



Siemens HiPath 4000 Release 1 using E1 ECMA QSIG to Cisco Unified CallManager 4.1

November 6, 2007 Revision 3

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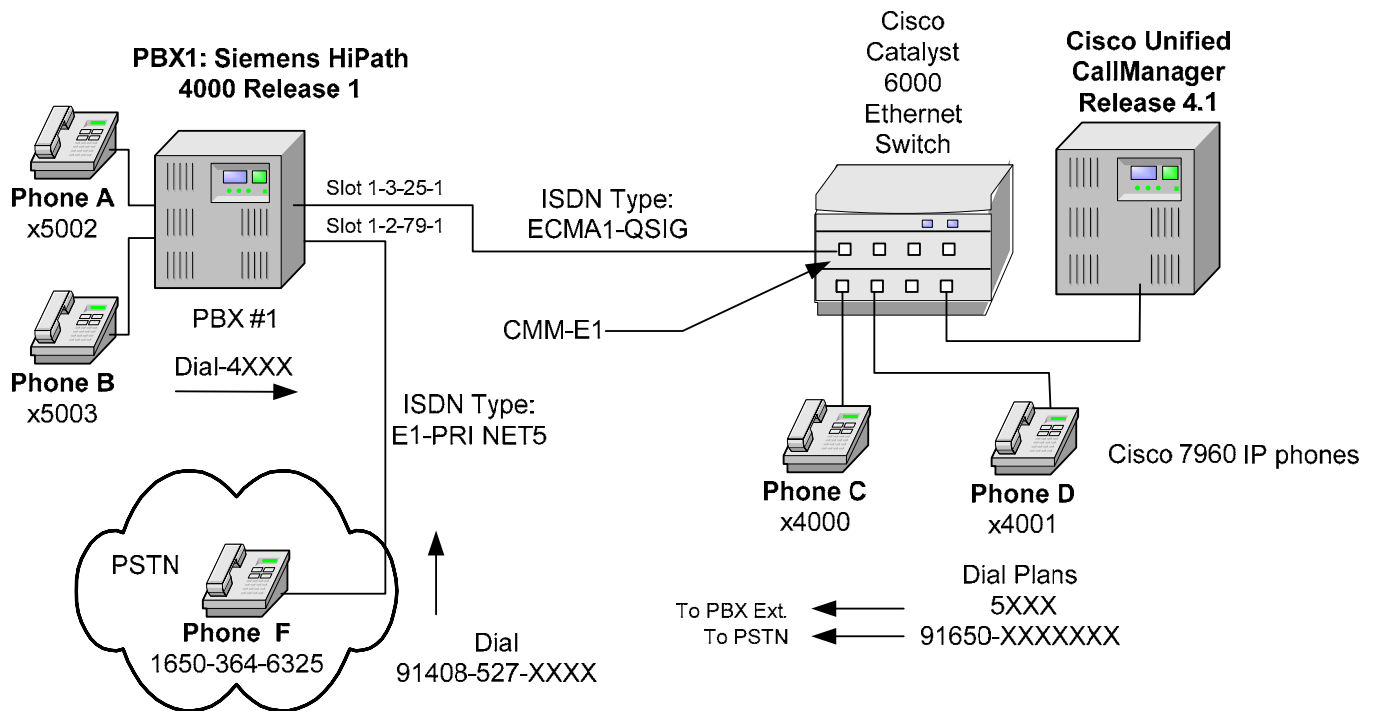
Introduction

- This is an application note for connectivity of Siemens HiPath 4000 Release 1 PBX with Cisco Unified CallManager Release 4.1 via Cisco Communication Media Module CMM-E1 as MGCP gateway using ECMA1 QSIG protocol.
- The network topology diagram (Figure 1) shows the test setup for end-to-end interoperability with the Cisco Unified CallManager connected to the PBX via CMM-E1 QSIG link as MGCP gateway.
- Connectivity is achieved by using the PRI ISO QSIG E1 protocol type on the MGCP gateway with Cisco Unified CallManager Service parameter QSIG variant of ECMA and ECMA1 switch type on the Siemens HiPath 4000 PBX.
- This Application Note uses the CMM-E1 voice gateway, however other Cisco voice gateways are also an option to use since Cisco Unified CallManager QSIG implementation does not depend on the physical interface.

Network Topology

Figure 1. Network Topology

Basic Call Setup End-to-End Configuration



Limitations

B-Channel Mapping

- Siemens HiPath 4000 PBX uses Timeslot channel numbering (1-15, 17-31) when QSIG protocol “ECMA1” is selected, therefore the Cisco CMM-E1 Gateway configuration for **Channel IE Type** field should be set to **Timeslot Number**.

Connected Name and Number Restrictions

- Siemens phone displayed dialed number and trunk name when CUCM sends Connected Name and Number as restricted.
- Connected Name of the Diverted to user is NOT Displayed on IP 7960 phone when the Siemens PBX diverts the call upon no reply to another local Siemens phone. The Siemens HiPath did not send Connected Name in this case. It was sending DivertingLegInformation3 APDUs with presentationAllowedIndicator set to false. This is a Siemens HiPath PBX issue since Connected Name was not sent by the PBX.

Additional Network Feature Path Replacement for Call Diversion

- Siemens HiPath 4000 PBX does not send Path Replacement proposal for Call Diversion by forward switching.



MWI

- Siemens HiPath 4000 PBX responded with “reject” Facility IE to the QSIG MWI (mwiActivate, mwiDeactivate) requests from Cisco Unified CallManager. This is a Siemens issue.

System Components

Hardware Requirements

- Cisco Hardware:
 - Cisco Catalyst 6000 switch with CMM-E1 Gateway
 - Cisco Unified CallManager Server
- Siemens HiPath 4000 PBX Hardware:
 - DIU-N2

Software Requirements

- PBX Software version 1
- Cisco Unified 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)

Features Not Supported

- MWI- Message Waiting Indication (lamp ON, lamp OFF)

Configuration

Configuring the Siemens HiPath 4000 PBX

1. Add the new access code to Dialing Plans using WABE + LDPLN.
2. Add the new trunk board using BCSU.
3. Configure Class of Trunk using COT.
4. Configure Class of Parameter for device handler using COP.
5. Configure Class of Service using COSSU.
6. Add the new trunk group access code using BUEND.
7. Configure trunk using TDCSU.
8. Configure Reference Clock using REFTA.
9. Configure trunk Least Cost Routing using LDAT + RICHT.
10. Configure LCR Out-dial Rules using LODR.
11. Enable In-Band DTMF signaling for the Digital Stations using SBSCU.
12. Configure Digital Station's Class of Service for Mailbox (MWI) application.

Configuration Menus and Commands

DPLN

```
<dis-wabe:gen;  
DIS-WABE:GEN;  
H500: AMO WABE STARTED
```

DIGIT INTERPRETATION		VALID FOR ALL DIAL PLANS			
CODE		CALL PROGRESS STATE		DIGIT ANALYSIS	RESERVED/CONVERT
		1 1111 11112 22	0 12345 67890 12345 67890 12	RESULT	DNI/ADD-INFO *=OWN NODE
0		. **** . **** ** *		CO	R
001	- 009	* *		NETRTE	
111		. **** * *		TIE	
12		. **** * *		TIE	R
13	- 14	. **** * *		TIE	
21		 *		KNOVRKY	
22		 *		DNDKY	
222		. **** * *		TIE	
23		 *		FWDKY	
24		 *		MBKY	
25		 *		MSGRKY	
26		 *		DAKY	
27		 *		DSSKY	
28		 *		VCRKY	
29		 *		VCKY	
30		 *		CONFKY	
DIGIT INTERPRETATION		VALID FOR ALL DIAL PLANS			
CODE		CALL PROGRESS STATE		DIGIT ANALYSIS	RESERVED/CONVERT
		1 1111 11112 22	0 12345 67890 12345 67890 12	RESULT	DNI/ADD-INFO *=OWN NODE



3000 - 3010	. **** * *	STN	DESTNO 30 DNNO 0- 0-222
3011 - 3020	. **** * *	STN	DESTNO 31 DNNO 0- 0- 31
3021 - 3030	. **** * *	STN	DESTNO 32 DNNO 0- 0- 32
3031 - 3040	. **** * *	STN	DESTNO 33 DNNO 0- 0- 33
3041 - 3050	. **** * *	STN	DESTNO 35 DNNO 0- 0- 35
31	 *	NAMEKY	
32	 *	PARKKY	

DIGIT INTERPRETATION VALID FOR ALL DIAL PLANS

CODE	CALL PROGRESS STATE 1 1111 1112 22 0 12345 67890 12345 67890 12	DIGIT ANALYSIS RESULT	RESERVED/CONVERT DNI/ADD-INFO *=OWN NODE
33	 *	CCKY	
34	 *	HTKY	
35	 *	STKY	
36	 *	REMKY	
36 - 37	. **** * *	CO	
38	 *	TIMEKY	
39	. **** * *	TIE	
4000 - 4050	. **** * *	STN	DESTNO 111 DNNO 0- 0-111
4051 - 4566	. **** * *	STN	DESTNO 222 DNNO 0- 0-222
4567	. **** * *	STN	DESTNO 34 DNNO 0- 0-200

