

Cisco CallManager Release 4.1-PBX Interoperability: Avaya Definity G3 MV1.3 PBX using a Cisco 2621XM Gateway with E1 Q.SIG as a MGCP Gateway

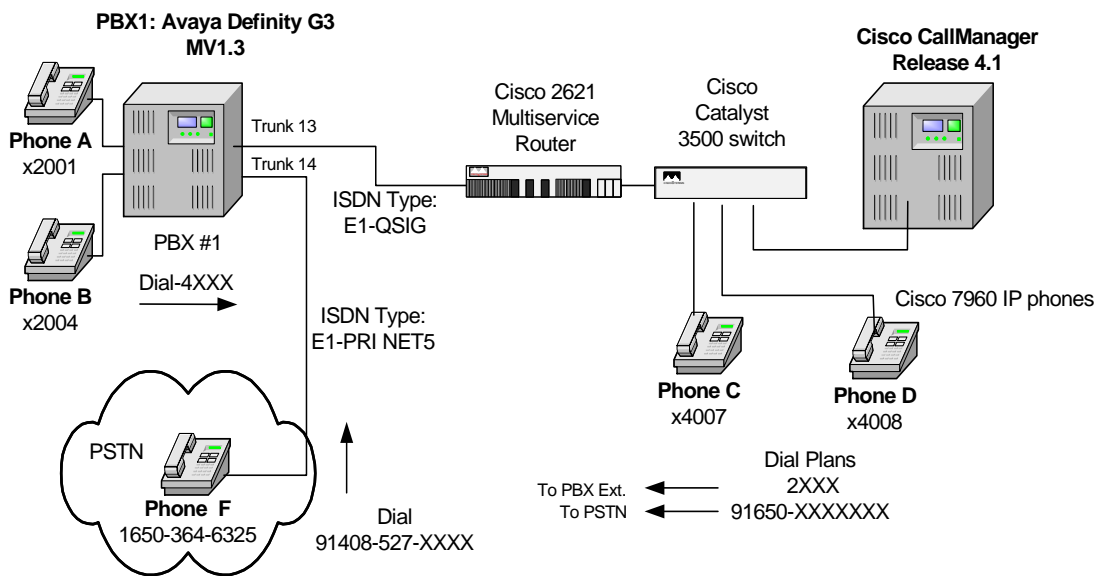
Introduction

- This is an application note for connectivity of Avaya Definity G3 MV1.3 PBX with Cisco CallManager Release 4.1 using Cisco 2621XM gateway with E1 Q.SIG as an MGCP gateway.
- The network topology diagram (Figure 1) shows the test setup for end-to-end interoperability with the Cisco CallManager connected to the PBX through a Cisco 2621XM-E1 Q.SIG link as MGCP gateway.
- Connectivity is achieved by using the PRI ISO Q.SIG E1 protocol type on the MGCP gateway and ISO Q.SIG switch type on the Avaya Definity G3 MV1.3 PBX.
- This application note uses the Cisco 2621XM-E1 voice gateway, however other Cisco voice gateways are also an option to use since CallManager Q.SIG implementation does not depend on the physical interface.

Network Topology

Figure 1. Network Topology

Basic Call Setup End-to-End Configuration





Limitations

Additional Network Feature Path Replacement for Call Diversion

- The Avaya Call Diversion by Reroute cannot be turned off. When using Call Forwarding (Unconditional, Busy or No Reply) by Join or Path Replacement for forwarded calls (Unconditional, Busy or No Reply) over a Q.SIG network, the Avaya PBX automatically performs a Call Diversion by reroute method to obtain the best route. Path Replacement method is properly executed on an established call after a Call Transfer.

Additional Network Feature Path Replacement for Tromboned Connection after Call Transfer

- Path Replacement on a tromboned connection following a Call Transfer is not successful when the Avaya PBX is the originating and terminating side of a transferred call. The Avaya PBX proposed the Path Replacement, which is passed by the Cisco CallManager as the transferring node back to the Avaya PBX. However, upon receipt of the Path Replacement proposal, the Avaya PBX sends back a retError of "criteriaTemporarilyUnachievable", so no path replacement takes place. The B-channels between the Avaya and the Call Manager is still used throughout the duration of the call.

System Components

Hardware Requirements

- Cisco Hardware:
 - Cisco Catalyst 3500 switch
 - Cisco 2621XM
 - Cisco CallManager 4.1
- Lucent/Avaya Definity G3si MV1.3 PBX Hardware:
 - TN464F, DS1 INTFC 24/32

Software Requirements

- PBX Software MV1.3
- Cisco CallManager 4.1

Features

Features Supported

- CLIP-Calling Line (Number) Identification Presentation
- CLIR-Calling Line (Number) Identification Restriction
- CNIP-Calling Name Identification Presentation
- CNIR-Calling Name Identification Restriction
- COLP-Connected Line (Number) Identification Presentation
- COLR- Connected Line (Number) Identification Restriction
- CONP-Connected Name Identification Presentation
- CONR- Connected Name Identification Restriction



- Sending Alerting Name
- CT-Call Transfer (by join)
- CFU-Call Forwarding Unconditional (by join)
- CFB-Call Forwarding Busy (by join)
- CFNR-Call Forwarding No Reply (by join)
- CFU-Call Forwarding Unconditional (by Reroute)
- CFB-Call Forwarding Busy (by Reroute)
- CFNR-Call Forwarding No Reply (by Reroute)
- CCBS-Call Completion to Busy Subscriber
- CCNR-Call Completion No Reply
- ANF-PR-Additional Network Feature Path Replacement (for Call Transfer by join)
- ANF-PR-Additional Network Feature Path Replacement (for Call Diversion by forward switching)
- ANF-PR-Additional Network Feature Path Replacement (for Trombone connection)
- MWI- Message Waiting Indication (lamp ON, lamp OFF)

Features Not Supported

None

Configuration

Configuration Sequence and Tasks

Configure in the following sequence:

1. Add the new circuit pack.
2. Add the new signaling group.
3. Add the new trunk group.
4. Add Uniform Dialing Plan.



Configuration Menus and Commands

Configuring the Lucent/Avaya Definity G3si MV1.3 PBX

DS1 Circuit Pack

```
Avaya Site Administration - [multivantage Emulation: 513]
File Edit View System Action Tools Window Help
cancel refresh enter clear help go to page next page prev page
display ds1 a13
DS1 CIRCUIT PACK
Location: 01A13 Name: QSIG TO 2621
Bit Rate: 2.048 Line Coding: hdb3
Signaling Mode: isdn-pri Interface: peer-master
Connect: pbx Peer Protocol: Q-SIG
TN-C7 Long Timers? n Side: a
Interworking Message: PROgress CRC? y
Interface Companding: alaw Channel Numbering: timeslot
Idle Code: 11111111 DCP/Analog Bearer Capability: 3.1kHz
Slip Detection? n Near-end CSU Type: other
Command:
```



Signaling Group

The screenshot shows the Avaya Site Administration interface. The title bar reads "Avaya Site Administration - [multivantage Emulation: 513]". The menu bar includes File, Edit, View, System, Action, Tools, Window, and Help. The toolbar contains various icons for file operations and navigation. Below the toolbar is a command line with the text "display signaling-group 13". The main display area shows the following configuration details for signaling group 13:

```
SIGNALING GROUP

Group Number: 13          Group Type: isdn-pri
Associated Signaling? y   Max number of NCA TSC: 5
Primary D-Channel: 01A1316 Max number of CA TSC: 23
Trunk Group for NCA TSC: 13
Trunk Group for Channel Selection: 13 X-Mobility/Wireless Type: NONE
Supplementary Service Protocol: b
```

At the bottom of the window, there is a "Command:" prompt and a status bar with the text "Create a new generic device for administration" and a "NUM" button.



