



Cisco Unified CallManager Release 5.0-PBX Interoperability: Hipath 4000 Release 1 PBX to a Cisco 3745 ECMA QSIG with MGCP

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Introduction

This is an application note for connectivity of Siemens HiPath 4000 Release 1 PBX with Cisco Unified CallManager Release 5.0 via Cisco 3745 w/ VWIC-2MFT-E1 as MGCP gateway using ECMA QSIG protocol.

The network topology diagram (Figure 1) shows the test setup for end-to-end interoperability with the Cisco Unified CallManager connected to the PBX via Cisco 3745 with VWIC-2MFT-E1 link as MGCP gateway.

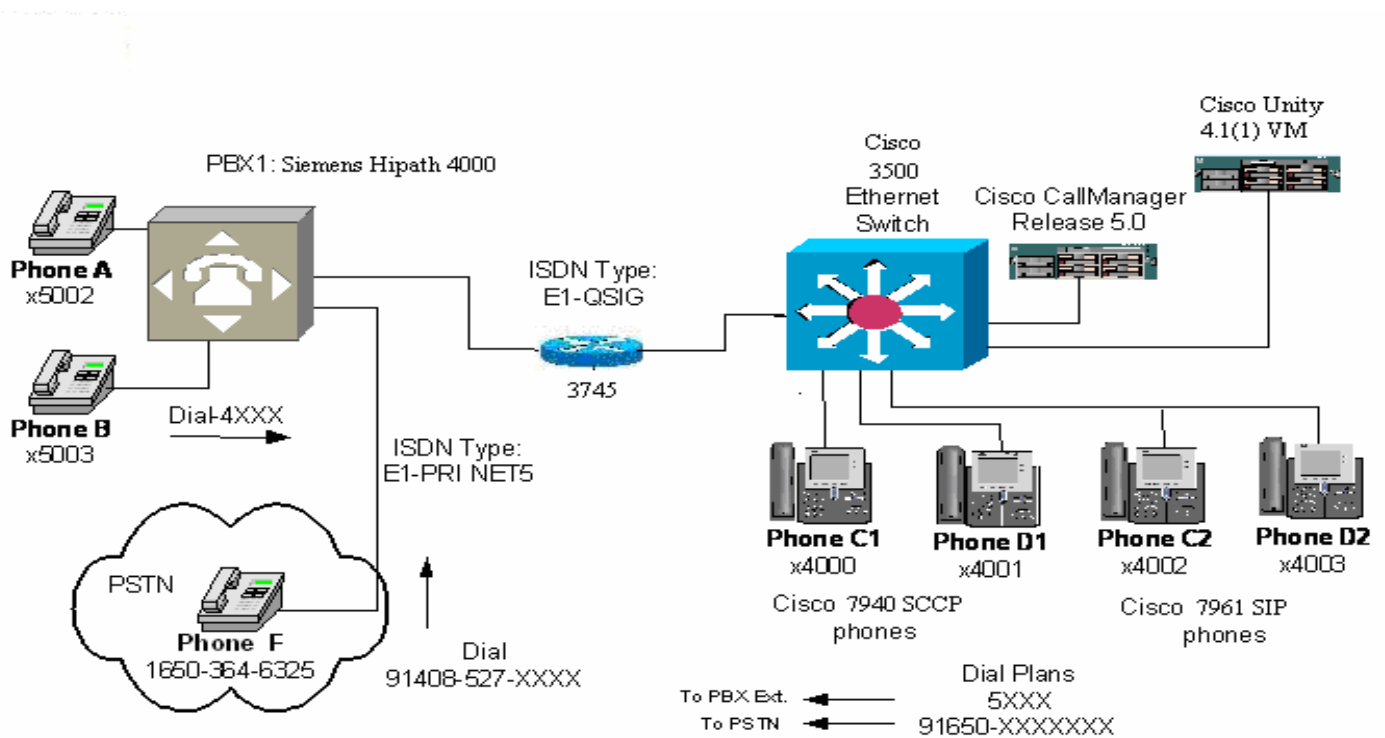
Connectivity is achieved by using the PRI QSIG E1 protocol type on the MGCP gateway with Cisco Unified CallManager Service parameter QSIG variant of ECMA and ECMA1 switch type on the Hipath 4000 PBX.

This Application Note uses the Cisco 3745 w/ VWIC-2MFT-E1 voice gateway; however other Cisco voice gateways are also an option to use since Cisco Unified CallManager QSIG implementation does not depend on the physical interface.



Network Topology

Figure 1. Basic Call Network Topology



Limitations

B-Channel Mapping

Siemens HiPath 4000 PBX uses timeslot channel numbering (1-15 & 17-31) when QSIG protocol "ECMA1" is selected, therefore the Cisco 3745 Gateway configuration for Channel IE Type field should be set to Timeslot Number.

Connected Name and Number Restrictions

Siemens phone displayed dialed number and trunk name when Cisco Unified CallManager 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.

Overlap Sending

When CCM is configured for Overlap Sending calls made from SIP Phones C2 or D2 (Fig 1) to Siemens Hipath result in the Name and Number not being updated on the SIP phones (Siemens has been verified to be sending both Alerting Name and Connected Name and Number). This interoperability issue is considered a limitation on Cisco Unified CallManger and an internal corrective action bug fix ticket



known internally as DDTS has been generated to resolve this issue in future releases. (DDTS # CSCse36865 Title: Name and Number not updating on SIP Phone when using Overlap sending).

Call Forward No Reply by Join (Local)

IP Phone 4000 calls Siemens Phone 5002 which performs a CFNR to Siemens Phone 5003. During the Alerting stage of the CFNR, IP Phone displays 'To Private' (Unknown Number). After Siemens 5003 Phone answers IP Phone displays updates to show 'To Private' (5003). In conclusion when Siemens Hipath is configured for ECMA v1, Cisco Unified CallManager will restrict the name if any received DivertingLegInformation3 has PresentationAllowedIndicator set to false. (DDTS # CSCsc32750 Title: IP Phone fails to update Name after CFNR (Local) has been created to track this issue.

MWI

When Siemens Hipath is configured for ECMAv1, the APDU sent to activate MWI on any Siemens Digital station from Cisco Unified CallManager is rejected by the Siemens Hipath for reasons unknown.



System Components

Hardware Requirements

Cisco Hardware

Cisco 3500 Ethernet Switch

Cisco 3745 Gateway

Cisco Unified CallManager Server

Siemens Hipath 4000 PBX Hardware

DIU-N2

Software Requirements

Cisco Unified CallManager Release 5.0

Siemens Hipath 4000 Release 1

Cisco IOS Release (for the 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

CT-Call Transfer (by join)

CFU-Call Forwarding Unconditional (by join)

CFB-Call Forwarding Busy (by join)

CFNR-Call Forwarding No Reply (by join) (see limitations)

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) ¹ (see limitations)

¹ MWI was tested with CallManager 5.0 as the Message Center PINX and PBX users as remote subscribers.



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 SBCSU.
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	RESERVED/CONVERT			
		1	11111	11112	22	ANALYSIS	DNI/ADD-INFO		
		0	12345	67890	12345	67890	12	RESULT	*=OWN NODE
0		. ****	.. ***	** ..	.....	.*	CO	R
001	- 009	* .....	.....	.....	.....	..	NETRTE	
111		. ****	*****	** ..	.....	.*	TIE	
12		. ****	*****	** ..	.....	.*	TIE	R
13	- 14	. ****	*****	** ..	.....	.*	TIE	
21		. ....	.....	.....	.....	* ..	KNOVRKY	
22		. ....	.....	.....	.....	* ..	DNDKY	
222		. ****	*****	** ..	.....	.*	TIE	
23		. ....	.....	.....	.....	* ..	FWDKY	
24		. ....	.....	.....	.....	* ..	MBKY	
25		. ....	.....	.....	.....	* ..	MSGRKY	
26		. ....	.....	.....	.....	* ..	DAKY	
27		. ....	.....	.....	.....	* ..	DSSKY	
28		. ....	.....	.....	.....	* ..	VCRKY	
29		. ....	.....	.....	.....	* ..	VCKY	
30		. ....	.....	.....	.....	* ..	CONFKY	

DIGIT INTERPRETATION		VALID FOR ALL DIAL PLANS							
CODE		CALL	PROGRESS	STATE	DIGIT	RESERVED/CONVERT			
		1	11111	11112	22	ANALYSIS	DNI/ADD-INFO		
		0	12345	67890	12345	67890	12	RESULT	*=OWN NODE
3000	- 3010	. ****	*****	** ..	.....	.*	STN	
							DESTNO	30	
							DNNO	0- 0-222	



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

DIGIT INTERPRETATION VALID FOR ALL DIAL PLANS

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

DIGIT INTERPRETATION VALID FOR ALL DIAL PLANS

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

DIGIT INTERPRETATION VALID FOR ALL DIAL PLANS

CODE	CALL PROGRESS STATE 1 1111 1112 22 0 12345 67890 12345 67890 12	DIGIT ANALYSIS RESULT	RESERVED/CONVERT
			DNI/ADD-INFO *=OWN NODE
7000 - 7002	. **** * *	STN	



8000 - 8050	. **** * *	STN	DESTNO 56 DNNO 0- 0-560
8060	. **** * *	TIE	DESTNO 222
8070	. **** * *	TIE	DNNO 0- 0-222
83	. **** * *	SPDC1	
84	. **** * *	SPDC2	
88	. . . . * . . . . *	SCONSI	R
89	. . . . * . . . . *	SCONSCO	R
9	. **** * *	TIE	
*13	. . . . * . . . . *	AHTVCE	
*15	. * . . . * *	SPLIT	
*16	. . . . * . . . . *	AREM	
*17	. * . . . * *	TRACE	

DIGIT INTERPRETATION		VALID FOR ALL DIAL PLANS	
----------------------	--	--------------------------	--

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

*18	. . . . * . . . . *	ACOSX	
*19	. * . . . * *	KNOVR	
*20	. . . . * . . . . *	ADND	
*25	. . . . * . . . . *	FWDTERM	
*29	. . . . * . . . . *	AFFWDVCE	

