

Cisco Catalyst 6608 Voice Gateway - PBX Interoperability: Siemens HiPath 4300 PBX with Cisco CallManager with E1 QSIG

Introduction

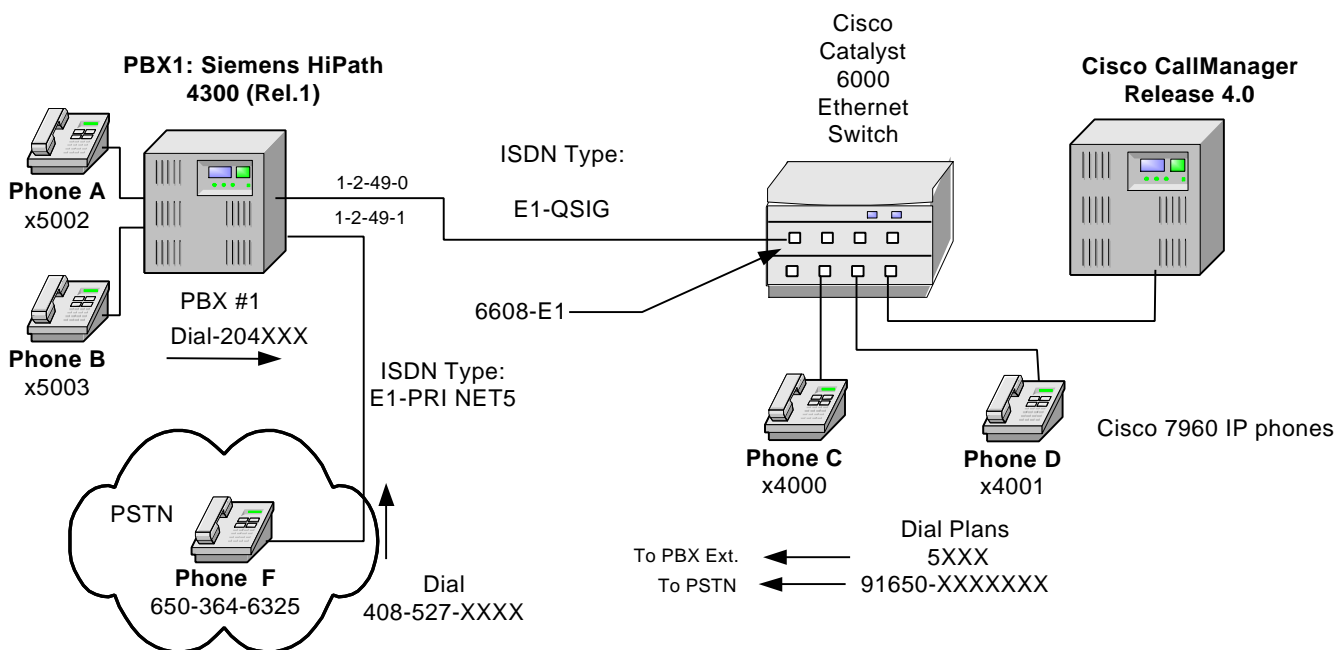
This is an application note for connectivity of the Siemens HiPath 4300 Release 1 PBX with Cisco CallManager Release 4.0 using Cisco 6608-E1 QSIG as MGCP gateway.

- Connectivity is achieved by using the PRI ISO QSIG E1 protocol type on the MGCP gateway and the PSS1V2 switch type on the Siemens HiPath 4300 PBX.
- Siemens HiPath 4300 PBX uses sequential channel numbering (1-30) when ISO QSIG protocol “PSS1V2” is selected. Therefore, the Cisco 6608-E1 Gateway configuration for Channel IE Type field should be set to Continuous Number.

Network Topology

The following diagram shows the test setup for end-to-end interoperability with the Cisco CallManager connected to the PBX via 6608-E1 QSIG link as MGCP gateway.

Basic Call Setup End-to-End Configuration





Limitations

Cisco CallManager (CCM4.0) release does not support the following:

- Sending Alerting Name or Busy Name Identification information.
- Calling Name Identification Presentation
- Calling Number Identification Presentation
- Connected Name Identification Presentation
- Connected Number Identification Presentation

System Components

Hardware Requirements

- Cisco Catalyst 6000 switch with 6608-E1 Gateway
- Siemens HiPath 4300 PBX, DIU-N

Software Requirements

- PBX Software Release 1
- Cisco CallManager Release 4.0

Configuration

Configuring the Siemens Hicom 330E PBX

Configure the PBX in the following sequence:

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.