Avaya Site Administration - [multivantage Emulation: 513]

File Edit View System Action Tools Window Help

cancel refresh enter clear help go to page next page prev page

display trunk-group 13 Page 1 of 10

TRUNK GROUP

Group Number: 13 Group Type: isdn CDR Reports: y
Group Name: MU QSIG TO 2621 COR: 1 TN: 1 TAC: 613
Direction: two-way Outgoing Display? y 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: 7
Max Message Size to Send: 260 Charge Advice: during-on-request
Supplementary Service Protocol: b Digit Handling (in/out): enbloc/enbloc

Trunk Hunt: ascend QSIG Value-Added? n
Digital Loss Group: 13
Calling Number - Delete: Insert: Numbering Format: lev0-pvt
Bit Rate: 1200 Synchronization: async Duplex: full
Disconnect Supervision - In? y Out? y
Answer Supervision Timeout: 0

NUM



Avaya Site Administration - [multivantage Emulation: 513]

File Edit View System Action Tools Window Help

cancel refresh enter clear help go to page next page prev page

display trunk-group 13 Page 2 of 10

TRUNK FEATURES

ACA Assignment? n	Measured: none	Wideband Support? n
	Internal Alert? n	Maintenance Tests? y
	Data Restriction? n	NCA-TSC Trunk Member:
	Send Name: y	Send Calling Number: y
Used for DCS? n	Hop Dgt? n	
Suppress # Outpulsing? n	Numbering Format: private	
Outgoing Channel ID Encoding: preferred	UUI IE Treatment: service-provider	
Charge Conversion: 1		
Decimal Point: none	Replace Restricted Numbers? y	
Currency Symbol:	Replace Unavailable Numbers? n	
Charge Type: units	Send Connected Number: y	
Send UUI IE? n		
Send UCID? n		
Send Codeset 6/7 LAI IE? y	Ds1 Echo Cancellation? n	
Path Replacement with Retention? n		
Path Replacement Method: better-route		
SBS? n	Network (Japan) Needs Connect Before Disconnect? y	

Ready NUM



Avaya Site Administration - [multivantage Emulation: 513]

File Edit View System Action Tools Window Help

cancel refresh enter clear help go to page next page prev page

display trunk-group 13 Page 4 of 10

TRUNK GROUP

Administered Members (min/max): 1/7
Total Administered Members: 7

GROUP MEMBER ASSIGNMENTS

	Port	Code	Sfx	Name	Night	Sig Grp
1:	01A1301	TN464	F			13
2:	01A1302	TN464	F			13
3:	01A1303	TN464	F			13
4:	01A1304	TN464	F			13
5:	01A1305	TN464	F			13
6:	01A1306	TN464	F			13
7:	01A1307	TN464	F			13
8:						
9:						
10:						
11:						
12:						
13:						
14:						
15:						

Ready NUM



Uniform Dialing Plan

Avaya Site Administration - [multivantage Emulation: 513]

File Edit View System Action Tools Window Help

cancel refresh enter clear help go to page next page prev page

display uniform-dialplan 0 Page 1 of 2

UNIFORM DIAL PLAN TABLE

Percent Full: 0

Matching Pattern	Len	Del	Insert Digits	Net	Conv	Node Num	Matching Pattern	Len	Del	Insert Digits	Net	Conv	Node Num
10	4	0	998	aar	n	n							
2005	4	0	777	aar	n	n							
2012	4	0	333	aar	n	n							
30	4	0	666	aar	n	n							
31	4	0	310	aar	n	n							
4	4	0	222	aar	n	n							
4003	4	0	666	aar	n	n							
4006	4	0	510	aar	n	n							
5	4	0	555	aar	n	n							
5050	4	0	777	aar	n	n							
51	4	0	510	aar	n	n							
52	4	0	520	aar	n	n							
53	4	0	530	aar	n	n							
54	4	0	999	aar	n	n							
7	4	0	777	aar	n	n							

NUM



AAR Analysis

Avaya Site Administration - [multivantage Emulation: 513]

File Edit View System Action Tools Window Help

cancel refresh enter clear help go to page next page prev page

display aar analysis 1 Page 1 of 2

AAR DIGIT ANALYSIS TABLE

Percent Full: 2

Dialed String	Total		Route Pattern	Call Type	Node Num	ANI Reqd
	Min	Max				
111	7	7	111	aar		n
123	7	7	11	aar		n
2	7	7	254	aar		n
214	4	10	12	aar		n
222	7	7	104	lev0	2	n
223	7	7	12	aar		n
3	7	7	254	aar		n
310	7	7	15	aar		n
333	7	7	14	aar		n
444	7	7	104	lev0	2	n
555	7	7	105	lev0	3	n
777	7	7	13	aar		n
998	7	7	11	aar		n
999	7	7	98	aar		n

Ready NUM



Dialplan Analysis

Avaya Site Administration - [multivantage Emulation: 513]

File Edit View System Action Tools Window Help

cancel refresh enter clear help go to page next page prev page

display dialplan analysis Page 1 of 3

DIAL PLAN ANALYSIS TABLE

Percent Full: 2

Dialed String	Total Length	Call Type	Dialed String	Total Length	Call Type	Dialed String	Total Length	Call Type
0	1	attd						
16	4	ext						
20	4	ext						
22	4	dac						
3	4	ext						
4	4	ext						
5	4	ext						
6	3	dac						
7	5	ext						
8	1	fac						
9	1	fac						
*	3	fac						

Ready NUM



Dialplan Parameter

The screenshot shows a web-based interface for Avaya Site Administration. The title bar reads "Avaya Site Administration - [multivantage Emulation: 513]". The menu bar includes File, Edit, View, System, Action, Tools, Window, and Help. The toolbar contains various icons for file operations and a search box with the text "multivantage". Below the toolbar is a navigation bar with buttons for "cancel", "New Messaging System", "clear", "help", "go to page", "next page", and "prev page". The main content area has a blue background and displays the command "display dialplan parameters" in yellow. Below this, the output is shown in white text on a blue background:

```
DIAL PLAN PARAMETERS

Local Node Number: 1
ETA Node Number:
ETA Routing Pattern:
UDP Extension Search Order: udp-table-first
6-Digit Extension Display Format: xx.xx.xx
7-Digit Extension Display Format: xxx-xxxx
```

At the bottom of the main content area, there is a yellow bar with the text "Command:".

The footer of the interface contains the text "Create a new Messaging System for administration" and a "NUM" button.



Route Patterns

Avaya Site Administration - [multivantage Emulation: 513]

File Edit View System Action Tools Window Help

cancel refresh enter clear help go to page next page prev page

display route-pattern 104

Pattern Number: 104 Pattern Name: QSIG - 13 First

Grp No	FRL	NPA	Pfx Mrk	Hop Lmt	Toll List	No. Del	Inserted Dgts	DCS/ QSIG	IXC Intw
1:	13	0				3		n	user
2:	14	0				3		n	user
3:								n	user
4:								n	user
5:								n	user
6:								n	user

Grp No	BCC	VALUE	TSC	CA-TSC	ITC	BCIE	Service/Feature	BAND	No. Dgts	Numbering Format	LAR
	0	1	2	3	4	W	Request			Subaddress	
1:	y	y	y	y	y	n	y as-needed	bothept		lev0-pvt	none
2:	y	y	y	y	y	n	y as-needed	bothept		lev0-pvt	none
3:	y	y	y	y	y	n	n	rest			none
4:	y	y	y	y	y	n	n	rest			none
5:	y	y	y	y	y	n	n	rest			none
6:	y	y	y	y	y	n	n	rest			none

Command:

Ready NUM



Avaya Site Administration - [multivantage Emulation: 513]

File Edit View System Action Tools Window Help

cancel refresh enter clear help go to page next page prev page

display route-pattern 105

Pattern Number: 105 Pattern Name: QSIG - 14 First

Grp No	FRL	NPA	Pfx Mrk	Hop Lmt	Toll List	No. Del	Inserted Digits	DCS/ QSIG	IXC Intw
1:	14	0				3		n	user
2:	13	0				3		n	user
3:								n	user
4:								n	user
5:								n	user
6:								n	user

Grp No	BCC	VALUE	TSC	CA-TSC	ITC	BCIE	Service/Feature	BAND	No. Dgts	Numbering Format	LAR
	0	1	2	3	4	W	Request			Subaddress	
1:	y	y	y	y	y	n	y as-needed	bothept		lev0-pvt	none
2:	y	y	y	y	y	n	y as-needed	bothept		lev0-pvt	none
3:	y	y	y	y	y	n	n	rest			none
4:	y	y	y	y	y	n	n	rest			none
5:	y	y	y	y	y	n	n	rest			none
6:	y	y	y	y	y	n	n	rest			none

Command:

Ready NUM



ISDN Private Numbering Plan

The screenshot shows a window titled "Avaya Site Administration - [multivantage Emulation: 513]". The menu bar includes File, Edit, View, System, Action, Tools, Window, and Help. The toolbar contains various icons for file operations and navigation. Below the toolbar is a command line with the text "display isdn private-numbering". The main display area is dark blue and shows the following configuration details:

```
ISDN NUMBERING - PRIVATE FORMAT  
Network Level: 0          PBX Identifier: 111  
Level 2 Code:             Deleted Digits: 0  
Level 1 Code:
```

At the bottom of the window, there is a "Command:" prompt with a cursor. The status bar at the very bottom shows "Ready" and a "NUM" indicator.



DS1 Circuit Pack to PSTN

```
Avaya Site Administration - [multivantage Emulation: 513]
File Edit View System Action Tools Window Help
cancel refresh enter clear help go to page next page prev page
display ds1 a14
DS1 CIRCUIT PACK
Location: 01A14 Name: E1 QSIG MU-U10
Bit Rate: 2.048 Line Coding: hdb3
Signaling Mode: isdn-pri
Connect: network
TN-C7 Long Timers? n Country Protocol: etsi
Interworking Message: PROgress Protocol Version: a
Interface Companding: alaw CRC? y
Idle Code: 11111111 DCP/Analog Bearer Capability: 3.1KHz
Slip Detection? n Near-end CSU Type: other
Command:
```




Signalling Group to PSTN

The screenshot shows a terminal window titled "Avaya Site Administration - [multivantage Emulation: 513]". The command "display signaling-group 14" has been entered, resulting in the following output:

```
SIGNALING GROUP
Group Number: 14          Group Type: isdn-pri
Associated Signaling? y   Max number of NCA TSC: 0
Primary D-Channel: 01A1416 Max number of CA TSC: 0
                          Trunk Group for NCA TSC:
Trunk Group for Channel Selection: 14 X-Mobility/Wireless Type: NONE
Supplementary Service Protocol: b
```

At the bottom of the terminal window, the prompt "Command:" is visible with a cursor. The status bar at the bottom of the window shows "Ready" and a "NUM" indicator.