DIGIT INTERPRETATION VALID FOR ALL DIAL PLANS

CODE	CALL PROGRESS STATE 1 1111 1112 22 0 12345 67890 12345 67890 12	DIGIT ANALYSIS RESULT	RESERVED/CONVERT DNI/ADD-INFO *=OWN NODE
4568 - 4999	. **** * *	STN	DESTNO 222 DNNO 0- 0-222
5000 - 5040	. **** * *	STN	DESTNO 0 DNNO 0- 0-555*
5500 - 5501	. **** * *	STN	DESTNO 56 DNNO 0- 0-560
555	. **** * *	OWNNODE	
560	. **** * *	TIE	
59	. **** * *	TIE	
6000 - 6009	. **** * *	STN	R DESTNO 0 DNNO 0- 0-555*

DIGIT INTERPRETATION VALID FOR ALL DIAL PLANS

CODE	CALL PROGRESS STATE	DIGIT	RESERVED/CONVERT
------	---------------------	-------	------------------



CODE		1 1111 1112 22	ANALYSIS	DNI/ADD-INFO
		0 12345 67890 12345 67890 12	RESULT	*=OWN NODE
7000	- 7002	. **** * *	STN	DESTNO 56
8000	- 8050	. **** * *	STN	DNNO 0- 0-560
8060		. **** * *	TIE	DESTNO 222
8070		. **** * *	TIE	DNNO 0- 0-222
83		. **** * *	SPDC1	
84		. **** * *	SPDC2	
88		 *	SCONSI	R
89		 *	SCONSCO	R
9		. **** * *	TIE	
*13		 *	AHTVCE	
*15		. * . . . *	SPLIT	
*16		 *	AREM	
*17		. * . . . *	TRACE	
DIGIT INTERPRETATION VALID FOR ALL DIAL PLANS				
CODE		CALL PROGRESS STATE	DIGIT	RESERVED/CONVERT
		1 1111 1112 22	ANALYSIS	DNI/ADD-INFO
		0 12345 67890 12345 67890 12	RESULT	*=OWN NODE
*18		 *	ACOSX	
*19		. * . . .	KNOVR	
*20		 *	ADND	
*25		 *	FWDTERM	
*29		 *	AFFWDVCE	

AMO-WABE -111 DIALLING PLANS, FEATURE ACCESS CODES
 DISPLAY COMPLETED;

Enbloc Sending Dial Plan, DPLN

<DISPLAY-LDPLN:TYPE=LDP,LDPNO=4;
 DISPLAY-LDPLN:TYPE=LDP,LDPNO=4;
 H500: AMO LDPLN STARTED

LDPNO :	4	LDP : 111-X	
		SPC : 22	
		FDSFIELD : 0	SDSFIELD : 0 PINDP : N
DPLN	LROUTE	LAUTH	
0	1	1	
1	1	1	
2	1	1	
3	1	1	
4	1	1	
5	1	1	
6	1	1	
7	1	1	
8	1	1	
9	1	1	
10	1	1	
11	1	1	
12	1	1	
13	1	1	
14	1	1	
15	1	1	



AMO-LDPLN-111 ADMINISTRATION LCR DIALPLAN
DISPLAY COMPLETED;

Access code for Overlap Sending Dial Plan, DPLN

<DISPLAY-LDPLN:TYPE=LDP,LDPNO=12;
DISPLAY-LDPLN:TYPE=LDP,LDPNO=12;
H500: AMO LDPLN STARTED

LDPNO :	12	LDP :	59-X
		SPC :	22
		FDSFIELD :	0 SDSFIELD : 0 PINDP : N
DPLN	LROUTE	LAUTH	
0	27	1	
1	27	1	
2	27	1	
3	27	1	
4	27	1	
5	27	1	
6	27	1	
7	27	1	
8	27	1	
9	27	1	
10	27	1	
11	27	1	
12	27	1	
13	27	1	
14	27	1	
15	27	1	

AMO-LDPLN-111 ADMINISTRATION LCR DIALPLAN
DISPLAY COMPLETED;

PSTN Dial Plan, DPLN

<DISPLAY-LDPLN:TYPE=LDP,LDPNO=5;
DISPLAY-LDPLN:TYPE=LDP,LDPNO=5;
H500: AMO LDPLN STARTED

LDPNO :	5	LDP :	9-1650-XXXXXXX
		SPC :	22
		FDSFIELD :	0 SDSFIELD : 0 PINDP : N
DPLN	LROUTE	LAUTH	
0	165	1	
1	165	1	
2	165	1	
3	165	1	
4	165	1	
5	165	1	
6	165	1	
7	165	1	
8	165	1	
9	165	1	
10	165	1	
11	165	1	
12	165	1	
13	165	1	
14	165	1	
15	165	1	

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LINE WITH IMPLICIT NUMBERS
NO TONE

LINO
NTON

AMO-COT -111 CLASS OF TRUNK FOR CALL PROCESSING
DISPLAY COMPLETED;

For Call Forwarding by Reroute need to add FNAN and FWDN to COT22

<CHANGE-COT:COTNO=22,COTTYPE=COTADD,PAR=FNAN&FWDN;
CHANGE-COT:COTNO=22,COTTYPE=COTADD,PAR=FNAN&FWDN;
H500: AMO COT STARTED
H07: CHANGED COT STILL LINKED WITH FOLLOWING TRUNKS:

COT	TRUNK	BCGR	DEVICE
22	1- 3- 55- 0	1	CDGCONN
	1- 3- 55- 1	1	CDGCONN
	1- 3- 25- 0	1	S2CONN
	1- 3- 25- 1	1	S2CONN

H06: COT 22 CHANGED

AMO-COT -111 CLASS OF TRUNK FOR CALL PROCESSING
CHANGE COMPLETED;

<DISPLAY-COT:COTNO=22;
DISPLAY-COT:COTNO=22;
H500: AMO COT STARTED

COT: 22 INFO:

DEVICE: INDEP SOURCE: DB

PARAMETER:

PRIORITY FOR AC WILL BE DETERMINED FROM MESSAGE	PRI
RECALL IF USER HANGS UP IN CONSULTATION CALL	RCL
TRUNK CALL TRANSFER	XFER
TRUNK SIGNALING ANSWER	ANS
CHANGEOVER FROM HOLD TO RING TONE	CHRT
KNOCKING OVERRIDE POSSIBLE	KNOR
CALL EXTEND FOR BUSY, RING OR CALL STATE	CEBC
NETWORKWIDE AUTOMATIC CALLBACK ON BUSY	CBBN
NETWORKWIDE AUTOMATIC CALLBACK ON FREE	CBFN
NETWORKWIDE CALL FORWARDING PERMITTED	FWDN
NETWORKWIDE FORWARDING NO-ANSWER	FNAN
DON'T RELEASE CALL TO BUSY HUNT GROUP	BSHT
CONNECTION TO ROUTE OPTIMIZATION NODE	ROPT
TSC-SIGNALING FOR NETWORKWIDE FEATURES (MANDATORY)	TSCS
INCOMING CDR BY ZONE OR FROM LINE	ICZL
AOC PER CALL (AUTOMATICAL OR ON REQUEST), MAND. CORNET-NQ	AOCC
LINE WITH IMPLICIT NUMBERS	LINO
NO TONE	NTON

AMO-COT -111 CLASS OF TRUNK FOR CALL PROCESSING
DISPLAY COMPLETED;

Class of Parameter for Device Handler, COP

<DISPLAY-COP:COPNO=21;
DISPLAY-COP:COPNO=21;
H500: AMO COP STARTED

COP: 21 INFO:

DEVICE: INDEP SOURCE: DB

PARAMETER:

LINE WITH END-OF-DIAL	EOD
SPECIAL MODE	SFRM
CODE CALLING RELEASE AFTER EVERY TASK	CCR

L3AR

```
CO TRUNK ACCESS:
    TRUNK ACCESS
```

TA

TOLL ACCESS:
TRUNK ACCESS

TA

```

AM0-COP  -111      CLASS OF PARAMETER FOR DEVICE HANDLER
DISPLAY COMPLETED;

```

Class of Service, COSSU

```
<DISPLAY-COSSU:TYPE=COS,COS=32;
```

```
DISPLAY-COSSU:TYPE=COS,COS=32;
```

H500: AMO COSSU STARTED

COS	VOICE	FAX	DTE
32	TA TNOTCR	NOCO NOTIE	TA TNOTCR BASIC MSN CDRINT MULTRA

AMO-COSSU-111	CLASSES OF SERVICE
---------------	--------------------

DISPLAY COMPLETED:

```
<DISPLAY-COSSU:TYPE=LCOSV,LCOSV=1;
```

```
DISPLAY-COSSU:TYPE=LCO SV,LCO SV=1;
```

H500: AMO COSSU STARTED

LCOS	LAUTH						COPIN
V	1	2	3	4	5	6	NUM
	12345678901234567890123456789012345678901234						
	>SERVICE INFORMATION						
1	X.....						0
	>LCR ATTENDANT FOR VOICE						

AMO-COSSU-111 CLASSES OF SERVICE

DISPLAY COMPLETED;

