

# Cisco CallManager 4.0-PBX Interoperability: Avaya Definity G3 MV1.3 PBX to a Cisco 6608 Gateway using E1 QSIG with MGCP

## Introduction

This is an application note for connectivity of Lucent/Avaya Definity G3si MV1.3 PBX with Cisco CallManager Release 4.0 using Cisco 6608-E1 QSIG as MGCP gateway. Connectivity is achieved by using the PRI ISO QSIG 1 protocol type on the MGCP gateway and QSIG protocol (with option "b" for Supplementary Service Protocol) on the Lucent/Avaya PBX.

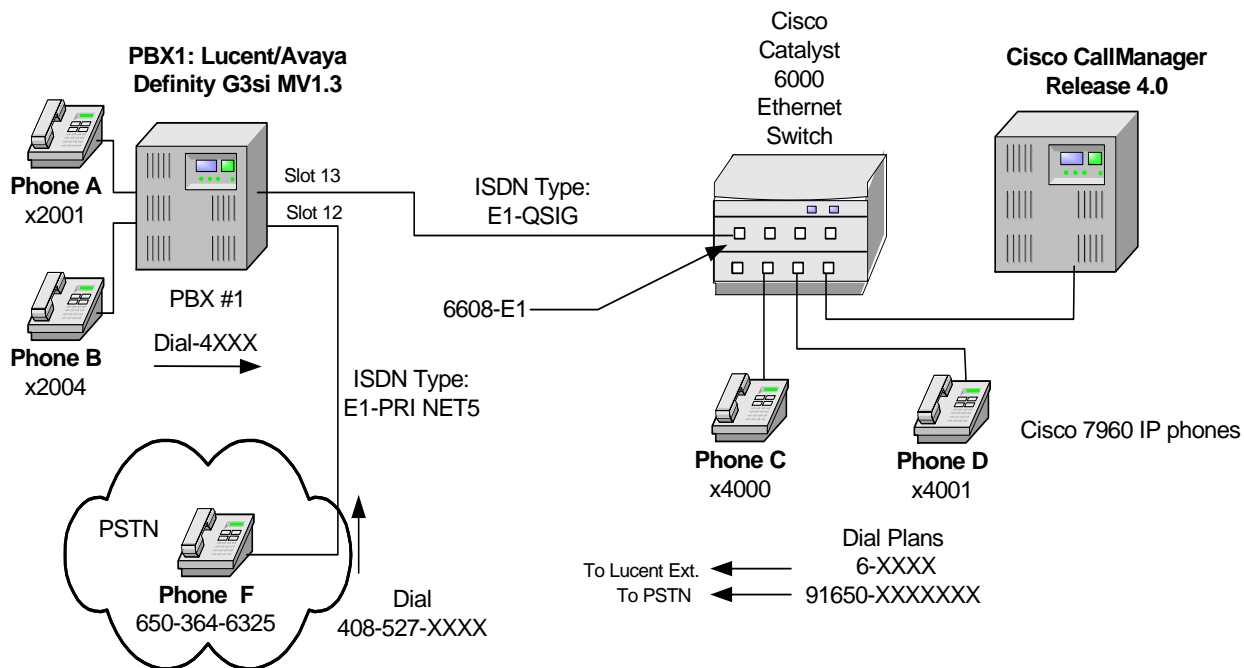
This release supports the following features:

- Calling Name Identification Presentation
- Calling Number Identification Presentation
- Connected Name Identification Presentation
- Connected Number Identification Presentation

## Network Topology

The following diagram shows the test setup for end-to-end interoperability with the Cisco CallManager connected to the PBX via 6608-E1 QSIG link as MGCP gateway.

### Basic Call Setup End-to-End Configuration





## Limitations

Cisco CallManager Release 4.0 does not support sending Alerting Name or Busy Name Identification information.

## System Components

### **Hardware Requirements**

Cisco Catalyst 6000 switch with 6608-E1 gateway

Lucent/Avaya Definity G3si MV1.3 PBX, TN464F, DS1 INTFC 24/32

### **Software Requirements**

PBX Software Release MV1.3

Cisco CallManager Release 4.0

## Configuration

### **Configuring the Lucent/Avaya Definity G3si MV1.3 PBX**

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 the Uniform Dialing Plan.



