



# Siemens HiPath 4000 Release 3 using E1 Q.SIG to Cisco Unified Communications Manager 6.0

October 30, 2007 Revision 2

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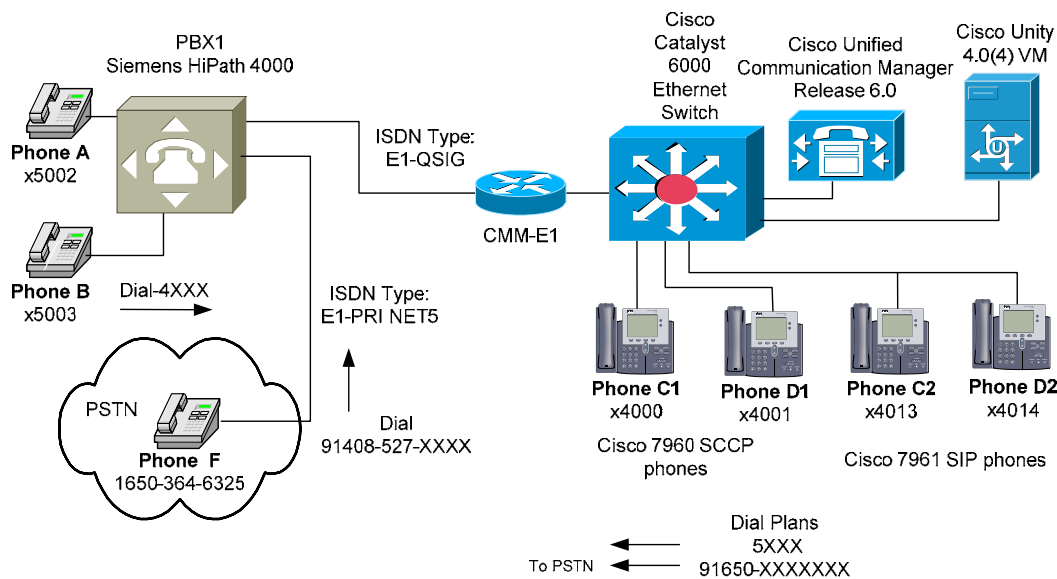
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## Introduction

- This is an application note for connectivity of Siemens HiPath 4000 Release 3 PBX with Cisco Unified Communications Manager (CUCM) Release 6.0 via Cisco CMM-E1 as MGCP gateway using ISO QSIG protocol.
- The network topology diagram (Figure 1) shows the test setup for end-to-end interoperability with the Cisco Unified Communications Manager connected to the PBX via Cisco CMM-E1 link as MGCP gateway.
- Connectivity is achieved by using the PRI QSIG E1 protocol type on the MGCP gateway with Unified Communications Manager Service parameter QSIG variant of ISO and PSS1V2 switch type on the Hipath 4000 PBX.
- This Application Note uses the Cisco CMM-E1 voice gateway, however other Cisco voice gateways are also an option to use since Cisco Unified Communications Manager QSIG implementation does not depend on the physical interface.

## Network Topology

Figure 1. Basic Call Setup



## Limitations

### B-Channel Mapping:

- Siemens HiPath 4000 PBX uses sequential channel numbering (1-30) when QSIG protocol "PSS1V2" is selected, therefore the Cisco CMM-E1 gateway configuration for **Channel IE Type** field should be set to **Continuous Number**.

### Connected Name and Number Restrictions:

- Siemens phone displayed dialed digits when CUCM sends Connected Name and Number as restricted.

### Additional Network Feature Path Replacement for Call Diversion:

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

## System Components

### Hardware Requirements

#### Cisco Hardware:

- Cisco 35xx Ethernet Switch
- Cisco CMM-E1 Gateway
- Cisco IP Phones
- Cisco Unified Communication Manager Server

#### Siemens Hipath 4000 PBX Hardware:

Formatted: Bullets and Numbering



- DIU-N2

## Software Requirements

The following software is required:

- Cisco Unified Communication Manager Release 6.0
- PBX software release 3
- Cisco IOS Release 12.4 (for the CMM gateway)

## 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 - see limitations section
- CONP-Connected Name Identification Presentation
- CONR- Connected Name Identification Restriction - see limitations section
- Sending Alerting Name
- Sending Busy 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) - see limitations section
- ANF-PR-Additional Network Feature Path Replacement (for Trombone connection)



- MWI- Message Waiting Indication (lamp ON, lamp OFF) <sup>1</sup>

**Features Not Supported**

- None

**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 for MWI application.
13. Configure Message Center's Service Access Number for MWI application.
14. Configure Digital Station's Class of Service for Mailbox MWI application.

**Configuration Menus and Commands for Hipath 4000**

**DPLN**

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

DIGIT INTERPRETATION		VALID FOR ALL DIAL PLANS			
CODE	CALL PROGRESS STATE	DIGIT ANALYSIS RESULT	RESERVED/CONVERT DNI/ADD-INFO		
	1 1111 11112 22		*=OWN NODE		
	0 12345 67890 12345 67890 12				
0	. **** .*** **... ..*	CO	R		
001 - 009	* ..... ..*	NETRTE			
111	. **** ***** **... ..*	TIE			
12	. **** ***** **... ..*	TIE	R		
13 - 14	. **** ***** **... ..*	TIE			
21	. .... ..* ..	KNVRKY			

<sup>1</sup> MWI was tested with Communication Manager 6.0 as the Message Center PINX and PBX users as remote subscribers.



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 1 11111 11112 22	DIGIT ANALYSIS RESULT	RESERVED/CONVERT DNI/ADD-INFO *=OWN NODE
3000 - 3010	. **** * . . . . *	STN	DESTNO 30 DNN0 0- 0-222
3011 - 3020	. **** * . . . . *	STN	DESTNO 31 DNN0 0- 0- 31
3021 - 3030	. **** * . . . . *	STN	DESTNO 32 DNN0 0- 0- 32
3031 - 3040	. **** * . . . . *	STN	DESTNO 33 DNN0 0- 0- 33
3041 - 3050	. **** * . . . . *	STN	DESTNO 35 DNN0 0- 0- 35
31	. . . . . *	NAMEKY	
32	. . . . . *	PARKKY	

DIGIT INTERPRETATION VALID FOR ALL DIAL PLANS

CODE	CALL PROGRESS STATE 1 11111 11112 22	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 DNN0 0- 0-111
4051 - 4566	. **** * . . . . *	STN	DESTNO 222 DNN0 0- 0-222
4567	. **** * . . . . *	STN	DESTNO 34 DNN0 0- 0-200

DIGIT INTERPRETATION VALID FOR ALL DIAL PLANS

CODE	CALL PROGRESS STATE 1 11111 11112 22	DIGIT ANALYSIS RESULT	RESERVED/CONVERT DNI/ADD-INFO *=OWN NODE
4568 - 4999	. **** * . . . . *	STN	DESTNO 222 DNN0 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
	1 11111 11112 22	ANALYSIS	DNI/ADD-INFO
	0 12345 67890 12345 67890 12	RESULT	*=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
	1 11111 11112 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 SFC : 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	





AMO-LDPLN-111      ADMINISTRATION LCR DIALPLAN  
 DISPLAY COMPLETED;

**BCSU**

**PRI Board**

<DISPLAY-BCSU:TYPE=TBL,LTG=1,LTU=3,SLOT=25;  
 DISPLAY-BCSU:TYPE=TBL,LTG=1,LTU=3,SLOT=25;  
 H500: AMO BCSU STARTED

ADDRESS : LTG 1    LTU 3      SOURCE GROUP 1

PEN	ASSIGNED MODULE	MODULE TYPE	FCT ID	HWY BDL	INSERTED MODULE	STATE	HW-INFO	MODULE STATUS
25	Q2196-X	DIU-N2	1	A	Q2196-X	1	-06 -	READY

AMO-BCSU -111      BOARD CONFIGURATION, SWITCHING UNIT  
 DISPLAY COMPLETED;  
 <

**PSTN board**

<DISPLAY-BCSU:TYPE=TBL,LTG=1,LTU=2,SLOT=79;  
 DISPLAY-BCSU:TYPE=TBL,LTG=1,LTU=2,SLOT=79;  
 H500: AMO BCSU STARTED

ADDRESS : LTG 1    LTU 2      SOURCE GROUP 1

PEN	ASSIGNED MODULE	MODULE TYPE	FCT ID	HWY BDL	INSERTED MODULE	STATE	HW-INFO	MODULE STATUS
79	Q2196-X	DIU-N2	1	A	Q2196-X	1	-06 -	READY

AMO-BCSU -111      BOARD CONFIGURATION, SWITCHING UNIT  
 DISPLAY COMPLETED;

**Class of Trunk, COT**

<dis-cot:22;  
 DIS-COT: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
  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;

**For Call Forwarding by Reroute need to add FNAN and FWDN to COT22  
 For Path Replacement need to add ROPT to COT 22 on the Hipath 4000.**

```
<CHANGE-COT:COTNO=22,COTTYPE=COTADD,PAR=FNAN&FWDN;
CHANGE-COT:COTNO=22,COTTYPE=COTADD,PAR=FNAN&FWDN&ROPT;
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
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

