

Cisco Unified CallManager Release 4.0-PBX Interoperability: Siemens Hicom 300 E CS Rel6.6 Using Cisco Catalyst 6608-T1 QSIG with MGCP

Table of Contents

Table of Contents.....	1
Introduction	1
Network Topology.....	2
Limitations.....	3
System Components	3
Hardware Requirements	3
Software Requirements	3
Features	3
Features Supported.....	3
Features Not Supported.....	3
Configuration.....	4
Configuring the Siemens Hicom 300 E CS PBX.....	4
Trunk Least Cost Routing Configuration	20
Configuring Cisco Unified CallManager 4.0.....	27
Acronyms	43

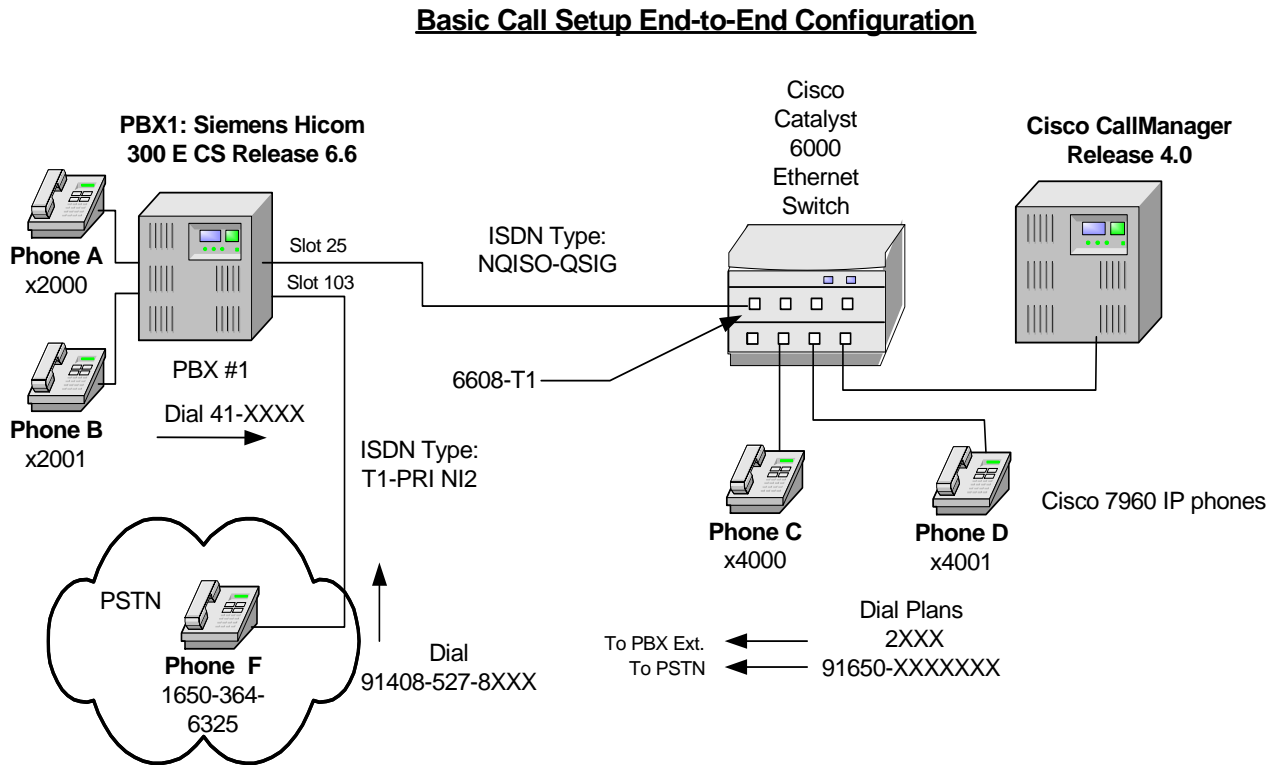
Introduction

- The following is an application note for interoperability of a Cisco Unified CallManager Release 4.0, with a Siemens Hicom 300 E CS Rel6.6 PBX using a Cisco Catalyst 6608 Gateway-T1 QSIG as a MGCP.
- The Network Topology diagram (figure 1) shows the test set-up for interoperability between the Cisco Unified CallManager and Cisco Unified CallManager connected to the PBX via Cisco Catalyst 6608 T1 QSIG link as MGCP Gateway.
- Connectivity is achieved by using the PRI ISO QSIG T1 protocol type on the MGCP gateway and NQISO switch type on the Siemens PBX.
- Basic Calls worked in both directions with Calling/Connected Name and Calling/Connected Number features support.



Network Topology

Figure 1. Network Topology Test Setup





Limitations

- None noted.

System Components

Hardware Requirements

Cisco Hardware

- Cisco Cat6K switch with 6608-T1 Gateway
- Cisco Unified CallManager 4.0

Siemens Hicom 300 E CS PBX hardware

- TMDN or TMDN 64

Software Requirements

- PBX Software version 6.6 with CorNetNQ package
- Cisco Unified CallManager 4.0(1)

Features

Features Supported

- CLIP-Calling Line (Number) Identification Presentation
- CNIP-Calling Name Identification Presentation
- COLP-Connected Line (Number) Identification Presentation
- CONP-Connected Name Identification Presentation
- CT-Call Transfer (by join)
- CFU-Call Forwarding Unconditional (by join)
- CFB-Call Forwarding Busy (by join)
- CFNR-Call Forwarding No Reply (by join)
- QSIG MWI- Message Waiting Indication (lamp ON, lamp OFF) supported by CallManager 4.0 (not tested ¹)

Features Not Supported

- CallManager 4.0 does not support sending Alerting Name or Busy Name Identification information
- CLIR-Calling Line (Number) Identification Restriction not supported by Hicom 300E CS PBX