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

Enbloc Sending Dial Plan, DPLN

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

LDPNO :	4	LDP :	111-X		
		SPC :	22		
		FDSFIELD :	0	SDSFIELD :	0
				PINDP :	N

DPLN	LROUTE	LAUTH
0	1	1
1	1	1
2	1	1
3	1	1
4	1	1
5	1	1
6	1	1
7	1	1
8	1	1
9	1	1
10	1	1
11	1	1
12	1	1
13	1	1
14	1	1
15	1	1

AMO-LDPLN-111 ADMINISTRATION LCR DIALPLAN



DISPLAY COMPLETED;

Access code for Overlap Sending Dial Plan, DPLN

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

DISPLAY-LDPLN:TYPE=LDP,LDPNO=12;

H500: AMO LDPLN STARTED

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

AMO-LDPLN-111 ADMINISTRATION LCR DIALPLAN
DISPLAY COMPLETED;

PSTN Dial Plan, DPLN

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

DISPLAY-LDPLN:TYPE=LDP,LDPNO=5;

H500: AMO LDPLN STARTED

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



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 (AUTOMATIC 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
	1234567890123456789012345678901234567890123456789012345678901234						
	>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 |
|                   CHARCON    : NEUTRAL              |
| 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 |
|                   CHARCON    : NEUTRAL              |
| SUBGROUP NO. :   10  DEVICE TYPE : S2CONN          TRACENO      :    0 |
| RESERVED    :    N  SEARCH MODE : CIRCULAR          ACD THRESHOLD :    * |
| NUMBER OF ASSOCIATED ROUTES : 4                    PRIORITY     :    2 |
| TDDRFLAG    :    ON TDDRTHRESHOLD: 3                SOURCEGROUPIDX :    1 |
| GDTRRULE    :    0  ACDPMGRP   : 0                  |
| THE FOLLOWING TRUNKS (LTG-LTU-SLOT-CCT) HAVE BEEN ALLOCATED: |
+-----+-----+-----+-----+-----+-----+
| 1- 3- 25-1      1 | 1- 3- 25-1      2 | 1- 3- 25-1      3 |
| 1- 3- 25-1      4 | 1- 3- 25-1      5 | 1- 3- 25-1      6 |
| 1- 3- 25-1      7 | 1- 3- 25-1      8 | 1- 3- 25-1      9 |
| 1- 3- 25-1     10 | 1- 3- 25-1     11 | 1- 3- 25-1     12 |
| 1- 3- 25-1     13 | 1- 3- 25-1     14 | 1- 3- 25-1     15 |
| 1- 3- 25-1     16 | 1- 3- 25-1     17 | 1- 3- 25-1     18 |
| 1- 3- 25-1     19 | 1- 3- 25-1     20 | 1- 3- 25-1     21 |
| 1- 3- 25-1     22 | 1- 3- 25-1     23 | 1- 3- 25-1     24 |
| 1- 3- 25-1     25 | 1- 3- 25-1     26 | 1- 3- 25-1     27 |
| 1- 3- 25-1     28 | 1- 3- 25-1     29 | 1- 3- 25-1     30 |
+-----+-----+-----+-----+-----+

```

AMO-BUEND-111 TRUNK GROUP
DISPLAY COMPLETED;



Trunk Configuration, TDCSU

For Master-side Configuration

<dis-tdcsu:1-3-25-1;

DIS-TDCSU:1-3-25-1;

H500: AMO TDCSU STARTED

```

+----- DIGITAL TRUNK (FORMAT=L) -----+
| DEV      = S2CONN      PEN      = 1-03-025-1  TGRP      = 27  |
+-----+
| PROTVAR = ECMA1      INS       = Y          SRCHMODE = CIR  |
| COTNO    = 22          COPNO    = 21          DPLN     = 0    |
| ITR      = 1          COS       = 32          LCOSV    = 1    |
| LCOSD    = 1          CCT       = PRI ECMA 4   DESTNO   = 111  |
| SEGMENT  = 1          DEDSCC   =             DEDSVC  = NONE  |
| FACILITY =             DITIDX   =             SRTIDX  =     |
| TRTBL    = GDTR       SIDANI    = N          ATNTYP  = TIE  |
| CBMATTR  = NONE      NWMUXTIM = 10         TCHARG  = N    |
| SUPPRESS = 0          DGTPR    =             CHIMAP  = N    |
| ISDNIP   =           ISDNPNP  =             PNPAC   =     |
| PNPL2P   =           PNPL1P   =             NNO     = 111  |
| TRACOUNT = 31         SATCOUNT = MANY      CARRIER = 1    |
| ALARMNO  = 0          FIDX     = 1          FWDX    = 5    |
| ZONE     = EMPTY     COTX     = 22         TPROFNO =     |
| DOMTYPE  =           DOMAINNO =             CCHDL   =     |
| INIGHT   =           UUSCCY   = 8          FNIDX   = 1    |
| UUSCCX   = 16         & G711   & G729OPT   SRCGRP  =     |
| CLASSMRK = EC        & G711   & G729OPT   SRCGRP  =     |
| TCCID    =           |
+-----+
| BCNEG    = N          BCGR     = 1          LWPAR   = 1  |
| LWPP     = 0          LWLT     = 0          LWPS    = 0    |
| LWR1     = 0          LWR2     = 0          |
| SVCDOM   =           |
| BCHAN    = 1 && 30    |
+-----+

```

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

AMO-TDCSU-111 DIGITAL TRUNKS
DISPLAY COMPLETED;

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

DISPLAY-LWPAR:FORMAT=L,BLNO=1,TYPE=DIUS2;

H500: AMO LWPAR STARTED

```

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

```

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



For Slave-side Configuration

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

```

+-----+-----+-----+-----+-----+
| DEV      = S2CONN      PEN      = 1-03-025-1  TGRP      = 27
+-----+-----+-----+-----+
| PROTVAR = ECMA1      INS       = Y          SRCHMODE = CIR
| COTNO    = 22          COPNO    = 21          DPLN     = 0
| ITR      = 1          COS       = 32          LCOSV    = 1
| LCOSD    = 1          CCT       = PRI ECMA 4  DESTNO   = 111
| SEGMENT  = 1          DEDSCC   =          DEDSVC   = NONE
| FACILITY =          DITIDX   =          SRTIDX   =
| TRTBL    = GDTR       SIDANI   = N          ATNTYP   = TIE
| CBMATTR  = NONE      NWMUXTIM = 10        TCHARG   = N
| SUPPRESS = 0          DGTPR   =          CHIMAP   = N
| ISDNIP   =          ISDNIP   =
| PNPL2P   =          PNPL1P   =          PNPAC    =
| TRACOUNT = 31        SATCOUNT = MANY    NNO      = 111
| ALARMNO  = 0          FIDX    = 1          CARRIER = 1
| ZONE     = EMPTY     COTX    = 22        FWDX     = 5
| DOMTYPE  =          DOMAINNO =          TPROFNO =
| INIGHT   =          UUSCCY   = 8          CCHDL   =
| UUSCCX   = 16        UUSCCY   = 8          FNIDX    = 1
| CLASSMRK = EC        & G711   & G729OPT  SRCGRP   =
| TCCID    =
+-----+-----+-----+-----+
| BCNEG    = N          BCGR     = 1          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	DEDSVC = NONE	DEDSVC = NONE	
FACILITY =	DITIDX =	SRTIDX =	
TRTBL = GDTR	SIDANI = N	ATNTYP = TIE	
CBMATTR = NONE	NWMUXTIM = 10	TCHARG = N	
SUPPRESS = 0	DGTPR =	CHIMAP = N	
ISDNIP =	ISDNNP =		
PNPL2P =	PNPL1P =	PNPAC =	
TRACOUNT = 31	SATCOUNT = MANY	NNO = 1	
ALARMNO = 0	FIDX = 1	CARRIER = 1	
ZONE = EMPTY	COTX = 21	FWDX = 10	
DOMTYPE =	DOMAINNO =	TPROFNO =	
INIGHT =		CCHDL =	
UUSCCX = 16	UUSCCY = 8	FNIDX = 1	
CLASSMRK = EC & G711 & G729OPT		SRCGRP =	
TCCID =			
BCNEG = N	BCGR = 1	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	DEDSVC = NONE	DEDSVC = NONE	
FACILITY =	DITIDX =	SRTIDX =	
TRTBL = GDTR	SIDANI = N	ATNTYP = TIE	
CBMATTR = NONE	NWMUXTIM = 10	TCHARG = N	
SUPPRESS = 0	DGTPR =	CHIMAP = N	
ISDNIP =	ISDNNP =		
PNPL2P =	PNPL1P =	PNPAC =	
TRACOUNT = 31	SATCOUNT = MANY	NNO = 222	
ALARMNO = 0	FIDX = 1	CARRIER = 1	
ZONE = EMPTY	COTX = 22	FWDX = 10	
DOMTYPE =	DOMAINNO =	TPROFNO =	



```

| INIGHT = |
| UUSCCX = 16 | UUSCCY = 8 | CCHDL = |
| CLASSMRK = EC & G711 & G729OPT | FNIDX = 1 |
| TCCID = | SRCGRP = | |
|---|---|---|
| BCNEG = N | BCGR = 1 | LWPARG = 1 |
| LWPP = 0 | LWLT = 0 | LWPS = 0 |
| LWR1 = 0 | LWR2 = 0 |
| SVCDOM = |
| BCHAN = 1 && 30 |
|-----|

```

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

AMO-TDCSU-111 DIGITAL TRUNKS
 DISPLAY COMPLETED;

Reference Clock Configuration, REFTA

For Master-side Configuration

```

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

```

```

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

```

AMO-REFTA-111 REFERENCE CLOCK TABLE
 DISPLAY COMPLETED;

For Slave-side Configuration

```

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

```

```

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

```

AMO-REFTA-111 REFERENCE CLOCK TABLE
 DISPLAY COMPLETED;



