



Siemens Hicom 300 E CS Release 6.6 using T1 PRI NI2 to Cisco Unified CallManager 4.0

December 11, 2007 Revision 2

Table of Contents

Introduction	1
Network Topology.....	2
Limitations.....	2
System Components	2
Hardware Requirements	2
Software Requirements	3
Features	3
Features Supported.....	3
Features Not Supported	3
Configuration.....	3
Configuring the Siemens Hicom 300 E CS PBX.....	3
Configuring the Cisco Unified CallManager.....	12
Acronyms	22

Introduction

This is an Application Note for Connectivity of Siemens Hicom 300 E CS Release 6.6 PBX with Cisco Unified CallManager (CUCM) Release 4.0 using Cisco 6608-T1 PRI NI2 as MGCP Gateway.

The Network Topology diagram shows the test set-up for end-to-end interoperability with the Cisco Unified CallManager connected to the PBX via 6608-T1 PRI link as MGCP Gateway.

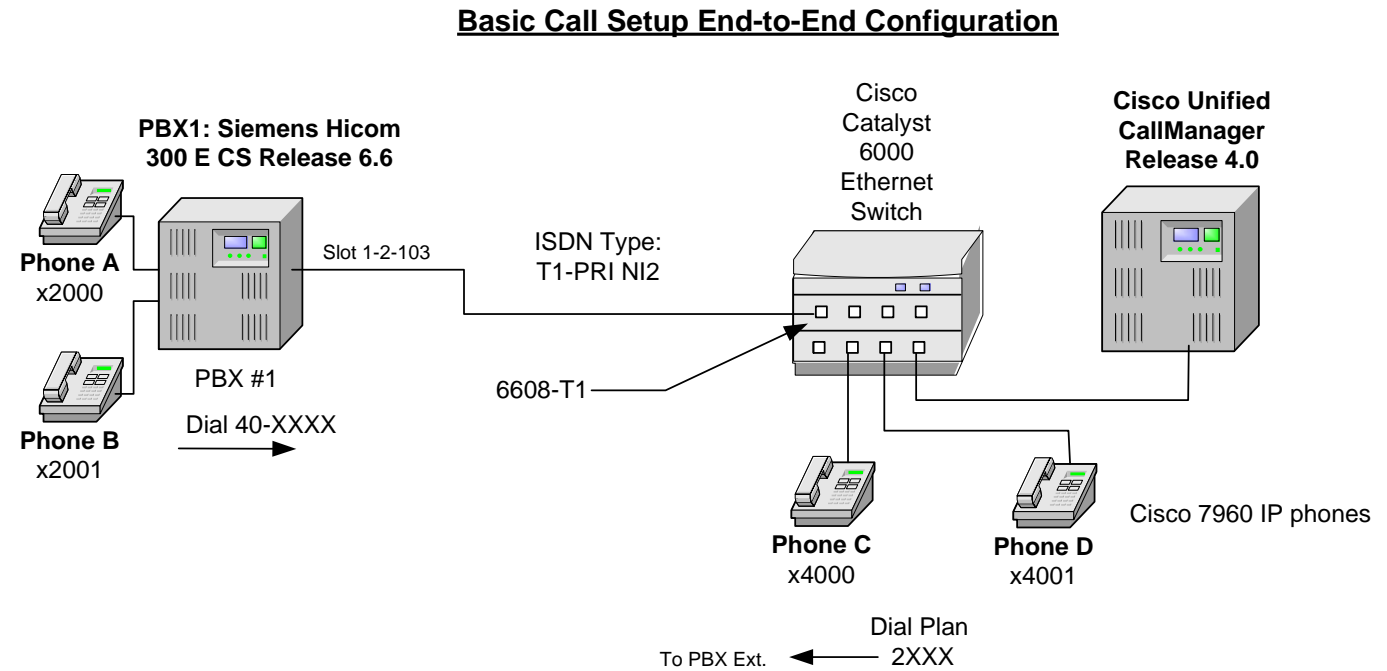
Connectivity is achieved by the industry standard PRI NI-2 protocol. The Siemens Hicom 300 E CS PBX can be configured as either NETWORK or USER side.

The Siemens PRI interface with switch-type setting of NI2 does not support Calling Name presentation feature.

Cisco Unified CallManager does not send "Connected Number" information in the connect message back to PBX.

Network Topology

Figure 1. Network Topology



Limitations

Calling Name and Number feature.

Calling Name delivery and presentation features are not supported by the Siemens HiCom 300 E CS PBX when set to NI2 switch-type.

When calling from Cisco 7960 IP phone to Siemens digital phone, both phones display Calling/Called Number after the call is answered.

When calling from Siemens digital phone to Cisco 7960 IP phone, IP phone displays Calling Number. Siemens phone however does NOT get updated when the call is answered. It displays the number being dialed instead (i.e. Access Code + extension number). It was verified that the Cisco Unified CallManager was not sending "Connected Number" information in the connect message back to PBX.

When a call is established on the Siemens digital phone, the phone display is only active (Calling/Called Number is displayed) for approximately 30 seconds, thereafter it goes blank. This behavior is caused by a display timer which is expiring¹.

System Components

Hardware Requirements

Cisco Hardware

Cisco Catalyst 6000 switch with 6608-T1 Gateway

Cisco Unified CallManager 4.0

¹ To change the duration of the display timer for Optiset, use command `cha-timd1`, parameter `DD2NTS` which defaults to 5 seconds (max is 30 seconds).



Siemens Hicom 300 E CS PBX.