DPLN

```
<DISPLAY-WABE:TYPE=GEN;
```

```
DISPLAY-WABE:TYPE=GEN;
```

```
H500: AMO WABE STARTED
```




```

| 83          | . .**** ..*** **... .. . * | SPDC1      |          |
| 84          | . .**** ..*** **... .. . * | SPDC2      |          |
| 88          | . . . . . * .. . . . . . . . * | SCONSI     | R        |
| 89          | . . . . . * .. . . . . . . . | SCONSCO    | R        |
| *13         | . . . . * .. . . . . . . . . | AHTVCE     |          |
| *15         | . * . . . . * .. . . . . . . * | SPLIT      |          |
| *16         | . . . . * .. . . . . * .. . . . | AREM       |          |
| *17         | . * . . . . * .. . . . . . . . | TRACE      |          |
| *18         | . . . . * .. . . . . . . . . | ACOSX      |          |
| *19         | . * . . . . . . . . . . . . . | KNOVR      |          |
| *20         | . . . . * .. . . . . . . . . | ADND       |          |
| *25         | . . . . * .. . . . . . . . . | FWDTERM    |          |

```

```

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

```

```

|          |          CALL PROGRESS STATE          | DIGIT | RESERVED/CONVERT |
| CODE    |          1 11111 11112 22 | ANALYSIS | DNI/ADD-INFO    |
|          | 0 12345 67890 12345 67890 12 | RESULT  | *=OWN NODE      |
-----

```

```

| *29         | . . . . * .. . . . . * .. . . . | AFFWDVCE   |          |
-----

```

AMO-WABE -216 DIALLING PLANS, FEATURE ACCESS CODES

DISPLAY COMPLETED;

Enbloc Sending Dial Plan, DPLN

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

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

H500: AMO LDPLN STARTED

```

+-----+-----+
|          |          |
| LDPNO :   5 | LDP : 20-XXXX |

```



```
|          | SPC : 22          |
|          | FDSFIELD : 0    SDSFIELD : 0    PINDP : N    |
+-----+-----+-----+-----+-----+
| DPLN | LROUTE | LAUTH          |
+-----+-----+-----+-----+
|  0  |    20  | 3              |
|  1  |    20  | 3              |
|  2  |    20  | 3              |
|  3  |    20  | 3              |
|  4  |    20  | 3              |
|  5  |    20  | 3              |
|  6  |    20  | 3              |
|  7  |    20  | 3              |
|  8  |    20  | 3              |
|  9  |    20  | 3              |
| 10  |    20  | 3              |
| 11  |    20  | 3              |
| 12  |    20  | 3              |
| 13  |    20  | 3              |
| 14  |    20  | 3              |
| 15  |    20  | 3              |
+-----+-----+-----+-----+-----+
```

AMO-LDPLN-216 ADMINISTRATION LCR DIALPLAN

DISPLAY COMPLETED;

Overlap Sending Dial Plan, DPLN

```
<DISPLAY-LDPLN:TYPE=LDP,LDPNO=5;
DISPLAY-LDPLN:TYPE=LDP,LDPNO=5;
H500: AMO LDPLN STARTED
```

```
+-----+-----+-----+-----+-----+
|          |          |          |          |          |
| LDPNO : 5 | LDP : 20-X |          |          |          |
|          |          | SPC : 22 |          |          |
|          |          | FDSFIELD : 0    SDSFIELD : 0    PINDP : N    |
+-----+-----+-----+-----+-----+
```



```

+-----+-----+-----+
| DPLN | LROUTE | LAUTH |
+-----+-----+-----+
| 0 | 20 | 3 |
| 1 | 20 | 3 |
| 2 | 20 | 3 |
| 3 | 20 | 3 |
| 4 | 20 | 3 |
| 5 | 20 | 3 |
| 6 | 20 | 3 |
| 7 | 20 | 3 |
| 8 | 20 | 3 |
| 9 | 20 | 3 |
| 10 | 20 | 3 |
| 11 | 20 | 3 |
| 12 | 20 | 3 |
| 13 | 20 | 3 |
| 14 | 20 | 3 |
| 15 | 20 | 3 |
+-----+-----+-----+