Trunk Group Access Code, BUEND

```
<DISPLAY-BUEND:TGRP=26,FORMAT=L;
```

DISPLAY-BUEND:TGRP=26,FORMAT=L;

H500: AMO BUEND STARTED

FORMAT = L			
TGRP NUMBER :	26	TGRP NAME :	PRI ECMA 3
		CHARCON :	NEUTRAL
SUBGROUP NO.:	9	DEVICE TYPE :	S2CONN
RESERVED :	N	SEARCH MODE :	CIRCULAR
NUMBER OF ASSOCIATED ROUTES	:	6	
TDNRFLAG :	ON	TDNRTHRESHOLD :	3
GDTRRULE :	0	ACDPMGRP :	0
THE FOLLOWING TRUNKS (LTG-LTU-SLOT-CCT) HAVE BEEN ALLOCATED:			
1- 3- 25-0	1	1- 3- 25-0	2
1- 3- 25-0	4	1- 3- 25-0	5



1- 3- 25-0	7	1- 3- 25-0	8	1- 3- 25-0	9
1- 3- 25-0	10	1- 3- 25-0	11	1- 3- 25-0	12
1- 3- 25-0	13	1- 3- 25-0	14	1- 3- 25-0	15
1- 3- 25-0	16	1- 3- 25-0	17	1- 3- 25-0	18
1- 3- 25-0	19	1- 3- 25-0	20	1- 3- 25-0	21
1- 3- 25-0	22	1- 3- 25-0	23	1- 3- 25-0	24
1- 3- 25-0	25	1- 3- 25-0	26	1- 3- 25-0	27
1- 3- 25-0	28	1- 3- 25-0	29	1- 3- 25-0	30

AMO-BUEND-111 TRUNK GROUP
DISPLAY COMPLETED;

<DISPLAY-BUEND:TGRP=27,FORMAT=L;
DISPLAY-BUEND:TGRP=27,FORMAT=L;
H500: AMO BUEND STARTED

----- FORMAT = L -----					
TGRP NUMBER :	27	TGRP NAME :	PRI ECMA 4	MAXIMUM NO. :	30
		CHARCON :	NEUTRAL		
SUBGROUP NO.:	10	DEVICE TYPE :	S2CONN	TRACENO :	0
RESERVED :	N	SEARCH MODE :	CIRCULAR	ACD THRESHOLD :	*
NUMBER OF ASSOCIATED ROUTES :	4			PRIORITY :	2
TDDRFLAG :	ON	TDDRTHRESHOLD:	3	SOURCEGROUPIDX :	1
GDTRRULE :	0	ACDPMGRP :	0		
THE FOLLOWING TRUNKS (LTG-LTU-SLOT-CCT) HAVE BEEN ALLOCATED:					
1- 3- 25-1	1	1- 3- 25-1	2	1- 3- 25-1	3
1- 3- 25-1	4	1- 3- 25-1	5	1- 3- 25-1	6
1- 3- 25-1	7	1- 3- 25-1	8	1- 3- 25-1	9
1- 3- 25-1	10	1- 3- 25-1	11	1- 3- 25-1	12
1- 3- 25-1	13	1- 3- 25-1	14	1- 3- 25-1	15
1- 3- 25-1	16	1- 3- 25-1	17	1- 3- 25-1	18
1- 3- 25-1	19	1- 3- 25-1	20	1- 3- 25-1	21
1- 3- 25-1	22	1- 3- 25-1	23	1- 3- 25-1	24
1- 3- 25-1	25	1- 3- 25-1	26	1- 3- 25-1	27
1- 3- 25-1	28	1- 3- 25-1	29	1- 3- 25-1	30

AMO-BUEND-111 TRUNK GROUP
DISPLAY COMPLETED;

Trunk Configuration, TDCSU

For Master-side Configuration

<dis-tdcsu:1-3-25-1;
DIS-TDCSU:1-3-25-1;
H500: AMO TDCSU STARTED

----- DIGITAL TRUNK (FORMAT=L) -----					
DEV	= S2CONN	PEN	= 1-03-025-1	TGRP	= 27

PROTVAR	= ECMA1	INS	= Y	SRCHMODE	= CIR
COTNO	= 22	COPNO	= 21	DPLN	= 0
ITR	= 1	COS	= 32	LCOSV	= 1
LCOSD	= 1	CCT	= PRI ECMA 4	DESTNO	= 111
SEGMENT	= 1	DEDSKC	=	DEDSVC	= NONE
FACILITY	=	DITIDX	=	SRTIDX	=
TRTBL	= GDTR	SIDANI	= N	ATNTYP	= TIE
CBMATTR	= NONE	NWMUXTIM	= 10	TCHARG	= N
SUPPRESS	= 0	DGTPR	=	CHIMAP	= N
ISDNIP	=	ISDNPN	=		
PNPL2P	=	PNPL1P	=	PNPAC	=



TRACOUNT = 31	SATCOUNT = MANY	NNO = 111
ALARMNO = 0	FIDX = 1	CARRIER = 1
ZONE = EMPTY	COTX = 22	FWDX = 5
DOMTYPE =	DOMAINNO =	TPROFNO =
INIGHT =		CCHDL =
UUSCCX = 16	UUSCCY = 8	FNIDX = 1
CLASSMRK = EC & G711 & G729OPT		SRCGRP =
TCCID =		

BCNEG = N	BCGR = 1	LWPAR = 1
LWPP = 0	LWLT = 0	LWPS = 0
LWR1 = 0	LWR2 = 0	
SVCDOM =		
BCHAN = 1 && 30		

AMOUNT OF B-CHANNELS IN THIS DISPLAY-OUTPUT: 30

AMO-TDCSU-111 DIGITAL TRUNKS
DISPLAY COMPLETED;

<DISPLAY-LWPAR:FORMAT=L,BLNO=1,TYPE=DIUS2;
DISPLAY-LWPAR:FORMAT=L,BLNO=1,TYPE=DIUS2;
H500: AMO LWPAR STARTED

LOADWARE PARAMETERS				CIRCUIT TYPE: DIUS2	SOURCE:DB	BLOCK: 1
LNTYPE = COPPER	VERSION = S2	QUAL = ON				
MASTER = Y	DCHAN1 = 16	DCHAN2 = 0				
PATTERN = D5H	QUAL1 = 10 SEC.	QUAL2 = 10 MIN.				
SMD = Y	PERMACT = Y	FCBAB = DFH				
CDG = N	FIXEDTEI = 0	CNTRNR = 255				
TEIVERIF = N	CRC4REP = N					
DEV = INDEP						
INFO =						

AMO-LWPAR-111 LOADWARE PARAMETERS FOR NETWORKING MODULES
DISPLAY COMPLETED;

For Slave-side Configuration

<dis-tdcsu:1-3-25-1;
DIS-TDCSU:1-3-25-1;
H500: AMO TDCSU STARTED

DIGITAL TRUNK (FORMAT=L)			
DEV = S2CONN	PEN = 1-03-025-1	TGRP = 27	
PROTVAR = ECMA1	INS = Y	SRCHMODE = CIR	
COTNO = 22	COPNO = 21	DPLN = 0	
ITR = 1	COS = 32	LCOSV = 1	
LCOSD = 1	CCT = PRI ECMA 4	DESTNO = 111	
SEGMENT = 1	DEDSKC =	DEDSVC = NONE	
FACILITY =	DITIDX =	SRTIDX =	
TRTBL = GDTR	SIDANI = N	ATNTYP = TIE	
CBMATTR = NONE	NWMUXTIM = 10	TCHARG = N	
SUPPRESS = 0	DGTPR =	CHIMAP = N	
ISDNIP =	ISDNPN =		
PNPL2P =	PNPL1P =	PNPAC =	
TRACOUNT = 31	SATCOUNT = MANY	NNO = 111	
ALARMNO = 0	FIDX = 1	CARRIER = 1	
ZONE = EMPTY	COTX = 22	FWDX = 5	
DOMTYPE =	DOMAINNO =	TPROFNO =	
INIGHT =		CCHDL =	
UUSCCX = 16	UUSCCY = 8	FNIDX = 1	



CLASSMRK	= EC	& G711	& G7290PT	SRCGRP	=
TCCID	=				
BCNEG	= N	BCGR	= 1	LWPAR	= 0
LWPP	= 0	LWLT	= 0	LWPS	= 0
LWR1	= 0	LWR2	= 0		
SVCDOM	=				
BCHAN	= 1	&& 30			

AMOUNT OF B-CHANNELS IN THIS DISPLAY-OUTPUT: 30

AMO-TDCSU-111 DIGITAL TRUNKS
DISPLAY COMPLETED;

<DISPLAY-LWPAR:FORMAT=L,BLNO=0,TYPE=DIUS2;
DISPLAY-LWPAR:FORMAT=L,BLNO=0,TYPE=DIUS2;
H500: AMO LWPAR STARTED

LOADWARE PARAMETERS		CIRCUIT TYPE: DIUS2		SOURCE:DB		BLOCK: 0	
LNTYPE	= COPPER	VERSION	= S2	QUAL	= ON		
MASTER	= N	DCHAN1	= 16	DCHAN2	= 0		
PATTERN	= D5H	QUAL1	= 10 SEC.	QUAL2	= 10 MIN.		
SMD	= N	PERMACT	= Y	FCBAB	= DFH		
CDG	= N	FIXEDTEI	= 0	CNTRNR	= 255		
TEIVERIF	= N	CRC4REP	= N				
DEV	= INDEP						
INFO	=						