Hardware: TMDN or TMDN 64

Software Requirements

PBX Software version 6.6

Cisco Unified CallManager 4.0

Cisco WS-X6608-T1 gateway Version 7.6(2)

Features

Features Supported

Calling/Called Number

Features Not Supported

Calling Name

Connected Name

Connected Number

Configuration

Configuring the Siemens Hicom 300 E CS PBX

Configure in the following sequence:

1. Add the new access code to Dialing Plans.
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. Add the new trunk group access code using TGACC
6. Add the channels using TCSU
7. Configure LROUT
8. Configure LCR Out-dial Rules using LODR



Configuration Menus and Commands

DPLN

```
<dis-dpln;
TYPE = dgts
DGTS = ;
DIS-DPLN:DGTS,;
H500: AMO DPLN STARTED
```

DIGIT INTERPRETATION		VALID FOR DIAL PLAN 0			
DIRECTORY NUMBER	CALL PROGRESS STATE	DIGIT ANALYSIS	RSVD	ROUTE	
	1 1111 1111222	RESULT			
	12345 67890 12345 6789012	(SKIP DIGIT)			
0	. . . * *	ANS			
1	. * . * . *	CO			
2000 - 2023	. * . * . *	STN			
2024 - 2026	. * . * . *	STN	R		
2222	. * . * . *	ATNDIND			
3000 - 3023	. * . * . *	STN			
3024 - 3099	. * . * . *	STN	R		
36	. . . *	GENANS			
37 - 41	. * . * . *	CO			
43 - 48	. * . * . *	TIE			
49 - 59	. * . * . *	CO			
6000 - 6099	. * . * . *	STN			42

DIGIT INTERPRETATION		VALID FOR DIAL PLAN 0			
DIRECTORY NUMBER	CALL PROGRESS STATE	DIGIT ANALYSIS	RSVD	ROUTE	
	1 1111 1111222	RESULT			
	12345 67890 12345 6789012	(SKIP DIGIT)			
7000 - 7999	. * . * . *	STN			40
8000 - 8099	. * . * . *	STN			41
9	. * . * . *	TIE			
*0	* . . *	ACDWORK			
*2	* . . *	ACCTCODE			
*3	* . . *	PUDIR			
*4	* . . *	CONFRNC			
*52	* . . *	MWCAN			
*530	* . . *	PMCANCEL			
*532	* . . *	PMCALLBK			
*563	* . . *	BADLINE			
*564	* . . *	ACDLOGON			

DIGIT INTERPRETATION		VALID FOR DIAL PLAN 0			
DIRECTORY NUMBER	CALL PROGRESS STATE	DIGIT ANALYSIS	RSVD	ROUTE	
	1 1111 1111222	RESULT			
	12345 67890 12345 6789012	(SKIP DIGIT)			
*565	* . . *	ACDLOGOF			
*570	* . . *	ACDPQ			
*571	* . . *	ACDPS			
*572	* . . *	RING			
*580	* . . *	ACDSQ			
*581	* . . *	ACDSS			
*6	* . . *	ROLMPARK			
*7	* . . *	CONSULT			



*80	- *89	.****	..**	.....	PARK		
9		...*	..**	.....	HOLD		
0		.***	.....	.....	BVSL		
1		*...*	..**	.....*	TOGGLE		

DIGIT INTERPRETATION VALID FOR DIAL PLAN 0

DIRECTORY NUMBER	CALL PROGRESS STATE	DIGIT ANALYSIS	RSVD	ROUTE
	1 1111 1111222	RESULT		
12345 67890 12345 6789012		(SKIP DIGIT)		

3		...*	..**	.....*	PU		
41	- **48	.....	..**	.....*	CONFRMV		
50		*...*	..**	.....	CAFGRAVL		
51		*...*	..**	.....	CAFGRUNA		
6		...*	..**	.....	INTERCOM		
**8		...*	.....	.....	MWANS		
***4		.....	.....	.....*	CONFRMVL		
***5		.....	.....	.....	MONSLNT		
#65		*...*	..**	.....	CAFGRUFF		
#01		...*	.....	.....	RCHNL		
#02		...*	.....	.....	RTERM		
#03		...*	.....	.....	LTERM		

DIGIT INTERPRETATION VALID FOR DIAL PLAN 0

DIRECTORY NUMBER	CALL PROGRESS STATE	DIGIT ANALYSIS	RSVD	ROUTE
	1 1111 1111222	RESULT		
12345 67890 12345 6789012		(SKIP DIGIT)		

#04		.....*	.....*	.....	PRITEST		
*#274		*...*	.....	.....	WS		
*#50		*...*	..**	.....	CAFAVLB		
*#51		*...*	..**	.....	CAFUNAV		
*#53		*****	*...*	**...*	CIDBLK		
*#54		*****	*...*	**...*	CIDUBLK		
*#55		*...*	..**	.....	CAFFWD		
*#56		*...*	..**	.....	CAFFWDC		
#57		...*	..**	.....*	PIDON		
#58		...*	..**	.....*	PIDOFF		
#590		...*	.....	.....	DCOSX		
#591		...*	.....	.....	ACOSX		

DIGIT INTERPRETATION VALID FOR DIAL PLAN 0

DIRECTORY NUMBER	CALL PROGRESS STATE	DIGIT ANALYSIS	RSVD	ROUTE
	1 1111 1111222	RESULT		
12345 67890 12345 6789012		(SKIP DIGIT)		