- CNIR-Calling Name Identification Restriction not supported by Hicom 300E CS PBX
- COLR- Connected Line (Number) Identification Restriction not supported by Hicom 300E CS PBX
- CONR- Connected Name Identification Restriction not supported by Hicom 300E CS PBX

¹ MWI is supported on CallManager 4.0 but was not tested because CallManager was not configured with a messaging System at the time of testing therefore it is not known at this time whether QSIG MWI integration with Siemens Hicom 300E CS PBX will work. MWI will be tested when the CallManager 4.0 is configured with Unity as the message center PINX and PBX users as remote subscribers.



Configuration

Configuring the Siemens Hicom 300 E CS PBX

Configure in the following sequence:

- Add the new access code to Dialing Plans
- Add the new trunk board using BCSU
- Configure Class of Trunk using COT
- Configure Class of Parameter for device handler using COP
- Add the new trunk group access code using TGACC
- Add the channels using TCSU
- Configure LROUT
- 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	

	CALL PROGRESS STATE	DIGIT ANALYSIS	
DIRECTORY NUMBER	1 11111 1111222	RESULT	RSVD | ROUTE



```

|          |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           |          |
| 71000    |.**** ***** **.* ..* | STN          |          | 1
-----

```

```

| DIGIT INTERPRETATION                                VALID FOR DIAL PLAN 0 |
-----

```

```

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

```

```

| 71001 - 79999 |.**** ***** **.* ..* | STN          | R         |
| 8000  - 8001  |.**** ***** **.* ..* | 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	|	|	|
----------------------	--	-----------------------	--	--	--

|	| CALL PROGRESS STATE	| DIGIT ANALYSIS	|	|	|
| DIRECTORY NUMBER	| 1 11111 1111222	| RESULT	| RSVD	| ROUTE	|
|	| 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
----------------------	-----------------------

	CALL PROGRESS STATE	DIGIT ANALYSIS		
DIRECTORY NUMBER	1 11111 1111222	RESULT	RSVD	ROUTE
	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
----------------------	-----------------------

	CALL PROGRESS STATE	DIGIT ANALYSIS			
DIRECTORY NUMBER	1 11111 1111222	RESULT	RSVD	ROUTE	
	|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
----------------------	-----------------------