AMO-LWPAR-111 LOADWARE PARAMETERS FOR NETWORKING MODULES
DISPLAY COMPLETED;

Trunk Configuration to Hicom node, TDCSU

<DISPLAY-TDCSU:PEN1=1-3-25-0;
DISPLAY-TDCSU:PEN1=1-3-25-0;
H500: AMO TDCSU STARTED

DIGITAL TRUNK (FORMAT=L)			
DEV	= S2CONN	PEN	= 1-03-025-0
TGRP	= 26		
PROTVAR	= ECMA1	INS	= Y
COTNO	= 22	COPNO	= 21
ITR	= 1	COS	= 32
LCOSD	= 1	CCT	= PRI ECMA 3
SEGMENT	= 1	DEDSVC	= NONE
FACILITY	=	SRTIDX	=
TRTBL	= GDTR	ATNTYP	= TIE
CBMATTR	= NONE	TCHARG	= N
SUPPRESS	= 0	CHIMAP	= N
ISDNIP	=	PNPAC	=
PNPL2P	=	NNO	= 222
TRACOUNT	= 31	CARRIER	= 1
ALARMNO	= 0	FWDX	= 10
ZONE	= EMPTY	TPROFNO	=
DOMTYPE	=	CCHDL	=
INIGHT	=	FNIDX	= 1
UUSCCX	= 16	SRCGRP	=
CLASSMRK	= EC & G711 & G7290PT		
TCCID	=		



BCNEG	=	N	BCGR	=	1	LWPAR	=	1
LWPP	=	0	LWLT	=	0	LWPS	=	0
LWR1	=	0	LWR2	=	0			
SVCDOM	=							
BCHAN	=	1 && 30						

AMOUNT OF B-CHANNELS IN THIS DISPLAY-OUTPUT: 30

AMO-TDCSU-111 DIGITAL TRUNKS
DISPLAY COMPLETED;

PSTN Trunk Configuration, TDCSU

<dis-tdcsu:1-2-79-1;
DIS-TDCSU:1-2-79-1;
H500: AMO TDCSU STARTED

DIGITAL TRUNK (FORMAT=L)			-----+		
DEV	=	S2CONN	PEN	=	1-02-079-1
			TGRP	=	23
-----+					
PROTVAR	=	ETSI	INS	=	Y
COTNO	=	21	COPNO	=	21
ITR	=	1	COS	=	10
LCOSD	=	32	CCT	=	PRI ECMA 2
SEGMENT	=	8	DEDSKC	=	
FACILITY	=		DITIDX	=	
TRTBL	=	GDTR	SIDANI	=	N
CBMATTR	=	NONE	NWMUXTIM	=	10
SUPPRESS	=	0	DGTPR	=	
ISDNIP	=		ISDNNP	=	
PNPL2P	=		PNPL1P	=	
TRACOUNT	=	31	SATCOUNT	=	MANY
ALARMNO	=	0	FIDX	=	1
ZONE	=	EMPTY	COTX	=	21
DOMTYPE	=		DOMAINNO	=	
INIGHT	=				
UUSCCX	=	16	UUSCCY	=	8
CLASSMRK	=	EC & G711			
TCCID	=				
-----+					
BCNEG	=	N	BCGR	=	1
LWPP	=	0	LWLT	=	0
LWR1	=	0	LWR2	=	0
SVCDOM	=				
BCHAN	=	1 && 30			

AMOUNT OF B-CHANNELS IN THIS DISPLAY-OUTPUT: 30

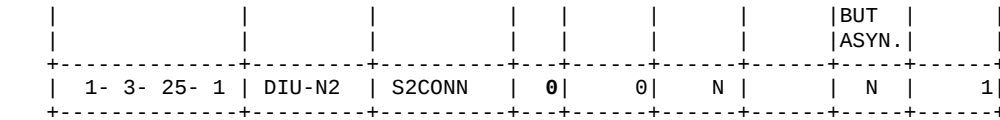
AMO-TDCSU-111 DIGITAL TRUNKS
DISPLAY COMPLETED;

Reference Clock Configuration, REFTA

For Master-side Configuration

<DISPLAY-REFTA:TYPE=CIRCUIT,PEN=1-3-25-1,KIND=ALL;
DISPLAY-REFTA:TYPE=CIRCUIT,PEN=1-3-25-1,KIND=ALL;
H500: AMO REFTA STARTED

R E F E R E N C E C L O C K C I R C U I T S						
-----+						
PEN	MODULE	DEVICE	PRI ERROR	BLOCK	SUPP.	READY SRCGRP



For Slave-side Configuration

REFERENCE CLOCK CIRCUITS									
PEN	MODULE	DEVICE	PRI	ERROR	BLOCK	SUPP.	READY BUT ASYN.	SRCGRP	
1- 3- 25- 1	DIU-N2	S2CONN	11		0	N		N	1

Trunk Least Cost Routing Configuration

LROUTE = 1		LDPLN		NAME = ROPTCCM		SERVICE = ALL	
TYPE = LCR				DNNO OF ROUTE =		111	
SERVICE INFO =							
LRTTEL	LVAL	TGRP	ODR	LAUTH	SCHEDULE ABCDEFGH	CARRIER ZONE	LATTR LDSRT
1	1	27	111	1	*****	1 EMPTY	NONE
DNNO =		111					

LROUTE = 26		NAME = PRI 3 ECMA1				SERVICE = ALL			
TYPE = LCR		DNN OF ROUTE = 111							
SERVICE INFO =									
LRTEL	LVAL	TGRP	ODR	LAUTH	SCHEDULE ABCDEFGH	CARRIER ZONE	LATR		LDSRT
1	1	26	15	3	*****	1 EMPTY	NONE		

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```
<DISPLAY-LDAT:TYPE=LCR,LROUTE=27;
DISPLAY-LDAT:TYPE=LCR,LROUTE=27;
H500: AMO LDAT STARTED
```

```
+-----+
| LROUTE = 27   LDPLN      NAME = PRI 4 ECMA1          SERVICE = ALL |
| TYPE = LCR                                DNNO OF ROUTE = 111 |
| SERVICE INFO = |
+-----+-----+-----+-----+-----+-----+-----+
| LRTEL | LVAL | TGRP | ODR | LAUTH | SCHEDULE | CARRIER | LATTR | LDSRT |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1 | 1 | 27 | 15 | 1 | ***** | 1 | EMPTY | NONE |
```

```
AMO-LDAT -111          LCR-DIRECTIONS
DISPLAY COMPLETED;
<DISPLAY-LDAT:TYPE=LCR,LROUTE=165;
DISPLAY-LDAT:TYPE=LCR,LROUTE=165;
H500: AMO LDAT STARTED
```

```
+-----+
| LROUTE = 165   LDPLN      NAME = PSTN 91650          SERVICE = ALL |
| TYPE = LCR                                DNNO OF ROUTE = 89 |
| SERVICE INFO = |
+-----+-----+-----+-----+-----+-----+-----+
| LRTEL | LVAL | TGRP | ODR | LAUTH | SCHEDULE | CARRIER | LATTR | LDSRT |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1 | 1 | 23 | 50 | 1 | ***** | 1 | EMPTY | NONE |
| DNNO = 89 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|
```

```
AMO-LDAT -111          LCR-DIRECTIONS
DISPLAY COMPLETED;
```

RICHT

```
DISPLAY-RICHT:MODE=LRTE,LRTE=1;
H500: AMO RICHT STARTED
```

```
+-----+
| LRTE = 1      NAME = ROPTCCM      (NEUTRAL)  LSVC = ALL |
| DNNO = 111   PDNNO = 0    DESTNO =111 |
| ROUTOPT = YES  REROUT = YES  PLB = NO    FWDBL = NO |
| DTMFCNV = WITHOUT DTMFDSP = WITHOUT DTMFTEXT = |
| DTMFPULS = BUGS = LIN  ROUTATT = NO    MAINGRP = 24 |
| EMCYRTT = NO    CONFTONE = NO  RERINGRP = NO  RTENO = 24 |
| INFO = |
| NOPRCFWD = NO |
+-----+-----+-----+-----+-----+-----+-----+
| TGRP = 27   LDAT  PRI ECMA 4      (NEUTRAL)  SUBGROUP = 10 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|
```

```
AMO-RICHT-111          TRUNK ROUTING
DISPLAY COMPLETED;
```

```
<DISPLAY-RICHT:MODE=LRTE,LRTE=26;
DISPLAY-RICHT:MODE=LRTE,LRTE=26;
H500: AMO RICHT STARTED
```

```
+-----+
| LRTE = 26      NAME = PRI 3 ECMA1      (NEUTRAL)  LSVC = ALL |
| DNNO = 111   PDNNO = 0    |
| ROUTOPT = YES  REROUT = YES  PLB = NO    FWDBL = NO |
| DTMFCNV = WITHOUT DTMFDSP = WITHOUT DTMFTEXT = |
| DTMFPULS = BUGS = LIN  ROUTATT = NO    MAINGRP = 14 |
| EMCYRTT = NO    CONFTONE = NO  RERINGRP = NO  RTENO = 14 |
| INFO = |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|
```