*#63		*****	*****	*****	CLEAR		
*#65		*...*	..**	.....	CAFLOGOF		
#735		...*	.....	.....	RELOCATE		
#738		...*	.....	.....	SET		
#97		...*	*...*	.....	COXFER		
#0		*...*	..**	.....*	ACDUNAV		
#1		*...*	..**	.....*	ACBK		
#2		*...*	..**	.....	PRION		
#3		.***	..**	.....*	SPDI		
#4		****	..**	.....*	SNR		
#5		...*	.....	.....	ADND		
#61		*****	*****	**...*	SPDC1		

DIGIT INTERPRETATION VALID FOR DIAL PLAN 0

DIRECTORY NUMBER	CALL PROGRESS STATE	DIGIT ANALYSIS	RSVD	ROUTE
	1 1111 1111222	RESULT		
12345 67890 12345 6789012		(SKIP DIGIT)		



#62	.****	.****	**...	.....*	SPDC2		
#80	*...*	..**	.....	.....	BROADCST		
#81	*...*	..**	.....	.....	SPKRCALL		
#8378	.....	.....	.....	.....*	HWTEST		
#91	.....*	.....	.....	.....*	CFWVABTH		
#92	.....*	.....	.....	.....*	CFWVAEXT		
#93	.....*	.....	.....	.....*	CFWVAINT		
#94	.....*	.....	.....	.....*	CFWVB		
#95	.....*	.....	.....	.....*	CFWVBNA		
#96	.....*	.....	.....	.....*	CFWVNA		
#*056	.....*	.....	*.....	.....	DATA56		
#*1	*****	..**	.....	.....	MWACT		

DIGIT INTERPRETATION VALID FOR DIAL PLAN 0

DIRECTORY NUMBER	CALL PROGRESS STATE	DIGIT ANALYSIS	RSVD	ROUTE
	1 11111 1111222	RESULT		
	12345 67890 12345 6789012	(SKIP DIGIT)		

#*2	*...*	..**	.....	.....	BUZZ		
#*329	..**	*...*	**...	.....	FAX	R	
#*4	*...*	..**	.....	.....	VCECALL		
#*75	.....*	.....	.....	.....	DIGIDAT		
#*76	.....*	*...*	..**	.....*	SWITCH		
#*77	.....*	*...*	***..*	.....	DTE		
#*78	.....*	..**	.....*	.....	CODE		
#*79	.....*	..**	.....*	.....	SPEED		
#*8	*****	*****	..**	*****	MWCANORI		
#*90	.....*	.....	.....*	.....	HUNTPROG		
#*92	.....*	.....	.....	.....	AHTVCE		
#*93	.....*	.....	.....	.....	DHTVCE		

DIGIT INTERPRETATION VALID FOR DIAL PLAN 0

DIRECTORY NUMBER	CALL PROGRESS STATE	DIGIT ANALYSIS	RSVD	ROUTE
	1 11111 1111222	RESULT		
	12345 67890 12345 6789012	(SKIP DIGIT)		

#*94	.....*	.....	.....	.....	AHTDTE		
#*95	.....*	.....	.....	.....	DHTDTE		
#*96	.....*	.....	.....	.....	AHTFAX		
#*97	.....*	.....	.....	.....	DHTFAX		
#*99	.....*	.....	.....*	.....	HUNTCLR		
##0	*...*	..**	.....	.....*	ACDAVLB		
##1	.....*	.....	.....	.....	DCBK		
##2	*...*	..**	.....	.....	PRIOFF		
##3	.....*	.....	.....*	.....	SPDIPROG		
##4	*...*	..**	.....	.....*	LNR		
##5	.....*	.....	.....	.....	DDND		
##7	*...*	.....	.....	.....*	KNOVR		

DIGIT INTERPRETATION VALID FOR DIAL PLAN 0

DIRECTORY NUMBER	CALL PROGRESS STATE	DIGIT ANALYSIS	RSVD	ROUTE
	1 11111 1111222	RESULT		
	12345 67890 12345 6789012	(SKIP DIGIT)		

##8	*****	..**	.....	.....	DTA		
##91	.....*	.....	.....*	.....	CFWVAOFF		
##*78	.....*	..**	.....*	.....	RESET		
###1	*...*	..**	.....	.....	TRACE		
###20	.....*	**..*	**...	.....	MILLWAT		
###21	.....*	**..*	**...	.....	LOOPBACK		
###22	.....*	**..*	**...	.....	SILENCE		
###23	.....*	**..*	**...	.....	COMBO		
###4	*...*	.....	.....	.....	THRCONF		



```

| ###6          | .....* ..... | MONTONE          |
-----

```

```

AMO-DPLN -10          DIALING PLANS, FEATURE ACCESS CODES
DISPLAY COMPLETED;

```

BCSU

```
<dis-bcsu
```

```

TYPE = tmd
LTG = 1
LTU = 2
SLOT = 103

```

```

DIS-BCSU:TMD,1,2,103;
H500: AMO BCSU STARTED

```

```

-----
| DETAILS OF TMD BOARD AT ADDRESS (LTG.LTU.SLOT) = 1. 2.103
|
| CABTYP = 1          TIMTYP = SYST          SIGTYP = MOS
| FRAME = ESF        TABS = NO             FCTID = 2
| BI8SUB = YES       BIVDET = NO
|-----
| RDRATIO = 6        RDTH = 2500          RDQUAL = 15000
| YLSEND = 5000      YLTH = 400           YLQUAL = 100
| LOS = 150          AOS = 4000
| SESDISTH = 10      SESREQTH = 10
| OESDISTH = 30      OESDISIN = 24-00-00
| OESREQTH = 4       OESREQIN = 04-00-00
|-----
| NETUSR = NETWK     ACKTIM = 1000        DLVTIM = 30000
| OCTMAX = 260       RETMAX = 3           WINDOW = 1
| CRIDC =            TTSC =
| NSFTSC =           PFDGT =
|-----
| IGN = 0            IID = 1
|-----

