



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

November 6, 2007 Revision 3

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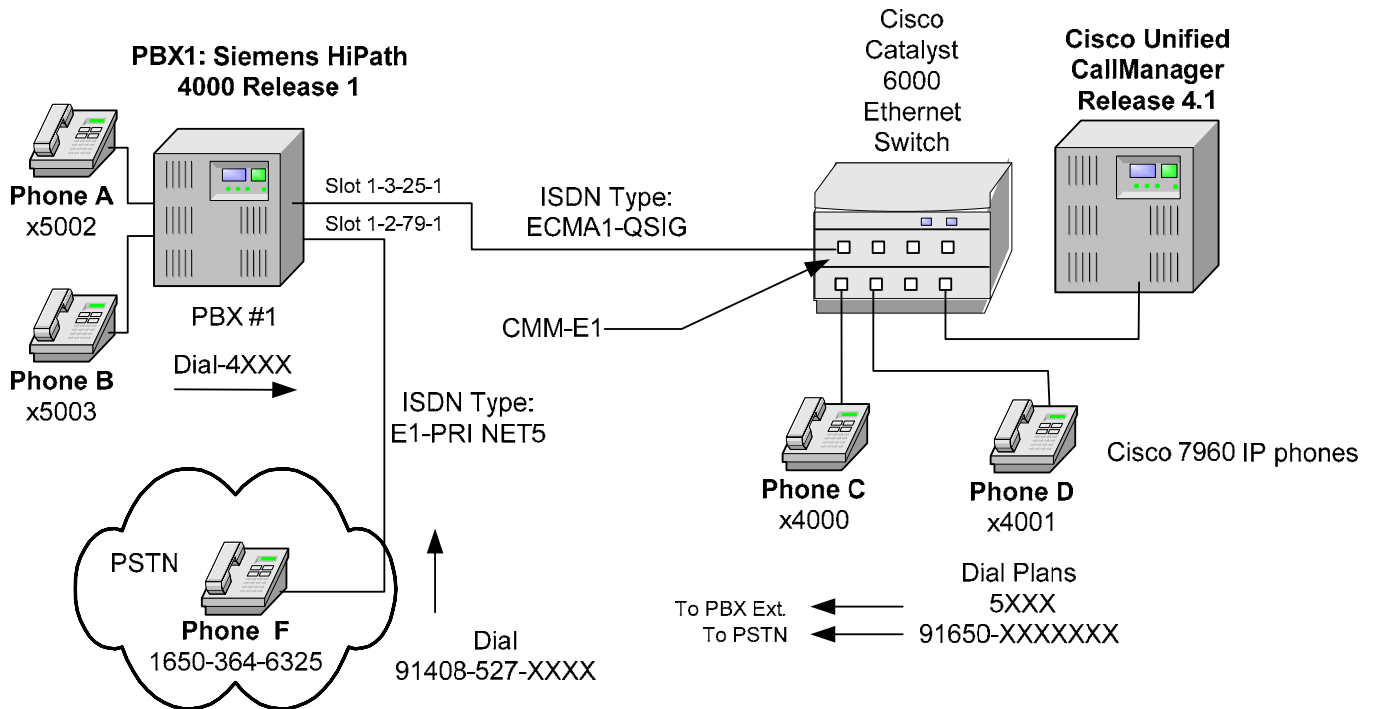
## Introduction

- 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 SBSCSU.
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	RESERVED/CONVERT		
	1 1111 11112 22	ANALYSIS	DNI/ADD-INFO		
	0 12345 67890 12345 67890 12	RESULT	*=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	RESERVED/CONVERT		
	1 1111 11112 22	ANALYSIS	DNI/ADD-INFO		
	0 12345 67890 12345 67890 12	RESULT	*=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	DIGIT ANALYSIS RESULT	RESERVED/CONVERT DNI/ADD-INFO *=OWN NODE
	0 12345 67890 12345 67890 12		

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	DIGIT ANALYSIS RESULT	RESERVED/CONVERT DNI/ADD-INFO *=OWN NODE
	0 12345 67890 12345 67890 12		

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 1 1111 1112 22	DIGIT ANALYSIS RESULT	RESERVED/CONVERT DNI/ADD-INFO *=OWN NODE
	0 12345 67890 12345 67890 12		



CODE	CALL PROGRESS STATE	DIGIT	RESERVED/CONVERT
0 12345 67890	1 11111 11112 22	ANALYSIS RESULT	DNI/ADD-INFO *=OWN NODE
7000 - 7002	. **** * . . . . *	STN	DESTNO 56 DNNO 0- 0-560
8000 - 8050	. **** * . . . . *	STN	DESTNO 222 DNNO 0- 0-222
8060	. **** * . . . . *	TIE	
8070	. **** * . . . . *	TIE	
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
0 12345 67890	1 11111 11112 22	ANALYSIS RESULT	DNI/ADD-INFO *=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	