```
| NOPRCFWD = NO |
+-----+
| TGRP = 26 LDAT PRI ECMA 3 (NEUTRAL) SUBGROUP = 9 |
+-----+
```

AMO-RICHT-111 TRUNK ROUTING
DISPLAY COMPLETED;

<DISPLAY-RICHT:MODE=LRTE,LRTE=27;
DISPLAY-RICHT:MODE=LRTE,LRTE=27;
H500: AMO RICHT STARTED

```
+-----+
| LRTE = 27 NAME = PRI 4 ECMA1 (NEUTRAL) LSVC = ALL |
| DNNO = 111 PDNNO = 0 |
| ROUTOPT = YES REROUT = YES PLB = NO FWDBL = NO |
| DTMFCNV = FIX DTMFDSP = WITHOUT DTMFTEXT = |
| DTMFPULS = PP300 BUGS = LIN ROUTATT = NO MAINGRP = 15 |
| EMCYRTT = NO CONFTONE = NO RERINGRP = NO RTENO = 15 |
| INFO = |
| NOPRCFWD = NO |
+-----+
| TGRP = 27 LDAT PRI ECMA 4 (NEUTRAL) SUBGROUP = 10 |
+-----+
```

AMO-RICHT-111 TRUNK ROUTING
DISPLAY COMPLETED;

PSTN RICHT

<DISPLAY-RICHT:MODE=LRTE,LRTE=165;
DISPLAY-RICHT:MODE=LRTE,LRTE=165;
H500: AMO RICHT STARTED

```
+-----+
| LRTE = 165 NAME = PSTN 91650 (NEUTRAL) LSVC = ALL |
| DNNO = 89 PDNNO = 0 DESTNO = 89 |
| ROUTOPT = YES REROUT = YES PLB = NO FWDBL = NO |
| DTMFCNV = WITHOUT DTMFDSP = WITHOUT DTMFTEXT = |
| DTMFPULS = BUGS = LIN ROUTATT = NO MAINGRP = 27 |
| EMCYRTT = NO CONFTONE = NO RERINGRP = NO RTENO = 27 |
| INFO = |
| NOPRCFWD = NO |
+-----+
| TGRP = 23 LDAT ECMA 2 (NEUTRAL) SUBGROUP = 6 |
+-----+
```

AMO-RICHT-111 TRUNK ROUTING
DISPLAY COMPLETED;

LCR Out-dial Rules, LODR

<DISPLAY-LODR:ODR=111,FORMAT=L;
H500: AMO LODR STARTED

```
+-----+
| ODR POSITION CMD PARAMETER |
+-----+
| 111 1 ECHO 1 |
| 2 ECHO 2 |
| 3 END |
+-----+
```

H03: THE NEXT FREE ODR IS 2

AMO-LODR -111 ADMINISTRATION OF LCR OUTDIAL RULES
DISPLAY COMPLETED;



```
<DISPLAY-LODR:ODR=15,FORMAT=L;
DISPLAY-LODR:ODR=15,FORMAT=L;
H500: AMO LODR STARTED
```

ODR	POSITION	CMD	PARAMETER
15	1	ECHO	2
	2	END	

H03: THE NEXT FREE ODR IS 2

```
AMO-LODR -111      ADMINISTRATION OF LCR OUTDIAL RULES
DISPLAY COMPLETED;
```

```
<DISPLAY-LODR:ODR=50,FORMAT=L;
DISPLAY-LODR:ODR=50,FORMAT=L;
H500: AMO LODR STARTED
```

ODR	POSITION	CMD	PARAMETER
50	1	ECHO	2
	2	ECHO	3
	3	END	

H03: THE NEXT FREE ODR IS 2

```
AMO-LODR -111      ADMINISTRATION OF LCR OUTDIAL RULES
DISPLAY COMPLETED;
```

In-Band DTMF signaling:

In order to enable In-band DTMF signaling on digital stations for Voicemail applications, the station configuration has to be changed so that the parameter **DTMFCTR=D**.

Name and Number Restrictions:

To use Name and Number Restrictions, the station configuration should be changed so that the parameter **SSTNO=Y**, (Secret Station Number must be set to Yes).

```
<dis-sbcu:5002;
DIS-SBCSU:5002;
H500: AMO SBCSU STARTED
```

USER DATA							
STNO	=5002	OPT	=OPTI	COS1	=2	DPLN	=1
MAINO	=5002	CONN	=DIR	COS2	=2	ITR	=1
PEN	= 1- 3- 31-	2		LCOSV1	=6	COSX	=0
INS	=Y	ASYNCT	=500	LCOSV2	=6		
		PERMACT	=	LCOSD1	=6		
SSTNO	=Y	EXTBUS	=	LCOSD2	=6	CBKBMAX	=5
TRACE	=N					RCBKB	=N
ALARMNO	=0	DFSVCANA	=	SPDI	=0	RCBKNA	=N
HMUSIC	=0	FLASH	=	SPDC1	=	CBKNAMB	=Y
PMIDX	=0			SPDC2	=		
						COMGRP	=0
SECR	=N	DIGNODIS	=N	DSSTNA	=N		
STD	=55	CALLOG	=NONE	DSSTNB	=Y	TEXTSEL	=ENGLISH
REP	=0	OPTICOM	=N	OPTIUSB	:0	VPI	=
IDCR	=N	OPTICA	=1	OPTIS0A	:	VCI	=
		OPTIDA	=	OPTISPA	:0	PATTERN	=
				OPTIABA	:0		
DCFWBUSY	=N	HEADSET	=N			APICLASS	=
DNIDSP	=N	HSKEY	=NORMAL			ACFAPPL	=0
DTMFBK	=N			IPPASSW	=		



DTMFCTRD=Y BASICSVC=
DVCFIG =OPTIP500 TSI =1 SPROT = SOPTIDX =
DPROT = DOPTIDX =
FPROT = FOPTIDX =