Trunk Least Cost Routing Configuration

LDAT

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

```
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| LROUTE = 1      LDPLN      NAME = ROPTCCM      SERVICE = ALL  |
| TYPE = LCR      DNNNO OF ROUTE = 111  |
| SERVICE INFO =  |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| LRTEL | LVAL | TGRP | ODR | LAUTH | SCHEDULE | CARRIER | LATTR | LDSRT |
| ABCDEFGH | ZONE |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 1 | 1 | 27 | 111 | 1 | ***** | 1 | EMPTY | NONE |
| DNNNO = 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      DNNNO OF ROUTE = 111  |
| SERVICE INFO =  |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| LRTEL | LVAL | TGRP | ODR | LAUTH | SCHEDULE | CARRIER | LATTR | LDSRT |
| ABCDEFGH | ZONE |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 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      DNNNO OF ROUTE = 111  |
| SERVICE INFO =  |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| LRTEL | LVAL | TGRP | ODR | LAUTH | SCHEDULE | CARRIER | LATTR | LDSRT |
| ABCDEFGH | ZONE |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 1 | 1 | 27 | 15 | 1 | ***** | 1 | EMPTY | NONE |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
```

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

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

```
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| LROUTE = 165      LDPLN      NAME = PSTN 91650      SERVICE = ALL  |
| TYPE = LCR      DNNNO OF ROUTE = 89  |
| SERVICE INFO =  |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
```



LRTEL	LVAL	TGRP	ODR	LAUTH	SCHEDULE ABCDEFGH	CARRIER ZONE	LATTR	LDSRT
1	1	23	50	1	*****	1 EMPTY	NONE	
DNNO =			89					

AMO-LDAT -111 LCR-DIRECTIONS
 DISPLAY COMPLETED;

RICHT

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

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

AMO-RICHT-111 TRUNK ROUTING
 DISPLAY COMPLETED;

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

LRTE = 26	NAME = PRI 3 ECMA1	(NEUTRAL)	LSVC = ALL
DNNO =	111 PDNNO =	0	
ROUTOPT = YES	REROUT = YES	PLB = NO	FWDBL = NO
DTMFCNV = WITHOUT	DTMFDSP = WITHOUT	DTMFTEXT =	
DTMFPULS =	BUGS = LIN	ROUTATT = NO	MAINGRP = 14
EMCYRRT = NO	CONFTONE = NO	RERINGRP = NO	RTENO = 14
INFO =			
NOPRCFWD = NO			
TGRP = 26	LDAT PRI ECMA 3	(NEUTRAL)	SUBGROUP = 9

AMO-RICHT-111 TRUNK ROUTING
 DISPLAY COMPLETED;

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

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



AMO-RICHT-111 TRUNK ROUTING
 DISPLAY COMPLETED;

PSTN RICHT

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

```

+-----+
| LRTE = 165   NAME = PSTN 91650           (NEUTRAL)  LSVC = ALL
| DNNO =      89  PDNNO =      0   DESTNO = 89
| ROUTOPT = YES  REROUT = YES   PLB = NO   FWDBL = NO
| DTMFCNV = WITHOUT DTMFDSP = WITHOUT DTMFTEXT =
| DTMFPULS =     BUGS = LIN  ROUTATT = NO   MAINGRP = 27
| 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
+-----+
  
```



```

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

```

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
                EXTBUS  =        LCOSD2 =6
SSTNO  =Y      CBKBMAX =5
TRACE  =N      RCBKB   =N
ALARMNO =0     DFSVCANA=        SPDI   =0     RCBKNA =N
HMUSIC =0     FLASH  =        SPDC1  =        CBKNAMB =Y
PMIDX  =0     SPDC2  =
                COMGRP  =0
SECR   =N     DIGNODIS=N     DSSTNA =N
STD    =55    CALLOG  =NONE   DSSTNB =Y     TEXTSEL =ENGLISH
REP    =0     OPTICOM =N     OPTIUSB :0     VPI     =
IDCR   =N     OPTICA  =1     OPTIS0A :      VCI     =
                OPTIDA  =        OPTISPA :0     PATTERN =
                OPTIABA :0
DCFWBUSY=N    HEADSET =N      APICLASS=
DNIDSP  =N    HSKEY   =NORMAL ACFAPPL =0
DTMFBLK =N    IPPASSW =
DTMFCTRD=Y    BASICSVC=
DVCFIG  =OPTIP500 TSI     =1     SPROT   =        SOPTIDX =
                DPROT   =        DOPTIDX =
                FPROT   =        FOPTIDX =
----- ACTIVATION IDENTIFIERS FOR FEATURES -----
FWDS   :N     HTOS    :N     DND     :N
FWDD   :N     HTOD    :N     VCP     :Y     TWLOGIN :N
FWDF   :N     HTOF    :N     CWT     :N
----- FEATURES AND GROUP MEMBERSHIPS -----
PUGR   :      ESSTN   :
KEYSYS :N     NOPTNO  :
HUNT CD :N
----- SUBSCRIBER ATTRIBUTES (AMO SDAT) -----
NONE
-----

```

AMO-SBCSU-111



Configure Digital Station 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-sbcSU: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
                                EXTBUS  =        LCOSD2 =6
SSTNO  =N        EXTBUS  =        CBKBMX =5
TRACE  =N                                RCBKB  =N
ALARMNO =0      DFSVCANA=        SPDI   =0        RCBKNA =N
HMUSIC =0      FLASH  =        SPDC1  =        CBKNAM =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     =
                                OPTIDPA :0      PATTERN =
                                OPTIABA :0
DCFWBUSY=N      HEADSET =N        APICLASS=
DNIDSP =N      HSKEY   =NORMAL  ACFAPPL =0
DTMFBLK =N                                IPPASSW =
DTMFCTR=Y      BASICSVCS=
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 CallManager 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-RICH: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 Class of Service for Mailbox MWI application

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

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



```
GRPCAL
SUTVA
```

```
AMO-COSSU-111      CLASSES OF SERVICE
DISPLAY COMPLETED;
```

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

STNO	CHRISTIAN AND SURNAME	CHARCON	ORGANIZATIONAL UNIT
5002	HIPATH DT2*		

