="checkbox"/>	172.20.230.250	Fa0/40	View			
<input type="checkbox"/>	172.20.230.250	Fa0/41	View			
<input type="checkbox"/>	172.20.230.250	Fa0/42	View			
<input type="checkbox"/>	172.20.230.250	Fa0/43	View			
<input type="checkbox"/>	172.20.230.250	Fa0/44	View			
<input type="checkbox"/>	172.20.230.250	Fa0/45	View			
<input type="checkbox"/>	172.20.230.250	Fa0/46	View			
<input type="checkbox"/>	172.20.230.250	Fa0/47	View			
<input type="checkbox"/>	172.20.230.250	Fa0/48	View			

Go 1 of 1



Defining Manual Phones (PBX Stations)

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 ▾

Find and List Manually Configured Phones [Export](#) [Import](#)

Status
Ready

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

Manually Configured Phones (1 - 2 of 2)

Line Number	ERL Name	IP Address	MAC Address	Location	Edit	Delete
2004	Test 1					
2006	test 2					

Go 1 of 1



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 *	2004
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

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 *	2006
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"/>



Cisco CMM IOS Gateway MGCP Configuration for QSIG Connectivity

Ri-3825#sh ver

Cisco IOS Software, 3800 Software (C3825-IPVOICEK9-M), Version 12.4(15)T1, RELEA
SE SOFTWARE (fc2)

Technical Support: <http://www.cisco.com/techsupport>

Copyright (c) 1986-2007 by Cisco Systems, Inc.

Compiled Wed 18-Jul-07 11:23 by prod_rel_team

ROM: System Bootstrap, Version 12.3(11r)T2, RELEASE SOFTWARE (fc1)

Ri-3825 uptime is 4 weeks, 6 days, 23 hours, 15 minutes

System returned to ROM by reload at 17:08:17 UTC Tue Jul 24 2007

System image file is "flash:c3825-ipvoicek9-mz.124-15.T1.bin"

This product contains cryptographic features and is subject to United States and local country laws governing import, export, transfer and use. Delivery of Cisco cryptographic products does not imply third-party authority to import, export, distribute or use encryption. Importers, exporters, distributors and users are responsible for compliance with U.S. and local country laws. By using this product you agree to comply with applicable laws and regulations. If you are unable to comply with U.S. and local laws, return this product immediately.

A summary of U.S. laws governing Cisco cryptographic products may be found at:

<http://www.cisco.com/wwl/export/crypto/tool/stqrg.html>

If you require further assistance please contact us by sending email to export@cisco.com.

Cisco 3825 (revision 1.0) with 224256K/37888K bytes of memory.

Processor board ID FTX0946A1BT

2 Gigabit Ethernet interfaces

48 Serial interfaces

2 Channelized T1/PRI ports

2 Voice FXS interfaces



DRAM configuration is 64 bits wide with parity enabled.
479K bytes of NVRAM.
62720K bytes of ATA System CompactFlash (Read/Write)

Configuration register is 0x2102

Ri-3825#sh run

Building configuration...