```

AMO-LDPLN-216 ADMINISTRATION LCR DIALPLAN
 DISPLAY COMPLETED;

BCSU

<DISPLAY-BCSU:TYPE=TBL,LTG=1,LTU=2,SLOT=49;

DISPLAY-BCSU:TYPE=TBL,LTG=1,LTU=2,SLOT=49;

H500: AMO BCSU STARTED

ADDRESS : LTG 1 LTU 2 SOURCE GROUP 1

```

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

```

AMO-BCSU -216 BOARD CONFIGURATION, SWITCHING UNIT
 DISPLAY COMPLETED;

Class of Trunk, COT

<DISPLAY-COT:COTNO=21;

DISPLAY-COT:COTNO=21;

H500: AMO COT STARTED



COT: 21 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 FORWARDING NO-ANSWER	FNAN
SUPPRESSION OF RECALLS TO AC	RCLS
REGENERATED CO DIALTONE ON OUTGOING SEIZURE	COTN
TRANSFER OF USER ITR GROUPS VIA S0/S2 (NWU)	ITRN
DON'T RELEASE CALL TO BUSY HUNT GROUP	BSHT
DESTINATION NUMBER WITH PREFIX DIGITS TO CDR	DPRE
CONNECTION TO ROUTE OPTIMIZATION NODE	ROPT
INCOMING CDR BY ZONE OR FROM LINE	ICZL
TRUNK SENDS CALL CHARGES TO ORIGINATING NODE NUMBER	TRSC
USE DEFAULT NODE NUMBER OF LINE	DFNN
CALL FORWARDING PROGRAMING FOR OTHER SUBSCRIBERS	CFOS
NO TONE	NTON

AMO-COT -216 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:

CO TRUNK ACCESS:

TRUNK ACCESS TA

TOLL ACCESS:

TRUNK ACCESS TA

AMO-COP -216 CLASS OF PARAMETER FOR DEVICE HANDLER

DISPLAY COMPLETED;

Class of Service, COSSU

<DISPLAY-COSSU:TYPE=COS,COS=10;

DISPLAY-COSSU:TYPE=COS,COS=10;

H500: AMO COSSU STARTED

```

+-----+-----+-----+-----+
| COS | VOICE | FAX | DTE |
+-----+-----+-----+-----+
| 10 |> | | |
| | TA | NOCO | NOCO |
| | TNOTCR | NOTIE | NOTIE |
| | CDRC | | |
| | | | |
+-----+-----+-----+-----+

```

AMO-COSSU-216 CLASSES OF SERVICE

DISPLAY COMPLETED;

<DISPLAY-COSSU:TYPE=LCOSV,LCOSV=1;

DISPLAY-COSSU:TYPE=LCOSV,LCOSV=1;



H500: AMO COSSU STARTED

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| LCOS |                                     LAUTH |         |
|  V  |         1         2         3         4         5         6 |         |
|     | 123456789012345678901234567890123456789012345678901234 | COPIN |
|     | >SERVICE INFORMATION                                     | NUM |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|  1 | X..... | 0 |
|     | >LCR ATTENDANT FOR VOICE |         |
+-----+-----+-----+-----+-----+-----+-----+-----+

```

AMO-COSSU-216 CLASSES OF SERVICE

DISPLAY COMPLETED;

Trunk Group Access Code, BUEND

<DISPLAY-BUEND:TGRP=20;

DISPLAY-BUEND:TGRP=20;

H500: AMO BUEND STARTED

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| TGRP NUMBER : 20 TGRP NAME : PRI PSSV1 MAXIMUM NO. : 70 |
| CHARCON : NEUTRAL |
| SUBGROUP NO.: 3 DEVICE TYPE : S2CONN TRACENO : 0 |
| RESERVED : N SEARCH MODE : CIRCULAR ACD THRESHOLD : * |
| NUMBER OF ASSOCIATED ROUTES : 1 PRIORITY : 2 |
| TDDRFLAG : ON TDDRTHRESHOLD: 3 SOURCEGROUPIDX : 1 |
| GDTRRULE : 0 ACDPMGRP : 0 |
| THE FOLLOWING TRUNKS (LTG-LTU-SLOT-CCT) HAVE BEEN ALLOCATED: |
+-----+-----+-----+-----+-----+-----+-----+-----+
| 1- 2- 49-0 1 | 1- 2- 49-0 2 | 1- 2- 49-0 3 |
| 1- 2- 49-0 4 | 1- 2- 49-0 5 | 1- 2- 49-0 6 |
| 1- 2- 49-0 7 | 1- 2- 49-0 8 | 1- 2- 49-0 9 |