```

-----
|          | CALL PROGRESS STATE | DIGIT ANALYSIS |          | |
| DIRECTORY NUMBER |          1 11111 1111222 |          RESULT |RSVD | ROUTE|
|          |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 |

```

```

-----
|          | CALL PROGRESS STATE | DIGIT ANALYSIS |          | |
| DIRECTORY NUMBER |          1 11111 1111222 |          RESULT |RSVD | ROUTE|
|          |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
----------------------	-----------------------

	CALL PROGRESS STATE	DIGIT ANALYSIS			
DIRECTORY NUMBER	1 11111 1111222	RESULT	RSVD	ROUTE	
	|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	|	|	|
----------------------	-----------------------	--	--	--

	CALL PROGRESS STATE	DIGIT ANALYSIS	|	|	|
DIRECTORY NUMBER	1 11111 1111222	RESULT	RSVD	ROUTE	|
	|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
----------------------	-----------------------

	CALL PROGRESS STATE	DIGIT ANALYSIS		
DIRECTORY NUMBER	1 11111 1111222	RESULT	RSVD	ROUTE
	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 = 25;

DIS-BCSU:TMD,1,2,25;

H500: AMO BCSU STARTED

| DETAILS OF TMD BOARD AT ADDRESS (LTG.LTU.SLOT) = 1. 2. 25 |

| |

| 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 = 4000   OESREQIN = 04-00-00 |
|-----|
|   NETUSR = NETWK    ACKTIM = 1000     DLVTIM = 5000   |
|   OCTMAX = 260      RETMAX = 3        WINDOW = 7    |
|   CRIDC =          TTSC =           NSFIV =         |
|   NSFTSC =          PFDGT =          |
|-----|
|       IGN = 0       IID = 0          |
|-----|
```

AMO-BCSU -10 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|



H500: AMO COP STARTED

```

| | | | | | |
| | S | E A | | | |
| | T | E S N | | | |
| | A S V S P I D |DD| S| |
| | D Z L P D D T |TT| U| P |
| | I A A S 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 | X |X |X |
| 4| X | X | |X |
| 5| X X X | X |X |X |
| 6| X X | X | | |X |
| 50| X | X |X |X |

```

+---+-----+---+---+---+

AMO-COP -10 CLASS OF PARAMETER

DISPLAY COMPLETED;

Trunk group access code, TGACC

<dis-tgacc



TGRP = 41;

DIS-TGACC:41;

H500: AMO TGACC STARTED

```

+-----+
| TGRP NUMBER      :    41  TGRP NAME  : QSIG           /N  MAXIMUM NO:   23 |
| SUBGROUP NUMBER:    5  DEVICE TYPE: CORNET B           DIR TYPE  : BOTH |
| ACD THRESHOLD   :    *  TRACENO    :                0           USAGE TYPE: TERR |
| ALLOCATED TO AT LEAST ONE ROUTE                               GDTR RULE  :    0 |
| SELECTION       :  LOW  CFBLOCK    : DISABLED           |
| THE FOLLOWING PORTS (LTG-LTU-SLOT-CIRCUIT) ARE ALLOCATED:   |
+-----+
| 1- 2- 25- 1| 1- 2- 25- 2| 1- 2- 25- 3| 1- 2- 25- 4| 1- 2- 25- 5| 1- 2- 25- 6|
+-----+
| 1- 2- 25- 7| 1- 2- 25- 8| 1- 2- 25- 9| 1- 2- 25-10| 1- 2- 25-11| 1- 2- 25-12|
+-----+
| 1- 2- 25-13| 1- 2- 25-14| 1- 2- 25-15| 1- 2- 25-16| 1- 2- 25-17| 1- 2- 25-18|
+-----+
| 1- 2- 25-19| 1- 2- 25-20| 1- 2- 25-21| 1- 2- 25-22| 1- 2- 25-23| - - - |
+-----+

```

AMO-TGACC-10 TRUNK GROUP ACCESS CODE

DISPLAY COMPLETED;

TCSU-B Channel

<dis-tcsu



PEN1 = 1-2-25-1;

DIS-TCSU:1-2-25-1;

H500: AMO TCSU STARTED