```

```

AMO-BCSU -13          BOARD CONFIGURATION, SWITCHING UNIT
DISPLAY COMPLETED;

```

Class of Trunk, COT

```
<dis-cot
COTNO = ;
```

```
DIS-COT: ;
```

```

H500: AMO COT STARTED
|D|A|D|D|D|M|S|V|E|E|A|R|
|I|N|S|S|I|D|A|L|S|S|N|F|
|T|S|A|A|S|R|T|S|P|P|I|L|
| |R|S| | | |A|A|D|D|A|
| | | | | | |T|N|N|N|S|
| | | | | | |I|I|I|H|
COT | | | | | | |S|S|
-----
0 | | | | | | | | | |
1 | |X| | | | | | | |
2 | |X| |X| | | | | | |
3 |X| | | | | | | | |
4 | |X| |X| | | | | | |
5 | |X| |X| | | | | | |

```



```

 6 | |X| | | | | | | | | |
14 |X| | | |X| | | | | | | |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+

```

```

AMO-COT -13          CLASS OF TRUNK FOR CALL PROCESSING
DISPLAY COMPLETED;

```

Class of Parameter for device handler, COP

```
<dis-cop;
```

```
DIS-COP;;
```

```
H500: AMO COP STARTED
```

```

| | | | | | | | | | | |
| S | | | | | | | | | |
| T | | | | | | | | | |
| A | S | V | S | P | I | D | DD | S |
| D | Z | L | P | D | D | T | TT | U | P |
| I | A | A | S | A | N | N | O | MM | P | D |
COP | A | N | C | A | A | N | I | I | N | FF | V | P |
IDX | L | S | K | T | T | I | S | S | E | L | 12 | 1234 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+

```

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 0 | | | | | | | | | | | | |
| 1 | X | | | | | | | | | |
| 2 | X | X | | | | | | | | | |
| 4 | X | | | | | | | | | |
| 5 | X | X | X | | | | | | | | | |
| 6 | X | X | | | X | | | | | | | |
| 50 | X | | | | | | | | | | | |
-----+-----+-----+-----+-----+-----+-----+-----+-----+

```

```

AMO-COP -13          CLASS OF PARAMETER
DISPLAY COMPLETED;

```

Trunk group access code, TGACC

```
<dis-tgacc
```

```
TGRP = 40
```

```
DIS-TGACC:40;
```

```
H500: AMO TGACC STARTED
```

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| TGRP NUMBER      :    40  TGRP NAME   : T1PRI           /N  MAXIMUM NO:   23 |
| SUBGROUP NUMBER  :     4  DEVICE TYPE: PRI B           DIR TYPE  : BOTH |
| ACD THRESHOLD   :     *  TRACENO    :          0       USAGE TYPE: TERC |
| ALLOCATED TO AT LEAST ONE ROUTE                                GDTR RULE :    0 |
| SELECTION        :  LOW  CFBLOCK    :  DISABLED        |
| THE FOLLOWING PORTS (LTG-LTU-SLOT-CIRCUIT) ARE ALLOCATED: |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 1- 2-103- 1| 1- 2-103- 2| 1- 2-103- 3| 1- 2-103- 4| 1- 2-103- 5| 1- 2-103- 6|
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 1- 2-103- 7| 1- 2-103- 8| 1- 2-103- 9| 1- 2-103-10| 1- 2-103-11| 1- 2-103-12|
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 1- 2-103-13| 1- 2-103-14| 1- 2-103-15| 1- 2-103-16| 1- 2-103-17| 1- 2-103-18|
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 1- 2-103-19| 1- 2-103-20| 1- 2-103-21| 1- 2-103-22| 1- 2-103-23| - - - |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+

```

```

AMO-TGACC-13        TRUNK GROUP ACCESS CODE
DISPLAY COMPLETED;

```

TCSU-B Channel



<dis-tcsu

PEN1 = 1-2-103-1;

DIS-TCSU:1-2-103-1;

H500: AMO TCSU STARTED

```
+-----+
| PEN: 1- 2-103- 1  INS: Y   BOARD: TMDN64P   DEV: PRIB   TGRP: 40 |
+-----+
| TRKID : 0040          TCCID   :              |
| CCT   : T1PRI    /0040 |
+-----+
| ACDATA : 0           DITIDX  : 0           LOCANA  :      |
| ATNTYP : ISDN       DPLN    : 0           REMANA  :      |
| COPNO  : 0           ITR     : 0           SIDANI  : N     |
| COSNO  : 75         LCRCOSD  : 5           SRTIDX  : 3     |
| COTNO  : 0           LCRCOSV  : 5           TRTBL   : DIDCR  |
| DEDSVC : NONE       FACILITY : *          |
+-----+
```

AMO-TCSU -13 TRUNK CONFIGURATION, SWITCHING UNIT
DISPLAY COMPLETED;

TCSU-D Channel

<dis-tcsu

PEN1 = 1-2-103-24;

DIS-TCSU:1-2-103-24;