## DS1 Circuit Pack

Avaya Site Administration - [multivantage GEDI]

File Edit View System Action Tools Window Help

change ds1 a13 send (return) help (f5) cancel (esc) enter (f3) schedule (f9) next (f7) previous (f8)

1

**DS1 CIRCUIT PACK**

Location:	01A13	Name:	U11 to U9
Bit Rate:	2.048	Line Coding:	hdb3
Signaling Mode:	isdn-pri	Interface:	peer-slave
Connect:	pbx	Peer Protocol:	Q-SIG
TN-C7 Long Timers?	n	Side:	b
Interworking Message:	PROGRESS	CRC?	y
Interface Companding:	alaw	Channel Numbering:	sequential
Idle Code:	11111111	DCP/Analog Bearer Capability:	3.1kHz

Slip Detection?  n

Near-end CSU Type:  other

Right-click in a field to see a list of valid entries or help text

Ready

NUM



## Signaling Group

Avaya Site Administration - [multivantage GEDI]

File Edit View System Action Tools Window Help

change signaling-group 13 send (return) help (f5) cancel (esc) enter (f3) schedule (f9) next (f7) previous (f8)

1

**SIGNALING GROUP**

Group Number: 13 Group Type: isdn-pri

Associated Signaling?  Max number of NCA TSC: 5

Primary D-Channel: 01A1316 Max number of CA TSC: 23

Trunk Group for Channel Selection: 13 Trunk Group for NCA TSC: 13

Supplementary Service Protocol: b X-Mobility/Wireless Type: NONE

Right-click in a field to see a list of valid entries or help text

Ready NUM

## Trunk Group



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File Edit View System Action Tools Window Help

multivantage

change trunk-group 13 send (return) help (f5) cancel (esc) enter (f3) schedule (f9) next (f7) previous (f8)

1 2 3 4 5 6 7 8 9 10

**TRUNK GROUP**

Group Number: 13 Group Type: isdn CDR Reports: y  
Group Name: QSIG TIE to U9 CDR: 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: 6  
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? y  
Digital Loss Group: 13  
Calling Number - Delete: Insert: Numbering Format: lev0-put  
Bit Rate: 1200 Synchronization: async Duplex: full  
Disconnect Supervision - In? y Out? y  
Answer Supervision Timeout: 0

Right-click in a field to see a list of valid entries or help text

Ready NUM



Avaya Site Administration - [multivantage GEDI]

File Edit View System Action Tools Window Help

change trunk-group 13 send (return) help (f5) cancel (esc) enter (f3) schedule (f9) next (f7) previous (f8)

1 2 3 4 5 6 7 8 9 10

**TRUNK FEATURES**

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

Right-click in a field to see a list of valid entries or help text

Ready



Avaya Site Administration - [multivantage GEDI]

File Edit View System Action Tools Window Help

change trunk-group 13 send (return) help (f5) cancel (esc) enter (f3) schedule (f9) next (f7) previous (f8)

1 2 3 4 5 6 7 8 9 10

**TRUNK GROUP**  
Administered Members (min/max): 1/30  
Total Administered Members: 30

**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:	01A1308	TN464	F			13
9:	01A1309	TN464	F			13
10:	01A1310	TN464	F			13
11:	01A1311	TN464	F			13
12:	01A1312	TN464	F			13
13:	01A1313	TN464	F			13
14:	01A1314	TN464	F			13
15:	01A1315	TN464	F			13

Right-click in a field to see a list of valid entries or help text

Ready NUM



Avaya Site Administration - [multivantage GEDI]

File Edit View System Action Tools Window Help

change trunk-group 13 send (return) help (f5) cancel (esc) enter (f3) schedule (f9) next (f7) previous (f8)

1 2 3 4 5 6 7 8 9 10

**TRUNK GROUP**  
Administered Members (min/max): 1/30  
Total Administered Members: 30

**GROUP MEMBER ASSIGNMENTS**

Port	Code	Sfx	Name	Night	Sig Grp
16:	01A1317	TN464	F		13
17:	01A1318	TN464	F		13
18:	01A1319	TN464	F		13
19:	01A1320	TN464	F		13
20:	01A1321	TN464	F		13
21:	01A1322	TN464	F		13
22:	01A1323	TN464	F		13
23:	01A1324	TN464	F		13
24:	01A1325	TN464	F		13
25:	01A1326	TN464	F		13
26:	01A1327	TN464	F		13
27:	01A1328	TN464	F		13
28:	01A1329	TN464	F		13
29:	01A1330	TN464	F		13
30:	01A1331	TN464	F		13

Right-click in a field to see a list of valid entries or help text

Ready NUM





# Uniform Dialing Plan

Avaya Site Administration - [multivantage GEDI]