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
<b>NETWORKWIDE CALL FORWARDING PERMITTED</b>	<b>FWDN</b>
<b>NETWORKWIDE FORWARDING NO-ANSWER</b>	<b>FNAN</b>
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



REGISTRATION OF LAYER 3 ADVISORIES

L3AR

CO TRUNK ACCESS:  
TRUNK ACCESS

TA

TOLL ACCESS:  
TRUNK ACCESS

TA

AMO-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=LCOSV,LCOSV=1;  
H500: AMO COSSU STARTED

LCOSV	1	2	3	4	5	6	COPIN
V	1234567890123456789012345678901234567890123456789012345678901234						NUM
	>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	ACD THRESHOLD :	*
TDDRFLAG :	ON	TDDRTHRESHOLD:	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	3
		1- 3- 25-0	6



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	DEDSCC	=	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   =            UUSCCY     = 8           CCHDL       =
UUSCCX  = 16          UUSCCY     = 8           FNIDX       = 1
CLASSMRK = EC        & G711    & G729OPT    SRCGRP      =
TCCID   =
-----
BCNEG    = N          BCGR       = 1          LWPARG     = 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             FLXEDTEI = 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

```

+-----+
| 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            DEDSCC  =            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   =            UUSCCY   = 8           CCHDL     =
| UUSCCX  = 16          UUSCCY   = 8           FNIDX     = 1
+-----+

```



```

CLASSMRK = EC      & G711      & G729OPT      SRCGRP =
TCCID =
-----
BCNEG = N          BCGR = 1          LWPARG = 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-LWPARG:FORMAT=L,BLNO=0,TYPE=DIUS2;  
 DISPLAY-LWPARG:FORMAT=L,BLNO=0,TYPE=DIUS2;  
 H500: AMO LWPARG 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-LWPARG-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             SRCHMODE = CIR
COTNO = 22           COPNO = 21         DPLN = 0
ITR = 1             COS = 32           LCOSV = 1
LCOSD = 1           CCT = PRI ECMA 3   DESTNO = 222
SEGMENT = 1         DEDSCC =           DEDSVC = NONE
FACILITY =          DITIDX =           SRTIDX =
TRTBL = GDTR        SIDANI = N         ATNTYP = TIE
CBMATTR = NONE      NWMUXTIM = 10     TCHARG = N
SUPPRESS = 0        DGTPR =           CHIMAP = N
ISDNIP =           ISDNNP =
PNPL2P =           PNPL1P =           PNPAC =
TRACOUNT = 31       SATCOUNT = MANY   NNO = 222
ALARMNO = 0         FIDX = 1           CARRIER = 1
ZONE = EMPTY        COTX = 22         FWDX = 10
DOMTYPE =           DOMAINNO =         TPROFNO =
INIGHT =           UUSCCY = 8         CCHDL =
UUSCCX = 16         UUSCCY = 8         FNIDX = 1
CLASSMRK = EC      & G711      & G729OPT      SRCGRP =
TCCID =
-----+-----

```



```

| BCNEG = N          BCGR = 1          LWPARG = 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

```

+-----+-----+-----+-----+-----+
| DEV = S2CONN          PEN = 1-02-079-1          TGRP = 23
+-----+-----+-----+-----+
| PROTVAR = ETSI          INS = Y          SRCHMODE = CIR
| COTNO = 21          COPNO = 21          DPLN = 0
| ITR = 1          COS = 10          LCOSV = 32
| LCOSD = 32          CCT = PRI ECMA 2          DESTNO = 100
| SEGMENT = 8          DEDSCC =          DEDSVC = NONE
| FACILITY =          DITIDX =          SRTIDX =
| TRTBL = GDTR          SIDANI = N          ATNTYP = TIE
| CBMATR = NONE          NWMUXTIM = 10          TCHARG = N
| SUPPRESS = 0          DGTPR =          CHIMAP = N
| ISDNIP =          ISDNPN =
| PNPL2P =          PNPL1P =          PNPAC =
| TRACOUNT = 31          SATCOUNT = MANY          NNO = 1
| ALARMNO = 0          FIDX = 1          CARRIER = 1
| ZONE = EMPTY          COTX = 21          FWDX = 10
| DOMTYPE =          DOMAINNO =          TPROFNO =
| INIGHT =          CCHDL =
| UUSCCX = 16          UUSCCY = 8          FNIDX = 1
| CLASSMRK = EC & G711 & G729OPT          SRCGRP =
| TCCID =
+-----+-----+-----+-----+
| BCNEG = N          BCGR = 1          LWPARG = 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;