H500: AMO TCSU STARTED

```
+-----+
| PEN: 1- 2-103-24  INS: Y   BOARD: TMDN64P   DEV: PRID |
+-----+
| TCCID  :              |
| CCT    : T1PRI        |
+-----+
| ACDATA : 0           DEDSCC  :              INTERFID : 0   |
| COPNO  : 0           DITIDX  :              ITR       : 0   |
| COTNO  : 0           DPLN    : 0           PROTOCOL : NI2  |
+-----+
| TMR301 : 300 SEC.    TMR308 : 4 SEC.    TMR313 : 4 SEC. |
| TMR303 : 4 SEC.     TMR309 : 90 SEC.   TMR316 : 30 SEC. |
| TMR305 : 30 SEC.    TMR310 : 30 SEC.   TMR322 : 4 SEC. |
| TDELAY : 3000 MSEC. BEARER: ONE |
| NCT    : N          TNCT    :              |
+-----+
```

AMO-TCSU -13 TRUNK CONFIGURATION, SWITCHING UNIT
DISPLAY COMPLETED;

Trunk Least Cost Routing Configuration

LROUT

<dis-lrout

ROUTE = 40

DIS-LROUT:40;

H500: AMO LROUT STARTED

LCR ROUTE DEFINITION TABLE



```

ROUTENUM = 40          SCHED A = X  AORT   =      INFORMATION
ROUTEELE = 1          B =     AUTH   = 1    TRANS CAP = SU3V
BEARER   = ONE       C =     ONHKQ  = Y    TRKSIG   = PRI
BANDWTH  = 1         D =     OFFHKQ = Y    SCCID    =
TRUNKGRP = 40        E =     ODRNUM = 1    SVCVCE   = NON
MASTGRP  = 1         F =     APLTYP = VFD  SVCN-V   = NON
ROUTERSERV = N      G =
H =

```

END OF LCR ROUTE DEFINITION TABLE DISPLAY

AMO-LROUT-13 ROUTE DEFINITION DETERMINATION PACKAGE
 DISPLAY COMPLETED;

LCR Out-dial Rules, LODR

```

<dis-lodr;
DIS-LODR;
H500: AMO LODR STARTED
      << DISPLAY LCR OUTDIAL RULE >>

      ODR NO      COMMAND      BRANCH VALUE
      -----
      1           ECHOALL
                END

      ----- END OF DISPLAY -----

```

AMO-LODR -13 AMO LCR ODR FOR SWITCHING UNIT
 DISPLAY COMPLETED;

Station Configuration, SCSU

```

<dis-scsu
STNO = 2001;
TYPE = all

DIS-SCSU:2001,ALL;
H500: AMO SCSU STARTED
STNO  2001  NAME      DIGITAL TEST 1      ACT DEV
COS1   60   COSX      1   DIAL      -   DLIDX      -   DEVFUNC  OPTI
COS2   60   SPDC1     1   DPLN      0   TA         N   PEN      1-2-37-1
LCRCOSV1 12   SPDC2     2   HTLNIDX   -   TADLIDX    -   PUBSCR   2001
LCRCOSV2 12   SPDI      30   ITR       0   TAINS     -   ACTCDE   000000000000
LCRCOSD1 12   HANDSFR   Y   SPECL     -   ACCLASS   -   NTYPE    NAT
LCRCOSD2 12   INS       Y   PUGRP     -   QPRIOR    -   RPTYPE
DSSALERT N   DTS       N   STD       1   FAXSERV   N/A  HDSTYPE  NONE
NWBALNO -   CDIDX     -   WINKOFF   -   SEIZE     -   DTE DL   VER
CFWDV   Y   CFWDD     N   DND       N   CALLWAIT  N   VCE DL   VER  0
VCP     OFF  MSGWLMP   -   PHONMAIL  N   COMGRP    0   DNIDSP   Y
MAINO   -   CUI       Y   KEYM     0   TSI       1   LOCODE   -
DCFWBUSY N   API       N   EVMS     N   EVMSIDX   0   OPTITYPE OADVPL
TATYPE  -   TATYPE2   -   FLASH    -
PATTERN -   TFAGROUP -   ATMADDR  -   SPKALERT Y
RELTEST -
FIXED CFW1 -           FIXED CFW2 -           VAR CFW  414990
STATION-HUNT N
UCD-HUNT  N

```



PILOT-HUNT N
NIGHTVARIANT N

AMO-SCSU -13 SUBSCRIBER CONFIGURATION IN THE SWU
DISPLAY COMPLETED;

Display Timer for Optiset phone

<dis-timd1

TYPEDH = digite

DIS-TIMD1:DIGITE;
H500: AMO TIMD1 STARTED
TIMERS FOR DIGITE:
=====

NORMON	= 1000 MS.	NORMOFF	= 3000 MS.
CO1ON	= 250 MS.	COOFF1	= 500 MS.
CO2ON	= 250 MS.	COOFF2	= 3000 MS.
SR1ON	= 2000 MS.	SR1OFF	= 6000 MS.
SR21ON	= 250 MS.	SR21OFF	= 250 MS.
SR22ON	= 250 MS.	SR22OFF	= 250 MS.
MTON	= 1000 MS.	MTOFF	= 4000 MS.
VCTONE	= 1000 MS.	DITS1	= 9999 SEC.
DD1NTS	= 5 SEC.	DD2NTS	= 30 SEC.
DD1TS	= 5 SEC.	DIALPAU	= 30 SEC.
BURST	= 15 SEC.	DISDEL	= 9999 SEC.
DLGMIDLE	= 8 SEC.	HWTEST	= 10 SEC.