File Edit View System Action Tools Window Help

change dialplan analysis send (return) help (f5) cancel (esc) enter (f3) schedule (f9) next (f7) previous (f8)

1 2 3

**DIAL PLAN ANALYSIS TABLE** Percent Full: 7

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						
3	4	ext						
4	4	ext						
5	4	ext						
6	3	dac						
8	1	fac						
9	1	fac						
*	3	fac						

Right-click in a field to see a list of valid entries or help text

Ready NUM



Avaya Site Administration - [multivantage GEDI]

File Edit View System Action Tools Window Help

multivantage

change uniform-dialplan 0 send (return) help (f5) cancel (esc) enter (f3) schedule (f9) next (f7) previous (f8)

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
2012	4	0	333	aar	n							n	
30	4	0	333	aar	n							n	
31	4	0	310	aar	n							n	
4	4	0	444	aar	n							n	
5	4	0	555	aar	n							n	
					n							n	
					n							n	
					n							n	
					n							n	
					n							n	
					n							n	
					n							n	
					n							n	
					n							n	
					n							n	

Right-click in a field to see a list of valid entries or help text

Ready NUM



Avaya Site Administration - [multivantage GEDI]

File Edit View System Action Tools Window Help

multivantage

change aar analysis 1 send (return) help (f5) cancel (esc) enter (f3) schedule (f9) next (f7) previous (f8)

1 | 2 |

**AAR DIGIT ANALYSIS TABLE** Percent Full: 7

Dialed String	Total		Route Pattern	Call Type	Node Num	ANI Req'd
	Min	Max				
111	7	7	111	aar		n
2	7	7	254	aar		n
214	4	10	12	aar		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
5	7	7	254	aar		n
555	7	7	105	lev0	3	n
6	7	7	254	aar		n
608	7	7	8	aar		n
609	7	7	9	aar		n
611	7	7	11	aar		n
612	7	7	13	aar		n

Right-click in a field to see a list of valid entries or help text

Ready NUM



Avaya Site Administration - [multivantage GEDI]

File Edit View System Action Tools Window Help

change route-pattern 104 send (return) help (f5) cancel (esc) enter (f3) schedule (f9) next (f7) previous (f8)

1

Pattern Number: 104 Pattern Name:

Grp No	FRL	NPA	Pfx Mrk	Hop Lmt	Toll List	No. Del	Inserted Dgts	DCS/ IXC QSIG Intw
1:	13	0		6		3		n user
2:	14	0		6		3		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	LAR Subaddress
0 1 2 3 4 W		Request							
y y y y y n y		as-needed	bothept					lev0-pvt	none
y y y y y n y		as-needed	bothept					lev0-pvt	none
y y y y y n n			rest						none
y y y y y n n			rest						none
y y y y y n n			rest						none
y y y y y n n			rest						none

Right-click in a field to see a list of valid entries or help text

Ready  NUM



## PSTN DS1 Circuit Pack Configuration

Avaya Site Administration - [multivantage GED1]

File Edit View System Action Tools Window Help

change ds1 a12 send (return) help (f5) cancel (esc) enter (f3) schedule (f9) next (f7) previous (f8)

1

### DS1 CIRCUIT PACK

Location:	01A12	Name:	E1 PRI
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?	y	Near-end CSU Type:	other

Right-click in a field to see a list of valid entries or help text

Ready

NUM



## PSTN Signaling Group

Avaya Site Administration - [multivantage GEDI]

File Edit View System Action Tools Window Help

multivantage

change signaling-group 12 send (return) help (f5) cancel (esc) enter (f3) schedule (f9) next (f7) previous (f8)

1 2 3 4 5

**SIGNALING GROUP**

**Group Number:** 12      **Group Type:** isdn-pri

**Associated Signaling?**       **Max number of NCA TSC:** 5

**Primary D-Channel:** 01A1216      **Max number of CA TSC:** 23

**Trunk Group for Channel Selection:** 12      **Trunk Group for NCA TSC:** 12

**Supplementary Service Protocol:** a      **X-Mobility/Wireless Type:** NONE

Right-click in a field to see a list of valid entries or help text

Ready NUM



## PSTN Trunk Configuration

Avaya Site Administration - [multivantage GEDI]

File Edit View System Action Tools Window Help

multivantage

change trunk-group 12 send (return) help (f5) cancel (esc) enter (f3) schedule (f9) next (f7) previous (f8)

1 2 3 4 5 6 7 8 9 10

**TRUNK GROUP**

Group Number: 12 Group Type: isdn CDR Reports:

Group Name: MU1.2 to PSTN on U6 COR: 1 TN: 1 TAC: 612

Direction: two-way Outgoing Display?  Carrier Medium: PRI/BRI

Dial Access?  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: none

Supplementary Service Protocol: c Digit Handling (in/out): enbloc/enbloc

Trunk Hunt: ascend QSIG Value-Added? n

Calling Number - Delete:  Insert:  Digital Loss Group: 13

Bit Rate: 1200 Synchronization: async Duplex: full

Disconnect Supervision - In?  Out?