Current configuration : 2419 bytes

```
!  
version 12.4  
service timestamps debug datetime msec  
service timestamps log datetime msec  
no service password-encryption  
!  
hostname Ri-3825  
!  
boot-start-marker  
boot-end-marker  
!  
enable password cisco  
!  
no aaa new-model  
network-clock-participate slot 1  
no network-clock-participate slot 2  
network-clock-select 1 T1 1/0/0  
voice-card 0  
no dspfarm  
!  
voice-card 1  
dspfarm  
!  
voice-card 2  
no dspfarm  
!
```



```
ip cef
!
!
!
!
no ip domain lookup
ip host CM-Titanic 172.20.140.254 >=====Active Host
ip host CM-SPURS 172.20.192.254
multilink bundle-name authenticated
!
isdn switch-type primary-qsig
!
!
!
!
!
!
!
!
!
!
archive
log config
hidekeys
!
!
controller T1 1/0/0
framing esf
linecode b8zs
pri-group timeslots 1-24 service mgcp
!
controller T1 1/0/1
shutdown
framing esf
linecode b8zs
cablelength short 399
pri-group timeslots 1-24 service mgcp
```



```
!  
!  
!  
!  
!  
interface GigabitEthernet0/0  
ip address 172.20.192.21 255.255.255.0  
duplex auto  
speed auto  
media-type rj45  
!  
interface GigabitEthernet0/1  
no ip address  
shutdown  
duplex auto  
speed auto  
media-type rj45  
!  
interface Serial1/0/0:23  
no ip address  
encapsulation hdlc  
isdn switch-type primary-qsig  
isdn timer T310 120000  
isdn protocol-emulate network  
isdn incoming-voice voice  
isdn bind-l3 ccm-manager  
no cdp enable  
!  
interface Serial1/0/1:23  
no ip address  
encapsulation hdlc  
shutdown  
isdn switch-type primary-qsig  
isdn incoming-voice voice  
isdn bind-l3 ccm-manager  
no cdp enable
```



```
!  
ip route 0.0.0.0 0.0.0.0 172.20.192.1  
!  
!  
ip http server  
no ip http secure-server  
!  
!  
!  
!  
control-plane  
!  
!  
!  
voice-port 1/0/0:23  
!  
voice-port 1/0/1:23  
!  
voice-port 2/0/0  
!  
voice-port 2/0/1  
!  
ccm-manager mgcp  
ccm-manager music-on-hold  
ccm-manager config server CM-Titanic  
ccm-manager config  
!  
mgcp  
mgcp call-agent CM-Titanic 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  
mgcp package-capability sst-package  
mgcp package-capability pre-package  
no mgcp package-capability res-package
```



```
no mgcp package-capability fxr-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
```

```
login
```

```
stopbits 1
```

```
line aux 0
```

```
stopbits 1
```

```
line vty 0 4
```

```
password cisco
```

```
login
```

```
!
```

```
scheduler allocate 20000 1000
```

```
!
```

```
end
```

Cisco 3825 IOS Gateway H323 configuration for CAMA trunk connectivity

```
Router#sh ver
```

```
Cisco IOS Software, 3800 Software (C3825-ADVENTERPRISEK9_IVS-M), Version 12.4(11
```

```
)T1, RELEASE SOFTWARE (fc5)
```

```
Technical Support: http://www.cisco.com/techsupport
```

```
Copyright (c) 1986-2007 by Cisco Systems, Inc.
```

```
Compiled Thu 25-Jan-07 17:16 by prod_rel_team
```

```
ROM: System Bootstrap, Version 12.3(11r)T2, RELEASE SOFTWARE (fc1)
```

```
Router uptime is 1 week, 3 days, 17 hours, 23 minutes
```

```
System returned to ROM by power-on
```



System image file is "flash:c3825-adventerprisek9_ivs-mz.124-11.T1.bin"

This product contains cryptographic features and is subject to United States and local country laws governing import, export, transfer and use. Delivery of Cisco cryptographic products does not imply third-party authority to import, export, distribute or use encryption. Importers, exporters, distributors and users are responsible for compliance with U.S. and local country laws. By using this product you agree to comply with applicable laws and regulations. If you are unable to comply with U.S. and local laws, return this product immediately.

A summary of U.S. laws governing Cisco cryptographic products may be found at:
<http://www.cisco.com/wwl/export/crypto/tool/stqrg.html>

If you require further assistance please contact us by sending email to export@cisco.com.

Cisco 3825 (revision 1.0) with 223232K/38912K bytes of memory.

Processor board ID FTX0946A1BV

2 Gigabit Ethernet interfaces

24 Serial interfaces

1 Channelized T1/PRI port

1 Virtual Private Network (VPN) Module

2 Voice FXO interfaces

2 Voice FXS interfaces

DRAM configuration is 64 bits wide with parity enabled.

479K bytes of NVRAM.

62720K bytes of ATA System CompactFlash (Read/Write)

Configuration register is 0x2102



Router#sh run

Building configuration...

Current configuration : 2545 bytes

!

version 12.4

service timestamps debug datetime msec

service timestamps log datetime msec

no service password-encryption

!

hostname Router

!

boot-start-marker

boot system flash:c3825-adventerprisek9_ivs-mz.124-11.T1.bin

boot-end-marker

!

logging buffered 10000000

no logging console

enable password cisco

!

no aaa new-model

no network-clock-participate slot 1

voice-card 0

dspfarm

dsp services dspfarm

!

voice-card 1

dspfarm

!

ip cef

!

!

!

!