```

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
```

```
-----
|          |          |          |          |          |          |
| TGRP NUMBER : 26 | TGRP NAME : PRI ECMA 3 | MAXIMUM NO. : 30 |
|          |          |          |          |          |          |
|          |          |          |          |          |          |
| SUBGROUP NO. : 9 | DEVICE TYPE : S2CONN | TRACENO : 0 |
| RESERVED : N | SEARCH MODE : CIRCULAR | ACD THRESHOLD : * |
| NUMBER OF ASSOCIATED ROUTES : 6 | PRIORITY : 2 |
| TDDRFLAG : ON | TDDRTHRESHOLD: 3 | SOURCEGROUPIDX : 1 |
| GDTRRULE : 0 | ACDPMGRP : 0 |
| THE FOLLOWING TRUNKS (LTG-LTU-SLOT-CCT) HAVE BEEN ALLOCATED: |
|-----|-----|-----|-----|-----|-----|
| 1- 3- 25-0 | 1 | 1- 3- 25-0 | 2 | 1- 3- 25-0 | 3 |
| 1- 3- 25-0 | 4 | 1- 3- 25-0 | 5 | 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
```

```
-----
|          |          |          |          |          |          |
| TGRP NUMBER : 27 | TGRP NAME : PRI ECMA 4 | MAXIMUM NO. : 30 |
|          |          |          |          |          |          |
|          |          |          |          |          |          |
| 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

```

+-----+
| DEV      = S2CONN      PEN      = 1-03-025-1  TGRP      = 27
+-----+
| PROTVAR = PSS1V2      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          DGTFR    =           CHIMAP   = N
| ISDNIP   =           ISDNNP   =
| 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          FNIDX    = 1
| UUSCCX   = 16        CLASSMRK = EC      & G711  & G729OPT
|          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

```

+-----+
| DEV      = S2CONN      PEN      = 1-03-025-1  TGRP      = 27
+-----+
| PROTVAR = PSS1V2      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   =           ISDNMP   =
| 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   =
| UUSCCX   = 16         UUSCCY   = 8         FNIDX    = 1
| CLASSMRK = EC        & G711  & G729OPT  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;



## 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          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
| CBMATTR  = NONE      NWMUXTIM = 10       TCHARG   = N
| SUPPRESS = 0          DGTPR   =           CHIMAP   = N
| ISDNIP   =           ISDNPN  =           PNPAC    =
| PNPL2P   =           PNPL1P  =           NNO     = 1
| TRACOUNT = 31          SATCOUNT = MANY    CARRIER = 1
| ALARMNO  = 0          FIDX    = 1          FWDX     = 10
| ZONE     = EMPTY     COTX    = 21        TPROFNO  =
| DOMTYPE  =           DOMAINNO =           CCHDL   =
| INIGHT   =           UUSCCY  = 8          FNIDX    = 1
| UUSCCX   = 16          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;

## 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  = PSS1V2     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   =           ISDNPN  =           PNPAC    =
| PNPL2P   =           PNPL1P  =           NNO     = 222
| TRACOUNT = 31          SATCOUNT = MANY    CARRIER = 1
| ALARMNO  = 0          FIDX    = 1          FWDX     = 10
| ZONE     = EMPTY     COTX    = 22        TPROFNO  =
| DOMTYPE  =           DOMAINNO =
|-----|
```



```

| INIGHT =
| UUSCCX = 16          UUSCCY = 8          CCHDL =
| CLASSMRK = EC      & G711  & G729OPT    FNIDX = 1
| 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;

## 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 BUT ASYN.	SRCGRP
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

```

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

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 | LATTR | LDSRT |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|   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 | LATTR | LDSRT |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|   1   |   1   |   26  |   15 |   3   | ***** |   1   | EMPTY |  NONE |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
```

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           DNN 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           DNN OF ROUTE =           89  |
| SERVICE INFO =                                           |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
```



LRTEL	LVAL	TGRP	ODR	LAUTH	SCHEDULE ABCDEFGH	CARRIER ZONE	LATTR	LDSRT
1	1	23	50	1	*****	1 EMPTY	NONE	
DNN0 =			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
| DNN0 =      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
| DNN0 =      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
| DNN0 =      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   CONFONE = 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
| EMCYRRT = 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 -----
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 CBKBMX =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 for MWI Application:

To get the MWI light to work, the station configuration should be changed so that the parameter PMIDX (phoneMail Index parameter) needs to point to the IDX identifier that identifies the Message Center's Service Access Number.

```
<dis-sbcusu: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  =N        EXTBUS =    LCOSD2 =6       CBKBMX =5
TRACE  =N                          RCBKB  =N
ALARMNO=0      DFSVCANA=    SPDI   =0       RCBKNA =N
HMUSIC =0      FLASH   =    SPDC1  =       CBKNAMB =Y
PMIDX  =1      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 Message Center's Service Access Number for MWI Application:

Since the MWI was tested with the Message Center integrated on Cisco Unified Communication Manager side, the PBX needs to configure an identifier for the Message Center's Service Access Number in order for the MWI light to work. Without this identifier the MWI light will not work.

```
<ADD-RICHT:MODE=PM,IDX=1,SAN=4005;
ADD-RICHT:MODE=PM,IDX=1,SAN=4005;
H500: AMO RICHT STARTED
```

```
AMO-RICHT-111 TRUNK ROUTING
ADD COMPLETED;
<DISP-RICHT:MODE=PM;
S3: DATA SUBSYSTEM FOR AMO RICH NOT FOUND ON HARD DISK
```

```
<DISP-RICHT
MODE = PM
DISP-RICHT:PM;
H500: AMO RICHT STARTED
```

IDX	SAN	NAME	TYPE
1	4005		OTHER

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

### 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		



```

|      |      |      |      |
|      |      |      |      |
|      |      |      |      |
+-----+-----+-----+-----+

```

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;

### Siemens HiPath 4000 Software Release

```

<
<dis-dbc:verbose=n;
DIS-DBC:VERBOSE=N;
H500: AMO DBC STARTED

```

```

+-----+-----+-----+-----+
| SYSTEM CLASSIFICATION   : SYSTEM 80           (H80   )
| HARDWARE ASSEMBLY      : EXTENDED COMPACT CXE (CXE   )
| OPERATING MODE         : SIMPLEX
| RESTART TYPE           : SYM
| HW-ARCHITECTURE        : 4300
| HW-ARCHITECTURE TYPE   : 2
|
| 'NO OF' HW VALUES
|   LTG'S      : 1   LTU'S      : 4   LOG.LINES : 12000   MTS BD /GSN: 1
|   SIUP'S/LTU: 4   TMD24'S PER LTU: 4   PHYS.PORTS: 6000   HWY /MTS BD: 64
|   HDLC /DCL : 5   PBC /DCL  : 1   PBC'S      : 17
| LOG. SIU LINES      : 26
| LOG. CONF LINES     : 35
| LOG. DCL LINES      : 36
| DB DIMENSIONING-NAME : SMALL                 CONF-TABLE VERSION: 1
| DB SUSY'S:
|   SWITCH NUMBER : L31903Q1930A00001
| LOCATION        : CUSTOMER
| BAPPL           : BSMONO
| DBAPPL          : DBSMALL
| SYSTEM_ID       :
|
| OVERLAY RESOURCES IN ADP:
| SLOTS           : 1000   MEMORY SPACE : 2000 KB
| OVERLAY RESOURCES IN SWU:
| SLOTS           : 1000   MEMORY SPACE : 2000 KB
| OVERLAY RESOURCES BEI MONO PROCESSING:
| SLOTS           : 400   MEMORY SPACE : 3000 KB
+-----+-----+-----+-----+

```

AMO-DBC -111 DATABASE CONFIGURATION  
 DISPLAY COMPLETED;

```

<disp-vegas:list=long;
DISP-VEGAS:LIST=LONG;
H500: AMO VEGAS STARTED
  SYSTEM NO.      AMO   APS NO.      START      USER      STATUS