```



```

| 1- 2- 49-0      10 | 1- 2- 49-0      11 | 1- 2- 49-0      12 |
| 1- 2- 49-0      13 | 1- 2- 49-0      14 | 1- 2- 49-0      15 |
| 1- 2- 49-0      16 | 1- 2- 49-0      17 | 1- 2- 49-0      18 |
| 1- 2- 49-0      19 | 1- 2- 49-0      20 | 1- 2- 49-0      21 |
| 1- 2- 49-0      22 | 1- 2- 49-0      23 | 1- 2- 49-0      24 |
| 1- 2- 49-0      25 | 1- 2- 49-0      26 | 1- 2- 49-0      27 |
| 1- 2- 49-0      28 | 1- 2- 49-0      29 | 1- 2- 49-0      30 |

```

```

+-----+

```

```

AMO-BUEND-216      TRUNK GROUP

```

```

DISPLAY COMPLETED;

```

Trunk Configuration, TDCSU

For Master-side Configuration

```

<dis-tdcsu:1-2-49-0

```

```

PEN2 = ;

```

```

DIS-TDCSU:1-2-49-0,;

```

```

H500: AMO TDCSU STARTED

```

```

+----- DIGITAL TRUNK (FORMAT=L) -----+

```

```

| DEV      = S2CONN      PEN      = 1-02-049-0  TGRP      = 20      |
|-----|
| PROTVAR = PSS1V2      INS      = Y          SRCHMODE = CIR      |
| COTNO    = 21          COPNO    = 21          DPLN     = 0      |
| ITR      = 1          COS      = 10          LCOSV    = 1      |
| LCOSD    = 1          CCT      = HICOM S2     DESTNO   = 1      |
| SEGMENT  = 1          DEDSCC   =             DEDSVC  = NONE   |
| FACILITY =             DITIDX  =             SRTIDX  =      |
| TRTBL    = GDTR       SIDANI   = N          ATNTYP  = TIE     |
| CBMATTR  = NONE      NWMUXTIM = 10          TCHARG  = N      |
| SUPPRESS = 0          DGTPR    =             CHIMAP  = N      |
| ISDNIP   =             ISDNNP  =             |
| PNPL2P   =             PNPL1P  =             PNPAC   =      |

```



```

| TRACOUNT = 31          SATCOUNT = MANY          NNO      = 1  -1  -300 |
| ALARMNO  = 0          FIDX      = 1             CARRIER = 1          |
| ZONE     = EMPTY     COTX      = 21           FWDX     = 5          |
| DOMTYPE  =           DOMAINNO =              TPROFNO =          |
| INIGHT   =           CCHDL     =              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          |
| BCHAN    = 1 && 30    |
|
+-----+

```

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

```

AMO-TDCSU-216          DIGITAL TRUNKS
DISPLAY COMPLETED;
<DISPLAY-LWPAR:INFOPAT="1",FORMAT=L;
DISPLAY-LWPAR:INFOPAT="1",FORMAT=L;
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-216 LOADWARE PARAMETERS FOR NETWORKING MODULES

DISPLAY COMPLETED;

For Slave-side Configuration

<DIS-TDCSU:1-2-49-0,;

H500: AMO TDCSU STARTED