**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

```

+-----+-----+-----+-----+-----+
| REFERENCE CLOCK CIRCUITS
+-----+-----+-----+-----+-----+
| PEN | MODULE | DEVICE | PRI | ERROR | BLOCK | SUPP. | READY | SRCGRP |
+-----+-----+-----+-----+-----+

```



							BUT	
							ASYN.	
1- 3- 25- 1	DIU-N2	S2CONN	0	0	N		N	1

AMO-REFTA-111 REFERENCE CLOCK TABLE  
 DISPLAY COMPLETED;

### For Slave-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
							BUT	
							ASYN.	
1- 3- 25- 1	DIU-N2	S2CONN	11	0	N		N	1

AMO-REFTA-111 REFERENCE CLOCK TABLE  
 DISPLAY COMPLETED;

### Trunk Least Cost Routing Configuration

#### LDAT

<DISPLAY-LDAT:TYPE=LCR,LROUTE=1;  
 DISPLAY-LDAT:TYPE=LCR,LROUTE=1;  
 H500: AMO LDAT STARTED

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

AMO-LDAT -111 LCR-DIRECTIONS  
 DISPLAY COMPLETED;

<DISPLAY-LDAT:TYPE=LCR,LROUTE=26;  
 DISPLAY-LDAT:TYPE=LCR,LROUTE=26;  
 H500: AMO LDAT STARTED

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

AMO-LDAT -111 LCR-DIRECTIONS  
 DISPLAY COMPLETED;



```
<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                                     DNNNO OF ROUTE = 111 |
| SERVICE INFO = |
+-----+
| LRTEL | LVAL | TGRP | ODR | LAUTH | SCHEDULE | CARRIER | LATTR | LDSRT |
| ABCDEFGH | ZONE | | | | | | | |
+-----+
| 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                                     DNNNO OF ROUTE = 89 |
| SERVICE INFO = |
+-----+
| LRTEL | LVAL | TGRP | ODR | LAUTH | SCHEDULE | CARRIER | LATTR | LDSRT |
| ABCDEFGH | ZONE | | | | | | | |
+-----+
| 1 | 1 | 23 | 50 | 1 | ***** | 1 | EMPTY | NONE |
| DNNNO = 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 |
| DNNNO = 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   CONFONE = 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 |
| DNNNO = 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   CONFONE = 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 **DTMFCTRD=Y**.

### 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-sbcusu:5002;
DIS-SBCSU:5002;
H500: AMO SBCSU STARTED
```

USER DATA							
<b>STNO</b>	=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		
<b>SSTNO</b>	=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
DTMFBLK	=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		
	<b>MB</b>		
	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*	<input type="text" value="Use Global Value(ECMA)"/>	Use Local Value
QSIG Variant*	<input type="text" value="ECMA (Protocol Profile 0x91)"/>	ISO (Protocol Profile 0x9F)
Caller ID	<input type="text"/>	
Calling Name Not Available Timeout (msec)*	<input type="text" value="2000"/>	2000
Calling Party Number Screening Indicator*	<input type="text" value="CallManager sets the screening indicator value - Default setting"/>	CallManager sets the screening indicator value - Default setting
Change B- Channel Maintenance Status 1	<input type="text"/>	
Change B- Channel Maintenance Status 2	<input type="text"/>	

## CMM-E1 Gateway Configuration

Cisco CallManager Administration
CISCO SYSTEMS

### Gateway Configuration

[Back to Find/List Gateways](#)

**Product: Communication Media Module**  
**Protocol: MGCP**  
**MGCP : CMM-E1**

Status: Ready

Domain Name\*

Description

Cisco CallManager Group\*

Installed Voice Interface Cards
Endpoint Identifiers

Module in Slot 1	WS-X6600	Subunit	WS-X6600-8E1	(1/0)	(1/1)	(1/2)	(1/3)
Module in Slot 2	< None >	Module in Slot 3	< None >	(1/4)	(1/5)		
Module in Slot 3	< None >	Module in Slot 4	< None >				
Module in Slot 4	< None >						

Product Specific Configuration
i

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

### Device Information

End-Point Name*	<input type="text" value="S1/DS1-1@CMM-E1"/>
Description	<input type="text" value="CM-MARS to Hipath"/>
Device Pool*	<input type="text" value="Default"/>
Call Classification*	<input type="text" value="Use System Default"/>
Network Locale	<input type="text" value="United States"/>
Media Resource Group List	<input type="text" value=" &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 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="Timeslot Number"/>

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 type="checkbox"/> Enable status poll	
<b>Call Routing Information</b>	
<b>Inbound Calls</b>	
Significant Digits*	All
Calling Search Space	Incoming Trunk
AAR Calling Search Space	< None >
Prefix DN	
<b>Outbound Calls</b>	
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
<b>PRI Protocol Type Specific Information</b>	
<input type="checkbox"/> Display IE Delivery <input type="checkbox"/> Redirecting Number IE Delivery - Outbound <input 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****	