AMO-TIMD1-13 DEVICE HANDLER TIMERS

DISPLAY COMPLETED;



Configuring the Cisco Unified CallManager

6608-T1 Gateway Configuration

System Route Plan Service Feature Device User Application Help

Cisco CallManager Administration
For Cisco IP Telephony Solutions

CISCO SYSTEMS

Gateway Configuration

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

Product : Cisco Catalyst 6000 T1 VoIP Gateway
Gateway : S0/DS1-0@SDA0001C9D93A98
Device Protocol: Digital Access PRI
Registration: Registered with Cisco CallManager 172.20.32.254
IP Address: [172.20.32.112](#)

Status: Ready

Device Information

MAC Address*	<input type="text" value="0001C9D93A98"/>
Description	<input type="text" value="SDA0001C9D93A98"/>
Device Pool*	<input type="text" value="Default"/>
Network Locale	<input type="text" value="United States"/>
Media Resource Group List	<input type="text" value="< None >"/>
Location	<input type="text" value="< None >"/>
AAR Group	<input type="text" value="< None >"/>
Load Information	<input type="text"/>


Multilevel Precedence and Preemption (MLPP) Information

MLPP Domain (e.g., "0000FF")	<input type="text"/>
MLPP Indication	<input type="text" value="Off"/>
MLPP Preemption	<input type="text" value="Disabled"/>

Interface Information

PRI Protocol Type*	<input type="text" value="PRI NI2"/>
Protocol Side*	<input type="text" value="User"/>
Channel Selection Order*	<input type="text" value="Top Down"/>
Channel IE Type*	<input type="text" value="Timeslot Number"/>

PCM Type*	<input type="text" value="μ-law"/>
Delay for first restart (1/8 sec ticks)	<input type="text" value="32"/>
Delay between restarts (1/8 sec ticks)	<input type="text" value="4"/>
<input checked="" type="checkbox"/> Inhibit restarts at PRI initialization	
<input checked="" type="checkbox"/> Enable status poll	
Call Routing Information	
Inbound Calls	
Significant Digits*	<input type="text" value="All"/>
Calling Search Space	<input type="text" value="Incoming Trunk"/>
AAR Calling Search Space	<input type="text" value="< None >"/>
Prefix DN	<input type="text"/>
Outbound Calls	
Calling Line ID Presentation*	<input type="text" value="Default"/>
Calling Party Selection*	<input type="text" value="Originator"/>
Called party IE number type unknown*	<input type="text" value="Unknown"/>
Calling party IE number type unknown*	<input type="text" value="Unknown"/>
Called Numbering Plan*	<input type="text" value="Private"/>
Calling Numbering Plan*	<input type="text" value="Private"/>
Number of digits to strip*	<input type="text" value="0"/>
Caller ID DN	<input type="text"/>
SMDI Base Port*	<input type="text" value="0"/>
PRI Protocol Type Specific Information	
<input checked="" type="checkbox"/> Display IE Delivery	
<input checked="" type="checkbox"/> Redirecting Number IE Delivery - Outbound	
<input checked="" type="checkbox"/> Redirecting Number IE Delivery - Inbound	
<input checked="" type="checkbox"/> Send Extra Leading Character In DisplayIE***	
<input type="checkbox"/> Setup non-ISDN Progress Indicator IE Enable****	

<input checked="" type="checkbox"/>	MCDN Channel Number Extension Bit Set to Zero**
<input type="checkbox"/>	Send Calling Name In Facility IE
<input checked="" type="checkbox"/>	Interface Identifier Present**
Interface Identifier Value**	<input type="text" value="0"/>
Connected Line ID Presentation (QSIG Inbound Call)*	<input type="text" value="Default"/>
Connected PBX Model	<input type="text" value="None"/>
Product Specific Configuration 	
Clock Reference*	<input type="text" value="Network"/>
TX-Level CSU*	<input type="text" value="0dB"/>
FDL Channel*	<input type="text" value="ATT 54016"/>
Framing*	<input type="text" value="ESF"/>
Audio Signal Adjustment into IP Network*	<input type="text" value="NoDbPadding"/>
Audio Signal Adjustment from IP Network*	<input type="text" value="NoDbPadding"/>
Yellow Alarm*	<input type="text" value="Bit2"/>
Zero Suppression*	<input type="text" value="B8ZS"/>
Digit On Duration(50-500ms)*	<input type="text" value="100"/>
Interdigit Duration(50-500msec)*	<input type="text" value="100"/>
SNMP Community String	<input type="text" value="public"/>
Disable SNMP Set operations*	<input type="checkbox"/>
Debug Port Enable*	<input checked="" type="checkbox"/>
Hold Tone Silence Duration*	<input type="text" value="0"/>
Port Used for Voice Calls*	<input checked="" type="checkbox"/>
Port Used for Modem Calls*	<input checked="" type="checkbox"/>
Port Used for Fax Calls*	<input checked="" type="checkbox"/>
Fax and Modem Parameters	
Fax Relay Enable*	<input checked="" type="checkbox"/>
Fax Error Correction Mode Override*	<input checked="" type="checkbox"/>
Maximum Fax Rate*	<input type="text" value="14400bps"/>

Maximum Fax Rate*	<input type="text" value="14400bps"/>
Fax Payload Size*	<input type="text" value="20"/>
Non Standard Facilities Country Code*	<input type="text" value="65535"/>
Non Standard Facilities Vendor Code*	<input type="text" value="65535"/>
Fax/Modem Packet Redundancy*	<input type="checkbox"/>
NSE Type*	<input type="text" value="Non-IOS Gateways"/>

Playout Delay Parameters

Initial Playout Delay*	<input type="text" value="40"/>
Minimum Playout Delay*	<input type="text" value="20"/>
Maximum Playout Delay*	<input type="text" value="150"/>

