

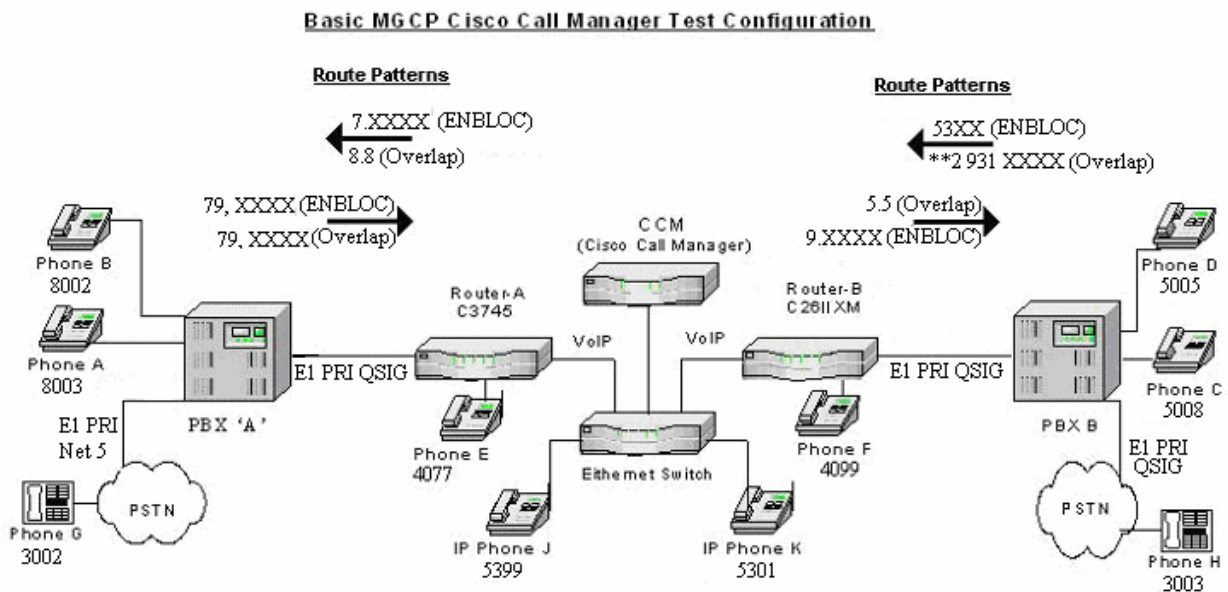
Cisco CallManager 4.01-PBX Interoperability: Siemens HiCom 330E to a Cisco 3745 Gateway using NM-HDV2-E1 PRI QSIG with MGCP

Introduction

- This application note contains the test results of Siemens HiCom 330E PBX interoperability testing via digital trunk (E1 PRI QSIG) interfaces under test to a Cisco C3745 Voice Router via NM-HDV2-E1 Voice Interface Modules.
- This application note is directed toward testing interoperability of the NM-HDV2-E1 Voice Interface Module with a Siemens HiCom 330E PBX.
- The application note is for Connectivity/Interoperability testing of the selected Siemens HiCom 330E PBX connected via the NM-HDV2-E1 Voice Interface Modules to a Cisco C3745 Voice Router. The Cisco C3745 Voice Router under test is connected via Ethernet to an Ethernet switch which also has a Cisco CallManager and IP Phones in the Network Topology.
- Figure 1 is representative of the configuration used for testing. The diagram shows the test set-up for a Cisco C3745 Voice Router connected through an Ethernet switch and controlled via MGCP by a Cisco Call Manager.