```
AMO-PERSI-111      PERSONAL IDENTIFICATION DATA
DISPLAY COMPLETED;
```




Cisco Unified CallManager Configuration

CCM ECMA Service Parameter Configuration

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

Cisco 3745 Gateway Configuration

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

Status

Status: Ready

Device Information

Product Cisco MGCP E1 Port
Gateway 3745B4_E1
Device Protocol Digital Access PRI
Registration Registered with Cisco Unified CallManager CM-Vindaloo
IP Address 172.20.221.200
End-Point Name * S2/DS1-1@3745B4_E1
Description

Device Pool*

Call Classification*

NetworkLocale

Packet Capture Mode*

Packet Capture Duration

Media Resource Group List

Location*

AAR Group

Load Information

Transmit UTF-8 for Calling Party Name

V150 (subset)

Interface Information

PRI Protocol Type*

Protocol Side*

Channel Selection Order*

Channel IE Type*

PCM Type*

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



- Inhibit restarts at PRI initialization
- Enable status poll
- Unattended Port

Call Routing Information - Inbound Calls

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

Call Routing Information - Outbound Calls

Calling Party Presentation*	Default
Calling Party Selection*	Originator
Called party IE number type unknown*	National
Calling party IE number type unknown*	National
Called Numbering Plan*	Private
Calling Numbering Plan*	Private
Number of digits to strip*	0
Caller ID DN	
SMDI Base Port*	0

PRI Protocol Type Specific Information

- Display IE Delivery
- Redirecting Number IE Delivery - Outbound
- Redirecting Number IE Delivery - Inbound
- Send Extra Leading Character in Display IE***
- Setup non-ISDN Progress Indicator IE Enable****
- MCDN Channel Number Extension Bit Set to Zero**
- Send Calling Name In Facility IE
- Interface Identifier Present**

Interface Identifier Value**	0
Connected Line ID Presentation (QSIG Inbound Call)*	Default

UUIE Configuration

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

Product Specific Configuration

Line Coding *	HDB3
Framing *	CRC4
Clock *	External

Save Delete Reset

Partition Configuration



Navigation Cisco Unified CallManager Administration Go

Cisco Unified CallManager Administration For Cisco IP Telecommunication Solutions Logged in as: CCMAdministrator

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

Find and List Partitions

Status
2 records found

Search Options
Find partition where Partition Name begins with **Find** Search Within Results
(name begins with any)

Search Results

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

Add New Select All Clear All Delete Selected Rows per Page 50

Calling Search Space

Cisco Unified CallManager Administration For Cisco IP Telecommunication Solutions Logged in as: CCMAdministrator

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

Find and List Calling Search Spaces

Status
3 records found

Search Options
Find where Name begins with **Find** Search Within Results
(name begins with any)

Search Results

	CSS Name	Description	Copy
<input type="checkbox"/>	Incoming Trunk	3745 E1	
<input type="checkbox"/>	Path Replacement CCS	Path Replacement CCS	
<input type="checkbox"/>	Phones	7960 and 7940	

Add New Select All Clear All Delete Selected Rows per Page 50



Calling Search Space Configuration Related Links: Back To Find/List Go



Status Status: Ready

Calling Search Space Information
Name* Incoming Trunk
Description 3745 E1

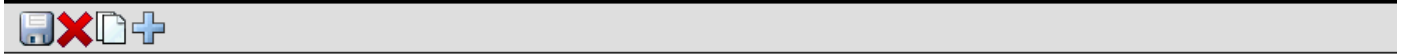
Route Partitions for this Calling Search Space

Available Partitions
Phones

Selected Partitions (Ordered by highest priority)
Incoming Trunk

Save Delete Copy Add New

Calling Search Space Configuration Related Links: Back To Find/List Go



Status Status: Ready

Calling Search Space Information
Name* Phones
Description 7960 and 7940

Route Partitions for this Calling Search Space

Available Partitions
Incoming Trunk

Selected Partitions (Ordered by highest priority)
Phones

Save Delete Copy Add New



Calling Search Space Configuration

Related Links: Back To Find/List Go



Status

Status: Ready

Calling Search Space Information

Name* Path ReplacementCCS
Description Path ReplacementCCS

Route Partitions for this Calling Search Space

Available Partitions (Empty list)

Selected Partitions (Ordered by highest priority) Incoming Trunk Phones

Save Delete Copy Add New

Enbloc Route Configuration

Find and List Route Patterns



Status

6 records found

Search Options

Find Route Patterns where Pattern begins with Find Search Within Results

Search Results

Table with 7 columns: Pattern, Description, Partition, Route Filter, Associated Device, Copy. Contains 6 rows of route patterns.

Add New Select All Clear All Delete Selected

Rows per Page 50



Route Pattern Configuration

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



Status

Status: Ready

Pattern Definition

Route Pattern *	<input type="text" value="222"/>
Route Partition	<input type="text" value=" < None >"/>
Description	<input type="text" value="CCM-Vindaloo to Hicom"/>
Numbering Plan	<input type="text" value=" -- Not Selected --"/>
Route Filter	<input type="text" value=" < None >"/>
MLPP Precedence *	<input type="text" value=" Default"/>
Gateway/Route List *	<input type="text" value=" S2/DS1-0@3745B4_E1"/> (Edit) <input type="button" value="Find"/>
Route Option	<input checked="" type="radio"/> Route this pattern <input type="radio"/> Block this pattern <input type="text" value=" No Error"/>
Call Classification *	<input type="text" value=" OffNet"/>
<input type="checkbox"/> Allow Device Override	<input checked="" type="checkbox"/> Provide Outside Dial Tone
<input type="checkbox"/> Require Forced Authorization Code	<input type="checkbox"/> Allow Overlap Sending
Authorization Level *	<input type="text" value=" 0"/>
<input type="checkbox"/> Require Client Matter Code	<input type="checkbox"/> Urgent Priority

Calling Party Transformations

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

Connected Party Transformations

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

Called Party Transformations

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

ISDN Network-Specific Facilities Information Element

Network Service Protocol	<input type="text" value=" -- Not Selected --"/>	
Carrier Identification Code	<input type="text"/>	
Network Service	Service Parameter Name	Service Parameter Value
<input type="text" value=" -- Not Selected --"/>	<input type="text" value=" < Not Exist >"/>	<input type="text"/>



Route Pattern Configuration

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



Status
Status: Ready

Pattern Definition

Route Pattern *

Route Partition

Description

Numbering Plan

Route Filter

MLPP Precedence *

Gateway/Route List * [\(Edit\)](#) [Find](#)

Route Option
 Route this pattern
 Block this pattern

Call Classification *

Allow Device Override Provide Outside Dial Tone Allow Overlap Sending Urgent Priority

Require Forced Authorization Code

Authorization Level *

Require Client Matter Code

Calling Party Transformations

Use Calling Party's External Phone Number Mask

Calling Party Transform Mask

Prefix Digits (Outgoing Calls)

Calling Line ID Presentation *

Calling Name Presentation *

Connected Party Transformations

Connected Line ID Presentation *

Connected Name Presentation *

Called Party Transformations

Discard Digits

Called Party Transform Mask

Prefix Digits (Outgoing Calls)

ISDN Network-Specific Facilities Information Element

Network Service Protocol

Carrier Identification Code

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



Route Pattern Configuration

Related Links: Back To Find/List Go



Status Status: Ready

Pattern Definition

Route Pattern* 5XXX

Route Partition < None >

Description CCM-Vindaloo to Hipath

Numbering Plan -- Not Selected --

Route Filter < None >

MLPP Precedence* Default

Gateway/Route List* S2/DS1-1@3745B4_E1 (Edit) Find

Route Option

Route this pattern

Block this pattern No Error

Call Classification* OffNet

Allow Device Override Provide Outside Dial Tone Allow Overlap Sending Urgent Priority

Require Forced Authorization Code

Authorization Level* 0

Require Client Matter Code

Calling Party Transformations

Use Calling Party's External Phone Number Mask

Calling Party Transform Mask

Prefix Digits (Outgoing Calls)

Calling Line ID Presentation* Default

Calling Name Presentation* Default

Connected Party Transformations

Connected Line ID Presentation* Default

Connected Name Presentation* Default

Called Party Transformations

Discard Digits < None >

Called Party Transform Mask

Prefix Digits (Outgoing Calls)

ISDN Network-Specific Facilities Information Element

Network Service Protocol -- Not Selected --

Carrier Identification Code

Network Service	Service Parameter Name	Service Parameter Value
-- Not Selected --	< Not Exist >	



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

Status
Status: Ready

Pattern Definition

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

Calling Party Transformations

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

Connected Party Transformations

Connected Line ID Presentation *
Connected Name Presentation *

Called Party Transformations

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

ISDN Network-Specific Facilities Information Element

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



Overlap Sending Route Pattern Configuration

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

Status
Status: Ready

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

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

Connected Party Transformations
Connected Line ID Presentation *
Connected Name Presentation *

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

ISDN Network-Specific Facilities Information Element
Network Service Protocol
Carrier Identification Code

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



Route Pattern Configuration

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



Status

Status: Ready

Pattern Definition

Route Pattern *	<input type="text" value="9.8"/>
Route Partition	<input type="text" value=" < None >"/>
Description	<input type="text" value="CCM-Vindaloo to Hicom"/>
Numbering Plan	<input type="text" value="-- Not Selected --"/>
Route Filter	<input type="text" value=" < None >"/>
MLPP Precedence *	<input type="text" value="Default"/>
Gateway/Route List *	<input type="text" value="S2/DS1-0@3745B4_E1"/> <input type="button" value="(Edit)"/> <input type="button" value="Find"/>
Route Option	<input checked="" type="radio"/> Route this pattern <input type="radio"/> Block this pattern <input type="text" value="No Error"/>
Call Classification *	<input type="text" value="OffNet"/>
<input type="checkbox"/> Allow Device Override	<input checked="" type="checkbox"/> Provide Outside Dial Tone
<input type="checkbox"/> Require Forced Authorization Code	<input checked="" type="checkbox"/> Allow Overlap Sending
<input type="checkbox"/> Require Client Matter Code	<input type="checkbox"/> Urgent Priority
Authorization Level *	<input type="text" value="0"/>

Calling Party Transformations

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

Connected Party Transformations

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

Called Party Transformations

Discard Digits	<input type="text" value="PreDot"/>
Called Party Transform Mask	<input type="text"/>
Prefix Digits (Outgoing Calls)	<input type="text"/>

ISDN Network-Specific Facilities Information Element

Network Service Protocol	<input type="text" value="-- Not Selected --"/>	
Carrier Identification Code	<input type="text"/>	
Network Service	Service Parameter Name	Service Parameter Value
<input type="text" value="-- Not Selected --"/>	<input type="text" value=" < Not Exist >"/>	<input type="text"/>



Translation Pattern for Incoming Calls

Translation Pattern Configuration		Related Links: Back To Find/List <input type="button" value="Go"/>
Status Status: Ready		
Pattern Definition		
Translation Pattern	4XXX	
Partition	Incoming Trunk	
Description		
Numbering Plan	< None >	
Route Filter	< None >	
MLPP Precedence*	Default	
Calling Search Space	Phones	
Route Option	<input checked="" type="radio"/> Route this pattern <input type="radio"/> Block this pattern <input type="text" value="No Error"/>	
<input checked="" type="checkbox"/> Provide Outside Dial Tone	<input checked="" type="checkbox"/> Urgent Priority	
Calling Party Transformations		
<input type="checkbox"/> Use Calling Party's External Phone Number Mask		
Calling Party Transform Mask		
Prefix Digits (Outgoing Calls)		
Calling Line ID Presentation*	Default	
Calling Name Presentation*	Default	
Connected Party Transformations		
Connected Line ID Presentation*	Default	
Connected Name Presentation*	Default	
Called Party Transformations		
Discard Digits	< None >	
Called Party Transform Mask		
Prefix Digits (Outgoing Calls)		



CLIR Route Pattern Configuration

Cisco Unified CallManager Administration For Cisco IP Telecommunication Solutions Logged in as: CCMAdministrator

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

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

Status
Status: Ready

Pattern Definition

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

Calling Party Transformations

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

Connected Party Transformations

Connected Line ID Presentation*
Connected Name Presentation*

Called Party Transformations

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

ISDN Network-Specific Facilities Information Element

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



CNIR Route Pattern Configuration

Cisco Unified CallManager Administration For Cisco IP Telecommunication Solutions Logged in as: CCMAdministrator

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

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

Status
Status: Ready

Pattern Definition

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

Calling Party Transformations

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

Connected Party Transformations

Connected Line ID Presentation*
Connected Name Presentation*

Called Party Transformations

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

ISDN Network-Specific Facilities Information Element

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



COLR Translation Pattern Configuration

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

Status
Status: Ready

Pattern Definition

Translation Pattern: 4XXX

Partition: Incoming Trunk

Description:

Numbering Plan: < None >

Route Filter: < None >

MLPP Precedence*: Default

Calling Search Space: Phones

Route Option:
 Route this pattern
 Block this pattern: No Error

Provide Outside Dial Tone Urgent Priority

Calling Party Transformations

Use Calling Party's External Phone Number Mask

Calling Party Transform Mask:

Prefix Digits (Outgoing Calls):

Calling Line ID Presentation*: Default

Calling Name Presentation*: Default

Connected Party Transformations

Connected Line ID Presentation*: Restricted

Connected Name Presentation*: Default

Called Party Transformations

Discard Digits: < None >

Called Party Transform Mask:

Prefix Digits (Outgoing Calls):

ISDN Network-Specific Facilities Information Element

Network Service Protocol: -- Not Selected --

Carrier Identification Code:

Network Service	Service Parameter Name	Service Parameter Value
-- Not Selected --	< Not Exist >	



CONR Translation Pattern Configuration

Translation Pattern Configuration		Related Links: Back To Find/List <input type="button" value="Go"/>
Status Status: Ready		
Pattern Definition		
Translation Pattern	4XXX	
Partition	Incoming Trunk	
Description		
Numbering Plan	< None >	
Route Filter	< None >	
MLPP Precedence*	Default	
Calling Search Space	Phones	
Route Option	<input checked="" type="radio"/> Route this pattern <input type="radio"/> Block this pattern <input type="text" value="No Error"/>	
<input checked="" type="checkbox"/> Provide Outside Dial Tone <input checked="" type="checkbox"/> Urgent Priority		
Calling Party Transformations		
<input type="checkbox"/> Use Calling Party's External Phone Number Mask		
Calling Party Transform Mask	<input type="text"/>	
Prefix Digits (Outgoing Calls)	<input type="text"/>	
Calling Line ID Presentation*	Default	
Calling Name Presentation*	Default	
Connected Party Transformations		
Connected Line ID Presentation*	Default	
Connected Name Presentation*	Restricted	
Called Party Transformations		
Discard Digits	< None >	
Called Party Transform Mask	<input type="text"/>	
Prefix Digits (Outgoing Calls)	<input type="text"/>	
ISDN Network-Specific Facilities Information Element		
Network Service Protocol	-- Not Selected --	
Carrier Identification Code	<input type="text"/>	
Network Service	Service Parameter Name	Service Parameter Value
-- Not Selected --	< Not Exist >	<input type="text"/>



MWI lamp On/Off Configuration

Cisco Unified CallManager Administration For Cisco IP Telecommunication Solutions Logged in as: CCMAAdministrator

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

Find and List Message Waiting Numbers

Status
2 records found

Search Options
Find Message Waiting Numbers where begins with **Find** Search Within Results
and where Message Waiting Indicator is
(numplan.dnorpattern begins with any)

Search Results

	Directory Number	Description	Partition	Calling Search Space	Copy
<input type="checkbox"/>	4038	MWI On		Path ReplacementCCS	
<input type="checkbox"/>	4039	MWI Off		Path ReplacementCCS	

Rows per Page

Message Waiting Configuration Related Links:

Status
Status: Ready

Message Waiting Information

Message Waiting Number*

Partition

Description

Message Waiting Indicator* On Off

Calling Search Space

Message Waiting Configuration Related Links:

Status
Status: Ready

Message Waiting Information

Message Waiting Number*

Partition

Description

Message Waiting Indicator* On Off

Calling Search Space



CallBack Service Parameters

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

CallBack Softkey Configuration

Cisco Unified CallManager Administration For Cisco IP Telecommunication Solutions Logged in as: CCMAdministrator

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

Softkey Template Configuration Related Links:

Status
Status: Ready

Softkey Template Information

Name *	<input type="text" value="Standard Feature-CB"/>
Description	<input type="text" value="Standard Softkey Template for CM Combined Feature"/>
Applications *	<input type="text" value="Cisco CallManager"/>



Softkey Template Configuration

Related Links: [Softkey Template Configuration](#)



Status
Status: Ready

Softkey Layout Configuration

Softkey Template: Standard Feature-CB

Select a call state to configure:

Unselected Softkeys

Undefined (Undefined)

Selected Softkeys (ordered by position)**

**End Call (EndCall)
Direct Transfer (DirTrfr)
Call Back (CallBack)



Softkey Template Configuration

Related Links: [Softkey Template Configuration](#)



Status
Status: Ready

Softkey Layout Configuration

Softkey Template: Standard Feature-CB

Select a call state to configure:

Unselected Softkeys

Conference List (ConfList)
Direct Transfer (DirTrfr)
Group Pick Up (GPickUp)
Immediate Divert (iDivert)
Join (Join)
Meet Me (MeetMe)
Other Pickup (oPickup)
Pick Up (PickUp)
Quality Report Tool (QRT)
Remove Last Conference Party (RmLstC)
Select (Select)
Undefined (Undefined)
Video Mode Command (VidMode)

Selected Softkeys (ordered by position)**

Redial (Redial)