```
+-----+
| PEN: 1- 2- 25- 1  INS: Y  BOARD: TMDN64P  DEV: S1B  TGRP: 41  |
+-----+
| TRKID  : 0002          TCCID  :          |
| CCT    : QSIG      /0002          |
|
| ACDATA : 0          COTNO   : 6          LCRCOSD  : 5          |
| ATNTYP : TIE        DITIDX  : 0          LCRCOSV  : 5          |
| BNEGOT : N          DPLN    : 0          LOCANA   :          |
| COPNO  : 6          ITR     : 0          REMANA   :          |
| COSNO  : 75          |
+-----+
```

AMO-TCSU -10 TRUNK CONFIGURATION, SWITCHING UNIT

DISPLAY COMPLETED;

TCSU-D Channel

<dis-tcsu



PEN1 = 1-2-25-24;

DIS-TCSU:1-2-25-24;

H500: AMO TCSU STARTED

```
+-----+
| PEN: 1- 2- 25-24  INS: Y  BOARD: TMDN64P  DEV: S1D  |
+-----+
| TCCID : |
| CCT : QSIG |
| | |
| ACDATA : 0          COTNO : 6          DPLN : 0          |
| COPNO : 6          DITIDX :          ITR : 0          |
| CONVER : N          PROTOCOL : NQISO |
| BEARER: ONE |
| TMR: |
| 302: 15 303: 6 304: 20 305: 30 306: 30 |
| 308: 6 309: 90 310: 110 313: 4 314: 6 |
| 316: 120 322: 4 384: 30 385: 30 386: 30 |
+-----+
```

AMO-TCSU -10 TRUNK CONFIGURATION, SWITCHING UNIT

DISPLAY COMPLETED;



Trunk Least Cost Routing Configuration

LROUT

<dis-lrout

ROUTE = 41;

DIS-LROUT:41;

H500: AMO LROUT STARTED

LCR ROUTE DEFINITION TABLE

```

-----
|ROUTENUM = 41          SCHED A = X  AORT   =      INFORMATION      |
|ROUTEELE = 1          B =     AUTH   = 1    TRANS CAP = S3V      |
|BEARER   = ONE       C =     ONHKQ  = Y    TRKSIG = COR        |
|BANDWTH  = 1         D =     OFFHKQ = Y    SCCID  =          |
|TRUNKGRP = 41        E =     ODRNUM = 1    SVCVCE = NON        |
|MASTGRP  = 3         F =     APLTYP = VFD  SVCN-V = NON        |
|ROUTSERV = N         G =                                     FACNUM =  |
|                   H =                                     |
-----

```