```
----- ACTIVATION IDENTIFIERS FOR FEATURES -----
FWDS   :N      HTOS   :N      DND    :N
FWDD   :N      HTOD   :N      VCP    :Y      TWLOGIN :N
FWDF   :N      HTOF   :N      CWT    :N
----- FEATURES AND GROUP MEMBERSHIPS -----
PUGR   :      ESSTN   :
KEYSYS :N      NOPTNO :
HUNT CD :N
----- SUBSCRIBER ATTRIBUTES (AMO SDAT) -----
NONE
-----
```

AMO-SBCSU-111

Configure Digital Station's Class of Service for Mailbox (MWI) application

<DISPLAY-COSSU:TYPE=COS,COS=2,FORMAT=L;
DISPLAY-COSSU:TYPE=COS,COS=2,FORMAT=L;
H500: AMO COSSU STARTED

COS	VOICE	FAX	DTE
2	>		
	TA	NOCO	TA
	TSUID	NOTIE	TNOTCR
	TNOTCR	BASIC	BASIC
	CDRINT		
	CDRS		
	CDRC		
	MB		
	COSXCD		
	VCE		
	SPKR		
	DATA		
	FWDNWK		
	RERING		
	CDRIND		
	MSN		
	FWDECA		
	FWDBAS		
	FWDDIR		
	CFB		
	CFNR		
	CCBS		
	CW		
	FWDEXT		
	GRPCAL		
	SUTVA		

AMO-COSSU-111 CLASSES OF SERVICE
DISPLAY COMPLETED;

<DISPLAY-PERSI:TYPE=NAME,STNO=5002;
DISPLAY-PERSI:TYPE=NAME,STNO=5002;
H500: AMO PERSI STARTED

STNO	CHRISTIAN AND SURNAME	CHARCON	ORGANIZATIONAL UNIT



5002	HIPATH DT2*		
+-----+-----+-----+			

AMO-PERSI-111 PERSONAL IDENTIFICATION DATA
DISPLAY COMPLETED;



Configuring the Cisco Unified CallManager

ECMA Protocol Service Parameter

Clusterwide Parameters (Device - PRI and MGCP Gateway)		
Parameter Name	Parameter Value	Suggested Value
ASN.1 ROSE OID Encoding*	Use Global Value(ECMA)	Use Local Value
QSIG Variant*	ECMA (Protocol Profile 0x91)	ISO (Protocol Profile 0x9F)
Caller ID		
Calling Name Not Available Timeout (msec)*	2000	2000
Calling Party Number Screening Indicator*	CallManager sets the screening indicator value - Default setting	CallManager sets the screening indicator value - Default setting
Change B- Channel Maintenance Status 1		
Change B- Channel Maintenance Status 2		

CMM-E1 Gateway Configuration



Cisco CallManager Administration
For Cisco IP Telephony Solutions



Gateway Configuration

[Back to Find/List Gateways](#)

Product: Communication Media Module

Protocol: MGCP

MGCP : CMM-E1

Status: Ready

Update
Delete
Reset Gateway

Domain Name*

Description

Cisco CallManager Group*

Installed Voice Interface Cards

Endpoint Identifiers

Module in Slot 1	WS-X6600	Subunit	WS-X6600-6E1	(1/0) (1/1) (1/2) (1/3) (1/4) (1/5)
Module in Slot 2	< None >			
Module in Slot 3	< None >			
Module in Slot 4	< None >			

Product Specific Configuration

Global ISDN Switch Type	4ESS
Switchback Timing*	Graceful
Switchback uptime-delay (min)	10
Switchback schedule (hh:mm)	12:00
Fax mode*	Fax Relay

* indicates required item

[Back to Find/List Gateways](#)

Gateway Configuration

[Back to MGCP Configuration](#)

[Back to Find/List Gateways](#)

[Dependency Records](#)

Product : Communication Media Module
Gateway : S1/DS1-1@CMM-E1
Device Protocol: Digital Access PRI
Registration: Registered with Cisco CallManager CM-MARS
IP Address: 172.20.231.51

Status: Ready

[Update](#)

[Delete](#)

[Reset Gateway](#)

Device Information

End-Point Name*	S1/DS1-1@CMM-E1
Description	CM-MARS to Hipath
Device Pool*	Default
Call Classification*	Use System Default
Network Locale	United States
Media Resource Group List	< None >
Location	< None >
AAR Group	< None >
Load Information	

Multilevel Precedence and Preemption (MLPP) Information

MLPP Domain (e.g., "0000FF")	
MLPP Indication	Not available on this device
MLPP Preemption	Not available on this device

Interface Information

PRI Protocol Type*	PRI QSIG E1
Protocol Side*	Network
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*	Unknown
Calling party IE number type unknown*	Unknown
Called Numbering Plan*	Private
Calling Numbering Plan*	Private
Number of digits to strip*	0
Caller ID DN	
SMDI Base Port*	0
PRI Protocol Type Specific Information	
☐ Display IE Delivery	
☐ Redirecting Number IE Delivery - Outbound	
☐ Redirecting Number IE Delivery - Inbound	
☒ Send Extra Leading Character In DisplayIE***	
☐ Setup non-ISDN Progress Indicator IE Enable****	

☐ 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**	
Interface Identifier Value**	0
Connected Line ID Presentation (QSIG Inbound Call)*	Default
UUIE Configuration	
☐ Passing Precedence Level Through UUIE	
Security Access Level	2
Product Specific Configuration 	
Line Coding*	HDB3
Framing*	CRC4
Clock*	External
Input Gain (-6..14 db)*	0
Output Attenuation (-6..14 db)*	0
Echo Cancellation Enable*	Enable
Echo Cancel Coverage (ms)*	64
* 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	

Partitions Configuration

System
Route Plan
Service
Feature
Device
User
Application
Help

Cisco CallManager Administration
For Cisco IP Telephony Solutions
Cisco Systems

Find and List Partitions

[Add a New Partition](#)

2 matching record(s) for Partition Name begins with ""

Find Partitions where Partition Name

and show items per page

To list all items, click Find without entering any search text.

Matching record(s) 1 to 2 of 2

☐	Partition Name	Description
☐	Incoming Trunk	Incoming Trunk
☐	phones	phones

First Previous Next Last
Page of 1



Calling Search Space Configuration

[System](#) [Route Plan](#) [Service](#) [Feature](#) [Device](#) [User](#) [Application](#) [Help](#)

Cisco CallManager Administration
For Cisco IP Telephony Solutions

Cisco Systems

Calling Search Space Configuration

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

Calling Search Space: Incoming Trunk (in use)
Status: Ready

Copy

Update

Delete

Restart Devices

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

[System](#) [Route Plan](#) [Service](#) [Feature](#) [Device](#) [User](#) [Application](#) [Help](#)

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Cisco Systems

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

Restart Devices

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

System
Route Plan
Service
Feature
Device
User
Application
Help

Cisco CallManager Administration
For Cisco IP Telephony Solutions

CISCO SYSTEMS

Calling Search Space Configuration

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

Calling Search Space: PathReplacementCSS
Status: Ready

Copy
Update
Delete

Calling Search Space Information

Calling Search Space Name* PathReplacementCSS

Description

Route Partitions for this Calling Search Space

Find Partitions containing
Find

Available Partitions

Selected Partitions*
(ordered by highest priority)

Incoming Trunk
phones

* indicates required item



Enbloc Route Pattern Configuration

Route Pattern: 5XXX

Status: Ready

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

[Copy](#) [Update](#) [Delete](#)

Pattern Definition

Route Pattern*	5XXX		
Partition	< None >		
Description	CM-MARS to HiPath		
Numbering Plan*	North American Numbering Plan		
Route Filter	< None >		
MLPP Precedence	Default		
Gateway or Route List*	S1/DS1-1@CMM-E1		(Edit)
Route Option	☒ Route this pattern		
	☐ Block this pattern — Not Selected —		
Call Classification*	OnNet	☐ Allow Device Override	
☐ Provide Outside Dial Tone	☐ Allow Overlap Sending	☐ Urgent Priority	
☐ Require Forced Authorization Code			
Authorization Level	0		
☐ Require Client Matter Code			

Calling Party Transformations

☐ Use Calling Party's External Phone Number Mask

Calling Party Transform Mask	
Prefix Digits (Outgoing Calls)	
Calling Line ID Presentation	Default
Calling Name Presentation	Default

Connected Party Transformations

Connected Line ID Presentation	Default
Connected Name Presentation	Default

Called Party Transformations

Discard Digits	< None >
Called Party Transform Mask	
Prefix Digits (Outgoing Calls)	

TDM Network Specific Facilities Information Element



Route Pattern: 555
Status: Ready
Note: Any update to this Route Pattern automatically resets the associated gateway or Route List

Copy

Update

Delete

Pattern Definition

Route Pattern*

555

Partition

< None >

Description

CM-MARS to HiPath

Numbering Plan*

North American Numbering Plan

Route Filter

< None >

MLPP Precedence

Default

Gateway or Route List*

S1/DS1-1@CMM-E1

(Edit)

Route Option

☒ Route this pattern

☐ 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

0

☐ Require Client Matter Code

Calling Party Transformations

☐ Use Calling Party's External Phone Number Mask

Calling Party Transform Mask

Prefix Digits (Outgoing Calls)

Calling Line ID Presentation

Default

Calling Name Presentation

Default

Connected Party Transformations

Connected Line ID Presentation

Default

Connected Name Presentation

Default

Called Party Transformations

Discard Digits

< None >

Called Party Transform Mask

Prefix Digits (Outgoing Calls)

ISDN Network-Specific Facilities Information Element

Route Pattern: 8XXX

Status: Ready

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

[Copy](#)

[Update](#)

[Delete](#)

Pattern Definition

Route Pattern*	8XXX		
Partition	< None >		
Description	CM-MARS to Hicom		
Numbering Plan*	North American Numbering Plan		
Route Filter	< None >		
MLPP Precedence	Default		
Gateway or Route List*	S1/DS1-0@CMM-E1		(Edit)
Route Option	☒ Route this pattern ☐ Block this pattern — Not Selected —		
Call Classification*	OffNet	☐ Allow Device Override ☐ Urgent Priority	
☒ Provide Outside Dial Tone	☐ Allow Overlap Sending		
☐ Require Forced Authorization Code			
Authorization Level	0		
☐ Require Client Matter Code			

Calling Party Transformations

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

Connected Party Transformations

Connected Line ID Presentation	Default
Connected Name Presentation	Default

Called Party Transformations

Discard Digits	< None >
Called Party Transform Mask	
Prefix Digits (Outgoing Calls)	

ISDN Network Specific Facility Information Element



Route Pattern: 222
Status: Ready
Note: Any update to this Route Pattern automatically resets the associated gateway or Route List

CopyUpdateDelete

Pattern Definition

Route Pattern*	222		
Partition	< None >		
Description	CM-MARS to Hicom		
Numbering Plan*	North American Numbering Plan		
Route Filter	< None >		
MLPP Precedence	Default		
Gateway or Route List*	S1/DS1-0@CMM-E1		(Edit)
Route Option	☒ Route this pattern ☐ 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 0		
☐ Require Client Matter Code			

Calling Party Transformations

☐ Use Calling Party's External Phone Number Mask

Calling Party Transform Mask	
Prefix Digits (Outgoing Calls)	
Calling Line ID Presentation	Default
Calling Name Presentation	Default

Connected Party Transformations

Connected Line ID Presentation	Default
Connected Name Presentation	Default

Called Party Transformations

Discard Digits	< None >
Called Party Transform Mask	
Prefix Digits (Outgoing Calls)	

ISDN Network Specific Facility Information Element



Overlap Sending Route Pattern Configuration

Route Pattern: 9.5
Status: Update completed
Note: Any update to this Route Pattern automatically resets the associated gateway or Route List

CopyUpdateDelete

Pattern Definition

Route Pattern*	9.5
Partition	< None >
Description	Ovlp sending CM-MARS to HiPath
Numbering Plan*	North American Numbering Plan
Route Filter	< None >
MLPP Precedence	Default
Gateway or Route List*	S1/DS1-1@CMM-E1 (Edit)
Route Option	☒ Route this pattern ☐ 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	0
☐ Require Client Matter Code	

Calling Party Transformations

☐ Use Calling Party's External Phone Number Mask

Calling Party Transform Mask	
Prefix Digits (Outgoing Calls)	
Calling Line ID Presentation	Default
Calling Name Presentation	Default

Connected Party Transformations

Connected Line ID Presentation	Default
Connected Name Presentation	Default

Called Party Transformations

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

ISDN Network-Specific Facilities Information Element



PSTN Route Pattern Configuration

Route Pattern: 91650364XXXX

Status: Ready

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

[Copy](#) [Update](#) [Delete](#)

Pattern Definition

Route Pattern*

91650364XXXX

Partition

< None >

Description

PSTN gateway

Numbering Plan*

North American Numbering Plan

Route Filter

< None >

MLPP Precedence

Default

Gateway or Route List*

S1/DS1-1@CMM-E1

(Edit)

Route Option

☒ Route this pattern

☐ Block this pattern

— Not Selected —

Call Classification*

OnNet

☐ Allow Device Override

☐ Provide Outside Dial Tone

☐ Allow Overlap Sending

☐ Urgent Priority