Trunk Group to PSTN

Avaya Site Administration - [multivantage Emulation: 513]

File Edit View System Action Tools Window Help

cancel refresh enter clear help go to page next page prev page

display trunk-group 14 Page 1 of 10

TRUNK GROUP

Group Number: 14 Group Type: isdn CDR Reports: y
Group Name: mv1.2 TIE TO U10 COR: 1 TN: 1 TAC: 614
Direction: two-way Outgoing Display? y Carrier Medium: PRI/BRI
Dial Access? y Busy Threshold: 99 Night Service:
Queue Length: 0
Service Type: public-ntwrk 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: 7
Max Message Size to Send: 260 Charge Advice: during-on-request
Supplementary Service Protocol: c Digit Handling (in/out): enbloc/enbloc

Trunk Hunt: ascend QSIG Value-Added? n
Digital Loss Group: 13

Calling Number - Delete: Insert: Numbering Format:
Bit Rate: 1200 Synchronization: async Duplex: full
Disconnect Supervision - In? y Out? n
Answer Supervision Timeout: 0

Ready NUM



Avaya Site Administration - [multivantage Emulation: 513]

File Edit View System Action Tools Window Help

cancel refresh enter clear help go to page next page prev page

change trunk-group 14 Page 2 of 10

TRUNK FEATURES

ACA Assignment? <u>n</u>	Measured: <u>none</u>	Wideband Support? <u>n</u>
		Maintenance Tests? <u>y</u>
	Data Restriction? <u>n</u>	NCA-TSC Trunk Member: <u>—</u>
	Send Name: <u>y</u>	Send Calling Number: <u>y</u>
Used for DCS? <u>n</u>		
Suppress # Outpulsing? <u>n</u>	Numbering Format: <u>public</u>	
Outgoing Channel ID Encoding: <u>preferred</u>	UII IE Treatment: <u>service-provider</u>	
Charge Conversion: <u>1</u>		
Decimal Point: <u>none</u>	Replace Restricted Numbers? <u>n</u>	
Currency Symbol: <u>—</u>	Replace Unavailable Numbers? <u>n</u>	
Charge Type: <u>units</u>	Send Connected Number: <u>y</u>	
Send UII IE? <u>n</u>		
Send UCID? <u>n</u>		
Send Codeset 6/7 LAI IE? <u>y</u>	Ds1 Echo Cancellation? <u>n</u>	

SBS? n Network (Japan) Needs Connect Before Disconnect? n

Ready NUM



Avaya Site Administration - [multivantage Emulation: 513]

File Edit View System Action Tools Window Help

cancel refresh enter clear help go to page next page prev page

change trunk-group 14 Page 4 of 10

TRUNK GROUP
Administered Members (min/max): 1/5
Total Administered Members: 5

GROUP MEMBER ASSIGNMENTS

	Port	Code	Sfx	Name	Night	Sig Grp
1:	0101401	TN464	F	_____	_____	14
2:	0101402	TN464	F	_____	_____	14
3:	0101403	TN464	F	_____	_____	14
4:	0101404	TN464	F	_____	_____	14
5:	0101405	TN464	F	_____	_____	14
6:	_____	_____	_____	_____	_____	_____
7:	_____	_____	_____	_____	_____	_____
8:	_____	_____	_____	_____	_____	_____
9:	_____	_____	_____	_____	_____	_____
10:	_____	_____	_____	_____	_____	_____
11:	_____	_____	_____	_____	_____	_____
12:	_____	_____	_____	_____	_____	_____
13:	_____	_____	_____	_____	_____	_____
14:	_____	_____	_____	_____	_____	_____
15:	_____	_____	_____	_____	_____	_____

Ready NUM



ARS ANALYSIS to route 1650 dialed string

Avaya Site Administration - [multivantage Emulation: 513]

File Edit View System Action Tools Window Help

cancel refresh enter clear help go to page next page prev page

change ars analysis 1 Page 1 of 2

ARS DIGIT ANALYSIS TABLE
Location: all Percent Full: 2

Dialed String	Total		Route Pattern	Call Type	Node Num	ANI Reqd
	Min	Max				
1	4	4	11	natl	---	n
1	11	11	13	hnpa	---	n
165	11	11	111	natl	---	n
555	10	10	11	natl	---	n
601	3	3	96	locl	---	n
9	28	28	11	natl	---	n
	---	---	---	---	---	n
	---	---	---	---	---	n
	---	---	---	---	---	n
	---	---	---	---	---	n
	---	---	---	---	---	n
	---	---	---	---	---	n
	---	---	---	---	---	n
	---	---	---	---	---	n
	---	---	---	---	---	n
	---	---	---	---	---	n

Ready NUM



Route Pattern Configuration

Avaya Site Administration - [multivantage Emulation: 513]

File Edit View System Action Tools Window Help

car New Messaging System ter clear help go to page next page prev page

change route-pattern 111 Page 1 of 1

Pattern Number: 111 Pattern Name: _____

Grp No	FRL	NPA	Pfx Mrk	Hop Lmt	Toll List	No. Del	Inserted Digits	DCS/ QSIG Intw	IXC
1:	14	0	408	-	-	-	_____	n	user
2:	-	-	-	-	-	-	_____	n	user
3:	-	-	-	-	-	-	_____	n	user
4:	-	-	-	-	-	-	_____	n	user
5:	-	-	-	-	-	-	_____	n	user
6:	-	-	-	-	-	-	_____	n	user

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

Create a new Messaging System for administration NUM



Feature Access Configuration

Avaya Site Administration - [multivantage Emulation: 513]

File Edit View System Action Tools Window Help

cancel refresh enter clear help go to page next page prev page

display feature-access-codes Page 1 of 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: *66 All: *67 Deactivation: *69
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:

Data Origination Access Code:
Data Privacy Access Code:
Directed Call Pickup Access Code:
```

Ready NUM



Configuring Cisco CallManager

CM4.1-E1 Gateway Configuration

Cisco CallManager 4.1 Administration - Gateway Configuration - Microsoft Internet Explorer

Address: <https://jupiter/CCMAdmin/gatewayconfig.asp?pkid={D013E268-2968-4B68-9D64-ABBA03739FE7}&Action=Update&Type=55&MGCP={4E44AB94-D677-4CDD-BCFE-ADD12A20...}>

System Route Plan Service Feature Device User Application Help

Cisco CallManager Administration
For Cisco IP Telephony Solutions

Gateway Configuration

[Back to MGCP Configuration](#)
[Back to Find/List Gateways](#)
[Dependency Records](#)

Product : Cisco 26XX
Gateway : S1/DS1-0@2621XM_E1
Device Protocol: Digital Access PRI
Registration: Registered with Cisco CallManager jupiter
IP Address: [172.20.33.52](#)

Status: Ready

Device Information

End-Point Name*	<input type="text" value="S1/DS1-0@2621XM_E1"/>
Description	<input type="text" value="S1/DS1-0@2621XM_E1"/>
Device Pool*	<input type="text" value="Default"/>
Call Classification*	<input type="text" value="Use System Default"/>
Network Locale	<input type="text" value="United States"/>
Media Resource Group List	<input type="text" value="< None >"/>
Location	<input type="text" value="< None >"/>
AAR Group	<input type="text" value="< None >"/>

Done Local intranet



Cisco CallManager 4.1 Administration - Gateway Configuration - Microsoft Internet Explorer

Address: https://jupiter/CCMAdmin/gatewayconfig.asp?pkid={D013E268-2968-4B68-9D64-ABBA03739FE7}&Action=Update&Type=55&MGCP={4E44AB94-D677-4CDD-BCFE-ADD12A205E01}

MLPP Indication: Not available on this device
MLPP Preemption: Not available on this device

Interface Information

PRI Protocol Type*: PRI QSIG E1
Protocol Side*: User
Channel Selection Order*: Top Down
Channel IE Type*: Timeslot Number
PCM Type*: A-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

Call Routing Information

Inbound Calls

Significant Digits*: All
Calling Search Space: Incoming Trunk
AAR Calling Search Space: < None >
Prefix DN:

Outbound Calls

Calling Line ID Presentation*: Default
Calling Party Selection*: Originator
Called party IE number type unknown*: National
Calling party IE number type unknown*: National
Called Numbering Plan*: Private

Done Local intranet



Cisco CallManager 4.1 Administration - Gateway Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <https://jupiter/CCMAdmin/gatewayconfig.asp?pkid={D013E268-2968-4B68-9D64-ABBA03739FE7}&Action=Update&Type=55&MGCP={4E44AB94-D677-4CDD-BCFE-ADD12A20...}> Go Links

Prefix DN

Outbound Calls

Calling Line ID Presentation*

Calling Party Selection*

Called party IE number type unknown*

Calling party IE number type unknown*

Called Numbering Plan*

Calling Numbering Plan*

Number of digits to strip*

Caller ID DN

SMDI Base Port*

PRI Protocol Type Specific Information

- Display IE Delivery
- Redirecting Number IE Delivery - Outbound
- Redirecting Number IE Delivery - Inbound
- Send Extra Leading Character In DisplayIE***
- 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



Cisco CallManager 4.1 Administration - Gateway Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites Media Print

Address <https://jupiter/CCMAdmin/gatewayconfig.asp?pkid={D013E268-2968-4B68-9D64-ABBA03739FE7}&Action=Update&Type=55&MGCP={4E44AB94-D677-4CDD-BCFE-ADD12A20...}> Go Links

Interface Identifier Present**

Interface Identifier Value**

Connected Line ID Presentation (QSIG Inbound Call)*

UUIE Configuration

Passing Precedence Level Through UUIE

Security Access Level

Product Specific Configuration

Line Coding*

Framing*

Clock*

Input Gain (-6..14 db)*

Output Attenuation (-6..14 db)*

Echo Cancellation Enable*

Echo Cancellation Coverage (ms)*

* indicates required item
** applicable to DMS-100 protocol only
*** applicable to DMS-100 protocol and DMS-250 protocol only
**** may be required to force ringback from some PBXs

[Back to MGCP Configuration](#)
[Back to Find/List Gateways](#)

Done Local intranet



Partitions Configuration

Cisco CallManager 4.1 Administration - Partition Configuration - Microsoft Internet Explorer

Address: <https://jupiter/CCMAdmin/routepartitionconfig.asp?RoutePartition={4F597C74-059B-4FCD-A1AF-7D0C4AF0FFD1}>

System Route Plan Service Feature Device User Application Help

Cisco CallManager Administration
For Cisco IP Telephony Solutions

Partition Configuration

[Add a New Partition](#)
[Back to Find/List Partitions](#)
[Dependency Records](#)

Partition: Incoming Trunk
Status: Ready

Partition Name*

Description

Time Schedule

Time Zone Originating Device
 Specific Time Zone

* indicates required item

javascript.toggleMenuState(6); Local intranet



Cisco CallManager 4.1 Administration - Partition Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Search Favorites Media Print

Address <https://jupiter/CCMAdmin/routepartitionconfig.asp?RoutePartition={FD985216-6A08-49A3-9721-71FEE5F26D93}> Go Links

System Route Plan Service Feature Device User Application Help

Cisco CallManager Administration
For Cisco IP Telephony Solutions

Partition Configuration

[Add a New Partition](#)
[Back to Find/List Partitions](#)
[Dependency Records](#)

Partition: phones
Status: Ready

Update Delete Restart Devices

Partition Name*

Description

Time Schedule

Time Zone Originating Device
 Specific Time Zone

* indicates required item

Applet started Local intranet



Calling Search Space

The screenshot shows the Cisco CallManager 4.1 Administration web interface in Microsoft Internet Explorer. The browser title is "Cisco CallManager 4.1 Administration - Calling Search Space Configuration - Microsoft Internet Explorer". The address bar shows the URL: "http://10.10.10.10:8443/cisco/callmanager/4.1/administration/findingandlistcallingsearchspaces/F6B0-40B4-8829-50A32C58395B".

The main content area has a navigation menu with "System", "Route Plan", "Service", "Feature", "Device", "User", "Application", and "Help". Below the menu is the "Cisco CallManager Administration" header with the Cisco Systems logo.

Calling Search Space Configuration

Calling Search Space: Incoming Trunk (in use)
Status: Ready
[Copy](#) [Update](#) [Delete](#)

Calling Search Space Information

Calling Search Space Name* Incoming Trunk
Description

Route Partitions for this Calling Search Space

Find Partitions containing [Find](#)

Available Partitions
phones

Selected Partitions* (ordered by highest priority)
Incoming Trunk

* indicates required item

The interface includes a status bar at the bottom with the text "javascript:toggleMenuState(2);" and a "Local intranet" icon.



Cisco CallManager 4.1 Administration - Calling Search Space Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <https://jupiter/CCMAdmin/callingsearchspace.asp?pkid={F6781ED4-EEDD-4840-A95C-45D08BEE43FA}>

System Route Plan Service Feature Device User Application Help

Cisco CallManager Administration
For Cisco IP Telephony Solutions

Calling Search Space Configuration

[Add New Calling Search Space](#)
[Back to Find/List Calling Search Spaces](#)
[Dependency Records](#)

Calling Search Space: PathReplacementCCS
Status: Ready

Copy Update Delete

Calling Search Space Information

Calling Search Space Name* PathReplacementCCS

Description

Route Partitions for this Calling Search Space

Find Partitions containing Find

Available Partitions

Selected Partitions* (ordered by highest priority)

phones
Incoming Trunk

* indicates required item

Done Local intranet



Cisco CallManager 4.1 Administration - Calling Search Space Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <https://jupiter/CCMAdmin/callingsearchspace.asp?pkid={B35CD303-4C87-4656-930A-720BC25CB93C}>

System Route Plan Service Feature Device User Application Help

Cisco CallManager Administration
For Cisco IP Telephony Solutions

Calling Search Space Configuration

[Add New Calling Search Space](#)
[Back to Find/List Calling Search Spaces](#)
[Dependency Records](#)

Calling Search Space: phones (in use)
Status: Ready

Copy Update Delete

Calling Search Space Information

Calling Search Space Name* phones
Description

Route Partitions for this Calling Search Space

Find Partitions containing Find
Available Partitions Incoming Trunk

Selected Partitions* (ordered by highest priority) phones

* indicates required item

Local intranet



Enbloc Route Pattern Configuration

Cisco CallManager 4.1 Administration - Route Pattern Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <https://jupiter/CCMAdmin/routepatternconfig.asp?pkid={709094B4-277D-470B-B624-00E96105CFD0}> Go Links

System Route Plan Service Feature Device User Application Help

Cisco CallManager Administration
For Cisco IP Telephony Solutions

Route Pattern Configuration

[Add a New Route Pattern](#)
[Back to Find/List Route Patterns](#)

Route Pattern: 111.2XXX

Status: Ready
Note: Any update to this Route Pattern automatically resets the associated gateway or Route List

Copy Update Delete

Pattern Definition

Route Pattern*	<input type="text" value="111.2XXX"/>
Partition	< None >
Description	<input type="text"/>
Numbering Plan*	North American Numbering Plan
Route Filter	< None >
MLPP Precedence	Default
Gateway or Route List*	S1/DS1-0@2621XM_E1 (Edit)
Route Option	<input checked="" type="radio"/> Route this pattern <input type="radio"/> Block this pattern <input type="text" value="-- Not Selected --"/>
Call Classification*	OffNet <input type="checkbox"/> Allow Device Override
<input checked="" type="checkbox"/> Provide Outside Dial Tone	<input type="checkbox"/> Allow Overlap Sending <input type="checkbox"/> Urgent Priority
<input type="checkbox"/> Require Forced Authorization Code	

Done Local intranet



Cisco CallManager 4.1 Administration - Route Pattern Configuration - Microsoft Internet Explorer

Address: https://jupiter/CCMAdmin/routepatternconfig.asp?pkid={709094B4-277D-470B-B624-00E96105CFD0}

Require Forced Authorization Code

Authorization Level:

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

Carrier Identification Code:

Network Service Protocol:

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.

Done Local intranet



Cisco CallManager 4.1 Administration - Route Pattern Configuration - Microsoft Internet Explorer


File Edit View Favorites Tools Help

Address <https://jupiter/CCMAdmin/routepatternconfig.asp?pkid={D9A27B6D-2688-4347-9D5C-6AC68CB7BD39}> Go Links

System Route Plan Service Feature Device User Application Help

Cisco CallManager Administration

For Cisco IP Telephony Solutions



Route Pattern Configuration

[Add a New Route Pattern](#)
[Back to Find/List Route Patterns](#)

Route Pattern: 555.5XXX
Status: Ready
Note: Any update to this Route Pattern automatically resets the associated gateway or Route List

Pattern Definition

Route Pattern*	<input type="text" value="555.5XXX"/>	
Partition	<input data-bbox="456 888 776 915" type="text" value=" < None > "/>	
Description	<input type="text"/>	
Numbering Plan*	<input type="text" value="North American Numbering Plan"/>	
Route Filter	<input data-bbox="456 999 776 1026" type="text" value=" < None > "/>	
MLPP Precedence	<input type="text" value="Default"/>	
Gateway or Route List*	<input type="text" value="S1/DS1-1@2621XM_E1"/> (Edit)	
Route Option	<input checked="" type="radio"/> Route this pattern <input type="radio"/> Block this pattern <input data-bbox="651 1142 971 1169" type="text" value=" - Not Selected - "/>	
Call Classification*	<input type="text" value="OffNet"/> <input type="checkbox"/> Allow Device Override	
<input checked="" type="checkbox"/> Provide Outside Dial Tone	<input type="checkbox"/> Allow Overlap Sending	<input type="checkbox"/> Urgent Priority
<input type="checkbox"/> Require Forced Authorization Code		

Done Local intranet



Cisco CallManager 4.1 Administration - Route Pattern Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <https://jupiter/CCMAdmin/routepatternconfig.asp?pkid={D9A27B6D-2688-4347-9D5C-6AC68CB7BD39}> Go Links

Provide Outside Dial Tone Allow Overlap Sending Urgent Priority

Require Forced Authorization Code

Authorization Level

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

Carrier Identification Code

Network Service Protocol

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.

Done Local intranet



Overlap Sending Route Pattern Configuration

Cisco CallManager 4.1 Administration - Route Pattern Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media Print

Address: Back to Cisco CallManager 4.1 Administration - Find and List Route Patterns {3-DAF3-458F-BA28-D580C9FCBB21}

System Route Plan Service Feature Device User Application Help

Cisco CallManager Administration
For Cisco IP Telephony Solutions

CISCO SYSTEMS

Route Pattern Configuration

[Add a New Route Pattern](#)
[Back to Find/List Route Patterns](#)

Route Pattern: 1119.X
Status: Ready
Note: Any update to this Route Pattern automatically resets the associated gateway or Route List

Copy Update Delete

Pattern Definition

Route Pattern*	1119.X
Partition	< None >
Description	Overlap to MV1.2
Numbering Plan*	North American Numbering Plan
Route Filter	< None >
MLPP Precedence	Default
Gateway or Route List*	S1/DS1-0@2621XM_E1 (Edit)
Route Option	<input checked="" type="radio"/> Route this pattern <input type="radio"/> Block this pattern — Not Selected —
Call Classification*	OffNet <input type="checkbox"/> Allow Device Override
<input type="checkbox"/> Provide Outside Dial Tone	<input checked="" type="checkbox"/> Allow Overlap Sending <input type="checkbox"/> Urgent Priority
<input type="checkbox"/> Require Forced Authorization Code	
Authorization Level	0
<input type="checkbox"/> Require Client Matter Code	

Calling Party Transformations

Use Calling Party's External Phone Number Mask

Done Local intranet



PSTN Route Pattern Configuration

Cisco CallManager 4.1 Administration - Route Pattern Configuration - Microsoft Internet Explorer

Address: https://jupiter/CCMAdmin/routepatternconfig.asp?pkid={129EF707-D8E3-4C20-8DD8-6EC7C12A0BF0}

System Route Plan Service Feature Device User Application Help