**NewCall (NewCall)
Forward All (CfwdAll)
Call Back (CallBack)





Path Replacement Service Parameters

Clusterwide Parameters (Feature - Path Replacement)		
Path Replacement Enabled *	<input type="text" value="True"/>	False
Path Replacement on Tromboned Calls *	<input type="text" value="True"/>	True
Start Path Replacement Minimum Delay Time *	<input type="text" value="2"/>	0
Start Path Replacement Maximum Delay Time *	<input type="text" value="10"/>	0
Path Replacement T1 Timer *	<input type="text" value="30"/>	30
Path Replacement T2 Timer *	<input type="text" value="15"/>	15
Path Replacement PINX ID	<input type="text" value="111"/>	
Path Replacement Calling Search Space	<input type="text" value="Path ReplacementCCS"/>	

Call Pick Up Group

Call Pickup Group Information	
Call Pickup Group Name *	<input type="text" value="QSIG PINX ID"/>
Call Pickup Group Number *	<input type="text" value="111"/>
Description	<input type="text" value="QSIG PINX ID"/>
Partition	<input type="text" value="< None >"/>

Associated Call Pickup Group Information	
Find Pickup Numbers by Numbers/Partition	
Partition	<input type="text" value="< None >"/>
Call Pickup Group Numbers Contain	<input type="text"/> <input type="button" value="Find"/>
Available Call Pickup Groups	<div style="border: 1px solid black; padding: 5px;">(No Matches Found)</div>
<input type="button" value="Add to Associated Call Pickup Groups"/>	

Current Associated Call Pickup Groups	
<input type="button" value="Reverse Order of Selected Numbers"/>	
Selected Call Pickup Groups	<div style="border: 1px solid black; padding: 5px;">111</div>
Removed Call Pickup Groups (to be removed when you click Save)	<div style="border: 1px solid black; height: 40px;"></div>



Forward by Reroute Service Parameter

Clusterwide Parameters (Feature - Forward)		
Forward Maximum Hop Count *	<input type="text" value="12"/>	12
Forward No Answer Timer *	<input type="text" value="12"/>	12
Max Forward Hops to DN *	<input type="text" value="12"/>	12
Retain Forward Information *	<input type="text" value="False"/>	False
Forward By Reroute Enabled *	<input type="text" value="False"/>	False
Transform Forward by Reroute Destination *	<input type="text" value="True"/>	True
Include Voice Mailbox Address in QSIG Call Diversion APDUs *	<input type="text" value="False"/>	False
Always Forward Switch Voice Mail Calls *	<input type="text" value="True"/>	True
Forward By Reroute T1 Timer *	<input type="text" value="10"/>	10
Include Original Called Info for Q.SIG Call Diversions *	<input type="text" value="Only after the first diversion"/>	Only after the first diversion



Cisco IP Phone Configuration

Phone Configuration - Microsoft Internet Explorer

Address: <https://172.20.221.254/ccmadmin/phoneEdit.do?key=68282778-79c3-44c4-9288-97eec1e3c2a9>

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

Status: Ready

Association Information

Modify Button Items

- Line [1] - 4000 in Phones
- Add a new SD
- Line [2] - Add a new DN
- Add a new SD
- Add a new SURL
- Add a new BLF SD
- Privacy
- None

Phone Type

Product Type: Cisco 7940
Device Protocol: SCCP

Device Information

Registration	Registered with Cisco Unified CallManager CM-Vindaloo
IP Address	172.20.221.101
MAC Address*	000427D3FFF7
Description	Auto 4000
Device Pool*	Default
Phone Button Template*	Standard 7940 SCCP
Softkey Template	Standard Feature-CB
Common Phone Profile*	Standard Common Phone Profile
Calling Search Space	< None >
AAR Calling Search Space	< None >
Media Resource Group List	< None >
User Hold Audio Source	< None >
Network Hold Audio Source	< None >
Location*	Hub_None
User Locale	English United States
Network Locale	< None >
Built In Bridge*	Default

Done

Start | Clarinet - ... | Phone Co... | Cisco Unifi... | Qsig_mon... | http://ww... | PBX_templ... | Siemens_C... | untitled - P... | Local intranet | 9:39 AM



Privacy*	Default
Owner User ID	< None >
Phone Load Name	
<input checked="" type="checkbox"/> Retry Video Call as Audio	
<input type="checkbox"/> Ignore Presentation Indicators (internal calls only)	
<input checked="" type="checkbox"/> Allow Control of Device from CTI	

Protocol Specific Information	
Packet Capture Mode*	None
Packet Capture Duration	0
Presence Group*	Standard Presence group
SCCP Phone Security Profile*	Standard SCCP Profile for Auto Registration
SUBSCRIBE Calling Search Space	< None >
<input type="checkbox"/> Unattended Port	
<input type="checkbox"/> Require DTMF Reception	
<input type="checkbox"/> RFC2833 Disabled	

External Data Locations Information (Leave blank to use default)	
Information	
Directory	
Messages	
Services	
Authentication Server	
Proxy Server	
Idle	
Idle Timer (seconds)	

Extension Information	
<input type="checkbox"/> Enable Extension Mobility	
Log Out Profile	-- Not Selected --
Login in User ID	< None >
Log in Time	< None >
Log out Time	< None >

Certification Authority Proxy Function (CAPF) Information	
Certificate Operation*	No Pending Operation
Authentication String	
<input type="button" value="Generate String"/>	
Operation Completes By	2006 : 5 : 19 : 12 (YYYY:MM:DD:HH)
Certificate Operation Status	None

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



Secure Shell Information

Secure Shell User

Secure Shell Password

Product Specific Configuration Layout ?

Disable Speakerphone

Disable Speakerphone and Headset

PC Port *

Settings Access*

Gratuitous ARP*

PC Voice VLAN Access*

Video Capabilities*

Auto Line Select*

Web Access*

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



Status
i Status: Ready

Note: Changes to Line or Directory Number settings require restart.

Directory Number Information

Directory Number*

Route Partition

Description

Alerting Name

ASCII Alerting Name

Allow Control of Device from CTI

Associated Devices

SEP000427D3FFF7

▼ ▲

Dissociate Devices

Edit Device

Edit Line Appearance



Directory Number Settings

Voice Mail Profile	< None >	(Choose <None> to use system default)
Calling Search Space	Phones	
Presence Group*	Standard Presence group	
AAR Group	< None >	
User Hold Audio Source	< None >	
Network Hold Audio Source	< None >	
Auto Answer*	Auto Answer Off	

Call Forward and Call Pickup Settings

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

MLPP Alternate Party Settings

Target (Destination)	<input type="text"/>
MLPP Calling Search Space	Phones
MLPP No Answer Ring Duration (seconds)	<input type="text"/>

Line 1 on Device SEP000427D3FFF7

Display (Internal Caller ID)	Vindaloo-00	Display text for a line appearance is intended for displaying text such as a name instead of a 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)	Vindaloo-00	
Line Text Label	Vindaloo-00	
ASCII Line Text Label	Vindaloo-00	
External Phone Number Mask	<input type="text"/>	
Message Waiting Lamp Policy*	Use System 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.

Multiple Call/Call Waiting Settings on Device SEP000427D3FFF7

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

Maximum Number of Calls*	4	
Busy Trigger*	2	(Less than or equal to Max. Calls)



Forwarded Call Information Display on Device SEP000427D3FFF7

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

SIP Phone Configuration

Phone Configuration
Related Links: Back To Find/List Go

Status

i Status: Ready

Association Information

Modify Button Items

- 1 7718 [Line \[1\] - 4002 in Phones](#)
7719
- 2 7718 [Line \[2\] - Add a new DN](#)
7719
- 3 [Add a new SD](#)
- 4 [Add a new SD](#)
- 5 [Add a new SD](#)
- 6 [Add a new SD](#)
- Unassigned Associated Items -----
- 7 [Add a new SD](#)
- 8 [Add a new SURL](#)
- 9 [Add a new BLF SD](#)
BLF
- 10 Privacy
- 11 None

Phone Type
Product Type: Cisco 7961
Device Protocol: SIP

Device Information

Registration: Registered with Cisco Unified CallManager CM-Vindaloo

IP Address: [172.20.221.103](#)

MAC Address*: 00170EEE2F9E

Description: Auto 4002

Device Pool*: Default

Phone Button Template*: Standard 7961 SIP

Softkey Template: Standard Feature-CB

Common Phone Profile*: Standard Common Phone Profile

Calling Search Space: < None >

AAR Calling Search Space: < None >

Media Resource Group List: < None >

User Hold Audio Source: < None >

Network Hold Audio Source: < None >

Location*: Hub_None

User Locale: < None >

Network Locale: < None >

Built In Bridge*: Default

Privacy*: Default

Owner User ID: < None >

Phone Load Name:

Ignore Presentation Indicators (internal calls only)

Allow Control of Device from CTI



Protocol Specific Information

Packet Capture Mode*	None
Packet Capture Duration	0
Presence Group*	Standard Presence group
SIP Dial Rules	< None >
MTP Preferred Originating Codec*	711ulaw
SIP Phone Security Profile*	Standard SIP Profile for Auto Registration
Rerouting Calling Search Space	< None >
SUBSCRIBE Calling Search Space	< None >
SIP Profile*	Standard SIP Profile
Digest User	< None >

Media Termination Point Required
 Unattended Port
 Require DTMF Reception

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: -- Not Selected --

Login in User ID: < None >
Log in Time: < None >
Log out Time: < None >

Certification Authority Proxy Function (CAPF) Information

Certificate Operation*: No Pending Operation

Authentication String:

Operation Completes By: 2006 : 5 : 20 : 12 (YYYY:MM:DD:HH)

Certificate Operation Status: None

MLPP Information

MLPP Domain: < None >

Secure Shell Information

Secure Shell User:

Secure Shell Password:



Product Specific Configuration Layout



Disable Speakerphone

Disable Speakerphone and Headset

PC Port *

Settings Access *

Gratuitous ARP *

PC Voice VLAN Access *

Video Capabilities *

Auto Line Select *

Web Access *

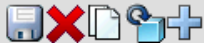
Span to PC Port *

Logging Display *

Load Server

Directory Number Configuration

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



Status

Status: Ready

Note: Changes to Line or Directory Number settings require restart.

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	< None >	(Choose <None> to use system default)
Calling Search Space	Phones	
Presence Group*	Standard Presence group	
AAR Group	< None >	
User Hold Audio Source	< None >	
Network Hold Audio Source	< None >	
Auto Answer*	Auto Answer Off	

Call Forward and Call Pickup Settings

	Voice Mail Destination	Calling Search Space
Forward All	<input type="checkbox"/> or <input type="text"/>	Phones
Secondary Calling Search Space for Forward All		< None >
Forward Busy Internal	<input type="checkbox"/> or <input type="text"/>	Phones
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 >
No Answer Ring Duration (seconds)	<input type="text"/>	
Call Pickup Group	< None >	

Find

MLPP Alternate Party Settings

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

Line 1 on Device SEP00170EEE2F9E

Display (Internal Caller ID)	Vindaloo-SIP-02	Display text for a line appearance is intended for displaying text such as a name in: 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)	Vindaloo-SIP-02	
Line Text Label	Vindaloo-SIP-02	
ASCII Line Text Label	Vindaloo-SIP-02	
External Phone Number Mask		
Message Waiting Lamp Policy*	Use System 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.



Multiple Call/Call Waiting Settings on Device SEP00170EEE2F9E

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 SEP00170EEE2F9E

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

Voice Mail Profile Configuration

Navigation | Cisco Unified CM

Cisco Unified CallManager Administration For Cisco IP Telecommunication Solutions

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

Voice Mail Profile Configuration Related Links:

Status
 Status: Ready

Voice Mail Profile Information

Voice Mail Profile Unity (used by 4 devices)

Voice Mail Profile Name*

Description

Voice Mail Pilot**

Voice Mail Box Mask

Make this the default Voice Mail Profile for the System



Voicemail Pilot Configuration

Navigation Cisco Unified Call

Cisco Unified CallManager Administration For Cisco IP Telecommunication Solutions

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

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

Voicemail Ports

Cisco Unified CallManager Administration For Cisco IP Telecommunication Solutions Logged in as: CCMAdministrator

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

Find and List Voice Mail Ports

Status
 4 records found

Search Options

Find Voice Mail Port where Search Within Results

(device.name begins with any)

Search Results

<input type="checkbox"/>	Device Name	Description	Device Pool	SCCP Security Profile	Status	IP Address	Copy
<input type="checkbox"/>	Vindaloo-VI1	Unity VM	Default	Standard SCCP Profile for Auto Registration	Registered with CM-Vindaloo	172.20.239.252	
<input type="checkbox"/>	Vindaloo-VI2	Unity VM	Default	Standard SCCP Profile for Auto Registration	Registered with CM-Vindaloo	172.20.239.252	
<input type="checkbox"/>	Vindaloo-VI3	Unity VM	Default	Standard SCCP Profile for Auto Registration	Registered with CM-Vindaloo	172.20.239.252	
<input type="checkbox"/>	Vindaloo-VI4	Unity VM	Default	Standard SCCP Profile for Auto Registration	Registered with CM-Vindaloo	172.20.239.252	

Rows per Page



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

Status
Status: Ready

Device Information

Registration	Registered with Cisco Unified CallManager CM-Vindaloo
IP Address	172.20.239.252
Port Name*	Vindaloo-VI1
Description	Unity VM
Device Pool*	Default
Calling Search Space	< None >
AAR Calling Search Space	< None >
Location*	Hub_None
SCCP Phone Security Profile*	Standard SCCP Profile for Auto Registration

Directory Number Information

Directory Number*	4091
Partition	< None >
Calling Search Space	< None >
AAR Group	< None >
Internal Caller ID Display	VoiceMail
Internal Caller ID Display (ASCII format)	VoiceMail
External Number Mask	

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

Status
Status: Ready

Device Information

Registration	Registered with Cisco Unified CallManager CM-Vindaloo
IP Address	172.20.239.252
Port Name*	Vindaloo-VI2
Description	Unity VM
Device Pool*	Default
Calling Search Space	< None >
AAR Calling Search Space	< None >
Location*	Hub_None
SCCP Phone Security Profile*	Standard SCCP Profile for Auto Registration

Directory Number Information

Directory Number*	4092
Partition	< None >
Calling Search Space	< None >
AAR Group	< None >
Internal Caller ID Display	VoiceMail
Internal Caller ID Display (ASCII format)	VoiceMail
External Number Mask	



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



Status
Status: Ready

Device Information

Registration	Registered with Cisco Unified CallManager CM-Vindaloo
IP Address	172.20.239.252
Port Name*	Vindaloo-V13
Description	Unity VM
Device Pool*	Default
Calling Search Space	< None >
AAR Calling Search Space	< None >
Location*	Hub_None
SCCP Phone Security Profile*	Standard SCCP Profile for Auto Registration

Directory Number Information

Directory Number*	4093
Partition	< None >
Calling Search Space	< None >
AAR Group	< None >
Internal Caller ID Display	VoiceMail
Internal Caller ID Display (ASCII format)	VoiceMail
External Number Mask	

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



Status
Status: Ready

Device Information

Registration	Registered with Cisco Unified CallManager CM-Vindaloo
IP Address	172.20.239.252
Port Name*	Vindaloo-V14
Description	Unity VM
Device Pool*	Default
Calling Search Space	< None >
AAR Calling Search Space	< None >
Location*	Hub_None
SCCP Phone Security Profile*	Standard SCCP Profile for Auto Registration

Directory Number Information

Directory Number*	4094
Partition	< None >
Calling Search Space	< None >
AAR Group	< None >
Internal Caller ID Display	VoiceMail
Internal Caller ID Display (ASCII format)	VoiceMail
External Number Mask	



Voicemail Version

The screenshot shows the Cisco Unity System Configuration page in Microsoft Internet Explorer. The browser title is "Cisco Unity - System - Microsoft Internet Explorer". The address bar shows the URL: <http://unity1/Web/SA/FrameASP/SysFrame.asp?NavWidth=205>. The page content is organized into a left-hand navigation menu and a main configuration area.

Configuration

- Settings
- Software Versions**
- Recordings
- Contacts
- Phone Languages
- GUI Languages

Software Versions

Cisco Unity Version	4.1
Build Number	4.1(1)
Windows Server Version	Microsoft Windows 2000 build 2195 (Service Pack 4)
System Administrator DLL	4.1.0.237
AVLOGMGRSVR	4.1.0.111
AVRESLOADERSVR	4.0.4.53
DOH	4.1.0.259
AvResMgr	4.0.3.46
AvMiuSvr	4.1.0.209
AVVIRTUALQUEUESVR	4.0.3.21
AVSASCHEDULERSVR	4.0.4.39
AvRulerSvr	4.0.3.86
AVARBITERSVR	4.1.0.220
AVCONVENGSVR	4.1.0.146
AvPhraseServerSvr	4.1.0.89
AVPAGERCONVSVR	4.1.0.118
AVFAILURECONVSVR	4.0.3.34
AVCONVMGRSVR	4.1.0.146
AVDOHMMSVR	4.0.4.2
AvStatMonSvr	4.1.0.105
AVTrapSVR	4.1.0.84
AVRSASVR	4.0.4.21

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Done Local intranet 2:29 PM



MWI Configuration

Cisco Unified CallManager Administration For Cisco IP Telecommunication Solutions Logged in as:CCMAdministrator

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

Find and List Message Waiting Numbers

Status
2 records found

Search Options
Find Message Waiting Numbers where begins with Search Within Results
and where Message Waiting Indicator is
(numplan.dnorpattern begins with any)

Search Results

	Directory Number	Description	Partition	Calling Search Space	Copy
<input type="checkbox"/>	4038	MWI On		Path ReplacementCCS	
<input type="checkbox"/>	4039	MWI Off		Path ReplacementCCS	

Rows per Page

MWI ON

Cisco Unified CallManager Administration For Cisco IP Telecommunication Solutions Logged in as:CCMAdministrator

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

Message Waiting Configuration

Related Links:

Status
Status: Ready

Message Waiting Information

Message Waiting Number*

Partition

Description

Message Waiting Indicator* On Off

Calling Search Space








MWI OFF

Cisco Unified CallManager Administration For Cisco IP Telecommunication Solutions Logged in as: CCMAAdministrator

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

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

Status
 Status: Ready

Message Waiting Information

Message Waiting Number*	<input type="text" value="4039"/>
Partition	<input data-bbox="402 688 889 720" type="text" value=" < None > "/>
Description	<input type="text" value="MWI Off"/>
Message Waiting Indicator*	<input type="radio"/> On <input checked="" type="radio"/> Off
Calling Search Space	<input data-bbox="402 804 889 835" type="text" value="Path ReplacementCCS"/>



Cisco 3745 Configuration

Router# **show version**

Cisco IOS Software, 3700 Software (C3745-IPVOICE-M), Version 12.4(3), RELEASE SOFTWARE (fc2)
Technical Support: <http://www.cisco.com/techsupport>
Copyright (c) 1986-2005 by Cisco Systems, Inc.
Compiled Fri 22-Jul-05 03:09 by hqluong

ROM: System Bootstrap, Version 12.2(8r)T2, RELEASE SOFTWARE (fc1)

3745B4_E1 uptime is 2 weeks, 6 days, 19 hours, 11 minutes
System returned to ROM by power-on
System image file is "flash:c3745-ipvoice-mz.124-3.bin"

Cisco 3745 (R7000) processor (revision 2.0) with 241664K/20480K bytes of memory.
Processor board ID JMX0715L08P
R7000 CPU at 350MHz, Implementation 39, Rev 3.3, 256KB L2, 2048KB L3 Cache
2 FastEthernet interfaces
124 Serial interfaces
4 Channelized E1/PRI ports
2 Voice FXS interfaces
DRAM configuration is 64 bits wide with parity disabled.
151K bytes of NVRAM.
125184K bytes of ATA System CompactFlash (Read/Write)
62592K bytes of ATA Slot0 CompactFlash (Read/Write)
Configuration register is 0x2102

3745B4_E1#

sho run

Building configuration...

Current configuration : 3738 bytes