☐ Require Forced Authorization Code

Authorization Level

0

☐ Require Client Matter Code

Calling Party Transformations

☐ Use Calling Party's External Phone Number Mask

Calling Party Transform Mask

Prefix Digits (Outgoing Calls)

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



Translation Pattern for Incoming Calls

Translation Pattern Configuration

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

Translation Pattern: 4XXX
Status: Ready

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 — Not Selected —
☒ Provide Outside Dial Tone	☒ Urgent Priority

Calling Party Transformations

☐ Use Calling Party's External Phone Number Mask

Calling Party Transform Mask	
Prefix Digits (Outgoing Calls)	
Calling Line ID Presentation	Default
Calling Name Presentation	Default

Connected Party Transformations

Connected Line ID Presentation	Default
Connected Name Presentation	Default

Called Party Transformations

Discard Digits	< None >
Called Party Transform Mask	
Prefix Digits (Outgoing Calls)	

* indicates required item.



CLIR Route Pattern Configuration

Route Pattern: 5XXX
Status: Ready
Note: Any update to this Route Pattern automatically resets the associated gateway or Route List

CopyUpdateDelete

Pattern Definition

Route Pattern*	5XXX	
Partition	< None >	
Description	CM-MARS to HiPath	
Numbering Plan*	North American Numbering Plan	
Route Filter	< None >	
MLPP Precedence	Default	
Gateway or Route List*	S1/DS1-1@CMM-E1 (Edit)	
Route Option	☒ Route this pattern ☐ Block this pattern — Not Selected —	
Call Classification*	OnNet	
☐ Provide Outside Dial Tone	☐ Allow Overlap Sending	☐ Allow Device Override
☐ Require Forced Authorization Code	☐ Urgent Priority	
Authorization Level	0	
☐ Require Client Matter Code		

Calling Party Transformations

☐ Use Calling Party's External Phone Number Mask

Calling Party Transform Mask	
Prefix Digits (Outgoing Calls)	
Calling Line ID Presentation	Restricted
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)	

TODN Network Specific Facility Transformation Element

CNIR Route Pattern Configuration

Route Pattern: 5XXX

Status: Ready

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

[Copy](#)

[Update](#)

[Delete](#)

Pattern Definition

Route Pattern*	5XXX
Partition	< None >
Description	CM-MARS to HiPath
Numbering Plan*	North American Numbering Plan
Route Filter	< None >
MLPP Precedence	Default
Gateway or Route List*	S1/DS1-1@CMM-E1 (Edit)
Route Option	☒ Route this pattern ☐ Block this pattern — Not Selected —
Call Classification*	OnNet ☐ Allow Device Override ☐ Provide Outside Dial Tone ☐ Allow Overlap Sending ☐ Urgent Priority ☐ Require Forced Authorization Code Authorization Level 0 ☐ Require Client Matter Code

Calling Party Transformations

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

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 Facility Information Element



COLR Translation Pattern Configuration

Translation Pattern Configuration

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

Translation Pattern: 4XXX
Status: Ready

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 — Not Selected —
☒ Provide Outside Dial Tone	☒ Urgent Priority

Calling Party Transformations

☐ Use Calling Party's External Phone Number Mask

Calling Party Transform Mask	
Prefix Digits (Outgoing Calls)	
Calling Line ID Presentation	Default
Calling Name Presentation	Default

Connected Party Transformations

Connected Line ID Presentation	Restricted
Connected Name Presentation	Default

Called Party Transformations

Discard Digits	< None >
Called Party Transform Mask	
Prefix Digits (Outgoing Calls)	

* indicates required item.

CONR Translation Pattern Configuration

Translation Pattern Configuration

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

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	☒ Route this pattern ☐ Block this pattern — Not Selected —
☒ Provide Outside Dial Tone	☒ Urgent Priority

Calling Party Transformations

☐ Use Calling Party's External Phone Number Mask

Calling Party Transform Mask	
Prefix Digits (Outgoing Calls)	
Calling Line ID Presentation	Default
Calling Name Presentation	Default

Connected Party Transformations

Connected Line ID Presentation	Default
Connected Name Presentation	Restricted

Called Party Transformations

Discard Digits	< None >
Called Party Transform Mask	
Prefix Digits (Outgoing Calls)	

* indicates required item.

MWI Lamp On/Off Configuration



SystemRoute PlanServiceFeatureDeviceUserApplicationHelp

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

CopyUpdateDelete

Message Waiting Number*7001

Description

Message Waiting Indicator☒ On ☐ Off

Partitionphones

Calling Search Spacephones

* indicates required item

SystemRoute PlanServiceFeatureDeviceUserApplicationHelp

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 : 7000

Status: Ready

CopyUpdateDelete

Message Waiting Number*7000

Description

Message Waiting Indicator☐ On ☒ Off

Partitionphones

Calling Search Spacephones

* indicates required item



MWI Activate Translation Pattern Configuration

Translation Pattern Configuration

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

Translation Pattern: 7701
Status: Ready

Pattern Definition

Translation Pattern	7701
Partition	phones
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 — Not Selected —

☒ Provide Outside Dial Tone ☒ Urgent Priority

Calling Party Transformations

☐ Use Calling Party's External Phone Number Mask

Calling Party Transform Mask	5002
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	7001
Prefix Digits (Outgoing Calls)	

* indicates required item.



MWI Deactivate Translation Pattern Configuration

Translation Pattern Configuration

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

Translation Pattern: 7700
Status: Ready

Pattern Definition

Translation Pattern	7700
Partition	phones
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 — Not Selected —
☒ Provide Outside Dial Tone	☒ Urgent Priority

Calling Party Transformations

☐ Use Calling Party's External Phone Number Mask

Calling Party Transform Mask	5002
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	7000
Prefix Digits (Outgoing Calls)	

* indicates required item.

CallBack Service Parameters



Parameter Name	Parameter Value	Suggested Value
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 >	



CallBack Softkey Configuration

[System](#) [Route Plan](#) [Service](#) [Feature](#) [Device](#) [User](#) [Application](#) [Help](#)

Cisco CallManager Administration
For Cisco IP Telephony Solutions

Cisco Systems

Softkey Template Configuration

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

Softkey Template: Standard User CallBack
Status: Ready

Copy

Update

Delete

Restart Devices

Softkey Template Name*

Standard User CallBack

Description

Standard Softkey Template for CallManager only

Add Application

Delete Application

Application

Cisco CallManager

* indicates required item

System
Route Plan
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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

Unselected Softkeys

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

Selected Softkeys (ordered by position)**

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

** indicates mandatory fields
* indicates required item

System
Route Plan
Service
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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

Undefined (0)(Undefined)

Selected Softkeys (ordered by position)**

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

** indicates mandatory fields
* indicates required item



Path Replacement Service Parameters

Cluster Wide 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 Minimum Delay Time (sec)*	2	0
Start Path Replacement Maximum Delay Time (sec)*	4	0
Path Replacement T1 Timer (sec)*	30	30
Path Replacement T2 Timer (sec)*	15	15
Path Replacement PINX Id	111	
Path Replacement Calling Search Space	PathReplacementCSS	

[System](#) [Route Plan](#) [Service](#) [Feature](#) [Device](#) [User](#) [Application](#) [Help](#)



Cisco CallManager Administration
For Cisco IP Telephony Solutions



CISCO SYSTEMS

Call Pickup Configuration

[Add a New Call Pickup Number](#)
[Back to Find/List Call Pickup Numbers](#)
[Dependency Records](#)

Call Pickup Number: 111 - Incoming Trunk

Status: Ready

Call Pickup Number*

Description

Partition

* indicates required item



Forward by Reroute Service Parameter

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

Cluster Wide Parameters (Feature - Path Replacement)		
--	--	--



IP phone Configuration

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

Phone Configuration

Directory Numbers
Base Phone

Line 1 - 4000 in
phones

Line 2 - Add new DN

Phone: SEP003094C331AD (Auto 4000)
Registration: Registered with Cisco CallManager 172.20.231.254
IP Address: 172.20.231.102
Status: Ready

Copy

Update

Delete

Reset Phone

Phone Configuration (Model = Cisco 7960)

Device Information

MAC Address*

003094C331AD

Description

Auto 4000

Owner User ID

([Select User ID](#))

Device Pool*

Default

([View details](#))

Calling Search Space

< None >

AAR Calling Search Space

< None >

Media Resource Group List

< None >

User Hold Audio Source

1 - SampleAudioSource

Network Hold Audio Source

< None >

Location

< None >

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

☒ Retry Video Call as Audio

☐ 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	
Messages	
Services	
Authentication Server	
Proxy Server	
Idle	
Idle Timer (seconds)	
Extension Mobility (Device Profile) Information	
☐ Enable Extension Mobility Feature	
Log Out Profile	— Not Selected —
Log In User ID	< None >
Log In Time	< None >
Log Out Time	< None >
Certification Authority Proxy Function (CAPF) Information	
Certificate Operation	No Pending Operation
Authentication Mode	By Authentication String
Authentication String	Generate String
Key Size (bits)	1024
Operation Completes By**	: : : (YYYY : MM : DD : HH)
Certificate Operation Status : None	
Multilevel Precedence and Preemption (MLPP) Information	
MLPP Domain	(e.g., "0000FF")
MLPP Indication	Default

Multilevel Precedence and Preemption (MLPP) Information	
MLPP Domain	(e.g., "0000FF")
MLPP Indication	Default
MLPP Preemption	Default

Product Specific Configuration	
Disable Speakerphone	☐
Disable Speakerphone and Headset	☐
Forwarding Delay*	Disabled
PC Port*	Enabled
Settings Access*	Enabled
Gratuitous ARP*	Enabled
PC Voice VLAN Access*	Enabled
Video Capabilities*	Disabled
Auto Line Select*	Disabled

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

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



Directory Number Configuration

[Configure Device \(SEP003094C331AD\)](#)
[Dependency Records](#)

Associated With

 **SEP003094C331AD**
7960 (Line 1)

Directory Number: 4000 (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*

Partition

Directory Number Settings

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

Calling Search Space

AAR Group

User Hold Audio Source

Network Hold Audio Source

Auto Answer

Call Forward and Pickup Settings

	Voice Mail	Coverage/ Destination	Calling Search Space
Forward All	☐		< None >
Forward Busy Internal	☐		< None >
Forward Busy External	☐		< None >
Forward No Answer Internal	☐		< None >
Forward No Answer External	☐		< None >
Forward No Coverage Internal	☐		< None >
Forward No Coverage External	☐		< None >
No Answer Ring Duration		(seconds)	
Call Pickup Group		< None >	

MLPP Alternate Party Settings

Target (Destination)

Calling Search Space

No Answer Ring Duration (seconds)

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	MARS 0
Line Settings for this Device	
Display (Internal Caller ID)	MARS 0
Line Text Label	MARS 0
External Phone Number Mask	
Message Waiting Lamp Policy	Use System Policy
Ring Setting (Phone Idle)	Use System Default
Ring Setting (Phone Active)**	Use System Default
Multiple Call / Call Waiting Settings	
Maximum Number of Calls*	4 (1 - 200)
Busy Trigger*	2 (<= 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 charset is selected. (English characters are included in all character sets.)	
Character Set	Western European (Latin 1)



Configuring the Cisco CMM-E1 MGCP Router