Cisco CallManager Administration
For Cisco IP Telephony Solutions

Route Pattern Configuration

[Add a New Route Pattern](#)
[Back to Find/List Route Patterns](#)

Route Pattern: 91650XXXXXX

Status: Ready
Note: Any update to this Route Pattern automatically resets the associated gateway or Route List

Pattern Definition

Route Pattern*

Partition

Description

Numbering Plan*

Route Filter

MLPP Precedence

Gateway or Route List* (Edit)

Route Option
 Route this pattern
 Block this pattern

Call Classification* Allow Device Override

Provide Outside Dial Tone Allow Overlap Sending Urgent Priority

Require Forced Authorization Code

Authorization Level

Require Client Matter Code

Calling Party Transformations

Use Calling Party's External Phone Number Mask



Cisco CallManager 4.1 Administration - Route Pattern Configuration - Microsoft Internet Explorer

Address: https://jupiter/CCMAdmin/routepatternconfig.asp?pkid={129EF707-D8E3-4C20-8DD8-6EC7C12A0BF0}

Block this pattern: — Not Selected —

Call Classification*: OffNet Allow Device Override

Provide Outside Dial Tone Allow Overlap Sending Urgent Priority

Require Forced Authorization Code

Authorization Level:

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: < None >

Called Party Transform Mask:

Prefix Digits (Outgoing Calls):

ISDN Network-Specific Facilities Information Element

Carrier Identification Code:

Network Service Protocol: — Not Selected —

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

* indicates required item.



Translation Pattern for Incoming Calls

The screenshot shows the Cisco CallManager Administration web interface in Microsoft Internet Explorer. The browser address bar shows the URL: <https://jupiter/CCMAdmin/translationconfig.asp?pkid={6BB55024-B308-4893-962B-A910B5440A58}>. The page title is "Cisco CallManager Administration - Translation Pattern Configuration".

The main content area displays the configuration for a translation pattern:

- Translation Pattern:** 4XXX
- Status:** Ready
- Buttons:** Copy, Update, Delete
- Pattern Definition:**
 - Translation Pattern: 4XXX
 - Partition: Incoming Trunk
 - Description:
 - Numbering Plan*: North American Numbering Plan
 - Route Filter: < None >
 - Calling Search Space: phones
 - MLPP Precedence: Default
 - Route Option: Route this pattern, Block this pattern (dropdown: - Not Selected -)
 - Provide Outside Dial Tone, Urgent Priority
- Calling Party Transformations:**
 - Use Calling Party's External Phone Number Mask

The interface includes a navigation menu at the top with options: System, Route Plan, Service, Feature, Device, User, Application, Help. The Cisco Systems logo is visible in the top right corner of the page header.



Cisco CallManager 4.1 Administration - Translation Pattern Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <https://jupiter/CCMAdmin/translationconfig.asp?pkid={6BB55024-B308-4893-962B-A910B5440A58}> Go Links

Numbering Plan*

Route Filter

Calling Search Space

MLPP Precedence

Route Option
 Route this pattern
 Block this pattern

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

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)

* indicates required item.

Local intranet



CLIR and CNIR Route Pattern Configuration

Cisco CallManager 4.1 Administration - Route Pattern Configuration - Microsoft Internet Explorer

Address: <https://jupiter/CCMAAdmin/routepatternconfig.asp?pkid={9C28A601-B88E-4545-911D-31ABEF210DD8}>

Copy Forward Update Delete

Pattern Definition

Route Pattern*	<input type="text" value="2XXX"/>
Partition	< None >
Description	<input type="text"/>
Numbering Plan*	North American Numbering Plan
Route Filter	< None >
MLPP Precedence	Default
Gateway or Route List*	S1/DS1-0@2621XM_E1 (Edit)
Route Option	<input checked="" type="radio"/> Route this pattern <input type="radio"/> Block this pattern <input type="text" value="-- Not Selected --"/>
Call Classification*	OffNet <input type="checkbox"/> Allow Device Override
<input checked="" type="checkbox"/> Provide Outside Dial Tone	<input type="checkbox"/> Allow Overlap Sending <input type="checkbox"/> Urgent Priority
<input type="checkbox"/> Require Forced Authorization Code	
Authorization Level	<input type="text" value="0"/>
<input type="checkbox"/> Require Client Matter Code	

Calling Party Transformations

<input type="checkbox"/> Use Calling Party's External Phone Number Mask	
Calling Party Transform Mask	<input type="text"/>
Prefix Digits (Outgoing Calls)	<input type="text"/>
Calling Line ID Presentation	Restricted
Calling Name Presentation	Restricted

Connected Party Transformations



COLR and CONR Translation Pattern Configuration

Cisco CallManager 4.1 Administration - Translation Pattern Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media Print

Address: Back to Cisco CallManager 4.1 Administration - Find and List Translation Patt {8308-4893-962B-A910B5440A58}

Translation Pattern: 4XXX
Status: Ready
Copy Update Delete

Pattern Definition

Translation Pattern	4XXX
Partition	Incoming Trunk
Description	
Numbering Plan*	North American Numbering Plan
Route Filter	< None >
Calling Search Space	phones
MLPP Precedence	Default
Route Option	<input checked="" type="radio"/> Route this pattern <input type="radio"/> Block this pattern - Not Selected -
<input checked="" type="checkbox"/> Provide Outside Dial Tone	<input checked="" type="checkbox"/> 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	Restricted
Connected Name Presentation	Restricted

Done Local intranet



MWI lamp On/Off Configuration

The screenshot shows a web browser window titled "Cisco CallManager 4.1 Administration - Message Waiting Configuration - Microsoft Internet Explorer". The address bar shows the URL: <https://jupiter/CCMAdmin/messagewaitingconfig.asp?pkid={979D102B-FF48-4DE8-BAB5-832FFA4DF434}>. The page content includes a navigation menu (System, Route Plan, Service, Feature, Device, User, Application, Help) and a header for "Cisco CallManager Administration For Cisco IP Telephony Solutions". The main heading is "Message Waiting Configuration". There are two links: "Add a New Message Waiting Number" and "Back to Find/List Message Waiting Numbers". The configuration details for a Message Waiting Number are as follows:

- Message Waiting Number :** 7000
- Status:** Ready
- Buttons: Copy, Update, Delete
- Message Waiting Number*:** 7000
- Description:** (empty text box)
- Message Waiting Indicator:** On Off
- Partition:** phones
- Calling Search Space:** phones

* indicates required item



Cisco CallManager 4.1 Administration - Message Waiting Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites Media Print

Address <https://jupiter/CCMAdmin/messagewaitingconfig.asp?pkid={4C8AC31F-718A-4D2A-A8FD-9A2962D6BAD7}> Go Links

System Route Plan Service Feature Device User Application Help

Cisco CallManager Administration
For Cisco IP Telephony Solutions

CISCO SYSTEMS

Message Waiting Configuration

[Add a New Message Waiting Number](#)
[Back to Find/List Message Waiting Numbers](#)

Message Waiting Number : 7001
Status: Ready

Copy Update Delete

Message Waiting Number*

Description

Message Waiting Indicator On Off

Partition

Calling Search Space

* indicates required item

Done Local intranet



MWI Deactivate Translation Pattern Configuration

Cisco CallManager 4.1 Administration - Translation Pattern Configuration - Microsoft Internet Explorer

Address: <https://jupiter/CCMAdmin/translationconfig.asp?pkid={39146D02-311D-4C31-8FC5-48C4A2D8BD0A}>

System Route Plan Service Feature Device User Application Help

Cisco CallManager Administration
For Cisco IP Telephony Solutions

Translation Pattern Configuration

[Add a New Translation Pattern](#)
[Back to Find/List Translation Patterns](#)

Translation Pattern: 7700
Status: Ready

Pattern Definition

Translation Pattern	<input type="text" value="7700"/>
Partition	<input type="text" value="phones"/>
Description	<input type="text"/>
Numbering Plan*	<input type="text" value="North American Numbering Plan"/>
Route Filter	<input type="text" value="< None >"/>
Calling Search Space	<input type="text" value="phones"/>
MLPP Precedence	<input type="text" value="Default"/>
Route Option	<input checked="" type="radio"/> Route this pattern <input type="radio"/> Block this pattern <input type="text" value="Not Selected"/>

Provide Outside Dial Tone Urgent Priority

Calling Party Transformations

Use Calling Party's External Phone Number Mask

Done Local intranet



Cisco CallManager 4.1 Administration - Translation Pattern Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites Media Print

Address <https://jupiter/CCMAdmin/translationconfig.asp?pkid={39146D02-311D-4C31-8FC5-48C4A2D8BD0A}> Go Links

Numbering Plan*

Route Filter

Calling Search Space

MLPP Precedence

Route Option
 Route this pattern
 Block this pattern

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

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)

* indicates required item.

Done Local intranet



MWI Activate Translation Pattern Configuration

Cisco CallManager 4.1 Administration - Translation Pattern Configuration - Microsoft Internet Explorer

Address: <https://jupiter/CCMAdmin/translationconfig.asp?pkid={59360509-7489-4880-B662-53F625D622C4}>

System Route Plan Service Feature Device User Application Help

Cisco CallManager Administration
For Cisco IP Telephony Solutions

Translation Pattern Configuration

[Add a New Translation Pattern](#)
[Back to Find/List Translation Patterns](#)

Translation Pattern: 7701
Status: Ready

Pattern Definition

Translation Pattern	<input type="text" value="7701"/>
Partition	<input type="text" value="phones"/>
Description	<input type="text"/>
Numbering Plan*	<input type="text" value="North American Numbering Plan"/>
Route Filter	<input type="text" value="<None >"/>
Calling Search Space	<input type="text" value="phones"/>
MLPP Precedence	<input type="text" value="Default"/>
Route Option	<input checked="" type="radio"/> Route this pattern <input type="radio"/> Block this pattern <input type="text" value="— Not Selected —"/>
<input checked="" type="checkbox"/> Provide Outside Dial Tone	<input checked="" type="checkbox"/> Urgent Priority

Calling Party Transformations

Use Calling Party's External Phone Number Mask



Cisco CallManager 4.1 Administration - Translation Pattern Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <https://jupiter/CCMAdmin/translationconfig.asp?pkid={59360509-7489-4880-B662-53F625D622C4}> Go Links

Numbering Plan*

Route Filter

Calling Search Space

MLPP Precedence

Route Option
 Route this pattern
 Block this pattern

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

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)

* indicates required item.

Done Local intranet



CallBack Service Parameters

Cisco CallManager 4.1 Administration - Service Parameters Configuration - Microsoft Internet Explorer provided by Cisco Systems

Address: https://10.94.150.41/ccmadmin/serviceparameters.asp?crNodeName=bldr-ccm41&crNodeID={DE09DB5F-B633-4AFC-AEC1-54C4F3AA09DC}&crServiceType=0

Cluster Wide Parameters (Feature - Call Back)

Parameter Name	Parameter Value	Suggested Value
Callback Enabled Flag*	True	True
Callback Notification Audio File Name*	CallBack.raw	CallBack.raw
Connection Proposal Type*	Connection Retention	Connection Release
Connection Response Type*	Default to Connection Retention	Default to Connection Retention
Callback Request Protection Timer (T1) (sec)*	10	10
Callback Recall Timer (T3) (sec)*	20	20
Callback Calling Search Space	< None >	

Clusterwide Parameters (Route Plan)



Softkey Template Configuration

The screenshot shows the Cisco CallManager Administration web interface in Microsoft Internet Explorer. The browser title is "Cisco CallManager 4.1 Administration - Softkey Template Configuration - Microsoft Internet Explorer". The address bar shows the URL: <https://jupiter/CCMAdmin/softkeytemplateconfig.asp?pkid={06A338FB-BFE6-40B3-A10F-919294D4A518}>. The page header includes navigation tabs: System, Route Plan, Service, Feature, Device, User, Application, and Help. The main content area is titled "Softkey Template Configuration" and displays the configuration for a template named "Standard User CallBack".

Softkey Template: Standard User CallBack
Status: Ready

Buttons: Copy, Update, Delete, Restart Devices

Softkey Template Name*: Standard User CallBack

Description: Standard Softkey Template for CallManager only

Buttons: Add Application, Delete Application

Application: Cisco CallManager

* indicates required item

Navigation links: [Add New Softkey Template](#), [Configure Softkey Layout](#), [Dependency Records](#), [Back to Find/List Softkey Templates](#)



CallBack Softkey Template Configuration

Call States

- Connected
- Connected Conference
- Connected Transfer
- Digits After First
- Off Hook
- Off Hook With Feature
- On Hold
- On Hook**
- Remote In Use
- Ring In
- Ring Out

Softkey Template: Standard User CallBack
Status: Ready

Update Restart Devices

Unselected Softkeys

- Conference List (30)(ConfList)
- Direct Transfer (28)(DirTrfr)
- Immediate Divert (31)(iDivert)
- Join (15)(Join)
- Quality Report Tool (22)(QRT)
- Remove Last Conference Party (19)
- Select (29)(Select)
- Undefined (0)(Undefined)
- Video Mode Command (33)(VidMod)

Selected Softkeys (ordered by position)**

- Redial (1)(Redial)
- **NewCall (2)(NewCall)
- Forward All (5)(CwdAll)
- Call Back (20)(CallBack)

** indicates mandatory fields
* indicates required item



Cisco CallManager 4.1 Administration - Softkey Layout Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address: https://jupiter/CCMAdmin/softkeylayoutconfig.asp?pkid={06A338FB-BFE6-40B3-A10F-919294D4A518}&callState=8

System Route Plan Service Feature Device User Application Help

Cisco CallManager Administration
For Cisco IP Telephony Solutions

CISCO SYSTEMS

Softkey Layout Configuration

[Softkey Template Configuration](#)

Call States

- Connected
- Connected Conference
- Connected Transfer
- Digits After First
- Off Hook