```

+----- DIGITAL TRUNK (FORMAT=L) -----+
| DEV      = S2CONN            PEN      = 1-02-049-0    TGRP      = 20
|-----+
| PROTVAR = PSS1V2            INS      = Y                    SRCHMODE = CIR
| COTNO    = 21                COPNO    = 21                    DPLN     = 0
| ITR      = 1                COS      = 10                    LCOSV    = 1
| LCOSD    = 1                CCT      = HICOM S2            DESTNO   = 1
| SEGMENT  = 1                DEDSCC  =                    DEDSVC   = NONE
| FACILITY =                DITIDX  =                    SRTIDX   =
| TRTBL    = GDTR            SIDANI   = N                    ATNTYP   = TIE
| CBMATTR  = NONE            NWMUXTIM = 10                    TCHARG   = N
| SUPPRESS = 0                DGTPR   =                    CHIMAP   = N
| ISDNIP   =                ISDNPN  =
| PNPL2P   =                PNPL1P  =                    PNPAC    =
| TRACOUNT = 31                SATCOUNT = MANY                NNO      = 1 -1 -300
| ALARMNO  = 0                FIDX    = 1                    CARRIER = 1
| ZONE     = EMPTY            COTX    = 21                    FWDX     = 5
| DOMTYPE  =                DOMAINNO =                    TPROFNO  =
| INIGHT   =                                                            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           |
| BCHAN   = 1 && 30     |
|-----+
```

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

AMO-TDCSU-216 DIGITAL TRUNKS
DISPLAY COMPLETED;
DISPLAY-LWPAR:INFOPAT="0",FORMAT=L;
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-216 LOADWARE PARAMETERS FOR NETWORKING MODULES
DISPLAY COMPLETED;



Reference Clock Configuration, REFTA

For Master-side Configuration

<DISPLAY-REFTA:TYPE=CIRCUIT,PEN=1-2-49-0;

DISPLAY-REFTA:TYPE=CIRCUIT,PEN=1-2-49-0;

H500: AMO REFTA STARTED

```

+-----+
|           R E F E R E N C E   C L O C K   C I R C U I T S           |
+-----+-----+-----+-----+-----+-----+-----+-----+
| PEN          | MODULE  | DEVICE  | PRI | ERROR | BLOCK | SUPP. | READY | SRCGRP |
|              |         |         |    |      |      |      | BUT  |      |
|              |         |         |    |      |      |      | ASYN. |      |
+-----+-----+-----+-----+-----+-----+-----+-----+
| 1- 2- 49- 0 | DIU-N2  | S2CONN  | 0  | 0    | N    |      | N    | 1    |
+-----+-----+-----+-----+-----+-----+-----+-----+

```

AMO-REFTA-216 REFERENCE CLOCK TABLE

DISPLAY COMPLETED;

For Slave-side Configuration

<DISPLAY-REFTA:TYPE=CIRCUIT,PEN=1-2-49-0;

DISPLAY-REFTA:TYPE=CIRCUIT,PEN=1-2-49-0;

H500: AMO REFTA STARTED

```

+-----+
|           R E F E R E N C E   C L O C K   C I R C U I T S           |
+-----+-----+-----+-----+-----+-----+-----+-----+
| PEN          | MODULE  | DEVICE  | PRI | ERROR | BLOCK | SUPP. | READY | SRCGRP |
|              |         |         |    |      |      |      | BUT  |      |
|              |         |         |    |      |      |      | ASYN. |      |
+-----+-----+-----+-----+-----+-----+-----+-----+
| 1- 2- 49- 0 | DIU-N2  | S2CONN  | 11 | 0    | N    |      | N    | 1    |
+-----+-----+-----+-----+-----+-----+-----+-----+

```



AMO-REFTA-216 REFERENCE CLOCK TABLE

DISPLAY COMPLETED;

Trunk Least Cost Routing Configuration

LDAT

<DISPLAY-LDAT:TYPE=LCR,LROUTE=20;

DISPLAY-LDAT:TYPE=LCR,LROUTE=20;

H500: AMO LDAT STARTED

```

+-----+
| LROUTE = 20   LDPLN      NAME = PSS1V                SERVICE = ALL |
| TYPE = LCR                                DNNO OF ROUTE =    111 |
| SERVICE INFO =                               |
+-----+-----+-----+-----+-----+-----+-----+-----+
|           |           |           |           |           | SCHEDULE | CARRIER   |           |           |
| LRTEL    | LVAL    | TGRP    | ODR    | LAUTH   | ABCDEFGH |           | ZONE    | LATTR  | LDSRT  |
+-----+-----+-----+-----+-----+-----+-----+-----+
|           1 |           1 |           20 |           15 |           3 | ***** |           1 |           EMPTY |           NONE |           |
+-----+-----+-----+-----+-----+-----+-----+-----+

```

AMO-LDAT -216 LCR-DIRECTIONS

DISPLAY COMPLETED;

RICHT

<DISPLAY-RICHT:MODE=LRTE,LRTE=20;

DISPLAY-RICHT:MODE=LRTE,LRTE=20;

H500: AMO RICHT STARTED