!



```
multilink bundle-name authenticated
!
isdn switch-type primary-dms100
!
!
!
voice service voip
  allow-connections h323 to h323=====H323 protocol
  allow-connections h323 to sip
  allow-connections sip to h323
  allow-connections sip to sip
  h323
  sip
!
!
!
voice class codec 1
  codec preference 1 g729r8
!
!
!
!
!
!
!
controller T1 1/0/0
  framing esf
  linecode b8zs
  pri-group timeslots 1-24
!
!
!
!
!
```



```
interface GigabitEthernet0/0
ip address 172.20.192.102 255.255.255.0
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
!
interface Serial1/0/0:23
no ip address
encapsulation hdlc
isdn switch-type primary-dms100
isdn incoming-voice voice
no cdp enable
!
ip default-gateway 172.20.192.1
ip route 0.0.0.0 0.0.0.0 172.20.192.1
!
!
ip http server
no ip http secure-server
!
!
!
!
!
!
!
```



```
control-plane
!
!
!
voice-port 0/0/0 ==>CAMA signaling
signal cama KP-0-NPA-NXX-XXXX-ST
dial-type mf
timing hookflash-out 500
description CAMA
!
voice-port 0/0/1
!
voice-port 0/2/0
station-id name Test Analog
station-id number 7055
!
voice-port 0/2/1
station-id name RI-NGUYEN
station-id number 4085261122
caller-id enable
!
voice-port 1/0/0:23
!
!
!
sccp local GigabitEthernet0/0
sccp ccm 172.20.8.254 identifier 1 version 4.1
sccp
!
sccp ccm group 1
associate ccm 1 priority 1
associate profile 1 register mtp0015f90d1590
!
dspfarm profile 1 mtp
codec g711ulaw
```



```
maximum sessions software 10
associate application SCCP
shutdown
!
!
dial-peer voice 911 pots
destination-pattern 911
no digit-strip
port 0/0/0
forward-digits all
!
dial-peer voice 999 voip
description call in PSTN simulation
destination-pattern .T
session target ipv4:172.20.140.254
!
!
gateway
timer receive-rtcp 1200
!
sip-ua
retry options 0
!
!
!
gatekeeper
shutdown
!
!
line con 0
exec-timeout 0 0
password cisco
login
stopbits 1
line aux 0
```



```
stopbits 1
line vty 0 4
exec-timeout 0 0
password cisco
login
line vty 5 10
exec-timeout 0 0
password cisco
login
!
scheduler allocate 20000 1000
!
end
```



CAMA voice-port configuration

Router#sh voice port 0/0/0

Foreign Exchange Office 0/0/0 Slot is 0, Sub-unit is 0, 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 9

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



AVAYA Definity G3si Configuration

The AVAYA Definity G3si Switch 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 AVAYA information below is directed to AVAYA techs

The switch settings and software references in this document assume a familiarity with the AVAYA Definity G3si. It is highly recommended to have a AVAYA Definity G3si ISDN certified technician setup the AVAYA portion.

DS1 CIRCUIT PACK

```
1 2 |
DS1 CIRCUIT PACK

Location: 01A12          Name: CER 2.0
Bit Rate: 1.544         Line Coding: b8zs
Line Compensation: 1    Framing Mode: esf
Signaling Mode: isdn-pri
Connect: pbx           Interface: peer-master
TN-C7 Long Timers? n   Peer Protocol: Q-SIG
Interworking Message: ALERTing Side: a
Interface Companding: mulaw CRC? n
Idle Code: 11111111
DCP/Analog Bearer Capability: speech

Slip Detection? n      Near-end CSU Type: other
```

SIGNALING GROUP

```
SIGNALING GROUP

Group Number: 12      Group Type: isdn-pri
Associated Signaling? y   Max number of NCA TSC: 12
Primary D-Channel: 01A1224 Max number of CA TSC: 12
Trunk Group for NCA TSC: 12
Trunk Group for Channel Selection: 12 X-Mobility/Wireless Type: NONE
Supplementary Service Protocol: b
```