```



```
SWU: L31903Q1930A00001 --- P30252B4500B00105 00.00.00 00:00 NOBODY FREE
SWU RES CODE APS: P30252B4500S00105 (DIR FILE: :PDS:APSI/PS/S0-EM0SC)
SWU AMO CODE APS: P30252B4500B00105 (DIR FILE: :PDS:APSI/PS/B0-EM0BC)
SWU AMO TEXT APS: P30252B4500B00105 (DIR FILE: :PDS:APSI/PS/B0-EM0BC)
BREAK MARK : NO
RESERVATION : NO
ADS: L31903Q1930A00001 --- P30252B4500A00105 00.00.00 00:00 NOBODY FREE
ADS RES CODE APS: P30252B4500D00105 (DIR FILE: :PDS:APSI/PS/D0-EM0DC)
ADS AMO CODE APS: P30252B4500A00105 (DIR FILE: :PDS:APSI/PS/A0-EM0AC)
ADS AMO TEXT APS: P30252B4500A00105 (DIR FILE: :PDS:APSI/PS/A0-EM0AC)
BREAK MARK : NO
RESERVATION : NO
```

```
AMO-VEGAS-111 ADMIN. OF DATABASE GENERATION RUNS ON SUPPORT SYSTEM
DISPLAY COMPLETED;
```

```
<DISPLAY-APS:ANS=Y,TYPE=PSALL,SP="Y0-EM0YC" ;
DISPLAY-APS:ANS=Y,TYPE=PSALL,SP="Y0-EM0YC" ;
H500: AMO APS STARTED
ADINIT STARTED
PROGRAM SYSTEM : Y0-EM0YC
VERSION NUMBER : 10
CORRECTION VERSION NUMBER : 001
PART NUMBER : P30252N4505B00005
PROGRAM SYSTEM WITH CODE SUBSYSTEMS
INTERFACE VERSION:
PROGRAM SYSTEM DOES NOT CONTAIN ANY INTERFACE VERSIONS
```

```
ADINIT COMPLETED
STATUS = H'0000
AMO-APS -111 SOFTWARE LOAD UPGRADE
DISPLAY COMPLETED;
```





## Configuring the Cisco Unified Communication Manager

### CUCM Version

The screenshot displays the Cisco Unified CM Administration web interface. At the top left is the Cisco logo. The main header reads "Cisco Unified CM Administration" with the tagline "For Cisco Unified Communications Solutions". To the right of the header is a navigation bar with a dropdown menu set to "Cisco Unified CM Administration" and a "Go" button. Below the header is a secondary navigation bar with links for "CCMAdministrator", "About", and "Logout". A horizontal menu contains various system components: System, Call Routing, Media Resources, Voice Mail, Device, Application, User Management, Bulk Administration, and Help. The main content area features a large blue banner with the text "Cisco Unified CM Administration" and "System version: 6.0.1.1000-33". To the right of the banner is a photograph of a server room aisle. Below the banner, the page contains copyright information: "Copyright © 1999 - 2006 Cisco Systems, Inc. All rights reserved." followed by a disclaimer regarding cryptographic features and export laws. A link is provided for more information on U.S. laws governing Cisco cryptographic products: <http://www.cisco.com/wlw/export/crypto/tool/stgrq.html>. The page concludes with the contact information: "If you require further assistance please contact us by sending email to [export@cisco.com](mailto:export@cisco.com)."



## CMM-E1 Gateway Configuration

**Cisco Unified CM Administration**  
For Cisco Unified Communications Solutions

Navigation: Cisco Unified CM Administration

CCMAdministrator | About | Logout

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**Gateway Configuration** | Related Links: [Back To Find/List](#)

**Status**  
Status: Ready

**Gateway Details**

Product	Communication Media Module
Gateway	VENUS-CMM-E1
Protocol	MGCP
Domain Name*	<input type="text" value="VENUS-CMM-E1"/>
Description	<input type="text" value="VENUS-CMM-E1 MGCP GW"/>
Cisco Unified Communications Manager Group*	<input type="text" value="Default"/>

**Configured Slots, VICs and Endpoints**

Module in Slot 1	<input type="text" value="WS-X6600"/>								
Subunit 0	<input type="text" value="WS-X6600-6T1"/>	<input type="text" value="1/ 0"/>	<input type="text" value="1/ 1"/>	<input type="text" value="1/ 2"/>	<input type="text" value="1/ 3"/>	<input type="text" value="1/ 4"/>	<input type="text" value="1/ 5"/>		
Module in Slot 2	<input type="text" value="WS-X6600"/>								
Subunit 0	<input type="text" value="WS-X6600-6E1"/>	<input type="text" value="2/ 0"/>	<input type="text" value="2/ 1"/>	<input type="text" value="2/ 2"/>	<input type="text" value="2/ 3"/>	<input type="text" value="2/ 4"/>	<input type="text" value="2/ 5"/>		
Module in Slot 3	<input type="text" value="&lt; None &gt;"/>								
Module in Slot 4	<input type="text" value="&lt; None &gt;"/>								

**Product Specific Configuration Layout**

Global ISDN Switch Type	<input type="text" value="4ESS"/>
Switchback Timing*	<input type="text" value="Graceful"/>
Switchback uptime-delay (min)	<input type="text" value="10"/>
Switchback schedule (hh:mm)	<input type="text" value="12:00"/>
Fax mode*	<input type="text" value="Fax Relay"/>

**i** \*- indicates required item.



**Cisco Unified CM Administration**  
For Cisco Unified Communications Solutions

Navigation: Cisco Unified CM Administration

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

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

**Status**  
Status: Ready

**Device Information**

Product	Cisco MGCP E1 Port
Gateway	VENUS-CMM-E1
Device Protocol	Digital Access PRI
Registration	Registered with Cisco Unified Communications Manager CM-VENUS
IP Address	172.20.214.51
End-Point Name *	S2/DS1-0@VENUS-CMM-E1
Description	<input type="text" value="CM-VENUS to Hipath"/>
Device Pool *	<input type="text" value="Default"/>
Common Device Configuration	<input type="text" value="&lt; None &gt;"/>
Call Classification *	<input type="text" value="Use System Default"/>
NetworkLocale	<input type="text" value="United States"/>
Media Resource Group List	<input type="text" value="MRGL-CM-VENUS"/>
Location *	<input type="text" value="Hub_None"/>
AAR Group	<input type="text" value="&lt; None &gt;"/>
Load Information	<input type="text"/>

Transmit UTF-8 for Calling Party Name

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

MLPP Domain	<input type="text" value="&lt; None &gt;"/>
MLPP Indication	Not available on this device
MLPP Preemption	Not available on this device

**Interface Information**

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



**Cisco Unified CM Administration**  
For Cisco Unified Communications Solutions

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### Gateway Configuration

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

Delay for first restart (1/8 sec ticks)\*

Delay between restarts (1/8 sec ticks)\*

Inhibit restarts at PRI initialization

Enable status poll

Unattended Port

---

#### Call Routing Information - Inbound Calls

Significant Digits\*

Calling Search Space

AAR Calling Search Space

Prefix DN

---

#### Call Routing Information - Outbound Calls

Calling Party Presentation\*

Calling Party Selection\*

Called party IE number type unknown\*

Calling party IE number type unknown\*

Called Numbering Plan\*

Calling Numbering Plan\*

Number of digits to strip\*

Caller ID DN

SMDI Base Port\*

---

#### PRI Protocol Type Specific Information

Display IE Delivery

Redirecting Number IE Delivery - Outbound

Redirecting Number IE Delivery - Inbound

Send Extra Leading Character in Display IE\*\*\*

Setup non-ISDN Progress Indicator IE Enable\*\*\*\*

**Cisco Unified CM Administration**  
 For Cisco Unified Communications Solutions

Navigation Cisco Unified CM Administration Go

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

CCMAdministrator | About | Logout

Gateway Configuration

Related Links: Back to MGCP Configuration Go

Save
X Delete
Reset

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\*\*   
 Connected Line ID Presentation (QSIG Inbound Call)\* Default

UUIE Configuration

Passing Precedence Level Through UUIE  
 Security Access Level\*

Product Specific Configuration Layout

?

Line Coding*	HDB3
Framing*	CRC4
Clock*	External
Input Gain (-6..14 db)*	<input style="width: 100px;" type="text" value="0"/>
Output Attenuation (-6..14 db)*	<input style="width: 100px;" type="text" value="0"/>
Echo Cancellation Enable*	Enable
Echo Cancel Coverage (ms)*	64

Save
Delete
Reset

\*- indicates required item.

\*\*- applies to DMS-100 protocol only.

\*\*\*- applies to DMS-100 protocol and DMS-250 protocol only.

\*\*\*\*- may be required to force ringback from some PBXs.

\*\*\*\*\*- Device reset is not required for changes to Packet Capture Mode and Packet Capture Duration.



## Partition Configuration

**Cisco Unified CM Administration**  
For Cisco Unified Communications Solutions

Navigation: Cisco Unified CM Administration

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### Find and List Partitions

**Status**  
 2 records found

**Partition (1 - 2 of 2)** Rows per Page 50

Find Partition where: Name  begins with

<input type="checkbox"/>	Partition Name ^	Description
<input type="checkbox"/>	<a href="#">Incoming Trunk</a>	Incoming Trunk
<input type="checkbox"/>	<a href="#">Phones</a>	Phones



## Calling Search Space

**Cisco Unified CM Administration**  
For Cisco Unified Communications Solutions

Navigation: Cisco Unified CM Administration

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### Find and List Calling Search Spaces

**Status**  
3 records found

**Calling Search Space (1 - 3 of 3)** Rows per Page 50

Find Calling Search Space where CSS Name begins with

<input type="checkbox"/>	CSS Name ^	Description	Copy
<input type="checkbox"/>	<a href="#">Incoming Trunk</a>		<input type="button" value="Copy"/>
<input type="checkbox"/>	<a href="#">PathReplacementCSS</a>		<input type="button" value="Copy"/>
<input type="checkbox"/>	<a href="#">Phones</a>		<input type="button" value="Copy"/>

**Cisco Unified CM Administration**  
For Cisco Unified Communications Solutions

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**Calling Search Space Configuration** Related Links: [Back To Find/List](#)

---

**Status**

 Status: Ready

---

**Calling Search Space Information**

Name\*

Description

---

**Route Partitions for this Calling Search Space**


Available Partitions\*\*


▼ ▲

Selected Partitions

▼ ▲

---

 \*- indicates required item.