Answer Supervision Timeout: 0

Right-click in a field to see a list of valid entries or help text

Ready NUM



Avaya Site Administration - [multivantage GEDI]

File Edit View System Action Tools Window Help

multivantage

change trunk-group 12 send (return) help (f5) cancel (esc) enter (f3) schedule (f9) next (f7) previous (f8)

1 2 3 4 5 6 7 8 9 10

**TRUNK FEATURES**

ACA Assignment?  Measured:  Wideband Support?   
Maintenance Tests?

Data Restriction?  NCA-TSC Trunk Member:   
Send Name:  Send Calling Number:

Used for DCS?   
Suppress # Outpulsing?  Numbering Format:

Outgoing Channel ID Encoding:  UUI IE Treatment:

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

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

SBS?  Network (Japan) Needs Connect Before Disconnect?

Right-click in a field to see a list of valid entries or help text

Ready





**Avaya Site Administration - [multivantage GEDI]**

File Edit View System Action Tools Window Help

change trunk-group 12 send (return) help (F5) cancel (esc) enter (F3) schedule (F9) next (F7) previous (F8)

1 2 3 4 5 6 7 8 9 10

INCOMING CALL HANDLING TREATMENT						
Service/ Feature	Called Len	Called Number	Del	Insert	Per Call CPN/BN	Night Serv
public-ntwrk	10	408527	6			

Right-click in a field to see a list of valid entries or help text

Ready NUM



Avaya Site Administration - [multivantage GEDI]

File Edit View System Action Tools Window Help

change trunk-group 12 send (return) help (f5) cancel (esc) enter (f3) schedule (f9) next (f7) previous (f8)

1 2 3 4 5 6 7 8 9 10

**TRUNK GROUP**  
Administered Members (min/max): 1/15  
Total Administered Members: 15

**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:	01A1206	TN464	F			12
7:	01A1207	TN464	F			12
8:	01A1208	TN464	F			12
9:	01A1209	TN464	F			12
10:	01A1210	TN464	F			12
11:	01A1211	TN464	F			12
12:	01A1212	TN464	F			12
13:	01A1213	TN464	F			12
14:	01A1214	TN464	F			12
15:	01A1215	TN464	F			12

Right-click in a field to see a list of valid entries or help text

Ready NUM



## PSTN Access Code (9)

Avaya Site Administration - [multivantage GEDI]

File Edit View System Action Tools Window Help

change feature-access-codes send (return) help (f5) cancel (esc) enter (f3) schedule (f9) next (f7) previous (f8)

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:

Auto Route Selection (ARS) - Access Code 1:  Access Code 2:

Automatic Callback Activation:  Deactivation:

Call Forwarding Activation Busy/DA:  All:  Deactivation:

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:

Right-click in a field to see a list of valid entries or help text

Ready



## PSTN Dialing Plan

Avaya Site Administration - [multivantage GEDI]

File Edit View System Action Tools Window Help

multivantage

change ars analysis 165 send (return) help (f5) cancel (esc) enter (f3) schedule (f9) next (f7) previous (f8)

1 2

**ARS DIGIT ANALYSIS TABLE**  
Location: all Percent Full: 8

Dialed String	Total		Route Pattern	Call Type	Node Num	ANI Req'd
	Min	Max				
165	11	11	111	fnpa		n
166	11	11	deny	fnpa		n
167	11	11	deny	fnpa		n
168	11	11	deny	fnpa		n
169	11	11	deny	fnpa		n
170	11	11	deny	fnpa		n
1700	11	11	deny	fnpa		n
171	11	11	deny	fnpa		n
172	11	11	deny	fnpa		n
173	11	11	deny	fnpa		n
174	11	11	deny	fnpa		n
175	11	11	deny	fnpa		n
176	11	11	deny	fnpa		n
177	11	11	deny	fnpa		n
178	11	11	deny	fnpa		n