<input type="checkbox"/>	Display IE Delivery	
<input type="checkbox"/>	Redirecting Number IE Delivery - Outbound	
<input 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****	
<input type="checkbox"/>	MCDN Channel Number Extension Bit Set to Zero**	
<input type="checkbox"/>	Send Calling Name In Facility IE	
<input type="checkbox"/>	Interface Identifier Present**	
Interface Identifier Value**		<input type="text" value="0"/>
Connected Line ID Presentation (QSIG Inbound Call)*		<input type="text" value="Default"/>

---

**UUIE Configuration**

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

---

**Product Specific Configuration** [i](#)

Line Coding*		<input type="text" value="HDB3"/>
Framing*		<input type="text" value="CRC4"/>
Clock*		<input type="text" value="External"/>
Input Gain (-6..14 db)*		<input type="text" value="0"/>
Output Attenuation (-6..14 db)*		<input type="text" value="0"/>
Echo Cancellation Enable*		<input type="text" value="Enable"/>
Echo Cancel Coverage (ms)*		<input type="text" value="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

<input type="checkbox"/>	Partition Name	Description
<input type="checkbox"/>	Incoming Trunk	Incoming Trunk
<input type="checkbox"/>	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

## 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

#### Calling Search Space Information

Calling Search Space Name\*

Description

#### Route Partitions for this Calling Search Space

Find Partitions containing

Available Partitions



Selected Partitions\*  
(ordered by highest priority)



\* indicates required item

## Calling Search Space Configuration

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

### Calling Search Space: PathReplacementCSS

Status: Ready

#### Calling Search Space Information

Calling Search Space Name\*

Description

#### Route Partitions for this Calling Search Space

Find Partitions containing

Available Partitions



Selected Partitions\*  
(ordered by highest priority)



\* 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

**Pattern Definition**

Route Pattern\*

Partition

Description

Numbering Plan\*

Route Filter

MLPP Precedence

Gateway or Route List\*  [\(Edit\)](#)

Route Option  
 Route this pattern  
 Block this pattern

Call Classification\*   Allow Device Override

Provide Outside Dial Tone  Allow Overlap Sending  Urgent Priority

Require Forced Authorization Code  
Authorization Level

Require Client Matter Code

**Calling Party Transformations**

Use Calling Party's External Phone Number Mask

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 Transformation 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	<input checked="" type="radio"/> Route this pattern <input type="radio"/> Block this pattern — Not Selected —
Call Classification*	OffNet <input type="checkbox"/> Allow Device Override
<input checked="" type="checkbox"/> Provide Outside Dial Tone	<input type="checkbox"/> Allow Overlap Sending <input type="checkbox"/> Urgent Priority
<input type="checkbox"/> Require Forced Authorization Code	Authorization Level 0
<input type="checkbox"/> Require Client Matter Code	

**Calling Party Transformations**

<input type="checkbox"/> Use Calling Party's External Phone Number Mask	
Calling Party Transform Mask	
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)	

IPDN 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

Copy Update Delete

**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)



## 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

**Pattern Definition**

Route Pattern*	<input type="text" value="9.5"/>	
Partition	<input style="border: none;" type="text" value=" &lt; None &gt; "/>	
Description	<input type="text" value="Ovlp sending CM-MARS to HiPath"/>	
Numbering Plan*	<input style="border: none;" type="text" value="North American Numbering Plan"/>	
Route Filter	<input style="border: none;" type="text" value=" &lt; None &gt; "/>	
MLPP Precedence	<input style="border: none;" type="text" value="Default"/>	
Gateway or Route List*	<input style="border: none;" type="text" value="S1/DS1-1@CMM-E1"/> <a href="#">(Edit)</a>	
Route Option	<input checked="" type="radio"/> Route this pattern <input type="radio"/> Block this pattern <input style="border: none;" type="text" value=" — Not Selected — "/>	
Call Classification*	<input style="border: none;" type="text" value="OffNet"/> <input type="checkbox"/> Allow Device Override	
<input checked="" type="checkbox"/> Provide Outside Dial Tone	<input checked="" type="checkbox"/> Allow Overlap Sending	<input type="checkbox"/> Urgent Priority
<input type="checkbox"/> Require Forced Authorization Code	Authorization Level <input type="text" value="0"/>	
<input type="checkbox"/> Require Client Matter Code		

**Calling Party Transformations**

Use Calling Party's External Phone Number Mask

Calling Party Transform Mask	<input type="text"/>
Prefix Digits (Outgoing Calls)	<input type="text"/>
Calling Line ID Presentation	<input style="border: none;" type="text" value="Default"/>
Calling Name Presentation	<input style="border: none;" type="text" value="Default"/>