```

-----
|ROUTENUM = 41          SCHED A = X  AORT   =      INFORMATION      |
|ROUTEELE = 2          B =     AUTH   = 1    TRANS CAP = S3V      |

```



| BEARER = ONE	C = ONHKQ = Y	TRKSIG = COR	|
| BANDWTH = 1	D = OFFHKQ = Y	SCCID =	|
| TRUNKGRP = 41	E = ODRNUM = 1	SVCVCE = NON	|
| MASTGRP = 3	F = APLTYP = VD	SVCN-V = NON	|
| ROUTSERV = N	G =	FACNUM =	|
|	H =		|

END OF LCR ROUTE DEFINITION TABLE DISPLAY

AMO-LROUT-10 ROUTE DEFINITION DETERMINATION PACKAGE

DISPLAY COMPLETED;

PSTN Trunk Routing Configuration

<dis-ldpln

PLAN = 148

DIS-LDPLN:148;

H500: AMO LDPLN STARTED

OUTPUT DISPLAY FORMAT



| **DIGIT PATTERN** : **9-1-NXX-NXX-XXXX**

| AREA CODE FIELD IDX : NONE

PLAN NUMBER: 148 | OFFICE CODE FIELD IDX: NONE

| TYPE OF NUMBER : UNKNOWN

| NUMBERING PLAN ID : ISDN_TELEPHONY

DIGIT ANALYSIS GROUP : 0

ROUTE : 1

ACCOUNT FLAG :

USER AUTHORIZATION : 1

AMO-LDPLN-25 AMO LCR DIALING PLAN FOR THE SWITCHING UNIT

DISPLAY COMPLETED;

<dis-lrout

ROUTE = 1

DIS-LROUT:1;

H500: AMO LROUT STARTED

LCR ROUTE DEFINITION TABLE



|ROUTENUM = 1	SCHED A = X	AORT =	INFORMATION	|
|ROUTEELE = 1	B =	AUTH = 1	TRANS CAP = S3	|
|BEARER = ONE	C =	ONHKQ = Y	TRKSIG = PRI	|
|BANDWTH = 1	D =	OFFHKQ = Y	SCCID =	|
|TRUNKGRP = 40	E =	ODRNUM = 1	SVCVCE = NON	|
|MASTGRP = 1	F =	APLTYP = VD	SVCN-V = NON	|
|ROUTERSERV = N	G =		FACNUM =	|
|	H =			|

|ROUTENUM = 1	SCHED A = X	AORT =	INFORMATION	|
|ROUTEELE = 2	B =	AUTH = 1	TRANS CAP = A	|
|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 =		FACNUM =	|
|	H =			|



END OF LCR ROUTE DEFINITION TABLE DISPLAY

AMO-LROUT-25 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 -105 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	N	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	-	



STATION-HUNT N

UCD-HUNT N

PILOT-HUNT N

NIGHTVARIANT N

AMO-SCSU -10 SUBSCRIBER CONFIGURATION IN THE SWU

DISPLAY COMPLETED;



Configuring Cisco Unified CallManager 4.0 6608-T1 Gateway Configuration

Cisco CallManager 4.0 Administration - Gateway Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address http://cm-klngon/CCMAdmin/gatewayconfig.asp?pkid={DF71136E-4975-4B2C-BDE6-C24A840B4ABC}&type=1

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 : SD/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 ISO QSIG T1"/>
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"/>

Local intranet



Cisco CallManager 4.0 Administration - Gateway Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <http://cm-klngon/CCMAdmin/gatewayconfig.asp?pkid={DF71136E-4975-4B2C-BDE6-C24A840B4ABC}&type=1> Go Links

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

Call Routing Information

Inbound Calls

Significant Digits*

Calling Search Space

AAR Calling Search Space

Prefix DN

Outbound Calls

Calling Line ID Presentation*

Calling Party Selection*

Called party IE number type unknown*

Calling party IE number type unknown*

Called Numbering Plan*

Calling Numbering Plan*

Number of digits to strip*

Caller ID DN

SMDI Base Port*

PRI Protocol Type Specific Information

Display IE Delivery

Redirecting Number IE Delivery - Outbound

Redirecting Number IE Delivery - Inbound

Send Extra Leading Character In DisplayIE***

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

Local intranet



Cisco CallManager 4.0 Administration - Gateway Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <http://cm-klngon/CCMAdmin/gatewayconfig.asp?pkid={DF71136E-4975-4B2C-BDE6-C24A840B4ABC}&type=1> Go Links >>

MCDN Channel Number Extension Bit Set to Zero**

Send Calling Name In Facility IE

Interface Identifier Present**

Interface Identifier Value**

Connected Line ID Presentation (QSIG Inbound Call)*

Connected PBX Model

Product Specific Configuration

Clock Reference*

TX-Level CSU*

FDL Channel*

Framing*

Audio Signal Adjustment into IP Network*

Audio Signal Adjustment from IP Network*

Yellow Alarm*

Zero Suppression*

Digit On Duration(50-500ms)*

Interdigit Duration(50-500msec)*

SNMP Community String

Disable SNMP Set operations*

Debug Port Enable*

Hold Tone Silence Duration*

Port Used for Voice Calls*

Port Used for Modem Calls*

Port Used for Fax Calls*

Fax and Modem Parameters

Fax Relay Enable*

Fax Error Correction Mode Override*