```
CMM-E1#
CMM-E1#sh ver
Cisco Internetwork Operating System Software
IOS (tm) Cat6K-lc Software (wscmm-I6S-M), Version 12.2(13)ZP3, EARLY DEPLOYMENT
RELEASE SOFTWARE (fc1)
TAC Support: http://www.cisco.com/tac
Copyright (c) 1986-2004 by cisco Systems, Inc.
Compiled Thu 05-Feb-04 17:38 by pwade
Image text-base: 0x60010940, data-base: 0x60D80000

ROM: System Bootstrap, Version 12.2(1r)T2, RELEASE SOFTWARE (fc1)
ROM: Cat6K-lc Software (wscmm-I6S-M), Version 12.2(13)ZP3, EARLY DEPLOYMENT RELE
ASE SOFTWARE (fc1)

CMM-E1 uptime is 9 minutes
System returned to ROM by power-on
System image file is "bootflash:wscmm-i6s-mz.122-13.ZP3.bin"

cisco WS-SVC-CMM Cat6k Voice Linecard (R7000) processor (revision 0xFF) with 196
608K/65536K bytes of memory.
R7000 CPU at 400Mhz, Implementation 39, Rev 3.3, 256KB L2 Cache
Last reset from power-on
Bridging software.
Primary Rate ISDN software, Version 1.1.
Channelized E1, Version 1.0.
1 FastEthernet/IEEE 802.3 interface(s)
1 Gigabit Ethernet/IEEE 802.3 interface(s)
186 Serial network interface(s)
6 Channelized E1/PRI port(s)
32768K bytes of processor board bootflash (Read/Write)

Configuration register is 0x2
```

```
CMM-E1#sh run
Building configuration...

Current configuration : 3490 bytes
!
version 12.2
no service config
no service pad
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname CMM-E1
!
!
ip subnet-zero
ip tcp synwait-time 13
ip host CM-MARS 172.20.231.254
!
isdn switch-type primary-4ess
!
!
```



```
ccm-manager mgcp
ccm-manager music-on-hold
ccm-manager config server CM-MARS
ccm-manager config
ms dsp firmware 0 bundled
ms dsp firmware 1 bundled
ms dsp firmware 2 bundled
!
!
controller E1 1/0
  pri-group timeslots 1-31 service mgcp
!
controller E1 1/1
  pri-group timeslots 1-31 service mgcp
!
controller E1 1/2
  pri-group timeslots 1-31 service mgcp
!
controller E1 1/3
  pri-group timeslots 1-31 service mgcp
!
controller E1 1/4
  pri-group timeslots 1-31 service mgcp
!
controller E1 1/5
  pri-group timeslots 1-31 service mgcp
!
!
interface GigabitEthernet1/0
  ip address 172.20.231.51 255.255.255.0
  no ip proxy-arp
  no negotiation auto
  no keepalive
!
interface Serial1/0:15
  no ip address
  no logging event link-status
  isdn switch-type primary-qsig
  isdn incoming-voice voice
  isdn bind-l3 ccm-manager
  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-l3 ccm-manager
  no cdp enable
!
interface Serial1/2:15
  no ip address
  no logging event link-status
  isdn switch-type primary-qsig
  isdn protocol-emulate network
  isdn incoming-voice voice
  isdn bind-l3 ccm-manager
  no cdp enable
!
```



```
interface Serial1/3:15
  no ip address
  no logging event link-status
  isdn switch-type primary-qsig
  isdn incoming-voice voice
  isdn bind-l3 ccm-manager
  no cdp enable
!
interface Serial1/4:15
  no ip address
  no logging event link-status
  isdn switch-type primary-qsig
  isdn incoming-voice voice
  isdn bind-l3 ccm-manager
  no cdp enable
!
interface Serial1/5:15
  no ip address
  no logging event link-status
  isdn switch-type primary-qsig
  isdn incoming-voice voice
  isdn bind-l3 ccm-manager
  no cdp enable
!
ip classless
ip route 0.0.0.0 0.0.0.0 172.20.231.1
no ip http server
!
!
arp 127.0.0.30 0000.0300.0000 ARPA
arp 127.0.0.12 0000.2100.0000 ARPA
arp 127.0.0.11 0000.1100.0000 ARPA
call rsvp-sync
!
voice-port 1/0:15
  echo-cancel coverage 64
!
voice-port 1/1:15
  echo-cancel coverage 64
!
voice-port 1/2:15
  echo-cancel coverage 64
!
voice-port 1/3:15
  echo-cancel coverage 64
!
voice-port 1/4:15
  echo-cancel coverage 64
!
voice-port 1/5:15
  echo-cancel coverage 64
!
mgcp
mgcp call-agent CM-MARS 2427 service-type mgcp version 0.1
mgcp dtmf-relay voip codec all mode out-of-band
mgcp rtp unreachable timeout 1000 action notify
mgcp modem passthrough voip mode nse
mgcp package-capability rtp-package
no mgcp package-capability res-package
mgcp package-capability sst-package
```



```
no mgcp timer receive-rtcp
mgcp sdp simple
mgcp fax t38 inhibit
mgcp rtp payload-type g726r16 static
!
mgcp profile default
!
dial-peer voice 1 pots
  application mgcpapp
!
dial-peer voice 2 pots
  application mgcpapp
!
dial-peer voice 3 pots
  application mgcpapp
!
dial-peer voice 4 pots
  application mgcpapp
  port 1/3:15
!
dial-peer voice 5 pots
  application mgcpapp
  port 1/4:15
!
dial-peer voice 6 pots
  application mgcpapp
  port 1/5:15
!
dial-peer voice 9991015 pots
  application mgcpapp
  port 1/0:15
!
dial-peer voice 9991115 pots
  application mgcpapp
  port 1/1:15
!
dial-peer voice 9991215 pots
  application mgcpapp
  port 1/2:15
!
!
line con 0
line vty 0 4
  login
!
!
end

CMM-E1#
```

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.



CUCM	Cisco Unified 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

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