**Connected Party Transformations**

Connected Line ID Presentation	<input style="border: none;" type="text" value="Default"/>
Connected Name Presentation	<input style="border: none;" type="text" value="Default"/>

**Called Party Transformations**

Discard Digits	<input style="border: none;" type="text" value="PreDot"/>
Called Party Transform Mask	<input type="text"/>
Prefix Digits (Outgoing Calls)	<input type="text"/>

**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*	<input type="text" value="91650364XXXX"/>
Partition	<input style="border: none;" type="text" value=" &lt; None &gt; "/>
Description	<input type="text" value="PSTN gateway"/>
Numbering Plan*	<input type="text" value="North American Numbering Plan"/>
Route Filter	<input style="border: none;" type="text" value=" &lt; None &gt; "/>
MLPP Precedence	<input type="text" value="Default"/>
Gateway or Route List*	<input type="text" value="S1/DS1-1@CMM-E1"/> <a href="#">(Edit)</a>
Route Option	<input checked="" type="radio"/> Route this pattern <input type="radio"/> Block this pattern <input style="border: none;" type="text" value=" — Not Selected — "/>
Call Classification*	<input type="text" value="OnNet"/> <input type="checkbox"/> Allow Device Override
<input type="checkbox"/> Provide Outside Dial Tone	<input type="checkbox"/> Allow Overlap Sending <input type="checkbox"/> Urgent Priority
<input type="checkbox"/> Require Forced Authorization Code	
Authorization Level	<input type="text" value="0"/>
<input type="checkbox"/> Require Client Matter Code	

---

**Calling Party Transformations**

Use Calling Party's External Phone Number Mask

Calling Party Transform Mask	<input type="text"/>
Prefix Digits (Outgoing Calls)	<input type="text" value="408527"/>
Calling Line ID Presentation	<input type="text" value="Default"/>
Calling Name Presentation	<input type="text" value="Default"/>

---

**Connected Party Transformations**

Connected Line ID Presentation	<input type="text" value="Default"/>
Connected Name Presentation	<input type="text" value="Default"/>

---

**Called Party Transformations**

Discard Digits	<input style="border: none;" type="text" value=" &lt; None &gt; "/>
Called Party Transform Mask	<input type="text"/>
Prefix Digits (Outgoing Calls)	<input type="text"/>

---

**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	<input type="text" value="4XXX"/>
Partition	<input type="text" value="Incoming Trunk"/>
Description	<input type="text"/>
Numbering Plan*	<input type="text" value="North American Numbering Plan"/>
Route Filter	<input type="text" value="&lt; None &gt;"/>
Calling Search Space	<input type="text" value="phones"/>
MLPP Precedence	<input type="text" value="Default"/>
Route Option	<input checked="" type="radio"/> Route this pattern <input type="radio"/> Block this pattern <input type="text" value="-- Not Selected --"/>
<input checked="" type="checkbox"/> Provide Outside Dial Tone	<input checked="" type="checkbox"/> Urgent Priority

#### Calling Party Transformations

Use Calling Party's External Phone Number Mask

Calling Party Transform Mask	<input type="text"/>
Prefix Digits (Outgoing Calls)	<input type="text"/>
Calling Line ID Presentation	<input type="text" value="Default"/>
Calling Name Presentation	<input type="text" value="Default"/>

#### Connected Party Transformations

Connected Line ID Presentation	<input type="text" value="Default"/>
Connected Name Presentation	<input type="text" value="Default"/>

#### Called Party Transformations

Discard Digits	<input type="text" value="&lt; None &gt;"/>
Called Party Transform Mask	<input type="text"/>
Prefix Digits (Outgoing Calls)	<input type="text"/>

\* 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

**Pattern Definition**

Route Pattern\*   
Partition   
Description   
Numbering Plan\*   
Route Filter   
MLPP Precedence   
Gateway or Route List\*  [\(Edit\)](#)  
Route Option  
 Route this pattern  
 Block this pattern   
Call Classification\*   Allow Device Override  
 Provide Outside Dial Tone  Allow Overlap Sending  Urgent Priority  
 Require Forced Authorization Code  
Authorization Level   
 Require Client Matter Code

**Calling Party Transformations**

Use Calling Party's External Phone Number Mask  
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 Operation 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