Maximum Fax Rate*

Local intranet



Cisco CallManager 4.0 Administration - Gateway Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media Print

Address <http://cm-klington/CCMAdmin/gatewayconfig.asp?pkid={DF71136E-4975-4B2C-BDE6-C24A840B4ABC}&Status=US&Action=> Go Links >>

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

Playout Delay Parameters

Initial Playout Delay*	40
Minimum Playout Delay*	20
Maximum Playout Delay*	150

Echo Canceller Configuration

Echo TailLength (ms)*	32 ms
Minimum ERL (db)*	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](#)

Reset succeeded. Local intranet



Enbloc Route Pattern Configuration

Cisco CallManager 4.0 Administration - Route Pattern/Hunt Pilot Configuration - Microsoft Internet Explorer

Address: http://cm-klngon/CCMAdmin/routepatternconfig.asp?pkid={C26A5255-B1A4-403E-A274-612D32EE2E60}

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* 2XXX
Partition < None >
Description
Numbering Plan* North American Numbering Plan
Route Filter < None >
MLPP Precedence Default
Gateway or Route/Hunt List* S0/DS1-0@SDA0001C9D93A98 (Edit)
Route Option
 Route this pattern
 Block this pattern — Not Selected —

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 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

Carrier Identification Code
Network Service Protocol — Not Selected —
Network Service Service Parameter Name Service Parameter Value
— Not Selected — < Not Exist >

Done Local intranet



PSTN Route Pattern Configuration

Cisco CallManager 4.0 Administration - Route Pattern/Hunt Pilot Configuration - Microsoft Internet Explorer

Address: http://cm-klngon/CCMAdmin/routepatternconfig.asp?pkid={A0E58AC2-80ED-4857-9D43-DCC43AA6EA56}

Route Pattern/Hunt Pilot: 91650XXXXXX

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* 91650XXXXXX
Partition <None >
Description
Numbering Plan* North American Numbering Plan
Route Filter <None >
MLPP Precedence Default
Gateway or Route/Hunt List* S0/DS1-0@SDA0001C9D93A98 (Edit)
Route Option
 Route this pattern
 Block this pattern — Not Selected —

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) 408527
Calling Line ID Presentation Default
Calling Name Presentation Default

Connected Party Transformations

Connected Line ID Presentation Default
Connected Name Presentation Default

Called Party Transformations

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

ISDN Network-Specific Facilities Information Element

Carrier Identification Code
Network Service Protocol — Not Selected —
Network Service Service Parameter Name Service Parameter Value
— Not Selected — <NotExist >

Done Local intranet



Translation Pattern for Incoming Calls

Cisco CallManager 4.0 Administration - Translation Pattern Configuration - Microsoft Internet Explorer

Address: <http://cm-klngon/CCMAdmin/translationconfig.asp?pkid={89B55D17-7179-4943-A5CF-EED9D09BF290}>

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 —"/>
<input checked="" type="checkbox"/> Provide Outside Dial Tone	<input checked="" type="checkbox"/> Urgent Priority

Calling Party Transformations

Use Calling Party's External Phone Number Mask

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

Connected Party Transformations

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

Called Party Transformations

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

* indicates required item.

Done Local intranet



Translation Pattern for Incoming PSTN Calls

Cisco CallManager 4.0 Administration - Translation Pattern Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <http://cm-kingon/CCMAdmin/translationconfig.asp?pkid={2D5BF4DF-A357-4E1E-AE86-FA2CEE8CD5DF}> Go Links >>

Translation Pattern Configuration

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

Translation Pattern: 8XXX
Status: Ready

Copy Update Delete

Pattern Definition

Translation Pattern	8XXX
Partition	Incoming Trunk
Description	
Numbering Plan*	North American Numbering Plan
Route Filter	< None >
Calling Search Space	Phones
MLPP Precedence	Default
Route Option	<input checked="" type="radio"/> Route this pattern <input type="radio"/> Block this pattern — Not Selected —
<input checked="" type="checkbox"/> Provide Outside Dial Tone	<input checked="" type="checkbox"/> Urgent Priority