```
!  
version 12.4  
service timestamps debug datetime msec  
service timestamps log datetime msec  
no service password-encryption  
!  
hostname 3745B4_E1  
!  
boot-start-marker  
boot system flash:c3745-ipvoice-mz.124-3.bin  
boot-end-marker  
!  
logging buffered 1000000 debugging  
!  
no aaa new-model  
!  
resource policy  
!  
no network-clock-participate slot 1  
no network-clock-participate slot 2  
voice-card 1  
 dspfarm  
!  
voice-card 2
```




```
controller E1 2/1
pri-group timeslots 1-31 service mgcp
!
!
!
interface FastEthernet0/0
ip address 172.20.221.200 255.255.255.0
duplex auto
speed auto
!
interface FastEthernet0/0.10
encapsulation dot1Q 10
no snmp trap link-status
!
interface FastEthernet0/0.11
encapsulation dot1Q 11
ip address 192.168.11.1 255.255.255.0
no snmp trap link-status
!
interface FastEthernet0/1
no ip address
shutdown
duplex auto
speed auto
!
interface Serial1/0:15
no ip address
isdn switch-type primary-net5
isdn incoming-voice voice
isdn bind-l3 ccm-manager
no cdp enable
!
interface Serial1/1:15
no ip address
isdn switch-type primary-net5
isdn protocol-emulate network
isdn incoming-voice voice
isdn bind-l3 ccm-manager
no cdp enable
!
interface Serial2/0:15
no ip address
isdn switch-type primary-qsig
isdn incoming-voice voice
isdn bind-l3 ccm-manager
no cdp enable
!
interface Serial2/1:15
no ip address
isdn switch-type primary-qsig
isdn protocol-emulate network
isdn incoming-voice voice
isdn T310 120000
```