**Pattern Definition**

Route Pattern*	<input type="text" value="5XXX"/>
Partition	<input type="text" value=" &lt; None &gt;"/>
Description	<input type="text" value="CM-MARS to HiPath"/>
Numbering Plan*	<input type="text" value="North American Numbering Plan"/>
Route Filter	<input type="text" value=" &lt; None &gt;"/>
MLPP Precedence	<input type="text" value="Default"/>
Gateway or Route List*	<input type="text" value="S1/DS1-1@CMM-E1"/> <a href="#">(Edit)</a>
Route Option	<input checked="" type="radio"/> Route this pattern <input type="radio"/> Block this pattern <input type="text" value=" -- Not Selected --"/>
Call Classification*	<input type="text" value="OnNet"/> <input type="checkbox"/> Allow Device Override
<input type="checkbox"/> Provide Outside Dial Tone	<input type="checkbox"/> Allow Overlap Sending <input type="checkbox"/> Urgent Priority
<input type="checkbox"/> Require Forced Authorization Code	Authorization Level <input type="text" value="0"/>
<input type="checkbox"/> Require Client Matter Code	

**Calling Party Transformations**

Use Calling Party's External Phone Number Mask

Calling Party Transform Mask	<input type="text"/>
Prefix Digits (Outgoing Calls)	<input type="text"/>
Calling Line ID Presentation	<input type="text" value="Default"/>
Calling Name Presentation	<input type="text" value="Restricted"/>

**Connected Party Transformations**

Connected Line ID Presentation	<input type="text" value="Default"/>
Connected Name Presentation	<input type="text" value="Default"/>

**Called Party Transformations**

Discard Digits	<input type="text" value=" &lt; None &gt;"/>
Called Party Transform Mask	<input type="text"/>
Prefix Digits (Outgoing Calls)	<input type="text"/>

**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	<input type="text" value="4XXX"/>
Partition	<input type="text" value="Incoming Trunk"/>
Description	<input type="text"/>
Numbering Plan*	<input type="text" value="North American Numbering Plan"/>
Route Filter	<input type="text" value="&lt; None &gt;"/>
Calling Search Space	<input type="text" value="phones"/>
MLPP Precedence	<input type="text" value="Default"/>
Route Option	<input checked="" type="radio"/> Route this pattern <input type="radio"/> Block this pattern <input type="text" value="— Not Selected —"/>
<input checked="" type="checkbox"/> Provide Outside Dial Tone	<input checked="" type="checkbox"/> Urgent Priority

#### Calling Party Transformations

Use Calling Party's External Phone Number Mask

Calling Party Transform Mask	<input type="text"/>
Prefix Digits (Outgoing Calls)	<input type="text"/>
Calling Line ID Presentation	<input type="text" value="Default"/>
Calling Name Presentation	<input type="text" value="Default"/>

#### Connected Party Transformations

Connected Line ID Presentation	<input type="text" value="Restricted"/>
Connected Name Presentation	<input type="text" value="Default"/>

#### Called Party Transformations

Discard Digits	<input type="text" value="&lt; None &gt;"/>
Called Party Transform Mask	<input type="text"/>
Prefix Digits (Outgoing Calls)	<input type="text"/>

\* 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

### Pattern Definition

Translation Pattern	<input type="text" value="4XXX"/>
Partition	<input type="text" value="Incoming Trunk"/>
Description	<input type="text"/>
Numbering Plan*	<input type="text" value="North American Numbering Plan"/>
Route Filter	<input type="text" value=" &lt; None &gt;"/>
Calling Search Space	<input type="text" value="phones"/>
MLPP Precedence	<input type="text" value="Default"/>
Route Option	<input checked="" type="radio"/> Route this pattern <input type="radio"/> Block this pattern <input type="text" value=" — Not Selected —"/>
<input checked="" type="checkbox"/> Provide Outside Dial Tone	<input checked="" type="checkbox"/> Urgent Priority

### Calling Party Transformations

Use Calling Party's External Phone Number Mask

Calling Party Transform Mask	<input type="text"/>
Prefix Digits (Outgoing Calls)	<input type="text"/>
Calling Line ID Presentation	<input type="text" value="Default"/>
Calling Name Presentation	<input type="text" value="Default"/>

### Connected Party Transformations

Connected Line ID Presentation	<input type="text" value="Default"/>
Connected Name Presentation	<input type="text" value="Restricted"/>

### Called Party Transformations

Discard Digits	<input type="text" value=" &lt; None &gt;"/>
Called Party Transform Mask	<input type="text"/>
Prefix Digits (Outgoing Calls)	<input type="text"/>

\* indicates required item.