- Off Hook With Feature
- On Hold
- On Hook
- Remote In Use
- Ring In
- Ring Out**

Softkey Template: Standard User CallBack

Status: Ready

Update Restart Devices

Unselected Softkeys

Selected Softkeys (ordered by position)**

Undefined (0)(Undefined)

Undefined (0)(Undefined)
**End Call (9)(EndCall)
Call Back (20)(CallBack)

** indicates mandatory fields
* indicates required item

Local intranet



Path Replacement Service Parameters

Cisco CallManager 4.1 Administration - Service Parameters Configuration - Microsoft Internet Explorer

Address: <https://jupiter/CCMAdmin/serviceparameters.asp?crNodeName=jupiter&crNodeID={445CA45F-51FA-4169-B4BB-37C889F09CDB}&crServiceType=0>

Name	Parameter Value	Suggested Value
Path Replacement Enabled*	<input type="text" value="True"/>	False
Path Replacement on Tromboned Calls*	<input type="text" value="True"/>	True
Start Path Replacement Minimum Delay Time (sec)*	<input type="text" value="0"/>	0
Start Path Replacement Maximum Delay Time (sec)*	<input type="text" value="0"/>	0
Path Replacement T1 Timer (sec)*	<input type="text" value="30"/>	30
Path Replacement T2 Timer (sec)*	<input type="text" value="15"/>	15
Path Replacement PINX Id	<input type="text"/>	
Path Replacement Calling Search Space	<input type="text" value="PathReplacementCCS"/>	

Local intranet



Forward by Reroute Service Parameter

Cisco CallManager 4.1 Administration - Service Parameters Configuration - Microsoft Internet Explorer

Address: https://jupiter/CCMAdmin/serviceparameters.asp?crNodeName=jupiter&crNodeID={445CA45F-51FA-4169-B4BB-37C889F09CDB}&crServiceType=0

Clusterwide Parameters (Feature - Forward)

Parameter Name	Parameter Value	Suggested Value
Forward Maximum Hop Count*	12	12
Forward No Answer Timer (sec)*	12	12
Max Forward Hops to DN*	12	12
Retain Forward Information*	False	False
Forward By Reroute Enabled*	True	False
Forward By Reroute T1 Timer (sec)*	15	10

Some parameters in this group are hidden, click on Advanced button to see hidden parameters

Clusterwide Parameters (Feature - Path Replacement)

Parameter Name	Parameter Value	Suggested Value
Path Replacement Enabled*	True	False
Path Replacement on Tromboned Calls*	True	True
Start Path Replacement	n	n

Local intranet



IP Phone Configuration

The screenshot shows the Cisco CallManager Administration interface for IP Phone Configuration. The browser window title is "Cisco CallManager 4.1 Administration - Phone Configuration - Microsoft Internet Explorer". The address bar shows the URL: <https://jupiter/CCMAdmin/phoneconfig.asp?pkid={41047EC1-DC38-483C-B958-FDE1F7362ADF}>. The page header includes "System Route Plan Service Feature Device User Application Help" and the Cisco CallManager Administration logo. The main heading is "Phone Configuration".

Navigation links on the right include: [Add a new phone](#), [Add/Update Speed Dials](#), [Subscribe/Unsubscribe Services](#), [Dependency Records](#), and [Back to Find/List Phones](#).

Directory Numbers

- Line 1 - 4007 in phones
- Line 2 - 2224007 in phones

Base Phone

Phone: SEP003094C28282 (Auto 4007)
Registration: Registered with Cisco CallManager jupiter
IP Address: [172.20.33.112](#)
Status: Ready

Buttons: Copy, Update, Delete, Reset Phone

Phone Configuration (Model = Cisco 7960)

Device Information

MAC Address*	<input type="text" value="003094C28282"/>
Description	<input type="text" value="Auto 4007"/>
Owner User ID	<input type="text"/> (Select User ID)
Device Pool*	<input type="text" value="Default"/> (View details)
Calling Search Space	<input type="text" value="< None >"/>
AAR Calling Search Space	<input type="text" value="< None >"/>
Media Resource Group List	<input type="text" value="< None >"/>
User Hold Audio Source	<input type="text" value="< None >"/>
Network Hold Audio Source	<input type="text" value="< None >"/>
Location	<input type="text" value="< None >"/>

Done Local intranet



Cisco CallManager 4.1 Administration - Phone Configuration - Microsoft Internet Explorer

Address: https://jupiter/CCMAdmin/phoneconfig.asp?pkid={41047EC1-DC38-483C-B958-FDE1F7362ADF}

User Locale	< None >
Network Locale	< None >
Device Security Mode	Use System Default
Signal Packet Capture Mode	None
Packet Capture Duration	0
Built In Bridge	Default
Privacy	Default
<input checked="" type="checkbox"/> Retry Video Call as Audio	
<input type="checkbox"/> Ignore Presentation Indicators (internal calls only)	
Phone Button Template Information	
Phone Button Template*	Standard 7960 (View button list)
Softkey Template Information	
Softkey Template	Standard User CallBack
Expansion Module Information	
Module 1	< None >
Module 2	< None >
Firmware Load Information (leave blank to use default)	
Phone Load Name	
Module 1 Load Name	(Module 1 selection required)
Module 2 Load Name	(Module 2 selection required)
Cisco IP Phone - External Data Locations (leave blank to use default)	
Information	
Directory	

Done Local intranet



Cisco CallManager 4.1 Administration - Phone Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media Print

Address <https://jupiter/CCMAdmin/phoneconfig.asp?pkid={41047EC1-DC38-483C-B958-FDE1F7362ADF}> Go Links

Messages	<input type="text"/>
Services	<input type="text"/>
Authentication Server	<input type="text"/>
Proxy Server	<input type="text"/>
Idle	<input type="text"/>
Idle Timer (seconds)	<input type="text"/>

Extension Mobility (Device Profile) Information

Enable Extension Mobility Feature

Log Out Profile

Log In User ID

Log In Time

Log Out Time

Certification Authority Proxy Function (CAPF) Information

Certificate Operation

Authentication Mode

Authentication String

Key Size (bits)

Operation Completes By** : : : (YYYY : MM : DD : HH)

Certificate Operation Status : None

Multilevel Precedence and Preemption (MLPP) Information

MLPP Domain (e.g., "0000FF")

MLPP Indication

MLPP Preemption

Done Local intranet



Cisco CallManager 4.1 Administration - Phone Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media Print

Address <https://jupiter/CCMAdmin/phoneconfig.asp?pkid={41047EC1-DC38-483C-B958-FDE1F7362ADF}> Go Links

Key Size (bits)

Operation Completes By** : : : (YYYY : MM : DD : HH)

Certificate Operation Status : None

Multilevel Precedence and Preemption (MLPP) Information

MLPP Domain (e.g., "0000FF")

MLPP Indication

MLPP Preemption

Product Specific Configuration

Disable Speakerphone

Disable Speakerphone and Headset

Forwarding Delay*

PC Port*

Settings Access*

Gratuitous ARP*

PC Voice VLAN Access*

Video Capabilities*

Auto Line Select*

Web Access*

* indicates a required item.
** Indicates time on Publisher.

[Back to top of page](#)
[Back to Find/List Phones](#)

Done Local intranet



Directory Number Configuration

The screenshot shows the Cisco CallManager Administration web interface in Microsoft Internet Explorer. The browser address bar shows the URL: `https://jupiter/CCMAdmin/directorynumber.asp?NumPlanMapID={14CAD3B6-6069-4A97-851E-FD2FE0177F7C}`. The page title is "Cisco CallManager Administration - Directory Number Configuration".

The main content area is titled "Directory Number Configuration" and includes the following sections:

- Associated With:** SEP003094C28282 (Line 1) 7960
- Directory Number:** 4007 (phones)
- Status:** Ready
- Note:** Any update to this Directory Number automatically resets the associated devices
- Actions:** Update, Remove from Device, Reset Devices
- Directory Number Settings:**
 - Directory Number*: 4007
 - Partition: phones
 - Voice Mail Profile: <None> (Choose <None> to use default)
 - Calling Search Space: phones
 - AAR Group: <None>
 - User Hold Audio Source: <None>
 - Network Hold Audio Source: <None>
 - Auto Answer: Auto Answer Off
- Call Forward and Pickup Settings:**
 - Forward All:
 - Voice Mail Coverage/Destination:
 - Calling Search Space: <None>

The bottom of the page shows a status bar with "Applet started" and "Local intranet".



Cisco CallManager 4.1 Administration - Directory Number Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media Print

Address <https://jupiter/CCMAdmin/directorynumber.asp?NumPlanMapID={14CAD3B6-6069-4A97-851E-FD2FE0177F7C}> Go Links

Call Forward and Pickup Settings

	Voice Mail	Coverage/ Destination	Calling Search Space
Forward All	<input type="checkbox"/>	<input type="text"/>	< None >
Forward Busy Internal	<input type="checkbox"/>	<input type="text"/>	< None >
Forward Busy External	<input type="checkbox"/>	<input type="text"/>	< None >
Forward No Answer Internal	<input type="checkbox"/>	<input type="text"/>	< None >
Forward No Answer External	<input type="checkbox"/>	<input type="text"/>	< None >
Forward No Coverage Internal	<input type="checkbox"/>	<input type="text"/>	< None >
Forward No Coverage External	<input type="checkbox"/>	<input type="text"/>	< None >

No Answer Ring Duration (seconds)

Call Pickup Group < None >

MLPP Alternate Party Settings

Target (Destination)

Calling Search Space < None >

No Answer Ring Duration (seconds)

Line Settings for all Devices

Alerting Name

Line Settings for this Device

Display (Internal Caller ID)

Line Text Label

External Phone Number Mask

Message Waiting Lamp Policy Use System Policy

Done Local intranet



Cisco CallManager 4.1 Administration - Directory Number Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <https://jupiter/CCMAdmin/directorynumber.asp?NumPlanMapID={14CAD3B6-6069-4A97-851E-FD2FE0177F7C}>

No Answer Ring Duration (seconds)

Line Settings for all Devices

Alerting Name

Line Settings for this Device

Display (Internal Caller ID)

Line Text Label

External Phone Number Mask

Message Waiting Lamp Policy

Ring Setting (Phone Idle)

Ring Setting (Phone Active)**

Multiple Call / Call Waiting Settings

Maximum Number of Calls* (1 - 196)

Busy Trigger* (<= Max. Calls)

Forwarded Call Information Display

Caller Name Caller Number

Redirected Number Dialed Number

* indicates required item; changes to Line or Directory Number settings require restart.

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

Note:
If you are using a language other than English for Display (Internal Caller ID) or Line Text Label text, make sure the correct character set (shown below) is selected. Text displays incorrectly if the wrong character set is selected. (English characters are included in all character sets.)

Character Set

Done Local intranet



DN for Path Replacement Configuration

The screenshot shows the Cisco CallManager 4.1 Administration web interface in Microsoft Internet Explorer. The browser address bar shows the URL: <https://jupiter/CCMAdmin/directorynumber.asp?NumPlanMapID={5529B92F-DFD6-4215-88D7-4801190AF5A6}>. The page title is "Cisco CallManager Administration - Directory Number Configuration".

The main content area is titled "Directory Number Configuration" and includes a navigation menu (System, Route Plan, Service, Feature, Device, User, Application, Help) and a Cisco Systems logo. A link "Configure Device (SEP003094C28282) Dependency Records" is visible.

Associated With
SEP003094C28282 (Line 2)

Directory Number: 2224007 (phones)
Status: Ready
Note: Any update to this Directory Number automatically resets the associated devices

Update Remove from Device Reset Devices

Directory Number
Directory Number* 2224007
Partition phones

Directory Number Settings
Voice Mail Profile <None > (Choose <None> to use default)
Calling Search Space phones
AAR Group <None >
User Hold Audio Source <None >
Network Hold Audio Source <None >
Auto Answer Auto Answer Off

Call Forward and Pickup Settings

	Voice Mail	Coverage/ Destination	Calling Search Space
Forward All	<input type="checkbox"/>		<None >



Cisco CallManager 4.1 Administration - Directory Number Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media Print

Address <https://jupiter/CCMAdmin/directorynumber.asp?NumPlanMapID={5529B92F-DFD6-4215-88D7-4801190AF5A6}> Go Links

Call Forward and Pickup Settings

	Voice Mail	Coverage/ Destination	Calling Search Space
Forward All	<input type="checkbox"/>	<input type="text"/>	< None >
Forward Busy Internal	<input type="checkbox"/>	<input type="text"/>	< None >
Forward Busy External	<input type="checkbox"/>	<input type="text"/>	< None >
Forward No Answer Internal	<input type="checkbox"/>	<input type="text"/>	< None >
Forward No Answer External	<input type="checkbox"/>	<input type="text"/>	< None >
Forward No Coverage Internal	<input type="checkbox"/>	<input type="text"/>	< None >
Forward No Coverage External	<input type="checkbox"/>	<input type="text"/>	< None >

No Answer Ring Duration (seconds)

Call Pickup Group < None >

MLPP Alternate Party Settings

Target (Destination)

Calling Search Space < None >

No Answer Ring Duration (seconds)

Line Settings for all Devices

Alerting Name

Line Settings for this Device

Display (Internal Caller ID)

Line Text Label

External Phone Number Mask

Done Local intranet



Cisco CallManager 4.1 Administration - Directory Number Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <https://jupiter/CCMAdmin/directorynumber.asp?NumPlanMapID={5529B92F-DFD6-4215-88D7-4801190AF5A6}> Go Links

No Answer Ring Duration (seconds)

Line Settings for all Devices

Alerting Name

Line Settings for this Device

Display (Internal Caller ID)

Line Text Label

External Phone Number Mask

Message Waiting Lamp Policy

Ring Setting (Phone Idle)

Ring Setting (Phone Active)**

Multiple Call / Call Waiting Settings

Maximum Number of Calls* (1 - 196)

Busy Trigger* (<= Max. Calls)

Forwarded Call Information Display

Caller Name Caller Number

Redirected Number Dialed Number

* indicates required item; changes to Line or Directory Number settings require restart.

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

Note:
If you are using a language other than English for Display (Internal Caller ID) or Line Text Label text, make sure the correct character set (shown below) is selected. Text displays incorrectly if the wrong character set is selected. (English characters are included in all character sets.)

Character Set

Done Local intranet



Configuring the Cisco 2621XM Gateway