Right-click in a field to see a list of valid entries or help text

Ready NUM



Avaya Site Administration - [multivantage GEDI]

File Edit View System Action Tools Window Help

change route-pattern 111 send (return) help (f5) cancel (esc) enter (f3) schedule (f9) next (f7) previous (f8)

1

Pattern Number: 111 Pattern Name:

Grp No	FRL	NPA	Pfx	Hop	Toll	No.	Inserted	DCS/ IXC
No	Mrk	Lmt	List	Del	Digits	Intw	QSIG	
1:	12	0	408					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.	Numbering	LAR
0	1	2	3	4	W	Request	Dgts	Format	Subaddress	
1:	U	U	U	U	n	n	rest		nat1-pub	none
2:	U	U	U	U	n	n	rest			none
3:	U	U	U	U	n	n	rest			none
4:	U	U	U	U	n	n	rest			none
5:	U	U	U	U	n	n	rest			none
6:	U	U	U	U	n	n	rest			none

Right-click in a field to see a list of valid entries or help text

Ready  NUM

## Configuring Cisco CallManager



## 6608-E1 Gateway Configuration

Cisco CallManager 4.0 Administration - Gateway Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media

Address <http://cm-kingon/CCMAdmin/gatewayconfig.asp?pkid={2E043967-780A-4425-8FEF-343CBAD17186}&type=2> Go Links >>

System Route Plan Service Feature Device User Application Help

**Cisco CallManager Administration**  
For Cisco IP Telephony Solutions

CISCO SYSTEMS

### Gateway Configuration

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

**Product : Cisco Catalyst 6000 E1 VoIP Gateway**  
**Gateway : S0/DS1-0@SDA0001C9D8633E**  
**Device Protocol: Digital Access PRI**  
**Registration: Registered with Cisco CallManager 172.20.32.254**  
**IP Address: [172.20.32.103](#)**

Status: Ready

#### Device Information

MAC Address*	<input type="text" value="0001C9D8633E"/>
Description	<input type="text" value="SDA0001C9D8633E"/>
Device Pool*	<input type="text" value="Default"/>
Network Locale	<input type="text" value="United States"/>
Media Resource Group List	<input type="text" value="&lt; None &gt;"/>
Location	<input type="text" value="&lt; None &gt;"/>
AAR Group	<input type="text" value="&lt; None &gt;"/>
Load Information	<input type="text"/>

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

MLPP Domain (e.g., "0000FF")	<input type="text"/>
MLPP Indication	Not available on this device
MLPP Preemption	Not available on this device

#### Interface Information

PRI Protocol Type*	<input type="text" value="PRI ISO QSIG E1"/>
Protocol Side*	<input type="text" value="Network"/>
Channel Selection Order*	<input type="text" value="Top Down"/>
Channel IE Type*	<input type="text" value="Continuous Number"/>

Local intranet



Cisco CallManager 4.0 Administration - Gateway Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media Print

Address <http://cm-klington/CCMAdmin/gatewayconfig.asp?pkid={2E043967-780A-4425-8FEF-343CBAD17186}&type=2> Go Links >>

PCM Type*	A-law
Delay for first restart (1/8 sec ticks)	32
Delay between restarts (1/8 sec ticks)	4
<input checked="" type="checkbox"/> Inhibit restarts at PRI initialization	
<input checked="" type="checkbox"/> 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*	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 checked="" type="checkbox"/> Display IE Delivery
<input checked="" type="checkbox"/> Redirecting Number IE Delivery - Outbound
<input checked="" type="checkbox"/> Redirecting Number IE Delivery - Inbound
<input checked="" type="checkbox"/> Send Extra Leading Character In DisplayIE***
<input type="checkbox"/> Setup non-ISDN Progress Indicator IE Enable****

Local intranet



Cisco CallManager 4.0 Administration - Gateway Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media Print

Address <http://cm-klington/CCMAdmin/gatewayconfig.asp?pkid={2E043967-780A-4425-8FEF-343CBAD17186}&type=2> Go Links >>

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

Send Calling Name In Facility IE

Interface Identifier Present\*\*

Interface Identifier Value\*\*

Connected Line ID Presentation (QSIG Inbound Call)\*

Connected PBX Model

**Product Specific Configuration**

Clock Reference\*

Framing\*

Audio Signal Adjustment into IP Network\*

Audio Signal Adjustment from IP Network\*

Zero Suppression\*

Digit On Duration(50-500ms)\*

Interdigit Duration(50-500msec)\*

SNMP Community String

Disable SNMP Set operations\*

Debug Port Enable\*

Hold Tone Silence Duration\*

Port Used for Voice Calls\*

Port Used for Modem Calls\*

Port Used for Fax Calls\*

**Fax and Modem Parameters**

Fax Relay Enable\*

Fax Error Correction Mode Override\*

Maximum Fax Rate\*

Fax Payload Size\*

Non Standard Facilities Country Code\*

Max Standard Facilities Number

Local intranet





Cisco CallManager 4.0 Administration - Gateway Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media Print