Calling Party Transformations

Use Calling Party's External Phone Number Mask

Calling Party Transform Mask	
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	4XXX
Prefix Digits (Outgoing Calls)	

* indicates required item.

Done Local intranet



CLIR Route Pattern Configuration

Cisco CallManager 4.0 Administration - Route Pattern/Hunt Pilot Configuration - Microsoft Internet Explorer

Address: http://cm-klngon/CCMAdmin/routepatternconfig.asp?pkid={C26A5255-B1A4-403E-A274-612D32EE2E60}&status=uc

Route Pattern/Hunt Pilot: 2XXX

Status: Update completed
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*	2XXX	
Partition	< None >	
Description		
Numbering Plan*	North American Numbering Plan	
Route Filter	< None >	
MLPP Precedence	Default	
Gateway or Route/Hunt List*	S0/DS1-0@SDA0001C9D93A98 (Edit)	
Route Option	<input checked="" type="radio"/> Route this pattern <input type="radio"/> Block this pattern (Not Selected)	
<input checked="" type="checkbox"/> Provide Outside Dial Tone	<input type="checkbox"/> Allow Overlap Sending	<input type="checkbox"/> 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	Restricted
Calling Name Presentation	Default

Connected Party Transformations

Connected Line ID Presentation	Default
Connected Name Presentation	Default

Called Party Transformations

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

ISDN Network-Specific Facilities Information Element

Carrier Identification Code		
Network Service Protocol	Not Selected	
Network Service	Service Parameter Name	Service Parameter Value
Not Selected	< Not Exist >	

Local intranet



CNIR Route Pattern Configuration

Cisco CallManager 4.0 Administration - Route Pattern/Hunt Pilot Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address http://cm-klngon/CCMAdmin/routepatternconfig.asp?pkid={C26A5255-B1A4-403E-A274-612D32EE2E60}&status=uc

Route Pattern/Hunt Pilot: 2XXX

Status: Update completed
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* 2XXX

Partition <None >

Description

Numbering Plan* North American Numbering Plan

Route Filter <None >

MLPP Precedence Default

Gateway or Route/Hunt List* S0/DS1-0@SDA0001C9D93A98 (Edit)

Route Option

Route this pattern

Block this pattern — Not Selected —

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 Default

Calling Name Presentation Restricted

Connected Party Transformations

Connected Line ID Presentation Default

Connected Name Presentation Default

Called Party Transformations

Discard Digits <None >

Called Party Transform Mask

Prefix Digits (Outgoing Calls)

ISDN Network-Specific Facilities Information Element

Carrier Identification Code

Network Service Protocol — Not Selected —

Network Service Service Parameter Name Service Parameter Value

— Not Selected — < Not Exist >

Done Local intranet



COLR Translation Pattern Configuration

Cisco CallManager 4.0 Administration - Translation Pattern Configuration - Microsoft Internet Explorer

Address: <http://cm-klngon/CCMAdmin/translationconfig.asp?pkid={89B55D17-7179-4943-A5CF-EED9D09BF290}&status=uc>

Translation Pattern Configuration

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

Translation Pattern: 4XXX
Status: Update completed

Copy Update Delete

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 -"/>
<input checked="" type="checkbox"/> Provide Outside Dial Tone	<input checked="" type="checkbox"/> Urgent Priority

Calling Party Transformations

Use Calling Party's External Phone Number Mask

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

Connected Party Transformations

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

Called Party Transformations

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

* indicates required item.

Done Local intranet



CONR Translation Pattern Configuration

Cisco CallManager 4.0 Administration - Translation Pattern Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media Print

Address http://cm-klngon/CCMAdmin/translationconfig.asp?pkid={89B55D17-7179-4943-A5CF-EED9D09BF290}&status=uc Go Links

Translation Pattern Configuration

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

Translation Pattern: 4XXX
Status: Update completed

Copy Update Delete