## MWI lamp On/Off Configuration



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## Message Waiting Configuration

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

**Message Waiting Number : 7001**  
Status: Ready

Copy Update Delete

Message Waiting Number\*

Description

Message Waiting Indicator  On  Off

Partition

Calling Search Space

\* indicates required item

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CISCO SYSTEMS

## Message Waiting Configuration

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

**Message Waiting Number : 7000**  
Status: Ready

Copy Update Delete

Message Waiting Number\*

Description

Message Waiting Indicator  On  Off

Partition

Calling Search Space

\* 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	<input type="text" value="7701"/>
Partition	<input type="text" value="phones"/>
Description	<input type="text"/>
Numbering Plan*	<input type="text" value="North American Numbering Plan"/>
Route Filter	<input type="text" value="&lt; None &gt;"/>
Calling Search Space	<input type="text" value="phones"/>
MLPP Precedence	<input type="text" value="Default"/>
Route Option	<input checked="" type="radio"/> Route this pattern <input type="radio"/> Block this pattern <input type="text" value="-- Not Selected --"/>

Provide Outside Dial Tone       Urgent Priority

#### Calling Party Transformations

Use Calling Party's External Phone Number Mask

Calling Party Transform Mask	<input type="text" value="5002"/>
Prefix Digits (Outgoing Calls)	<input type="text"/>
Calling Line ID Presentation	<input type="text" value="Default"/>
Calling Name Presentation	<input type="text" value="Default"/>

#### Connected Party Transformations

Connected Line ID Presentation	<input type="text" value="Default"/>
Connected Name Presentation	<input type="text" value="Default"/>

#### Called Party Transformations

Discard Digits	<input type="text" value="&lt; None &gt;"/>
Called Party Transform Mask	<input type="text" value="7001"/>
Prefix Digits (Outgoing Calls)	<input type="text"/>

\* 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	<input type="text" value="7700"/>
Partition	<input type="text" value="phones"/>
Description	<input type="text"/>
Numbering Plan*	<input type="text" value="North American Numbering Plan"/>
Route Filter	<input type="text" value="&lt; None &gt;"/>
Calling Search Space	<input type="text" value="phones"/>
MLPP Precedence	<input type="text" value="Default"/>
Route Option	<input checked="" type="radio"/> Route this pattern <input type="radio"/> Block this pattern <input type="text" value="— Not Selected —"/>
<input checked="" type="checkbox"/> Provide Outside Dial Tone	<input checked="" type="checkbox"/> Urgent Priority

#### Calling Party Transformations

Use Calling Party's External Phone Number Mask

Calling Party Transform Mask	<input type="text" value="5002"/>
Prefix Digits (Outgoing Calls)	<input type="text"/>
Calling Line ID Presentation	<input type="text" value="Default"/>
Calling Name Presentation	<input type="text" value="Default"/>

#### Connected Party Transformations

Connected Line ID Presentation	<input type="text" value="Default"/>
Connected Name Presentation	<input type="text" value="Default"/>

#### Called Party Transformations

Discard Digits	<input type="text" value="&lt; None &gt;"/>
Called Party Transform Mask	<input type="text" value="7000"/>
Prefix Digits (Outgoing Calls)	<input type="text"/>

\* indicates required item.

## CallBack Service Parameters



Parameter Name	Parameter Value	Suggested Value
Callback Notification Audio File Name*	<input type="text" value="CallBack.raw"/>	CallBack.raw
Connection Proposal Type*	<input type="text" value="Connection Retention"/>	Connection Release
Connection Response Type*	<input type="text" value="Default to Connection Retention"/>	Default to Connection Retention
Callback Request Protection Timer (T1) (sec)*	<input type="text" value="10"/>	10
Callback Recall Timer (T3) (sec)*	<input type="text" value="20"/>	20
Callback Calling Search Space	<input type="text" value="&lt; None &gt;"/>	



## CallBack Softkey Configuration

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### 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 Service Feature Device User Application Help












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## 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)(iDivert)

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)(CfwdAll)

Call Back (20)(CallBack)

\*\* indicates mandatory fields  
\* indicates required item

System Route Plan Service Feature Device User Application Help

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## 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

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*	<input type="text" value="True"/>	False
Path Replacement on Tromboned Calls*	<input type="text" value="True"/>	True
Start Path Replacement Minimum Delay Time (sec)*	<input type="text" value="2"/>	0
Start Path Replacement Maximum Delay Time (sec)*	<input type="text" value="4"/>	0
Path Replacement T1 Timer (sec)*	<input type="text" value="30"/>	30
Path Replacement T2 Timer (sec)*	<input type="text" value="15"/>	15
Path Replacement PINX Id	<input type="text" value="111"/>	
Path Replacement Calling Search Space	<input type="text" value="PathReplacementCSS"/>	



System Route Plan Service Feature Device User Application Help

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**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*	<input type="text" value="12"/>	12
Forward No Answer Timer (sec)*	<input type="text" value="12"/>	12
Max Forwards Hops to DN*	<input type="text" value="12"/>	12
Retain Forward Information*	<input type="text" value="False"/>	False
Forward By Reroute Enabled*	<input type="text" value="True"/>	False
Forward By Reroute T1 Timer (sec)*	<input type="text" value="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**

7912 7919 Line 1 - 4000 in phones  
7912 7919 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