```
isdn bind-l3 ccm-manager
no cdp enable
!
ip classless
ip route 0.0.0.0 0.0.0.0 FastEthernet0/0
ip route 0.0.0.0 0.0.0.0 172.20.221.1
!
ip http server
!
dialer-list 1 protocol ip permit
!
!
!
control-plane
!
!
!
voice-port 1/0:15
!
voice-port 1/1:15
!
voice-port 2/0:15
!
voice-port 2/1:15
!
voice-port 3/0/0
!
voice-port 3/0/1
!
ccm-manager mgcp
ccm-manager music-on-hold
ccm-manager config server CM-VINDALOO
ccm-manager config
!
mgcp
mgcp call-agent CM-Vindaloo 2427 service-type mgcp version 0.1
mgcp dtmf-relay voip codec all mode out-of-band
mgcp rtp unreachable timeout 1000 action notify
mgcp modem passthrough voip mode nse
mgcp package-capability rtp-package
no mgcp package-capability res-package
mgcp package-capability sst-package
no mgcp package-capability fxr-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 cor custom
```




```
!  
!  
!  
dial-peer voice 1 pots  
  service mgcpapp  
  port 2/0:15  
!  
dial-peer voice 2 pots  
  service mgcpapp  
  port 2/1:15  
!  
dial-peer voice 3 pots  
  service mgcpapp  
  port 3/0/0  
!  
dial-peer voice 4 pots  
  service mgcpapp  
  port 3/0/1  
!  
dial-peer voice 999300 pots  
  service mgcpapp  
  port 3/0/0  
!  
dial-peer voice 999301 pots  
  service mgcpapp  
  port 3/0/1  
!  
dial-peer voice 5 pots  
  service mgcpapp  
!  
!  
line con 0  
line aux 0  
line vty 0 4  
  login  
!  
!  
end
```

3745B4_E1#

Router# **show diag**

c3700 IO-Board EEPROM:

```
Hardware Revision      : 2.0  
Top Assy. Part Number  : 800-14462-01  
Board Revision        : B0  
Deviation Number      : 0-0  
Fab Version           : 03  
PCB Serial Number     : JAD07060M7X  
RMA Test History      : 00  
RMA Number            : 0-0-0-0  
RMA History           : 00  
Calibration Data      : Minimum: -1 dBmV, Maximum: -1 dBmV  
  Calibration values   : 0xFFFF 0xFFFF 0xFFFF 0xC28B 0x4A4D 0x5830  
                        0x3731 0x354C 0x3038 0x50FF 0xFFFF 0xFFFF
```