```

+-----+
| LRTE = 20     NAME = PSS1V                (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 =    3 |
| EMCYRTT = NO          CONFTONE = NO  RERINGRP = NO    RTENO =    3 |
| INFO = |
+-----+
| TGRP =  20  LDAT  PRI  PSSV1          (NEUTRAL)  SUBGROUP =    3 |
+-----+
```

AMO-RICHT-216 TRUNK ROUTING

DISPLAY COMPLETED;

LCR Out-dial Rules, LODR

<DISPLAY-LODR:ODR=15;

DISPLAY-LODR:ODR=15;

H500: AMO LODR STARTED

```
+-----+
| ODR    POSITION  CMD          PARAMETER |
+-----+-----+
|  15    |    1    ECHO        2 |
|         |    2    END |
+-----+-----+
```

H03: THE NEXT FREE ODR IS 1

AMO-LODR -216 ADMINISTRATION OF LCR OUTDIAL RULES

DISPLAY COMPLETED;

Configuring Cisco CallManager



6608-E1 Gateway Configuration

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={2E043967-780A-4425-8FEF-343CBAD17186}&type=2 Go Links

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 E1 VoIP Gateway
Gateway : S0/DS1-0@SDA0001C9D8633E
Device Protocol: Digital Access PRI
Registration: Registered with Cisco CallManager 172.20.32.254
IP Address: 172.20.32.103

Status: Ready

Device Information

MAC Address*	<input type="text" value="0001C9D8633E"/>
Description	<input type="text" value="SDA0001C9D8633E"/>
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	Not available on this device
MLPP Preemption	Not available on this device

Interface Information

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

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={2E043967-780A-4425-8FEF-343CBAD17186}&type=2> Go Links

PCM Type* A-law

Delay for first restart (1/8 sec ticks) 32

Delay between restarts (1/8 sec ticks) 4

Inhibit restarts at PRI initialization

Enable status poll

Call Routing Information

Inbound Calls

Significant Digits* All

Calling Search Space Phones

AAR Calling Search Space < None >

Prefix DN

Outbound Calls

Calling Line ID Presentation* Default

Calling Party Selection* Originator

Called party IE number type unknown* Cisco CallManager

Calling party IE number type unknown* Cisco CallManager

Called Numbering Plan* Private

Calling Numbering Plan* Cisco CallManager

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 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

Back Forward Stop Home Search Favorites Media Print

Address <http://cm-klngon/CCMAdmin/gatewayconfig.asp?pkid={2E043967-780A-4425-8FEF-343CBAD17186}&type=2> 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*

Framing*

Audio Signal Adjustment into IP Network*

Audio Signal Adjustment from IP Network*

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*

Fax Payload Size*

Non Standard Facilities Country Code*

Non Standard Facilities Header

Local intranet



Cisco CallManager 4.0 Administration - Gateway Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

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Address <http://cm-klington/CCMAdmin/gatewayconfig.asp?pkid={2E043967-780A-4425-8FEF-343CBAD17186}&type=2> Go Links >>

Non Standard Facilities Vendor Code*

Fax/Modem Packet Redundancy*

NSE Type*

Playout Delay Parameters

Initial Playout Delay*

Minimum Playout Delay*

Maximum Playout Delay*

Echo Canceller Configuration

Echo TailLength (ms)*

Minimum ERL (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](#)

Local intranet



Enbloc Route Pattern Configuration

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

File Edit View Favorites Tools Help

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Address http://cm-klinton/CCMAdmin/routepatternconfig.asp?pkid={89F5482D-22A8-4FEE-A402-C2E89728F18D} Go Links

Route Pattern/Hunt Pilot: 5XXX

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* 5XXX

Partition < None >

Description

Numbering Plan* North American Numbering Plan