 \*\*Selected Partitions are ordered by highest priority



**Cisco Unified CM Administration**  
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Calling Search Space Configuration Related Links: [Back To Find/List](#)

---

**Status**

Status: Ready

---

**Calling Search Space Information**

Name\*

Description

---

**Route Partitions for this Calling Search Space**

Available Partitions\*\*

▼ ▲

Selected Partitions

▼ ▲

---

---

\*- indicates required item.

\*\*Selected Partitions are ordered by highest priority

**Cisco Unified CM Administration**

For Cisco Unified Communications Solutions

Navigation Cisco Unified CM Administration Go

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**Calling Search Space Configuration**

Related Links: Back To Find/List Go

Save
✖ Delete
Copy
+ Add New

**Status**

i Status: Ready

**Calling Search Space Information**

Name\* PathReplacementCSS

Description

**Route Partitions for this Calling Search Space**

Available Partitions\*\*  

▼ ▲

Selected Partitions Incoming Trunk Phones

▼ ▲

Save
Delete
Copy
Add New

i \*- indicates required item.

i \*\*Selected Partitions are ordered by highest priority

**Enbloc Route Configuration**



**Cisco Unified CM Administration**  
For Cisco Unified Communications Solutions

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### Route Pattern Configuration

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

**Pattern Definition**

Route Pattern\*

Route Partition

Description

Numbering Plan

Route Filter

MLPP Precedence\*

Gateway/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



**Cisco Unified CM Administration**  
For Cisco Unified Communications Solutions

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System

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Route Pattern Configuration Related Links:

**Pattern Definition**

Route Pattern\*

Route Partition

Description

Numbering Plan

Route Filter

MLPP Precedence\*

Gateway/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



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**Route Pattern Configuration** Related Links:

**Pattern Definition**

Route Pattern\*

Route Partition

Description

Numbering Plan

Route Filter

MLPP Precedence\*

Gateway/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



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### Route Pattern Configuration

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

**Pattern Definition**

Route Pattern\*

Route Partition

Description

Numbering Plan

Route Filter

MLPP Precedence\*

Gateway/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



## Overlap Sending Route Pattern Configuration

**Cisco Unified CM Administration**  
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Route Pattern Configuration Related Links: [Back To Find/List](#)

**Pattern Definition**

Route Pattern\*

Route Partition

Description

Numbering Plan

Route Filter

MLPP Precedence\*

Gateway/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



## PSTN Route Pattern Configuration

**Cisco Unified CM Administration**  
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Route Pattern Configuration Related Links: [Back To Find/List](#)

Save  Copy

**Pattern Definition**

Route Pattern\*

Route Partition

Description

Numbering Plan

Route Filter

MLPP Precedence\*

Gateway/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





## Translation Pattern for Incoming Calls

**Cisco Unified CM Administration**  
For Cisco Unified Communications Solutions

Navigation: Cisco Unified CM Administration

System

**Translation Pattern Configuration** Related Links:

---

**Pattern Definition**

Translation Pattern:

Partition:

Description:

Numbering Plan:

Route Filter:

MLPP Precedence\*:

Calling Search Space:

Route Option:  
 Route this pattern  
 Block this pattern

Provide Outside Dial Tone  
 Urgent Priority

---

**Calling Party Transformations**

Use Calling Party's External Phone Number Mask

Calling Party Transform Mask:

Prefix Digits (Outgoing Calls):

Calling Line ID Presentation\*:

Calling Name Presentation\*:

---

**Connected Party Transformations**

Connected Line ID Presentation\*:

Connected Name Presentation\*:

---

**Called Party Transformations**

Discard Digits:

Called Party Transform Mask:

Prefix Digits (Outgoing Calls):



## CLIR Route Pattern Configuration

**Cisco Unified CM Administration**  
For Cisco Unified Communications Solutions

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

**Pattern Definition**

Route Pattern\*

Route Partition

Description

Numbering Plan

Route Filter

MLPP Precedence\*

Gateway/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



## CNIR Route Pattern Configuration

**Cisco Unified CM Administration**  
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**Route Pattern Configuration** Related Links: [Back To Find/List](#)

**Pattern Definition**

Route Pattern\*

Route Partition

Description

Numbering Plan

Route Filter

MLPP Precedence\*

Gateway/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



## COLR Translation Pattern Configuration

**Cisco Unified CM Administration**  
For Cisco Unified Communications Solutions

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**Translation Pattern Configuration** Related Links:

---

**Pattern Definition**

Translation Pattern:

Partition:

Description:

Numbering Plan:

Route Filter:

MLPP Precedence\*:

Calling Search Space:

Route Option:  
 Route this pattern  
 Block this pattern

Provide Outside Dial Tone  
 Urgent Priority

---

**Calling Party Transformations**

Use Calling Party's External Phone Number Mask

Calling Party Transform Mask:

Prefix Digits (Outgoing Calls):

Calling Line ID Presentation\*:

Calling Name Presentation\*:

---

**Connected Party Transformations**

Connected Line ID Presentation\*:

Connected Name Presentation\*:

---

**Called Party Transformations**

Discard Digits:

Called Party Transform Mask:

Prefix Digits (Outgoing Calls):



## CONR Translation Pattern Configuration

**Cisco Unified CM Administration**  
For Cisco Unified Communications Solutions

Navigation: Cisco Unified CM Administration

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

---

**Pattern Definition**

Translation Pattern:

Partition:

Description:

Numbering Plan:

Route Filter:

MLPP Precedence\*:

Calling Search Space:

Route Option:  
 Route this pattern  
 Block this pattern

Provide Outside Dial Tone  
 Urgent Priority

---

**Calling Party Transformations**

Use Calling Party's External Phone Number Mask

Calling Party Transform Mask:

Prefix Digits (Outgoing Calls):

Calling Line ID Presentation\*:

Calling Name Presentation\*:

---

**Connected Party Transformations**

Connected Line ID Presentation\*:

Connected Name Presentation\*:

---

**Called Party Transformations**

Discard Digits:

Called Party Transform Mask:

Prefix Digits (Outgoing Calls):



### MWI lamp On/Off Configuration

**Cisco Unified CM Administration**  
For Cisco Unified Communications Solutions

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#### Message Waiting Configuration

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

**Status**  
 Status: Ready

**Message Waiting Information**

Message Waiting Number\*

Partition

Description

Message Waiting Indicator\*  On  Off

Calling Search Space

\*- indicates required item.

**Cisco Unified CM Administration**  
For Cisco Unified Communications Solutions

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#### Message Waiting Configuration

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

**Status**  
 Status: Ready

**Message Waiting Information**

Message Waiting Number\*

Partition

Description

Message Waiting Indicator\*  On  Off

Calling Search Space

\*- indicates required item.





## Voice Mail Profile Configuration

**Cisco Unified CM Administration**  
For Cisco Unified Communications Solutions

Navigation: Cisco Unified CM Administration

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**Voice Mail Profile Configuration** Related Links: [Back To Find/List](#)

**Status**  
 Status: Ready

**Voice Mail Profile Information**

Voice Mail Profile: Unity2 (used by 12 devices)

Voice Mail Profile Name\*

Description:

Voice Mail Pilot\*\*

Voice Mail Box Mask:

Make this the default Voice Mail Profile for the System

\*- indicates required item.

\*\*- The Voice Mail Pilot is comprised of the Voice Mail Pilot Number and it's corresponding Calling Search Space Name (< Voice Mail Pilot Number >/< Calling Search Space >).





## Voice Mail Pilot Configuration

**Cisco Unified CM Administration**  
For Cisco Unified Communications Solutions

Navigation: Cisco Unified CM Administration

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Voice Mail Pilot Configuration Related Links:

---

**Status**

Status: Ready

---

**Voice Mail Pilot Information**

Voice Mail Pilot Number

Calling Search Space

Description

Make this the default Voice Mail Pilot for the system

---

\*- indicates required item.