Pattern Definition

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

Provide Outside Dial Tone Urgent Priority

Calling Party Transformations

Use Calling Party's External Phone Number Mask

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

Connected Party Transformations

Connected Line ID Presentation	Default
Connected Name Presentation	Restricted

Called Party Transformations

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

* indicates required item.

Done Local intranet



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
7715
7715
Phones
- Line 2 - Add new DN
7715
7715

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

Copy Update Delete Reset Phone

Phone Configuration (Model = Cisco 7960)

Device Information

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

Phone Button Template Information

Phone Button Template*	Standard 7960 (View button list)
------------------------	----------------------------------

Softkey Template Information

Softkey Template	< None >
------------------	----------

Expansion Module Information

Module 1	< None >
Module 2	< None >

Local intranet



Cisco CallManager 4.0 Administration - Phone Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address http://cm-klington/CCMAdmin/phoneconfig.asp?pkid={23EE0A35-0B85-42D6-8B13-18D674D3F2CE}

Firmware Load Information (leave blank to use default)

Phone Load Name

Module 1 Load Name (Module 1 selection required)

Module 2 Load Name (Module 2 selection required)

Cisco IP Phone - External Data Locations (leave blank to use default)

Information

Directory

Messages

Services

Authentication Server

Proxy Server

Idle

Idle Timer (seconds)

Extension Mobility (Device Profile) Information

Enable Extension Mobility Feature

Log Out Profile

Log In User ID

Log In Time

Log Out Time

Multilevel Precedence and Preemption (MLPP) Information

MLPP Domain (e.g., "0000FF")

MLPP Indication

MLPP Preemption

Product Specific Configuration

Disable Speakerphone

Disable Speakerphone and Headset

Forwarding Delay*

PC Port*

Settings Access*

Gratuitous ARP*

PC Voice VLAN Access*

Local intranet



Cisco CallManager 4.0 Administration - Directory Number Configuration - Microsoft Internet Explorer

Address: http://cm-kingon/CCMAdmin/directorynumber.asp?NumPlanMapID={FDF4C8AE-583C-4480-9C58-36FC82BAA685}

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" 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

Done Local intranet



Cisco CallManager 4.0 Administration - Directory Number Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media Print

Address <http://cm-kingon/CCMAdmin/directorynumber.asp?NumPlanMapID={FDF4C8AE-583C-4480-9C58-36FC82BAA685}> Go Links >>

Message Waiting Lamp Policy Use System Policy

Ring Setting (Phone Idle) Use System Default

Ring Setting (Phone Active)** Use System Default

Multiple Call / Call Waiting Settings

Maximum Number of Calls* 4 (1 - 200)

Busy Trigger* 2 (<= Max. Calls)

Forwarded Call Information Display

Caller Name Caller Number

Redirected Number Dialed Number

* indicates required item; changes to Line or Directory Number settings require restart.

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

Note:
If you are using a language other than English for Display (Internal Caller ID) or Line Text Label text, make sure the correct character set (shown below) is selected. Text displays incorrectly if the wrong character set is selected. (English characters are included in all character sets.)

Character Set Western European (Latin 1)

Done Local intranet



Acronyms

Acronym	Definitions
CCM	Cisco Unified CallManager
CFB	Call Forwarding Busy
CFNR	Call Forwarding No Reply
CFU	Call Forwarding Unconditional
CLIP	Calling Line (Number) Identification Presentation
CLIR	Calling Line (Number) Identification Restriction
CNIP	Calling Name Identification Presentation
CNIR	Calling Name Identification Restriction
COLP	Connected Line (Number) Identification Presentation
COLR	Connected Line (Number) Identification Restriction
CONP	Connected Name Identification Presentation
CONR	Connected Name Identification Restriction
CT	Call Transfer
PSTN	Public Switched Telephone Network

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