Route Filter < None >

MLPP Precedence Default

Gateway or Route/Hunt List* S0/DS1-0@SDA0001C9D8633E (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



Overlap Sending Route Pattern Configuration

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

File Edit View Favorites Tools Help

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Address http://cm-kljngon/CCMAdmin/routepatternconfig.asp?pkid={E959BFF6-5645-4444-9E24-2768AFCAAD03} Go Links

Route Pattern/Hunt Pilot: 9.X

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"/>

Done Local intranet



PSTN Route Pattern Configuration

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

File Edit View Favorites Tools Help

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Address <http://cm-klington/CCMAdmin/routepatternconfig.asp?pkid={A0E58AC2-80ED-4857-9D43-DCC43AA6EA56}> Go Links

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*	<input type="text" value="91650XXXXXX"/>	
Partition	< None >	
Description	<input type="text"/>	
Numbering Plan*	North American Numbering Plan	
Route Filter	< None >	
MLPP Precedence	Default	
Gateway or Route/Hunt List*	S0/DS1-0@SDA0001C9D8633E (Edit)	
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 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	<input type="text"/>
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	<input type="text"/>
Prefix Digits (Outgoing Calls)	<input type="text"/>

ISDN Network-Specific Facilities Information Element

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

Done Local intranet



7960 IP phone Configuration



Cisco CallManager 4.0 Administration - Phone Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

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Address http://cm-klington/CCMAdmin/phoneconfig.asp?pkid={ED74929A-A8BB-4A58-8129-2E4358F511BB}

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 - 4001 in Phones
- Line 2 - Add new DN

Phone: SEP003094C39863 (Auto 4001)
Registration: Registered with Cisco CallManager 172.20.32.254
IP Address: [172.20.32.110](#)
Status: Ready

Copy Update Delete Reset Phone

Phone Configuration (Model = Cisco 7960)

Device Information

MAC Address*	003094C39863
Description	Auto 4001
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 >

Done Local intranet



Cisco CallManager 4.0 Administration - Phone Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

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Address http://cm-klington/CCMAdmin/phoneconfig.asp?pkid={ED74929A-A8BB-4A58-8129-2E4358F511BB} Go Links

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*

Video Capabilities*

Auto Line Select*

Done Local intranet



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

File Edit View Favorites Tools Help

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Address http://cm-klington/CCMAdmin/directorynumber.asp?NumPlanMapID={17A63DCE-8B3B-4403-A131-B02B19FC9CF4} Go Links

Directory Number Configuration

[Configure Device \(SEP003094C39863\)](#)
[Dependency Records](#)

Associated With
SEP003094C39863
7960 (Line 1)

Directory Number: 4001 (Phones)
Status: Ready
Note: Any update to this Directory Number automatically resets the associated devices

Update Remove from Device Reset Devices

Directory Number

Directory Number* 4001
Partition Phones

Directory Number Settings

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

Call Forward and Pickup Settings

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

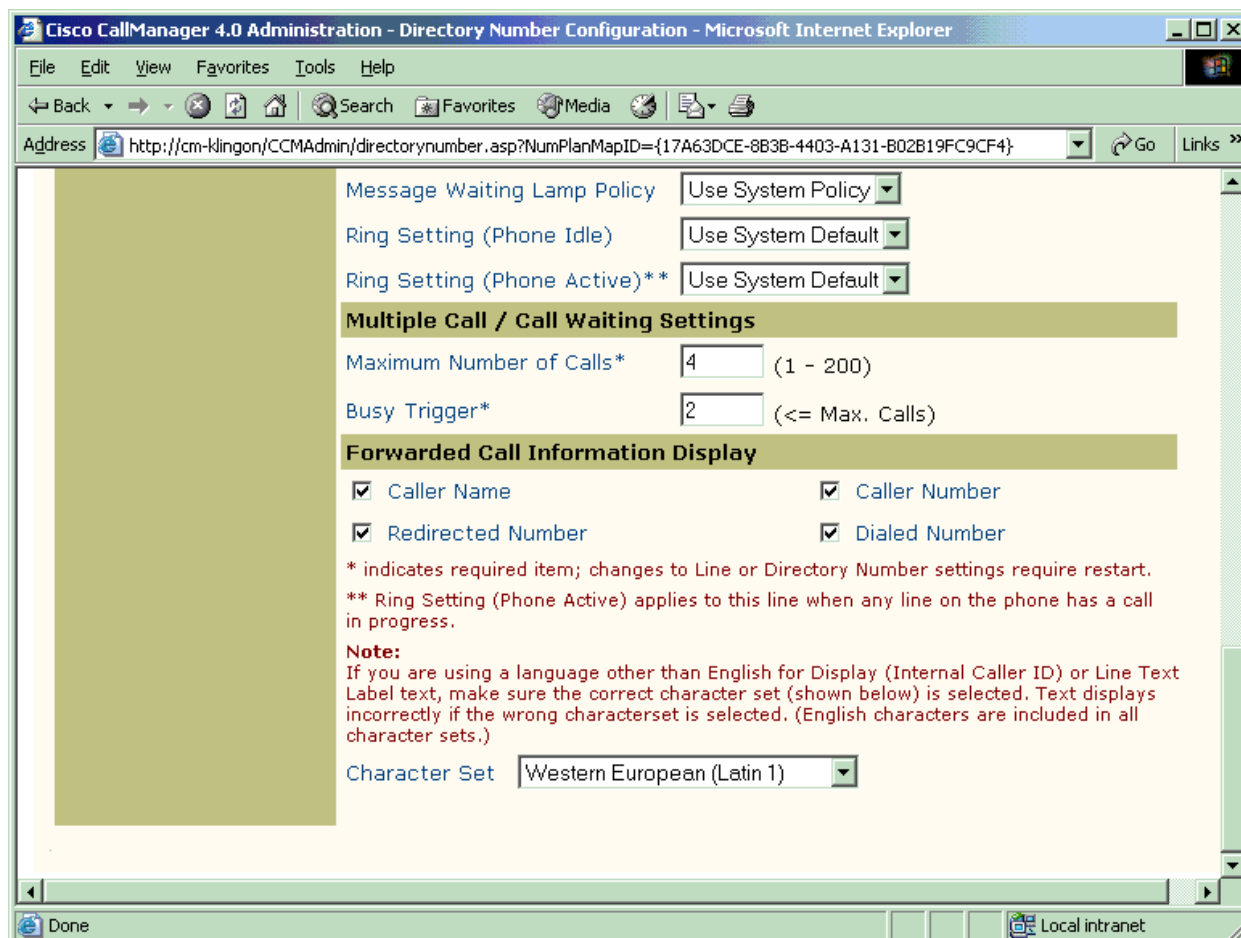
MLPP Alternate Party Settings

Target (Destination)
Calling Search Space <None>
No Answer Ring Duration (seconds)

Line Settings for this Device

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

Done Local intranet



Configuring the Catalyst 6000 Switch