Echo Canceller Configuration

Echo TailLength (ms)*	<input type="text" value="32 ms"/>
Minimum ERL (db)*	<input type="text" value="6 db"/>

* indicates required item
** applicable to DMS-100 protocol only
*** applicable to DMS-100 protocol and DMS-250 protocol only
**** may be required to force ringback from some PBXs

[Back to Find/List Gateways](#)



Enbloc Route Pattern Configuration

Route Pattern/Hunt Pilot: 2XXX

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

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

Pattern Definition

Route Pattern/Hunt Pilot*

Partition

Description

Numbering Plan*

Route Filter

MLPP Precedence

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

Route Option

Route this pattern

Block this pattern

Provide Outside Dial Tone Allow Overlap Sending Urgent Priority

Calling Party Transformations

Use Calling Party's External Phone Number Mask

Calling Party Transform Mask

Prefix Digits (Outgoing Calls)

Calling Line ID Presentation

Calling Name Presentation

Connected Party Transformations

Connected Line ID Presentation

Connected Name Presentation

Called Party Transformations

Discard Digits

Called Party Transform Mask

Prefix Digits (Outgoing Calls)

ISDN Network-Specific Facilities Information Element

Carrier Identification Code

Network Service Protocol

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



Translation Pattern for Incoming Calls

Translation Pattern Configuration

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

Translation Pattern: 4XXX
Status: Ready

Pattern Definition

Translation Pattern	<input type="text" value="4XXX"/>
Partition	<input type="text" value="Incoming Trunk"/>
Description	<input type="text"/>
Numbering Plan*	<input type="text" value="North American Numbering Plan"/>
Route Filter	<input type="text" value="< None >"/>
Calling Search Space	<input type="text" value="Phones"/>
MLPP Precedence	<input type="text" value="Default"/>
Route Option	<input checked="" type="radio"/> Route this pattern <input type="radio"/> Block this pattern <input type="text" value="— Not Selected —"/>

Provide Outside Dial Tone Urgent Priority

Calling Party Transformations

Use Calling Party's External Phone Number Mask

Calling Party Transform Mask	<input type="text"/>
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"/>

* indicates required item.



7960 IP phone Configuration

Phone Configuration

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

Directory Numbers

Base Phone

- Line 1 - 4000 in Phones
- Line 2 - Add new DN

Phone: SEP000B5FD22FE8 (Auto 4000)
Registration: Registered with Cisco CallManager 172.20.32.254
IP Address: [172.20.32.102](#)
Status: Ready

Phone Configuration (Model = Cisco 7960)

Device Information

MAC Address*	<input type="text" value="000B5FD22FE8"/>
Description	<input type="text" value="Auto 4000"/>
Owner User ID	<input type="text"/> (Select User ID)
Device Pool*	<input type="text" value="Default"/> (View details)
Calling Search Space	<input type="text" value="< None >"/>
AAR Calling Search Space	<input type="text" value="< None >"/>
Media Resource Group List	<input type="text" value="< None >"/>
User Hold Audio Source	<input type="text" value="< None >"/>
Network Hold Audio Source	<input type="text" value="< None >"/>
Location	<input type="text" value="< None >"/>
User Locale	<input type="text" value="< None >"/>
Network Locale	<input type="text" value="< None >"/>
Device Security Mode	<input type="text" value="Use System Default"/>
Built In Bridge	<input type="text" value="Default"/>
Privacy	<input type="text" value="Default"/>

Phone Button Template Information


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

Softkey Template Information

Softkey Template	<input type="text" value="< None >"/>
------------------	---

Expansion Module Information

Module 1	<input type="text" value="< None >"/>
Module 2	<input type="text" value="< None >"/>

Firmware Load Information (leave blank to use default)	
Phone Load Name	<input type="text"/>
Module 1 Load Name	<input type="text"/> (Module 1 selection required)
Module 2 Load Name	<input type="text"/> (Module 2 selection required)
Cisco IP Phone - External Data Locations (leave blank to use default)	
Information	<input type="text"/>
Directory	<input type="text"/>
Messages	<input type="text"/>
Services	<input type="text"/>
Authentication Server	<input type="text"/>
Proxy Server	<input type="text"/>
Idle	<input type="text"/>
Idle Timer (seconds)	<input type="text"/>
Extension Mobility (Device Profile) Information	
<input type="checkbox"/> Enable Extension Mobility Feature	
Log Out Profile	<input type="text" value="-- Not Selected --"/>
Log In User ID	< None >
Log In Time	< None >
Log Out Time	< None >
Multilevel Precedence and Preemption (MLPP) Information	
MLPP Domain	<input type="text"/> (e.g., "0000FF")
MLPP Indication	<input type="text" value="Default"/>
MLPP Preemption	<input type="text" value="Default"/>
Product Specific Configuration 	
Disable Speakerphone	<input type="checkbox"/>
Disable Speakerphone and Headset	<input type="checkbox"/>
Forwarding Delay*	<input type="text" value="Disabled"/>
PC Port*	<input type="text" value="Enabled"/>
Settings Access*	<input type="text" value="Enabled"/>
Gratuitous ARP*	<input type="text" value="Enabled"/>
PC Voice VLAN Access*	<input type="text" value="Enabled"/>



Directory Number Configuration

[Configure Device \(SEP000B5FD22FE8\)](#)
[Dependency Records](#)

Associated With

SEP000B5FD22FE8
7960 (Line 1)

Directory Number: 4000 (Phones)

Status: Ready
Note: Any update to this Directory Number automatically resets the associated devices