Address <http://cm-kingon/CCMAdmin/gatewayconfig.asp?pkid={2E043967-780A-4425-8FEF-343CBAD17186}&type=2> Go Links >>

Non Standard Facilities Vendor Code\*

Fax/Modem Packet Redundancy\*

NSE Type\*

**Playout Delay Parameters**

Initial Playout Delay\*

Minimum Playout Delay\*

Maximum Playout Delay\*

**Echo Canceller Configuration**

Echo TailLength (ms)\*

Minimum ERL (db)\*

\* 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 Find/List Gateways](#)

Local intranet



## Enbloc Route Pattern Configuration

Cisco CallManager 4.0 Administration - Route Pattern/Hunt Pilot Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address http://cm-klngon/CCMAdmin/routepatternconfig.asp?pkid={3F08903A-3126-4CE1-95DF-9E01A95B7DC4}&status=uc

**Route Pattern/Hunt Pilot: 6.XXXX**

Status: Update completed  
Note: Any update to this Route Pattern or Hunt Pilot automatically resets the associated gateway or Route/Hunt List

Copy Update Delete

**Pattern Definition**

Route Pattern/Hunt Pilot\* 6.XXXX

Partition < None >

Description

Numbering Plan\* North American Numbering Plan

Route Filter < None >

MLPP Precedence Default

Gateway or Route/Hunt List\* S0/DS1-0@SDA0001C9D8633E (Edit)

Route Option

Route this pattern

Block this pattern - Not Selected -

Provide Outside Dial Tone  Allow Overlap Sending  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 PreDot

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 >	

Done Local intranet



## Overlap Sending Route Pattern Configuration

Cisco CallManager 4.0 Administration - Route Pattern/Hunt Pilot Configuration - Microsoft Internet Explorer

Address: http://cm-klington/CCMAdmin/routepatternconfig.asp?pkid={E959BFF6-5645-4444-9E24-2768AFCAAD03}

**Route Pattern/Hunt Pilot: 9.X**  
Status: Ready  
Note: Any update to this Route Pattern or Hunt Pilot automatically resets the associated gateway or Route/Hunt List

Copy Update Delete

**Pattern Definition**

Route Pattern/Hunt Pilot\*   
Partition   
Description   
Numbering Plan\*   
Route Filter   
MLPP Precedence   
Gateway or Route/Hunt List\*  (Edit)  
Route Option  
 Route this pattern  
 Block this pattern   
 Provide Outside Dial Tone  Allow Overlap Sending  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)

**ISDN Network-Specific Facilities Information Element**

Carrier Identification Code   
Network Service Protocol   
Network Service  Service Parameter Name  Service Parameter Value

Done Local intranet



## PSTN Route Pattern Configuration

Cisco CallManager 4.0 Administration - Route Pattern/Hunt Pilot Configuration - Microsoft Internet Explorer

Address: http://cm-kingon/CCMAdmin/routepatternconfig.asp?pkid={A0E58AC2-80ED-4857-9D43-DCC43AA6EA56}

### Route Pattern/Hunt Pilot: 91650XXXXXX

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

Copy Update Delete

#### Pattern Definition

Route Pattern/Hunt Pilot*	91650XXXXXX	
Partition	< None >	
Description		
Numbering Plan*	North American Numbering Plan	
Route Filter	< None >	
MLPP Precedence	Default	
Gateway or Route/Hunt List*	S0/DS1-0@SDA0001C9D8633E (Edit)	
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 type="checkbox"/> Allow Overlap Sending	<input type="checkbox"/> Urgent Priority

#### Calling Party Transformations

Use Calling Party's External Phone Number Mask

Calling Party Transform Mask	
Prefix Digits (Outgoing Calls)	408527
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 >	

Done Local intranet



## 7960 IP phone Configuration

Cisco CallManager 4.0 Administration - Phone Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media Print

Address <http://cm-klington/CCMAdmin/phoneconfig.asp?pkid={ED74929A-A8BB-4A58-8129-2E4358F511BB}> Go Links