```

0xFFFF 0xFFFF 0xFFFF 0xFFFF 0xFFFF 0xFFFF
0xFFFF 0xFFFF 0xFFFF 0xFFFF 0xFFFF 0xFFFF
0xFFFF 0xFFFF 0xFFFF 0xFFFF 0xFFFF 0xFFFF
0xFFFF 0xFFFF 0xFFFF 0xFFFF 0xFFFF 0xFFFF
0xFFFF 0xFF15 0xA3C7 0x8B00 0x0000 0x0161
0x13A5 0x6465 0x1F3F 0x6000 0x0000 0x0200
0x0000 0x0100 0x0001 0x0565 0x25B4 0x4065
0x25B4 0x0065 0x25B3 0xC065 0x25B3 0x8000
0x0000 0x0000 0x0000 0x0200 0x0000 0x0300
0x0000 0x0000 0x0000 0x0000 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000 0x0000 0x0000
0x0000 0x0000 0x0000 0x0200 0x0000 0x0100
0x0000 0x0000 0x0000 0x0000 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000 0x0000 0x0065
0x25B3 0x4065 0x25B3 0x0000 0x0000 0x0000
0x0001 0x09FF 0xFFFF 0xFF00 0x0000 0x0000
0x0000 0x0015 0xA3C7 0x8B00 0x0000 0x0161
0x13A5 0x6465 0x1F3F 0x6000 0x0000 0x0100
0x0000 0x0100 0x0000 0xC665 0x25B5 0xC065
0x25B5 0x8065 0x25B5 0x4065 0x25B5 0x0000
0x0000 0x0000 0x0000 0x0200 0x0000 0x0300
0x0000 0x0000 0x0000 0x0000 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000 0x0000 0x0000
0x0000 0x0000 0x0000 0x0200 0x0000 0x0100
0x0000 0x0000 0x0000 0x0000 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000 0x0000 0x0065
0x25B0 0xC065 0x25B0 0x8000 0x0000 0x0000
0x0001 0x08FF 0xFFFF 0xFF00 0x0000 0x0000
0x0000 0x0015 0xA3C7 0x8B00 0x0000 0x0161
0x7274 0x8065 0x1F3F 0x6000 0x0000 0x0064
0x7832 0xDCAA 0xAAAA 0xAA00 0x0000 0x0000
0x0000 0x0000 0x0000 0x0000 0x0000 0x0000
0x0000 0x6400 0x2D00 0x3700 0x1400 0x1E00
0x0000 0x0200 0x0000 0x0C66 0x0E5D 0xD000
0x0100 0x0060 0x399D 0xD060 0x39A6 0x8460
0x39A4 0x6C00 0x0000 0x0060 0x39A6 0xF400
0x0000 0x0000 0x0000 0x0000 0x0000 0x0064
0x1FC3 0x3065 0x2131 0xB800 0x0000 0x0000
0x0000 0x0000 0x0042 0x4000 0x0000 0x0064
0x7043 0x0C00 0x0000 0x0000 0x0000 0x0000
0x0000 0x0015 0xA3C7

```

Chassis Serial Number : JMX0715L08P

EEPROM format version 4

EEPROM contents (hex):

```

0x00: 04 FF 40 02 F8 41 02 00 C0 46 03 20 00 38 7E 01
0x10: 42 42 30 80 00 00 00 00 02 03 C1 8B 4A 41 44 30
0x20: 37 30 36 30 4D 37 58 03 00 81 00 00 00 00 04 00
0x30: C8 09 FF FF FF FF FF FF FF FF C2 8B 4A 4D 58
0x40: 30 37 31 35 4C 30 38 50 FF FF FF FF FF FF FF FF
0x50: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
0x60: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
0x70: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF

```

c3700 Mid-Plane EEPROM:

Hardware Revision : 2.0

Top Assy. Part Number : 800-12289-01

Board Revision : A0

Deviation Number : 0-0

Fab Version : 05

PCB Serial Number : SMQ0710T03N



0x70: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF

Slot 0:

C3745 Mother board 2FE(TX)-3W Port adapter, 2 ports

Port adapter is analyzed

Port adapter insertion time unknown

EEPROM contents at hardware discovery:

PCB Serial Number : JAD071106DY

Processor type : 69

Top Assy. Part Number : 800-15934-02

Board Revision : B0

Fab Part Number : 28-4672-04

Deviation Number : 65535-65535

Manufacturing Test Data : FF FF FF FF FF FF FF FF FF

RMA Number : 0-0-0-0

RMA History : 00

RMA Test History : 00

Field Diagnostics Data : FF FF FF FF FF FF FF FF

Hardware Revision : 2.0

Fab Version : 04

Chassis Serial Number : JMX0715L08P

Product (FRU) Number : C3745-2FE

EEPROM format version 4

EEPROM contents (hex):

0x00: 04 FF C1 8B 4A 41 44 30 37 31 31 30 36 44 59 09
0x10: 69 40 02 F7 C0 46 03 20 00 3E 3E 02 42 42 30 85
0x20: 1C 12 40 04 80 FF FF FF FF C4 08 FF FF FF FF FF
0x30: FF FF FF 81 00 00 00 00 04 00 03 00 C5 08 FF FF
0x40: FF FF FF FF FF FF 41 02 00 02 04 C2 8B 4A 4D 58
0x50: 30 37 31 35 4C 30 38 50 FF FF FF FF FF FF FF FF
0x60: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
0x70: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF

Slot 1:

High Density Voice Port adapter

Port adapter is analyzed

Port adapter insertion time unknown

EEPROM contents at hardware discovery:

Hardware Revision : 1.1

Top Assy. Part Number : 800-03567-01

Board Revision : G0

Deviation Number : 0-0

Fab Version : 02

PCB Serial Number : JAD06380IBZ

RMA Test History : 00

RMA Number : 0-0-0-0

RMA History : 00

Product (FRU) Number : NM-HDV=

EEPROM format version 4

EEPROM contents (hex):

0x00: 04 FF 40 00 CC 41 01 01 C0 46 03 20 00 0D EF 01
0x10: 42 47 30 80 00 00 00 00 02 02 C1 8B 4A 41 44 30
0x20: 36 33 38 30 49 42 5A 03 00 81 00 00 00 00 04 00
0x30: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
0x40: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
0x50: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
0x60: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
0x70: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF

HDV SIMMs: Product (FRU) Number: PVDM-12=



SIMM slot 0: PVDM-12 SIMM present.
SIMM slot 1: PVDM-12 SIMM present.
SIMM slot 2: PVDM-12 SIMM present.
SIMM slot 3: PVDM-12 SIMM present.
SIMM slot 4: PVDM-12 SIMM present.

WIC Slot 0:
E1 (2 Port) Multi-Flex Trunk WAN Daughter Card
Hardware revision 1.0 Board revision B0
Serial number 29416808 Part number 800-04479-03
FRU Part Number VWIC-2MFT-E1=

Test history 0x0 RMA number 00-00-00
Connector type PCI
EEPROM format version 1
EEPROM contents (hex):
0x20: 01 23 01 00 01 C0 DD 68 50 11 7F 03 00 00 00 00
0x30: 58 00 00 00 02 12 24 00 FF FF FF FF FF FF FF FF

HDV firmware: Compiled Fri 19-Nov-04 14:23 by michen
HDV memory size 524280 heap free 141761

Slot 2:

High Density Voice Port adapter
Port adapter is analyzed
Port adapter insertion time unknown
EEPROM contents at hardware discovery:
Hardware Revision : 1.1
Top Assy. Part Number : 800-03567-01
Board Revision : E0
Deviation Number : 0-0
Fab Version : 02
PCB Serial Number : JAB043409F7
RMA Test History : 00
RMA Number : 0-0-0-0
RMA History : 00
Product (FRU) Number : NM-HDV=
EEPROM format version 4
EEPROM contents (hex):
0x00: 04 FF 40 00 CC 41 01 01 C0 46 03 20 00 0D EF 01
0x10: 42 45 30 80 00 00 00 02 02 C1 8B 4A 41 42 30
0x20: 34 33 34 30 39 46 37 03 00 81 00 00 00 00 04 00
0x30: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
0x40: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
0x50: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
0x60: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
0x70: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF

HDV SIMMs: Product (FRU) Number: PVDM-12=
SIMM slot 0: PVDM-12 SIMM present.
SIMM slot 1: PVDM-12 SIMM present.
SIMM slot 2: PVDM-12 SIMM present.
SIMM slot 3: PVDM-12 SIMM present.
SIMM slot 4: PVDM-12 SIMM present.

WIC Slot 0:
E1 (2 Port) Multi-Flex Trunk WAN Daughter Card
Hardware revision 1.0 Board revision B0
Serial number 22101697 Part number 800-04479-02



FRU Part Number VWIC-2MFT-E1=

Test history 0x0 RMA number 00-00-00
Connector type PCI
EEPROM format version 1
EEPROM contents (hex):
0x20: 01 23 01 00 01 51 3E C1 50 11 7F 02 00 00 00 00
0x30: 58 00 00 00 00 09 07 00 FF FF FF FF FF FF FF FF

HDV firmware: Compiled Fri 19-Nov-04 14:23 by michen
HDV memory size 524280 heap free 141761

Slot 3:

4 PORT Voice PM for MARs Port adapter
Port adapter is analyzed
Port adapter insertion time unknown
EEPROM contents at hardware discovery:
Hardware revision 1.1 Board revision H0
Serial number 25100457 Part number 800-02491-02
FRU Part Number: NM-2V=

Test history 0x0 RMA number 00-00-00
EEPROM format version 1
EEPROM contents (hex):
0x00: 01 65 01 01 01 7F 00 A9 50 09 BB 02 00 00 00 00
0x10: 88 00 00 00 01 03 09 17 FF FF FF FF FF FF FF FF

VIC Slot 0:

FXS Voice daughter card (2 port)
Hardware revision 1.1 Board revision B0
Serial number 27635018 Part number 800-02493-04
FRU Part Number VIC-2FXS=

Test history 0x0 RMA number 00-00-00
Connector type Wan Module
EEPROM format version 1
EEPROM contents (hex):
0x20: 01 0E 01 01 01 A5 AD 4A 50 09 BD 04 00 00 00 00
0x30: 58 00 00 00 02 06 22 01 FF FF FF FF FF FF FF FF

3745B4_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.
CCM	Cisco Unified CallManager
CCBS	Call Completion to Busy Subscriber
CCNR	Call Completion on No Reply
CFB	Call Forwarding on Busy
CFNR	Call Forwarding No Reply
CFU	Call Forwarding Unconditional
CLIP	Calling Line (Number) Identification Presentation
CLIR	Calling Line (Number) Identification Restriction
CMM	Communication Media Module (CMM) is a Cisco Catalyst® 6500 Series and Cisco 7600 Series line card that provides flexible and high-density T1/E1 gateways
CNIP	Calling Name Identification Presentation
CNIR	Calling Name Identification Restriction
COLP	Connected Line (Number) Identification Presentation
COLR	Connected Line (Number) Identification Restriction
CONP	Connected Name Identification Presentation
CONR	Connected Name Identification Restriction
CT	Call Transfer
MWI	Message Waiting Indicator
PSTN	Public Switched Telephone Network



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