```
Current configuration : 2035 bytes
!
version 12.3
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
!
hostname 2621XM_E1
!
enable password cisco
!
voice-card 1
!
ip subnet-zero
ip tcp synwait-time 13
ip cef
!
!
ip host JUPITER 172.20.33.254
ip name-server 172.20.33.254
!
isdn switch-type primary-qsig
!
!
!
!
!
!
!
!
no voice hpi capture buffer
no voice hpi capture destination
!
!
ccm-manager mgcp
ccm-manager music-on-hold
ccm-manager config server JUPITER
ccm-manager config
!
!
controller E1 1/0
  pri-group timeslots 1-31 service mgcp
!
controller E1 1/1
  pri-group timeslots 1-31 service mgcp
!
!
!
interface FastEthernet0/0
```



```
ip address 172.20.33.52 255.255.255.0
duplex auto
speed auto
!
interface FastEthernet0/1
no ip address
shutdown
duplex auto
speed auto
!
interface Serial1/0:15
no ip address
no logging event link-status
isdn switch-type primary-qsig
isdn incoming-voice voice
isdn bind-13 ccm-manager
isdn bchan-number-order ascending
no cdp enable
!
interface Serial1/1:15
no ip address
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 http server
ip classless
ip route 0.0.0.0 0.0.0.0 172.20.31.1
ip route 0.0.0.0 0.0.0.0 FastEthernet0/0
ip route 0.0.0.0 0.0.0.0 172.20.33.1
!
!
!
!
voice-port 1/0:15
!
voice-port 1/1:15
!
mgcp
mgcp call-agent jupiter 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 package-capability rtp-package
no mgcp package-capability res-package
mgcp package-capability sst-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
!
!
!
```