### Voice Mail Ports List

**Cisco Unified CM Administration**  
For Cisco Unified Communications Solutions

Navigation: Cisco Unified CM Administration

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#### Find and List Voice Mail Ports

**Status**  
2 records found

**Voice Mail Port (1 - 2 of 2)** Rows per Page 50

Find Voice Mail Port where: Device Name  begins with

Select item or enter search text

<input type="checkbox"/>	Device Name ^	Description	Device Pool	Device Security Mode	Calling Search Space	Ext.	Partition	Status	IP Address	Copy
<input type="checkbox"/>	<a href="#">Unity2-VI1</a>	Unity Integration	<a href="#">Default</a>	Non Secure Voice Mail Port	<a href="#">Phones</a>	<a href="#">2900</a>	<a href="#">Phones</a>	Registered with CM-VENUS	172.20.214.250	<input type="button" value="Copy"/>
<input type="checkbox"/>	<a href="#">Unity2-VI2</a>	Unity Integration	<a href="#">Default</a>	Non Secure Voice Mail Port	<a href="#">Phones</a>	<a href="#">2901</a>	<a href="#">Phones</a>	Registered with CM-VENUS	172.20.214.250	<input type="button" value="Copy"/>



## Voice Mail Port Configuration

**Cisco Unified CM Administration**  
For Cisco Unified Communications Solutions

Navigation: Cisco Unified CM Administration

CCMAdministrator | About | Logout

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Voice Mail Port Configuration Related Links:

---

**Status**

Status: Ready

---

**Device Information**

Registration	Registered with Cisco Unified Communications Manager CM-VENUS
IP Address	172.20.214.250
Port Name*	<input type="text" value="Unity2-VI1"/>
Description	<input type="text" value="Unity Integration"/>
Device Pool*	<input type="text" value="Default"/>
Common Device Configuration	<input type="text" value="MigratedCommonDeviceConfig1"/>
Calling Search Space	<input type="text" value="Phones"/>
AAR Calling Search Space	<input type="text" value="&lt; None &gt;"/>
Location*	<input type="text" value="Hub_None"/>
Device Security Mode*	<input type="text" value="Non Secure Voice Mail Port"/>

---

**Directory Number Information**

Directory Number*	<input type="text" value="2900"/>
Partition	<input type="text" value="Phones"/>
Calling Search Space	<input type="text" value="Phones"/>
AAR Group	<input type="text" value="&lt; None &gt;"/>
Internal Caller ID Display	<input type="text" value="VoiceMail"/>
Internal Caller ID Display (ASCII format)	<input type="text" value="VoiceMail"/>
External Number Mask	<input type="text"/>

---

\*- indicates required item.



## CallBack Service Parameters

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Service Parameter Configuration | Related Links: Parameters for All Servers

Save | Set to Default | Advanced

**Clusterwide Parameters (Feature - Call Back)**

<a href="#">Call Back Enabled Flag</a> *	<input type="checkbox"/> True	True
<a href="#">Call Back Notification Audio File Name</a> *	<input type="text" value="CallBack.raw"/>	CallBack.raw
<a href="#">Connection Proposal Type</a> *	<input type="checkbox"/> Connection Retention	Connection Retention
<a href="#">Connection Response Type</a> *	<input type="checkbox"/> Default to Connection Retention	Default to Connection Retention
<a href="#">Call Back Request Protection T1 Timer</a> *	<input type="text" value="10"/>	10
<a href="#">Call Back Recall T3 Timer</a> *	<input type="text" value="20"/>	20
<a href="#">Call Back Calling Search Space</a>	<input type="checkbox"/> < None >	
<a href="#">No Path Reservation</a> *	<input type="checkbox"/> True	True
<a href="#">Set Private Numbering Plan for Call Back</a> *	<input type="checkbox"/> False	False

**Clusterwide Parameters (Feature - Call Recording)**

<a href="#">Play Recording Notification Tone To Observed Target</a> *	<input type="checkbox"/> False	False
<a href="#">Play Recording Notification Tone To Observed Connected Parties</a> *	<input type="checkbox"/> False	False

**Clusterwide Parameters (Feature - Monitoring)**

<a href="#">Play Monitoring Notification Tone To Observed Target</a> *	<input type="checkbox"/> False	False
<a href="#">Play Monitoring Notification Tone To Observed Connected Parties</a> *	<input type="checkbox"/> False	False

**Clusterwide Parameters (Route Plan)**

<a href="#">Stop Routing on Out of Bandwidth Flag</a> *	<input type="checkbox"/> False	False
<a href="#">Stop Routing on Unallocated Number Flag</a> *	<input type="checkbox"/> True	True
<a href="#">Stop Routing on User Busy Flag</a> *	<input type="checkbox"/> True	True

There are hidden parameters in this group. Click on Advanced button to see hidden parameters.

**Clusterwide Parameters (Hunt List)**

<a href="#">Stop Hunting on Out of Bandwidth Flag</a> *	<input type="checkbox"/> False	False
---	--------------------------------	-------

**Clusterwide Parameters (Service)**



## CallBack Softkey Configuration

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**Softkey Template Configuration** | Related Links: Softkey Template Configuration

---

**Status**

Status: Ready

---

**Softkey Layout Configuration**

Softkey Template: Standard User CallBack

Select a call state to configure:

Unselected Softkeys	Selected Softkeys (ordered by position)**
Conference List (ConfList)	Redial (Redial)
Direct Transfer (DirTrfr)	**NewCall (NewCall)
Group Pick Up (GPickUp)	End Call (EndCall)
HLog (HLog)	Forward All (CfwdAll)
Immediate Divert (iDivert)	Call Back (CallBack)
Join (Join)	Toggle Do Not Disturb (DND)
Meet Me (MeetMe)	
Mobility (Mobility)	
Other Pickup (oPickup)	
Pick Up (PickUp)	
Quality Report Tool (QRT)	
Remove Last Conference Party (RmLstC)	
Select (Select)	
Undefined (Undefined)	
Video Mode Command (VidMode)	

\*- indicates required item.  
 \*\*- indicates mandatory fields

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---

**Softkey Template Configuration** Related Links: [Softkey Template Configuration](#)

---

**Status**

 Status: Ready



---

**Softkey Layout Configuration**

Softkey Template: Standard User CallBack

Select a call state to configure:

Unselected Softkeys	Selected Softkeys (ordered by position)**
Undefined (Undefined)	Undefined (Undefined) End Call (EndCall) Call Back (CallBack) Toggle Do Not Disturb (DND)

 \*- indicates required item.  
 \*\*- indicates mandatory fields

## IDivert Softkey Configuration

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Related Links: Softkey Template Configuration Go

Save
Reset

**Status**

i Status: Ready

**Softkey Layout Configuration**

Softkey Template: Standard User CallBack

Select a call state to configure Connected

<p>Unselected Softkeys</p> <ul style="list-style-type: none"> <li>HLog (HLog)</li> <li>Mobility (Mobility)</li> <li>Quality Report Tool (QRT)</li> <li>Remove Last Conference Party (RmLstC)</li> <li>Toggle Malicious Call Trace (MCID)</li> <li>Undefined (Undefined)</li> </ul>	<p>➤</p> <p>➤</p>	<p>Selected Softkeys (ordered by position)**</p> <ul style="list-style-type: none"> <li>Hold (Hold)</li> <li>End Call (EndCall)</li> <li>Transfer (Trnsfer)</li> <li>Park (Park)</li> <li>Conference (Confrn)</li> <li>Conference List (ConfList)</li> <li>Select (Select)</li> <li>Join (Join)</li> <li>Direct Transfer (DirTrfr)</li> <li>Video Mode Command (VidMode)</li> <li>Immediate Divert (iDivert)</li> <li>Toggle Do Not Disturb (DND)</li> </ul>
--	-------------------	--

Save
Reset

i \*- indicates required item.

i \*\*- indicates mandatory fields

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**Softkey Template Configuration**

Related Links: Softkey Template Configuration Go

Save
 Reset

**Status**

Status: Ready

**Softkey Layout Configuration**

Softkey Template: Standard User CallBack

Select a call state to configure On Hold

Unselected Softkeys

Undefined (Undefined)

➤

⏪

Selected Softkeys (ordered by position)\*\*

\*\*Resume (Resume)

NewCall (NewCall)

Direct Transfer (DirTrfr)

Select (Select)

Join (Join)

Immediate Divert (iDivert)

Toggle Do Not Disturb (DND)

⏩

⏴

\*- indicates required item.