# Phone Configuration

[Add a new phone](#)  
[Add/Update Speed Dials](#)  
[Subscribe/Unsubscribe Services](#)  
[Dependency Records](#)  
[Back to Find/List Phones](#)

**Directory Numbers**

**Base Phone**

- 7712 Line 1 - 4001 in 7719 Phones
- 7712 Line 2 - Add new DN 7719

**Phone: SEP003094C39863 (Auto 4001)**  
**Registration: Registered with Cisco CallManager 172.20.32.254**  
**IP Address: 172.20.32.110**  
Status: Ready

Copy Update Delete Reset Phone

### Phone Configuration (Model = Cisco 7960)

#### Device Information

MAC Address*	<input type="text" value="003094C39863"/>
Description	<input type="text" value="Auto 4001"/>
Owner User ID	<input type="text"/> <a href="#">(Select User ID)</a>
Device Pool*	<input type="text" value="Default"/> <a href="#">(View details)</a>
Calling Search Space	<input type="text" value="&lt; None &gt;"/>
AAR Calling Search Space	<input type="text" value="&lt; None &gt;"/>
Media Resource Group List	<input type="text" value="&lt; None &gt;"/>
User Hold Audio Source	<input type="text" value="&lt; None &gt;"/>
Network Hold Audio Source	<input type="text" value="&lt; None &gt;"/>
Location	<input type="text" value="&lt; None &gt;"/>
User Locale	<input type="text" value="&lt; None &gt;"/>
Network Locale	<input type="text" value="&lt; None &gt;"/>
Device Security Mode	<input type="text" value="Use System Default"/>
Built In Bridge	<input type="text" value="Default"/>
Privacy	<input type="text" value="Default"/>

#### Phone Button Template Information

Phone Button Template*	<input type="text" value="Standard 7960"/> <a href="#">(View button list)</a>
------------------------	---

#### Softkey Template Information

Softkey Template	<input type="text" value="&lt; None &gt;"/>
------------------	---

#### Expansion Module Information

Module 1	<input type="text" value="&lt; None &gt;"/>
Module 2	<input type="text" value="&lt; None &gt;"/>

Done Local intranet



Cisco CallManager 4.0 Administration - Phone Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <http://cm-kingon/CCMAdmin/phoneconfig.asp?pkid={ED74929A-A8BB-4A58-8129-2E4358F511BB}>

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

Messages

Services

Authentication Server

Proxy Server

Idle

Idle Timer (seconds)

**Extension Mobility (Device Profile) Information**

Enable Extension Mobility Feature

Log Out Profile

Log In User ID

Log In Time

Log Out Time

**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\*

Done Local intranet



Cisco CallManager 4.0 Administration - Directory Number Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address http://cm-kingon/CCMAdmin/directorynumber.asp?NumPlanMapID={17A63DCE-8B3B-4403-A131-B02B19FC9CF4}

## Directory Number Configuration

[Configure Device \(SEP003094C39863\)](#)  
[Dependency Records](#)

**Associated With**  
SEP003094C39863  
7960 (Line 1)

**Directory Number: 4001 (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\* 4001  
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 Destination	Calling Search Space
Forward All	<input type="checkbox"/>	<None>
Forward Busy	<input type="checkbox"/>	<None>
Forward No Answer	<input type="checkbox"/>	<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)