```
dial-peer cor custom
!
!
!
dial-peer voice 1 pots
  application mgcpapp
  port 1/0:15
!
dial-peer voice 2 pots
  application mgcpapp
  port 1/1:15
!
!
line con 0
line aux 0
line vty 0 4
  exec-timeout 0 0
  password cisco
  login
!
!
!
end
```

Acronyms

Acronym	Definitions
ANF-PR	Additional Network Feature Path Replacement
AOC	Advice-of-charge. Information element is sent with the connection setup information for incoming Euro-ISDN connections. The AOC IE is used for call charge calculation.
CCM	Cisco CallManager
CCBS	Call Completion to Busy Subscriber
CCNR	Call Completion on No Reply
CFB	Call Forwarding on Busy
CFNR	Call Forwarding No Reply
CFU	Call Forwarding Unconditional
CLIP	Calling Line (Number) Identification Presentation
CLIR	Calling Line (Number) Identification Restriction
CMM	Communication Media Module (CMM) is a Cisco Catalyst® 6500 Series and Cisco 7600 Series line card that provides flexible and high-density T1/E1 gateways
CNIP	Calling Name Identification Presentation
CNIR	Calling Name Identification Restriction
COLP	Connected Line (Number) Identification Presentation



COLR	Connected Line (Number) Identification Restriction
CONP	Connected Name Identification Presentation
CONR	Connected Name Identification Restriction
CT	Call Transfer
MWI	Message Waiting Indicator
PSTN	Public Switched Telephone Network

Important Information

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

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



Corporate Headquarters

Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
www.cisco.com
Tel: 408 526-4000
800 553-NETS (6387)
Fax: 408 526-4100

European Headquarters

Cisco Systems International
BV
Haarlerbergpark
Haarlerbergweg 13-19
1101 CH Amsterdam
The Netherlands
www-europe.cisco.com
Tel: 31 0 20 357 1000
Fax: 31 0 20 357 1100

Americas Headquarters

Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
www.cisco.com
Tel: 408 526-7660
Fax: 408 527-0883

Asia Pacific Headquarters

Cisco Systems, Inc.
Capital Tower
168 Robinson Road
#22-01 to #29-01
Singapore 068912
www.cisco.com
Tel: +65 317 7777
Fax: +65 317 7799

Cisco Systems has more than 200 offices in the following countries and regions. Addresses, phone numbers, and fax numbers are listed on the Cisco Web site at www.cisco.com/go/offices.

Argentina • Australia • Austria • Belgium • Brazil • Bulgaria • Canada • Chile • China PRC • Colombia • Costa Rica • Croatia • Czech Republic • Denmark • Dubai, UAE • Finland • France • Germany • Greece • Hong Kong SAR • Hungary • India • Indonesia • Ireland • Israel • Italy • Japan • Korea • Luxembourg • Malaysia • Mexico • The Netherlands • New Zealand • Norway • Peru • Philippines • Poland • Portugal • Puerto Rico • Romania • Russia • Saudi Arabia • Scotland • Singapore • Slovakia • Slovenia • South Africa • Spain • Sweden • Switzerland • Taiwan • Thailand • Turkey • Ukraine • United Kingdom • United States • Venezuela • Vietnam • Zimbabwe

Copyright 2004 Cisco Systems, Inc. All rights reserved. Cisco, Cisco Systems, and the Cisco Systems logo are registered trademarks or trademarks of Cisco Systems, Inc. and/or its affiliates in the U.S. and certain other countries. All other trademarks mentioned in this document or Web site are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (0301R)