\*\*- indicates mandatory fields



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### Softkey Template Configuration

Related Links: [Softkey Template Configuration](#)

---

**Status**

 Status: Ready



---

**Softkey Layout Configuration**

Softkey Template: Standard User CallBack

Select a call state to configure:

Unselected Softkeys	Selected Softkeys (ordered by position)**
Undefined (Undefined)	Answer (Answer) Immediate Divert (iDivert) Toggle Do Not Disturb (DND)

 \*- indicates required item.  
 \*\*- indicates mandatory fields



## Path Replacement Service Parameters

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**Service Parameter Configuration** Related Links: Parameters for All Servers

Save | Set to Default | Advanced

---

**Clusterwide Parameters (Feature - Call Pickup)**

<a href="#">Auto Call Pickup Enabled</a> *	False	False
<a href="#">Call Pickup Locating Timer</a> *	1	1
<a href="#">Call Pickup No Answer Timer</a> *	12	12

---

**Clusterwide Parameters (Feature - Refer)**

<a href="#">Validate Refer-to URI</a> *	Validate Except for Anonymous Users	Validate Except for Anonymous Users
---	-------------------------------------	-------------------------------------

---

**Clusterwide Parameters (Feature - Replaces)**

<a href="#">Block OffNet To OffNet Replaces</a> *	False	False
---	-------	-------

---

**Clusterwide Parameters (Feature - Redirection [3xx])**

<a href="#">Redirection Ring No Answer Reversion Timer</a> *	24	24
<a href="#">Maximum Redirection Count</a> *	70	70

---

**Clusterwide Parameters (Feature - Multilevel Precedence and Preemption)**

<a href="#">Locations-based MLPP Enable</a> *	False	False
<a href="#">Executive Override Call Preemptable</a> *	False	False

---

**Clusterwide Parameters (Feature - Path Replacement)**

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



## PR Call Pick Up Group

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**Call Pickup Group Configuration** | Related Links: Back To Find/List | Go

Save | Delete | Copy | Add New

---

**Call Pickup Group Information**

Call Pickup Group Name\* PR-call-pickup-group

Call Pickup Group Number\* 111

Description

Partition Incoming Trunk

---

**Call Pickup Group Notification Settings**

Call Pickup Group Notification Policy No Alert

Call Pickup Group Notification Timer (seconds)\* 6

---

**Call Information Display For Call Pickup Group Notification**

Calling Party Information  Called Party Information

---

**Associated Call Pickup Group Information**

**Find Pickup Numbers by Numbers/Partition**

Partition < None >

Call Pickup Group Numbers Contain  Find

Available Call Pickup Groups (No Matches Found)

Add to Associated Call Pickup Groups

---

**Current Associated Call Pickup Groups**

Selected Call Pickup Groups 111/Incoming Trunk

Reverse Order of Selected Numbers

Removed Call Pickup Groups



### Forward by Reroute Service Parameter

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**Service Parameter Configuration**      Related Links: Parameters for All Servers

Save    Set to Default    Advanced

Transition CSS

<a href="#">Block OffNet To OffNet Transfer</a> *	False	False
<a href="#">Drop Ad Hoc Conference</a> *	Never	Never
<a href="#">Advanced Ad Hoc Conference Enabled</a> *	False	False

There are hidden parameters in this group. Click on Advanced button to see hidden parameters.

**Clusterwide Parameters (Feature - Forward)**

<a href="#">Forward Maximum Hop Count</a> *	12	12
<a href="#">Forward No Answer Timer</a> *	12	12
<a href="#">Max Forward Hops to DN</a> *	12	12
<a href="#">Retain Forward Information</a> *	True	False
<a href="#">Forward By Reroute Enabled</a> *	True	False
<a href="#">Transform Forward by Reroute Destination</a> *	True	True
<a href="#">Always Forward Switch Voice Mail Calls</a> *	True	True
<a href="#">Forward By Reroute T1 Timer</a> *	10	10
<a href="#">Include Original Called Info for Q.SIG Call Diversions</a> *	Only after the first diversion	Only after the first diversion
<a href="#">Max Forward UnRegistered Hops to DN</a> *	0	0
<a href="#">CFA CSS Activation Policy</a> *	With Configured CSS	With Configured CSS

There are hidden parameters in this group. Click on Advanced button to see hidden parameters.

**Clusterwide Parameters (Feature - Hold Reversion)**

<a href="#">Hold Reversion Duration</a> *	0	0
<a href="#">Hold Reversion Notification Interval</a> *	30	30
<a href="#">CFA Destination Override</a> *	False	False

**Clusterwide Parameters (Feature - Call Pickup)**

<a href="#">Auto Call Pickup Enabled</a> *	False	False
<a href="#">Call Pickup Locating Timer</a> *	1	1
<a href="#">Call Pickup No Answer Timer</a> *	12	12



## IP 7960 SCCP phone Configuration

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Phone Configuration | Related Links:

### Association Information

1	<a href="#">Line [1] - 4000 in Phones</a>
2	<a href="#">Line [2] - 6007 in Phones</a>
3	<a href="#">Add a new SD</a>
4	<a href="#">Add a new SD</a>
5	<a href="#">Add a new SD</a>
6	<a href="#">Add a new SD</a>
----- Unassigned Associated Items -----	
7	<a href="#">Line [3] - Add a new DN</a>
8	<a href="#">Add a new SD</a>
9	<a href="#">Add a new SURF</a>
10	<a href="#">Add a new BLF SD</a>
11	<a href="#">Add a new BLF Directed Call Park</a>
12	Privacy
13	None

### Phone Type

**Product Type:** Cisco 7960  
**Device Protocol:** SCCP

### Device Information

Registration: Registered with Cisco Unified Communications Manager CM-VENUS  
IP Address: [172.20.214.100](#)  
MAC Address\*: 00127F3B9054  
Description: 4000 SCCP  
Device Pool\*: Default [View Details](#)  
Common Device Configuration: MigratedCommonDeviceConfig1 [View Details](#)  
Phone Button Template\*: Standard 7960 SCCP  
Softkey Template: Standard User CallBack  
Common Phone Profile\*: Standard Common Phone Profile  
Calling Search Space: < None >  
AAR Calling Search Space: < None >  
Media Resource Group List: MRGL-CM-VENUS  
User Hold MOH Audio Source: 1-SampleAudioSource  
Network Hold MOH Audio Source: < None >  
Location\*: Hub\_None  
AAR Group: < None >  
User Locale: < None >  
Network Locale: < None >  
Built In Bridge\*: Default  
Privacy\*: Default  
Device Mobility Mode\*: Default [View Current](#)  
Owner User ID: < None >



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Phone Configuration Related Links:

Phone Load Name

Retry Video Call as Audio  
 Ignore Presentation Indicators (internal calls only)  
 Allow Control of Device from CTI  
 Logged Into Hunt Group  
 Remote Device

**Protocol Specific Information**

Packet Capture Mode\*   
Packet Capture Duration   
Presence Group\*   
Device Security Profile\*   
SUBSCRIBE Calling Search Space   
 Unattended Port  
 Require DTMF Reception  
 RFC2833 Disabled

**Certification Authority Proxy Function (CAPF) Information**

Certificate Operation\*   
Authentication Mode\*   
Authentication String   
  
Key Size (Bits)\*   
Operation Completes By     (YYYY:MM:DD:HH)  
Certificate Operation Status: None  
Note: Security Profile Contains Addition CAPF Settings.

**Expansion Module Information**

Module 1   
Module 1 Load Name

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Phone Configuration Related Links: Back To Find/List Go

Save
 Delete
 Copy
 Reset
 Add New

Module 2 < None > ▾

Module 2 Load Name

**External Data Locations Information (Leave blank to use default)**

Information

Directory

Messages

Services

Authentication Server

Proxy Server

Idle

Idle Timer (seconds)

**Extension Information**

Enable Extension Mobility

Log Out Profile -- Use Current Device Settings -- ▾

Log in Time < None >

Log out Time < None >

**MLPP Information**

MLPP Domain < None > ▾

MLPP Indication\* Default ▾

MLPP Preemption\* Default ▾

**Do Not Disturb**

Do Not Disturb

DND Option\* Ringer Off ▾

DND Incoming Call Alert Beep Only ▾

**Product Specific Configuration Layout**

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**Phone Configuration** Related Links: Back To Find/List Go

Save Delete Copy Reset Add New

Log out time < none >

**MLPP Information**

MLPP Domain	< None >
MLPP Indication*	Default
MLPP Preemption*	Default

**Do Not Disturb**

<input type="checkbox"/> Do Not Disturb	
DND Option*	Ringer Off
DND Incoming Call Alert	Beep Only

**Product Specific Configuration Layout** ?

<input type="checkbox"/> Disable Speakerphone	
<input type="checkbox"/> Disable Speakerphone and Headset	
PC Port *	Enabled
Settings Access*	Enabled
Gratuitous ARP*	Enabled
PC Voice VLAN Access*	Enabled
Video Capabilities*	Disabled
Auto Line Select*	Disabled
Web Access*	Enabled

Save
Delete
Copy
Reset
Add New

\*- indicates required item.

\*\*- Device reset is not required for changes to Packet Capture Mode and Packet Capture Duration.

\*\*\*Note: Security Profile Contains Addition CAPF Settings.