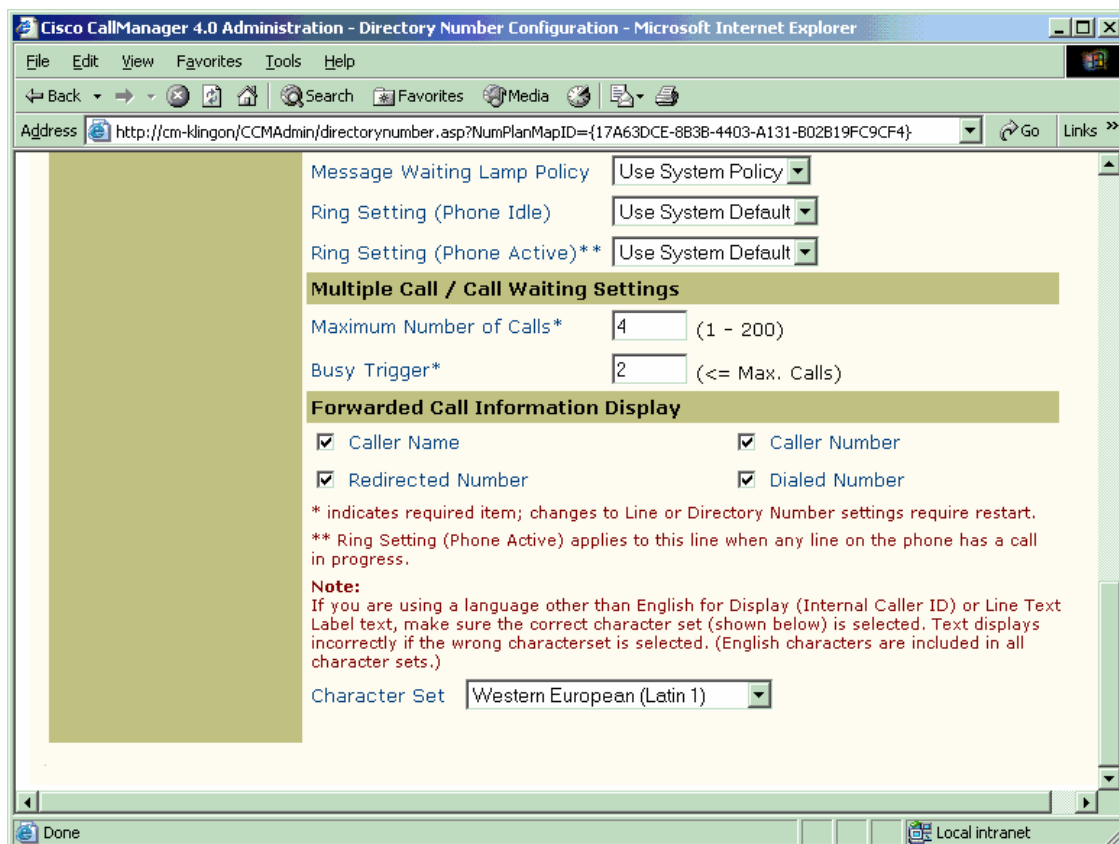
**Line Settings for this Device**

Display (Internal Caller ID) JOHN DOE

Line Text Label

External Phone Number Mask

Done Local intranet



## Configuring the Catalyst 6000 Switch

```
Router# show version
```

```
WS-C6006 Software, Version NmpSW: 7.6(2)
```

```
Copyright (c) 1995-2003 by Cisco Systems
```

```
NMP S/W compiled on Jul 16 2003, 23:01:27
```

```
System Bootstrap Version: 5.3(1)
```

```
System Boot Image File is 'slot0:cat6000-supk8.7-6-2.bin'
```

```
System Configuration register is 0x2
```

```
Hardware Version: 2.0 Model: WS-C6006 Serial #: TBA04511172
```

```
PS1 Module: WS-CAC-1300W Serial #: SON04501278
```





Mod	Port	Model	Serial #	Versions
1	2	WS-X6K-SUP1A-2GE	SAD05010NBK	Hw : 7.0 Fw : 5.3(1) Fw1: 5.4(2) Sw : 7.6(2) Sw1: 7.6(2)
		WS-X6K-SUP1A-2GE	SAD05010NBK	Hw : 7.0 Sw :
3	48	WS-X6348-RJ-45	SAD04420N7B	Hw : 1.4 Fw : 5.4(2) Sw : 7.6(2)
		WS-F6K-VPWR		Hw : 1.0 Sw : 1.0
5	8	WS-SVC-NAM-2	SAD065002TK	Hw : 1.0 Fw : 7.2(1) Fw1: 7.2(1) Sw : 3.2(0.13) Sw1: 7.6(2)
6	8	WS-X6608-E1	SAD04380DW1	Hw : 1.1 Fw : 5.4(2) Sw : 7.6(2) HP1: D00404000003; DSP1: D0054133 (4.1. 33) HP2: (not online); DSP2: (not online) HP3: (not online); DSP3: (not online) HP4: D00403030020; DSP4: D0054130 (4.1. 30) HP5: C00103010013; DSP5: C002E031 (3.3. 2) HP6: C00103010013; DSP6: C002E031 (3.3.



2)

HP7: C00103010013; DSP7: C002E031 (3.3.

2)

HP8: C00103010013; DSP8: C002E031 (3.3.

2)

	DRAM			FLASH			NVRAM		
Module	Total	Used	Free	Total	Used	Free	Total	Used	Free
1	65408K	47433K	17975K	16384K	16107K	277K	512K	289K	223K

Uptime is 48 days, 9 hours, 54 minutes

Console> (enable)

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