```
Router# show version
```

```
WS-C6006 Software, Version NmpSW: 7.6(2)  
Copyright (c) 1995-2003 by Cisco Systems  
NMP S/W compiled on Jul 16 2003, 23:01:27
```

```
System Bootstrap Version: 5.3(1)  
System Boot Image File is 'slot0:cat6000-supk8.7-6-2.bin'  
System Configuration register is 0x2
```



Hardware Version: 2.0 Model: WS-C6006 Serial #: TBA04511172

PS1 Module: WS-CAC-1300W Serial #: SON04501278

Mod	Port	Model	Serial #	Versions
1	2	WS-X6K-SUP1A-2GE	SAD05010NBK	Hw : 7.0 Fw : 5.3(1) Fw1: 5.4(2) Sw : 7.6(2) Sw1: 7.6(2)
		WS-X6K-SUP1A-2GE	SAD05010NBK	Hw : 7.0 Sw :
3	48	WS-X6348-RJ-45	SAD04420N7B	Hw : 1.4 Fw : 5.4(2) Sw : 7.6(2)
		WS-F6K-VPWR		Hw : 1.0 Sw : 1.0
5	8	WS-SVC-NAM-2	SAD065002TK	Hw : 1.0 Fw : 7.2(1) Fw1: 7.2(1) Sw : 3.2(0.13) Sw1: 7.6(2)
6	8	WS-X6608-E1	SAD04380DW1	Hw : 1.1 Fw : 5.4(2) Sw : 7.6(2) HP1: D00404000003; DSP1: D0054133 (4.1. 33) HP2: (not online); DSP2: (not online) HP3: (not online); DSP3: (not online) HP4: D00403030020; DSP4: D0054130 (4.1.

30)



HP5: C00103010013; DSP5: C002E031 (3.3.

2)

HP6: C00103010013; DSP6: C002E031 (3.3.

2)

HP7: C00103010013; DSP7: C002E031 (3.3.

2)

HP8: C00103010013; DSP8: C002E031 (3.3.

2)

Module	DRAM			FLASH			NVRAM		
	Total	Used	Free	Total	Used	Free	Total	Used	Free
1	65408K	47433K	17975K	16384K	16107K	277K	512K	289K	223K

Uptime is 48 days, 9 hours, 54 minutes

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