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**Directory Number Configuration** Related Links:

---

**Directory Number Information**

Directory Number\*

Route Partition

Description

Alerting Name

ASCII Alerting Name

Allow Control of Device from CTI

Associated Devices

▼ ▲

Dissociate Devices

---

**Directory Number Settings**

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

Calling Search Space

Presence Group\*

User Hold MOH Audio Source

Network Hold MOH Audio Source

Auto Answer\*

---

**AAR Settings**

Voice Mail	AAR Destination Mask	AAR Group
AAR <input type="checkbox"/> or <input type="text"/>	<input type="text"/>	<input type="text" value="&lt; None &gt;"/>

Retain this destination in the call forwarding history

---

**Call Forward and Call Pickup Settings**



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**Directory Number Configuration**      Related Links:

---

**Call Forward and Call Pickup Settings**

	Voice Mail	Destination	Calling Search Space
Calling Search Space Activation Policy			
Forward All	<input type="checkbox"/> or	<input type="text"/>	Use System Default
Secondary Calling Search Space for Forward All			Phones
Forward Busy Internal	<input type="checkbox"/> or	<input type="text"/>	< None >
Forward Busy External	<input type="checkbox"/> or	<input type="text"/>	Phones
Forward No Answer Internal	<input type="checkbox"/> or	<input type="text"/>	Phones
Forward No Answer External	<input type="checkbox"/> or	<input type="text"/>	Phones
Forward No Coverage Internal	<input type="checkbox"/> or	<input type="text"/>	< None >
Forward No Coverage External	<input type="checkbox"/> or	<input type="text"/>	< None >
Forward on CTI Failure	<input type="checkbox"/> or	<input type="text"/>	< None >
Forward Unregistered Internal	<input type="checkbox"/> or	<input type="text"/>	Phones
Forward Unregistered External	<input type="checkbox"/> or	<input type="text"/>	Phones
No Answer Ring Duration (seconds)		<input type="text" value="5"/>	
Call Pickup Group			< None >

---

**MLPP Alternate Party Settings**

Target (Destination)	<input type="text"/>
MLPP Calling Search Space	< None >
MLPP No Answer Ring Duration (seconds)	<input type="text"/>

---

**Line Settings for All Devices**



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**Directory Number Configuration** Related Links: [Configure Device \(SEP00127F3B9054\)](#)

**Line Settings for All Devices**

Hold Reversion Ring Duration (seconds)  Setting the Hold Reversion Ring Duration to zero will disable the feature

Hold Reversion Notification Interval (seconds)  Setting the Hold Reversion Notification Interval to zero will disable the feature

**Line 1 on Device SEP00127F3B9054**

Display (Internal Caller ID)  Display text for a line appearance is intended for displaying text such as a name instead of a directory number for internal calls. If you specify a number, the person receiving a call may not see the proper identity of the caller.

ASCII Display (Internal Caller ID)

Line Text Label

ASCII Line Text Label

External Phone Number Mask

Visual Message Waiting Indicator Policy\*

Ring Setting (Phone Idle)\*

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

Call Pickup Group Audio Alert Setting (Phone Idle)

Call Pickup Group Audio Alert Setting (Phone Active)

Monitoring Calling Search Space

**Multiple Call/Call Waiting Settings on Device SEP00127F3B9054**

Note: The range to select the Max Number of calls is: 1-196

Maximum Number of Calls\*

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**Directory Number Configuration** Related Links: Configure Device (SEP00127F3B9054) Go

Save
✖ Delete
↺ Reset
✚ Add New

Policy\*

Ring Setting (Phone Idle)\* Ring

Ring Setting (Phone Active) Use System Default Applies to this line when any line on the phone has a call in progress.

Call Pickup Group Audio Alert Setting (Phone Idle) Use System Default

Call Pickup Group Audio Alert Setting (Phone Active) Use System Default

Monitoring Calling Search Space < None >

**Multiple Call/Call Waiting Settings on Device SEP00127F3B9054**

Note: The range to select the Max Number of calls is: 1-196

Maximum Number of Calls\* 4

Busy Trigger\* 2 (Less than or equal to Max. Calls)

**Forwarded Call Information Display on Device SEP00127F3B9054**

Caller Name

Caller Number

Redirected Number

Dialed Number

**Users Associated with Line**

Associate End Users

Save
Delete
Reset
Add New

\*- indicates required item.

\*\*- Changes to Line or Directory Number settings require restart.



### IP 7961 SIP phone Configuration

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Phone Configuration | Related Links:

Save | Delete | Copy | Reset | Add New

---

#### Association Information

1	<a href="#">Line [1] - 4013 in Phones</a>
2	<a href="#">Line [2] - Add a new DN</a>
3	<a href="#">Add a new SD</a>
4	<a href="#">Add a new SD</a>
5	<a href="#">Add a new SD</a>
6	<a href="#">Add a new SD</a>
----- Unassigned Associated Items -----	
7	<a href="#">Add a new SD</a>
8	<a href="#">Add a new SURL</a>
9	<a href="#">Add a new BLF SD</a>
10	<a href="#">Add a new BLF Directed Call Park</a>
11	<a href="#">Intercom [1] - Add a new Intercom</a>
12	Do Not Disturb
13	Privacy
14	None

#### Phone Type

**Product Type:** Cisco 7961  
**Device Protocol:** SIP

---

#### Device Information

Registration	Registered with Cisco Unified Communications Manager CM-VENUS
IP Address	172.20.214.113
MAC Address*	00152B8F3767
Description	4013 SIP
Device Pool*	Default <a href="#">View Details</a>
Common Device Configuration	MigratedCommonDeviceConfig1 <a href="#">View Details</a>
Phone Button Template*	Standard 7961 SIP
Softkey Template	Standard User CallBack
Common Phone Profile*	Standard Common Phone Profile
Calling Search Space	< None >
AAR Calling Search Space	< None >
Media Resource Group List	MRGL-CM-VENUS
User Hold MOH Audio Source	1-SampleAudioSource
Network Hold MOH Audio Source	1-SampleAudioSource
Location*	Hub_None
AAR Group	< None >
User Locale	English, United States
Network Locale	United States
Built In Bridge*	Default
Privacy*	Default
Device Mobility Mode*	Default <a href="#">View Current</a>
Owner User ID	< None >



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**Phone Configuration** Related Links:

Phone Personalization\*

Phone Load Name

Ignore Presentation Indicators (internal calls only)

Allow Control of Device from CTI

Logged Into Hunt Group

Remote Device

**Protocol Specific Information**

Packet Capture Mode\*

Packet Capture Duration

Presence Group\*

SIP Dial Rules

MTP Preferred Originating Codec\*

Device Security Profile\*

Rerouting Calling Search Space

SUBSCRIBE Calling Search Space

SIP Profile\*

Digest User

Media Termination Point Required

Unattended Port

Require DTMF Reception

**Certification Authority Proxy Function (CAPF) Information**

Certificate Operation\*

Authentication Mode\*

Authentication String

Key Size (Bits)\*

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

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Phone Configuration Related Links: Back To Find/List Go

Save
✖ Delete
 Copy
Reset
+ Add New

Certificate Operation Status: None  
Note: Security Profile Contains Addition CAPF Settings.

**External Data Locations Information (Leave blank to use default)**

Information

Directory

Messages

Services

Authentication Server

Proxy Server

Idle

Idle Timer (seconds)

**Extension Information**

Enable Extension Mobility

Log Out Profile -- Use Current Device Settings --

Log in Time < None >

Log out Time < None >

**MLPP Information**

MLPP Domain < None >

**Do Not Disturb**

Do Not Disturb

DND Option\* Ringer Off

DND Incoming Call Alert Disable

**Secure Shell Information**

Secure Shell User

Secure Shell Password



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Phone Configuration | Related Links: Back To Find/List [Go]

Save | Delete | Copy | Reset | Add New

<input type="checkbox"/> Disable Speakerphone	
<input type="checkbox"/> Disable Speakerphone and Headset	
PC Port *	Enabled
Settings Access*	Enabled
Gratuitous ARP*	Enabled
PC Voice VLAN Access*	Enabled
Video Capabilities*	Disabled
Auto Line Select*	Disabled
Web Access*	Enabled
Span to PC Port*	Disabled
Logging Display*	PC Controlled
Load Server	
Recording Tone*	Disabled
Recording Tone Local Volume*	100
Recording Tone Remote Volume*	50
Recording Tone Duration	
RTCP*	Disabled
"more" Soft Key Timer	5
Auto Call Select*	Enabled
Log Server	
Advertise G.722 Codec*	Use System Default
Wideband Headset UI Control*	Enabled
Wideband Handset UI Control*	Enabled





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**Directory Number Configuration**      Related Links: [Configure Device \(SEP00152B8F3767\)](#) [Go]

Save | Delete | Reset | Add New

---

**Directory Number Information**

Directory Number\*

Route Partition

Description

Alerting Name

ASCII Alerting Name

Allow Control of Device from CTI

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

Dissociate Devices

---

**Directory Number Settings**

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

Calling Search Space

Presence Group\*

User Hold MOH Audio Source

Network Hold MOH Audio Source

Auto Answer\*

---

**AAR Settings**

Voice Mail	AAR Destination Mask	AAR Group
------------	----------------------	-----------



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Directory Number Configuration      Related Links: Configure Device (SEP00152B8F3767) [Go]

Save | Delete | Reset | Add New

### Call Forward and Call Pickup Settings

	Voice Mail	Destination	Calling Search Space
Calling Search Space Activation Policy			
Forward All	<input type="checkbox"/> or	<input type="text"/>	Use System Default
Secondary Calling Search Space for Forward All			
Forward Busy Internal	<input type="checkbox"/> or	<input type="text"/>	Phones
Forward Busy External	<input type="checkbox"/> or	<input type="text"/>	< None >
Forward No Answer Internal	<input type="checkbox"/> or	<input type="text"/>	Phones
Forward No Answer External	<input type="checkbox"/> or	<input type="text"/>	Phones
Forward No Coverage Internal	<input type="checkbox"/> or	<input type="text"/>	Phones
Forward No Coverage External	<input type="checkbox"/> or	<input type="text"/>	< None >
Forward on CTI Failure	<input type="checkbox"/> or	<input type="text"/>	< None >
Forward Unregistered Internal	<input type="checkbox"/> or	<input type="text"/>	< None >
Forward Unregistered External	<input type="checkbox"/> or	<input type="text"/>	Phones
No Answer Ring Duration (seconds)		<input type="text" value="5"/>	
Call Pickup Group			< None >

MI PP Alternate Party Settings



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Directory Number Configuration Related Links: [Configure Device \(SEP00152B8F3767\)](#)

**Line Settings for All Devices**

Hold Reversion Ring Duration (seconds)  Setting the Hold Reversion Ring Duration to zero will disable the feature

Hold Reversion Notification Interval (seconds)  Setting the Hold Reversion Notification Interval to zero will disable the feature

**Line 1 on Device SEP00152B8F3767**

Display (Internal Caller ID)  Display text for a line appearance is intended for displaying text such as a name instead of a directory number for internal calls. If you specify a number, the person receiving a call may not see the proper identity of the caller.