**Phone Configuration (Model = Cisco 7960)**

**Device Information**

MAC Address*	<input type="text" value="003094C331AD"/>
Description	<input type="text" value="Auto 4000"/>
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="1 - SampleAudioSource"/>
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"/>
Signal Packet Capture Mode	<input type="text" value="None"/>
Packet Capture Duration	<input type="text" value="0"/>
Built In Bridge	<input type="text" value="Default"/>
Privacy	<input type="text" value="Default"/>
<input checked="" type="checkbox"/> Retry Video Call as Audio	
<input type="checkbox"/> Ignore Presentation Indicators (internal calls only)	

**Phone Button Template Information**

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

**Softkey Template Information**

Softkey Template	<input type="text" value="Standard User CallBack"/>
------------------	---



<b>Expansion Module Information</b>	
Module 1	< None >
Module 2	< None >
<b>Firmware Load Information (leave blank to use default)</b>	
Phone Load Name	
Module 1 Load Name	(Module 1 selection required)
Module 2 Load Name	(Module 2 selection required)
<b>Cisco IP Phone - External Data Locations (leave blank to use default)</b>	
Information	
Directory	
Messages	
Services	
Authentication Server	
Proxy Server	
Idle	
Idle Timer (seconds)	
<b>Extension Mobility (Device Profile) Information</b>	
<input type="checkbox"/> Enable Extension Mobility Feature	
Log Out Profile	— Not Selected —
Log In User ID	< None >
Log In Time	< None >
Log Out Time	< None >
<b>Certification Authority Proxy Function (CAPF) Information</b>	
Certificate Operation	No Pending Operation
Authentication Mode	By Authentication String
Authentication String	<input type="text"/> <input type="button" value="Generate String"/>
Key Size (bits)	1024
Operation Completes By**	: : : (YYYY : MM : DD : HH )
Certificate Operation Status : None	
<b>Multilevel Precedence and Preemption (MLPP) Information</b>	
MLPP Domain	(e.g., "0000FF")
MLPP Indication	Default

Multilevel Precedence and Preemption (MLPP) Information	
MLPP Domain	<input type="text" value=""/> (e.g., "0000FF")
MLPP Indication	Default
MLPP Preemption	Default

Product Specific Configuration	
Disable Speakerphone	<input type="checkbox"/>
Disable Speakerphone and Headset	<input type="checkbox"/>
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.

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[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

## 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	<input type="checkbox"/>	<input type="text"/>	<input type="text" value="&lt; None &gt;"/>
Forward Busy Internal	<input type="checkbox"/>	<input type="text"/>	<input type="text" value="&lt; None &gt;"/>
Forward Busy External	<input type="checkbox"/>	<input type="text"/>	<input type="text" value="&lt; None &gt;"/>
Forward No Answer Internal	<input type="checkbox"/>	<input type="text"/>	<input type="text" value="&lt; None &gt;"/>
Forward No Answer External	<input type="checkbox"/>	<input type="text"/>	<input type="text" value="&lt; None &gt;"/>
Forward No Coverage Internal	<input type="checkbox"/>	<input type="text"/>	<input type="text" value="&lt; None &gt;"/>
Forward No Coverage External	<input type="checkbox"/>	<input type="text"/>	<input type="text" value="&lt; None &gt;"/>

No Answer Ring Duration  (seconds)

Call Pickup Group

## MLPP Alternate Party Settings

Target (Destination)

Calling Search Space

No Answer Ring Duration  (seconds)

No Answer Ring Duration	<input type="text"/> (seconds)
Call Pickup Group	< None > ▾
<b>MLPP Alternate Party Settings</b>	
Target (Destination)	<input type="text"/>
Calling Search Space	< None > ▾
No Answer Ring Duration	<input type="text"/> (seconds)
<b>Line Settings for all Devices</b>	
Alerting Name	MARS 0
<b>Line Settings for this Device</b>	
Display (Internal Caller ID)	MARS 0
Line Text Label	MARS 0
External Phone Number Mask	<input type="text"/>
Message Waiting Lamp Policy	Use System Policy ▾
Ring Setting (Phone Idle)	Use System Default ▾
Ring Setting (Phone Active)**	Use System Default ▾
<b>Multiple Call / Call Waiting Settings</b>	
Maximum Number of Calls*	4 (1 - 200)
Busy Trigger*	2 (<= Max. Calls)
<b>Forwarded Call Information Display</b>	
<input checked="" type="checkbox"/> Caller Name	<input checked="" type="checkbox"/> Caller Number
<input checked="" type="checkbox"/> Redirected Number	<input checked="" type="checkbox"/> 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.	
<b>Note:</b>	
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-13 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-13 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-13 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-13 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-13 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-13 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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Printed in the USA