Directory Number

Directory Number*
Partition

Directory Number Settings

Voice Mail Profile
(Choose <None> to use default)
Calling Search Space
AAR Group
User Hold Audio Source
Network Hold Audio Source
Auto Answer

Call Forward and Pickup Settings

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

MLPP Alternate Party Settings

Target (Destination)
Calling Search Space
No Answer Ring Duration (seconds)

Line Settings for this Device

Display (Internal Caller ID)
Line Text Label
External Phone Number Mask



Message Waiting Lamp Policy	<input type="text" value="Use System Policy"/>
Ring Setting (Phone Idle)	<input type="text" value="Use System Default"/>
Ring Setting (Phone Active)**	<input type="text" value="Use System Default"/>
Multiple Call / Call Waiting Settings	
Maximum Number of Calls*	<input type="text" value="4"/> (1 - 200)
Busy Trigger*	<input type="text" value="2"/> (<= Max. Calls)
Forwarded Call Information Display	
<input checked="" type="checkbox"/> Caller Name	<input checked="" type="checkbox"/> Caller Number
<input checked="" type="checkbox"/> Redirected Number	<input checked="" type="checkbox"/> Dialed Number
<p>* indicates required item; changes to Line or Directory Number settings require restart. ** Ring Setting (Phone Active) applies to this line when any line on the phone has a call in progress.</p> <p>Note: If you are using a language other than English for Display (Internal Caller ID) or Line Text Label text, make sure the correct character set (shown below) is selected. Text displays incorrectly if the wrong characterset is selected. (English characters are included in all character sets.)</p>	
Character Set	<input type="text" value="Western European (Latin 1)"/>



Acronyms

Acronym	Definitions
CUCM	Cisco Unified CallManager



Important Information

THE SPECIFICATIONS AND INFORMATION REGARDING THE PRODUCTS IN THIS MANUAL ARE SUBJECT TO CHANGE WITHOUT NOTICE. ALL STATEMENTS, INFORMATION, AND RECOMMENDATIONS IN THIS MANUAL ARE BELIEVED TO BE ACCURATE BUT ARE PRESENTED WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. USERS MUST TAKE FULL RESPONSIBILITY FOR THEIR APPLICATION OF ANY PRODUCTS.

IN NO EVENT SHALL CISCO OR ITS SUPPLIERS BE LIABLE FOR ANY INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES, INCLUDING, WITHOUT LIMITATION, LOST PROFITS OR LOSS OR DAMAGE TO DATA ARISING OUT OF THE USE OR INABILITY TO USE THIS MANUAL, EVEN IF CISCO OR ITS SUPPLIERS HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.



Corporate Headquarters

Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
www.cisco.com
Tel: 408 526-4000
800 553-NETS (6387)
Fax: 408 526-4100

European Headquarters

Cisco Systems International
BV
Haarlerbergpark
Haarlerbergweg 13-19
1101 CH Amsterdam
The Netherlands
www-europe.cisco.com
Tel: 31 0 20 357 1000
Fax: 31 0 20 357 1100

Americas Headquarters

Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
www.cisco.com
Tel: 408 526-7660
Fax: 408 527-0883

Asia Pacific Headquarters

Cisco Systems, Inc.
Capital Tower
168 Robinson Road
#22-01 to #29-01
Singapore 068912
www.cisco.com
Tel: +65 317 7777
Fax: +65 317 7799

Cisco Systems has more than 200 offices in the following countries and regions. Addresses, phone numbers, and fax numbers are listed on the Cisco Web site at www.cisco.com/go/offices.

Argentina • Australia • Austria • Belgium • Brazil • Bulgaria • Canada • Chile • China PRC • Colombia • Costa Rica • Croatia • Czech Republic • Denmark • Dubai, UAE • Finland • France • Germany • Greece • Hong Kong SAR • Hungary • India • Indonesia • Ireland • Israel • Italy • Japan • Korea • Luxembourg • Malaysia • Mexico • The Netherlands • New Zealand • Norway • Peru • Philippines • Poland • Portugal • Puerto Rico • Romania • Russia • Saudi Arabia • Scotland • Singapore • Slovakia • Slovenia • South Africa • Spain • Sweden • Switzerland • Taiwan • Thailand • Turkey • Ukraine • United Kingdom • United States • Venezuela • Vietnam • Zimbabwe

© 2007 Cisco Systems, Inc. All rights reserved.

CCVP, the Cisco logo, and Welcome to the Human Network are trademarks of Cisco Systems, Inc.; Changing the Way We Work, Live, Play, and Learn is a service mark of Cisco Systems, Inc.; and Access Registrar, Aironet, Catalyst, CCDA, CCDP, CCIE, CCIP, CCNA, CCNP, CCSP, Cisco, the Cisco Certified Internetwork Expert logo, Cisco IOS, Cisco Press, Cisco Systems, Cisco Systems Capital, the Cisco Systems logo, Cisco Unity, Enterprise/Solver, EtherChannel, EtherFast, EtherSwitch, Fast Step, Follow Me Browsing, FormShare, GigaDrive, HomeLink, Internet Quotient, IOS, iPhone, IP/TV, iQ Expertise, the iQ logo, iQ Net Readiness Scorecard, iQuick Study, LightStream, Linksys, MeetingPlace, MGX, Networkers, Networking Academy, Network Registrar, PIX, ProConnect, ScriptShare, SMARTnet, StackWise, The Fastest Way to Increase Your Internet Quotient, and TransPath are registered trademarks of Cisco Systems, Inc. and/or its affiliates in the United States and certain other countries.

All other trademarks mentioned in this document or Website are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (0711R)

Printed in the USA