TRUNK GROUP

```
 1  2  3  4  5  6  7  8  9 10 |
                                TRUNK GROUP
Group Number: 12                Group Type: isdn                CDR Reports: y
Group Name: CER 2.0             COR: 1                        TN: 1          TAC: 612
Direction: two-way             Outgoing Display? n    Carrier Medium: PRI/BRI
Dial Access? y                 Busy Threshold: 99     Night Service:
Queue Length: 0
Service Type: tie               Auth Code? n           TestCall ITC: rest
                                Far End Test Line No:
TestCall BCC: 4
TRUNK PARAMETERS
  Codeset to Send Display: 0    Codeset to Send National IEs: 6
  Max Message Size to Send: 260 Charge Advice: none
  Supplementary Service Protocol: b Digit Handling (in/out): enbloc/enbloc

  Trunk Hunt: descend          QSIG Value-Added? n
                                Digital Loss Group: 13
Calling Number - Delete:      Insert:                 Numbering Format: unk-unk
  Bit Rate: 1200              Synchronization: async Duplex: full
Disconnect Supervision - In? y Out? y
Answer Supervision Timeout: 0
```

```
 1  2  3  4  5  6  7  8  9 10 |
TRUNK FEATURES
  ACA Assignment? n            Measured: none         Wideband Support? n
                                Internal Alert? n      Maintenance Tests? y
                                Data Restriction? n   NCA-TSC Trunk Member: 1
                                Send Name: y          Send Calling Number: y
  Used for DCS? n             Hop Dgt? n
  Suppress # Outpulsing? n    Numbering Format: unknown
Outgoing Channel ID Encoding: preferred UUI IE Treatment: service-provider

                                Replace Restricted Numbers? y
                                Replace Unavailable Numbers? y
                                Send Connected Number: y

  Send UUI IE? n
  Send UCID? n
Send Codeset 6/7 LAI IE? n    Ds1 Echo Cancellation? n

Path Replacement with Retention? n
Path Replacement Method: better-route
  SBS? n Network (Japan) Needs Connect Before Disconnect? n
```



1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	----

```

TRUNK GROUP
  Administered Members (min/max): 1/5
  Total Administered Members: 5
GROUP MEMBER ASSIGNMENTS
  Port   Code Sfx Name      Night      Sig Grp
  1: 01A1201 TN464 F           12
  2: 01A1202 TN464 F           12
  3: 01A1203 TN464 F           12
  4: 01A1204 TN464 F           12
  5: 01A1205 TN464 F           12
  6:
  7:
  8:
  9:
 10:
 11:
 12:
 13:
 14:
 15:

```

Note: Only 5 timeslots were used for testing purposes. For actual deployment assign all 23 (for single T1) available B-channels

Uniform Dial-plan to call CUCM extension

1	2
---	---

```

UNIFORM DIAL PLAN TABLE
  Percent Full: 0
Matching      Insert          Node      Matching      Insert          Node
Pattern Len Del Digits Net Conv Num Pattern Len Del Digits Net Conv Num
70          4   0   612  aar   n              70          4   0   612  aar   n
              n
              n
              n
              n
              n
              n
              n
              n
              n
              n
              n
              n
              n
              n
              n
              n
              n
              n
              n
              n
              n

```

AAR analysis



1 2

AAR DIGIT ANALYSIS TABLE

Percent Full: 9

Dialed String	Total		Route Pattern	Call Type	Node Num	ANI Reqd
	Min	Max				
612	7	7	12	aar	2	n
613	7	7	13	aar	1	n
614	7	7	14	aar		y
615	7	7	15	aar		n
616	7	7	16	aar		n
617	7	7	17	aar		n
627	7	7	7	aar		n
668	7	7	199	aar		n
678	7	7	199	aar		n
681	7	7	81	aar		n
7	7	7	254	aar		n
8	7	7	9	aar		n
9	7	7	253	aar		n
972	6	10	12	aar		n
999	7	7	99	aar		n



Route-pattern to call CUCM extensions

```

Pattern Number: 12 Pattern Name:

  Grp FRL NPA Pfx Hop Toll No.  Inserted          DCS/ IXC
  No      Mrk Lmt List Del  Digits          QSIG
                                Dgts          Intw
1: 12    0                3                n  user
2:                3                n  user
3:                3                n  user
4:                3                n  user
5:                3                n  user
6:                3                n  user

  BCC VALUE  TSC CA-TSC  ITC BCIE Service/Feature BAND  No. Numbering LAR
  0 1 2 3 4 W  Request      rest
1: y y y y y n y none rest none
2: y y y y y n n rest rest none
3: y y y y y n n rest rest none
4: y y y y y n n rest rest none
5: y y y y y n n rest rest none
6: y y y y y n n rest rest none