ASCII Display (Internal Caller ID)

Line Text Label

ASCII Line Text Label

External Phone Number Mask

Visual Message Waiting Indicator Policy\*

Audible Message Waiting Indicator Policy\*

Ring Setting (Phone Idle)\*

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

Call Pickup Group Audio Alert Setting (Phone Idle)

Call Pickup Group



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### Directory Number Configuration

Related Links: [Configure Device \(SEP00152B8F3767\)](#) [Go]

Save [X] Delete [Reset] + Add New

Ring Setting (Phone Active)	Use System Default	Applies to this line when any line on the phone has a call in progress.
Call Pickup Group Audio Alert Setting (Phone Idle)	Use System Default	
Call Pickup Group Audio Alert Setting (Phone Active)	Use System Default	
Recording Option*	Call Recording Disabled	
Recording Profile	< None >	
Monitoring Calling Search Space	< None >	

#### Multiple Call/Call Waiting Settings on Device SEP00152B8F3767

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

Maximum Number of Calls\*

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

#### Forwarded Call Information Display on Device SEP00152B8F3767

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

#### Users Associated with Line



### Configuring the CMM-E1 gateway

```
VENUS-CMM-E1#sh ver
VENUS-CMM-E1#sh version
Cisco IOS Software, Cat6K-lc Software (wscmm-IPVOICE-M), Version 12.4(5a), RELEA
SE SOFTWARE (fc3)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2006 by Cisco Systems, Inc.
Compiled Sat 14-Jan-06 04:52 by alnguyen
```

```
ROM: System Bootstrap, Version 12.2(1r)T2, RELEASE SOFTWARE (fc1)
```

```
VENUS-CMM-E1 uptime is 1 day, 2 hours, 34 minutes
System returned to ROM by power-on
System image file is "bootflash:wscmm-ipvoice-mz.124-5a.bin"
```

```
cisco WS-SVC-CMM Cat6k Voice Linecard (R7000) processor (revision 0xFF) with 196
608K/65536K bytes of memory.
Processor board ID SAD0825032A
R7000 CPU at 400MHz, Implementation 39, Rev 3.3, 256KB L2 Cache
Last reset from power-on
1 FastEthernet interface
1 Gigabit Ethernet interface
206 Serial interfaces
6 Channelized E1/PRI ports
6 Channelized T1/PRI ports
32768K bytes of processor board bootflash (Read/Write)
```

```
Configuration register is 0x2
```

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

```
Current configuration : 4329 bytes
!
version 12.4
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname VENUS-CMM-E1
!
boot-start-marker
boot-end-marker
!
enable password cisco
!
no aaa new-model
!
resource policy
```



```
!  
mmi polling-interval 60  
no mmi auto-configure  
no mmi pvc  
mmi snmp-timeout 180  
!  
!  
no ip domain lookup  
ip host CM-CHIVAS 172.20.8.254  
ip host CM-BARZA 172.20.110.254  
ip host CM-MERCURY 172.20.215.254  
ip host CM-VENUS 172.20.214.254  
!  
isdn switch-type primary-4ess  
!  
!  
!  
!  
controller T1 1/0  
  framing esf  
  linecode b8zs  
  pri-group timeslots 1-24 service mgcp  
!  
controller T1 1/1  
  framing esf  
  linecode b8zs  
  pri-group timeslots 1-24 service mgcp  
!  
controller T1 1/2  
  framing esf  
  linecode b8zs  
  pri-group timeslots 1-24 service mgcp  
!  
controller T1 1/3  
  framing esf  
  linecode b8zs  
  pri-group timeslots 1-24 service mgcp  
!  
controller T1 1/4  
  framing esf  
  linecode b8zs  
  pri-group timeslots 1-24 service mgcp  
!  
controller T1 1/5  
  framing esf  
  linecode b8zs  
  pri-group timeslots 1-24 service mgcp  
!  
controller E1 2/0  
  pri-group timeslots 1-31 service mgcp  
!  
controller E1 2/1  
  pri-group timeslots 1-31 service mgcp  
!
```



```
controller E1 2/2
!
controller E1 2/3
!
controller E1 2/4
!
controller E1 2/5
!
!
!
interface GigabitEthernet1/0
 ip address 172.20.214.51 255.255.255.0
 no ip proxy-arp
 no negotiation auto
 no keepalive
!
interface Serial1/0:23
 no ip address
 encapsulation hdlc
 no logging event link-status
 isdn switch-type primary-qsig
 isdn incoming-voice voice
 isdn bind-13 ccm-manager
 no cdp enable
!
interface Serial1/1:23
 no ip address
 encapsulation hdlc
 no logging event link-status
 isdn switch-type primary-qsig
 isdn incoming-voice voice
 isdn bind-13 ccm-manager
 no cdp enable
!
interface Serial1/2:23
 no ip address
 encapsulation hdlc
 no logging event link-status
 isdn switch-type primary-qsig
 isdn incoming-voice voice
 isdn bind-13 ccm-manager
 no cdp enable
!
interface Serial1/3:23
 no ip address
 encapsulation hdlc
 no logging event link-status
 isdn switch-type primary-qsig
 isdn incoming-voice voice
 isdn bind-13 ccm-manager
 no cdp enable
!
interface Serial1/4:23
 no ip address
```



```
encapsulation hdlc
no logging event link-status
isdn switch-type primary-qsig
isdn incoming-voice voice
isdn bind-13 ccm-manager
no cdp enable
!
interface Serial1/5:23
no ip address
encapsulation hdlc
no logging event link-status
isdn switch-type primary-qsig
isdn incoming-voice voice
isdn bind-13 ccm-manager
no cdp enable
!
interface Serial2/0:15
no ip address
encapsulation hdlc
no logging event link-status
isdn switch-type primary-qsig
isdn incoming-voice voice
isdn bind-13 ccm-manager
no cdp enable
!
interface Serial2/1:15
no ip address
encapsulation hdlc
no logging event link-status
isdn switch-type primary-qsig
isdn incoming-voice voice
isdn bind-13 ccm-manager
no cdp enable
!
ip default-gateway 172.20.8.1
ip route 0.0.0.0 0.0.0.0 172.20.8.1
ip route 0.0.0.0 0.0.0.0 172.20.215.1
ip route 0.0.0.0 0.0.0.0 172.20.214.1
!
no ip http server
!
!
control-plane
!
!
voice-port 1/0:23
!
voice-port 1/1:23
!
voice-port 1/2:23
!
voice-port 1/3:23
!
voice-port 1/4:23
```





```
!  
voice-port 1/5:23  
!  
voice-port 2/0:15  
!  
voice-port 2/1:15  
!  
ccm-manager mgcp  
ccm-manager music-on-hold  
ccm-manager config server CM-VENUS  
ccm-manager config  
!  
mgcp  
mgcp call-agent CM-VENUS 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  
mgcp package-capability pre-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  
  service mgcpapp  
  port 1/0:23  
!  
dial-peer voice 2 pots  
  service mgcpapp  
  port 1/1:23  
!  
dial-peer voice 3 pots  
  service mgcpapp  
  port 1/2:23  
!  
dial-peer voice 4 pots  
  service mgcpapp  
  port 1/3:23  
!  
dial-peer voice 5 pots  
  service mgcpapp  
  port 1/4:23  
!  
dial-peer voice 6 pots  
  service mgcpapp  
  port 1/5:23
```



```
!  
dial-peer voice 7 pots  
  service mgcpapp  
  port 2/0:15  
!  
dial-peer voice 8 pots  
  service mgcpapp  
  port 2/1:15  
!  
!  
line con 0  
  password cisco  
line vty 0 4  
  password cisco  
  login  
!  
!  
end
```

VENUS-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 Communication Manager
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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