```

ARS access-code '9'

```

1 | 2 | 3 | 4 | 5 | 6 | 7 |
FEATURE ACCESS CODE (FAC)
Abbreviated Dialing List1 Access Code:
Abbreviated Dialing List2 Access Code:
Abbreviated Dialing List3 Access Code:
Abbreviated Dial - Prgm Group List Access Code:
Announcement Access Code:
Answer Back Access Code:

Auto Alternate Routing (AAR) Access Code: 8
Auto Route Selection (ARS) - Access Code 1: 9 Access Code 2:
Automatic Callback Activation: Deactivation:
Call Forwarding Activation Busy/DA: *72 All: *70 Deactivation: *71
Call Park Access Code:
Call Pickup Access Code:
CAS Remote Hold/Answer Hold-Unhold Access Code:
CDR Account Code Access Code:
Change COR Access Code:
Change Coverage Access Code:

```

ARS 9911

```

1 | 2 |
ARS DIGIT ANALYSIS TABLE
Location: all Percent Full: 9

Dialled Total Route Call Node ANI
String Min Max Pattern Type Num Reqd
900 7 7 11 hnpa n
911 3 3 9 lpvt y
972 10 10 22 fnpa n
976 7 7 11 hnpa n
n
n
n
n
n
n
n
n
n
n

```



911 route-pattern

Pattern Number: 9 Pattern Name:											
Grp No	FRL	NPA	Pfx	Hop	Toll	No. Del	Inserted Dgts	DCS/ IXC	IXC	QSIG	Intw
1:	12	0						n	user		
2:								n	user		
3:								n	user		
4:								n	user		
5:								n	user		
6:								n	user		

BCC	VALUE	TSC	CA-TSC	ITC	BCIE	Service/Feature	BAND	No. Dgts	Numbering Format	Subaddress	LAR
0	1	2	3	4	W	Request					
1:	y	y	y	y	n	y	rest				none
2:	y	y	y	y	n	n	rest				none
3:	y	y	y	y	n	n	rest				none
4:	y	y	y	y	n	n	rest				none
5:	y	y	y	y	n	n	rest				none
6:	y	y	y	y	n	n	rest				none

Digital Station

1	2	3	4
STATION			
Extension: 2004		Lock Messages? n	
Type: 8410D		Security Code:	
Port: 01A0604		Coverage Path 1: 103	
Name: PBX-Ken1		Coverage Path 2:	
		BCC: 0	
		TN: 1	
		COR: 1	
		COS: 1	
		Hunt-to Station:	
STATION OPTIONS			
Loss Group: 2		Personalized Ringing Pattern: 1	
Data Module? n		Message Lamp Ext: 2004	
Speakerphone: 2-way		Mute Button Enabled? y	
Display Language: english			
		Media Complex Ext:	
		IP SoftPhone? n	
1	2	3	4
STATION			
FEATURE OPTIONS			
LWC Reception: spe		Auto Select Any Idle Appearance? n	
LWC Activation? y		Coverage Msg Retrieval? y	
LWC Log External Calls? n		Auto Answer: none	
CDR Privacy? n		Data Restriction? n	
Redirect Notification? y		Idle Appearance Preference? n	
Per Button Ring Control? n		Restrict Last Appearance? n	
Bridged Call Alerting? n			
Active Station Ringing: single			
H.320 Conversion? n		Per Station CPN - Send Calling Number?	
Service Link Mode: as-needed		Audible Message Waiting? y	
Multimedia Mode: basic		Display Client Redirection? y	
MWI Served User Type:		Select Last Used Appearance? n	
		Coverage After Forwarding? s	
		Multimedia Early Answer? n	
		Direct IP-IP Audio Connections? y	
Emergency Location Ext: 2004		IP Audio Hairpinning? y	



```

1 | 2 | 3 | 4 |
STATION

SITE DATA
Room:                               Headset? n
Jack:                               Speaker? n
Cable:                              Mounting: d
Floor:                              Cord Length: 0
Building:                            Set Color:

ABBREVIATED DIALING
List1:                               List2:                               List3:

BUTTON ASSIGNMENTS
1: call-appr                         6:
2: call-appr                         7:
3: cfwd-bsyda Ext:                  8:
4:                                  9:
5:                                  10: last-numb

1 | 2 | 3 | 4 |
STATION

SOFTKEY BUTTON ASSIGNMENTS

1: lwc-store
2: lwc-cancel
3: auto-cback
4: timer
5: call-fwd Ext:
6: call-park
7: date-time
8: priority
9: abr-prog
10: abr-spchar Char: ~p
11: abr-spchar Char: ~n
12: abr-spchar Char: ~w

```

Acronyms

Acronym	Definitions
CAMA	Centralized Automatic Message Accounting
PSAP	Public Safety Answering Point
CER	Cisco Emergency Responder
CUCM	Cisco Unified Communications Manager



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