Network Topology

Figure 1. Network Topology or Test Setup





Limitations

- It was found in a prior test that the correct position of J7 on the NM-HDV2-T1/E1 Voice Interface Modules was critical to establish Layer 1 connectivity. Looking into the NM-HDV2-T1/E1 Voice Interface Modules in the direction of insertion into the Cisco C3745 Voice Router, the jumper should be placed to connect the left and middle pins.
- When calling a station controlled by MGCP (J, K, E, or F), the Called Name/Number were not displayed because Cisco CallManager 4.01 does not support it. It was **not** sent in the ALERTING message from Cisco CallManager.
- When calling directly from an MGCP controlled phone (J) to a Siemens HiCom 330E extension (A), the Called Number was not displayed because Cisco CallManager 4.01 does not support it. It was **not** sent in the ALERTING message from the Siemens HiCom 330E PBX.
- When calling directly from an MGCP controlled phone (J) to a Siemens HiCom 330E extension (A), the Called Name was not displayed because Cisco CallManager 4.01 does not support it. It was, however, sent in the ALERTING message from the Siemens HiCom 330E PBX.
- ENBLOC calls A to C, C to A, A to F, E to C, G to H, and H to G were accomplished by a call transfer.
- When calling (ENBLOC) from a Siemens HiCom 330E extension (A) to a Mitel Access 3300+ extension (C), the Calling Name was passed from the Siemens HiCom 330E PBX to the Mitel Access 3300+ PBX via Cisco CallManager in the SETUP message. However, a transfer was used to accomplish the call and the wrong name was displayed on the Mitel Access 3300+ extension although the SETUP message was properly formatted.
- When calling (Overlap mode) from a Siemens HiCom 330E extension (A) to a Mitel Access 3300+ extension (C), the Called Name/Number was passed from the Mitel Access 3300+ PBX to Cisco CallManager in the ALERTING message, and then from Cisco CallManager to the Siemens HiCom 330E PBX in a FACILITY message. However, the name/number was not displayed on the originating Siemens HiCom 330E PBX station. The same is true for Calling Name in ENBLOC mode.
- When calling from a Mitel Access 3300+ extension © to a Siemens HiCom 330E extension (A), the Called Name was passed from the Siemens HiCom 330E PBX to Cisco CallManager via ALERTING messages, and from Cisco CallManager to the Mitel Access 3300+ PBX via FACILITY messages. However, the name was not displayed on the originating Mitel Access 3300+ PBX station. This property is thought to be inherent to the Mitel Access 3300+ PBX.
- When calling from a Siemens HiCom 330E extension (A) to an MGCP controlled FXS port (F), the Calling Name appears during alerting, and then vanishes after answer (destination extension goes off-hook).
- When calling (Overlap mode) from a Siemens HiCom 330E extension (A) to a Mitel Access 3300+ extension (C), the Calling Name was passed from Siemens HiCom 330E PBX to Cisco CallManager to Mitel Access 3300+ PBX via SETUP message, but Mitel Access 3300+ PBX did not display it on destination.
- When calling (Overlap mode) from a Mitel Access 3300+ extension © to a Siemens HiCom 330E extension (A), the Called Number was **not** passed by the Siemens HiCom 330E PBX.

System Components

Hardware Requirements

- Cisco C3745 Voice Router including NM-HDV2-2T1/E1 Voice Interface Modules
- Siemens HiCom 330E PBX

Software Requirements

- Cisco CallManager release 4.01
- Siemens HiCom 330E PBX software release 5.1-e2.404-0-k-uk-c6s2
- Cisco IOS C3745 Voice Router: Cisco IOS Software, 3700 Software (C3745-ADVENTERPRISEK9-M), Version 12.3(7)T, Release Software (fc1)



Configuration

Configuration Menus and Commands

Configuring the Siemens HiCom 330E PBX

```
dis-tdcsu:1-1-79-0;
```

```
DIS-TDCSU:1-1-79-0;
```

```
H500: AMO TDCSU STARTED
```

```
+----- DIGITAL TRUNK (FORMAT=L) -----+
|          DEV = S2CONN          PEN = 1-01-079-0          |
|-----|
| COTNO    = 5          COPNO    = 4          DPLN      = 0          |
| ITR      = 0          COS      = 32         LCOSV     = 32         |
| LCOSD    = 32         CCT      =           DESTNO    = 55         |
| PROTVAR  = PSS1V2    SEGMENT  = 1          TCHARG    = N          |
| SUPPRESS = 0          DGTPR   =           CHIMAP    = N          |
| ISDNCC   =           ISDNAC   =           ISDNLC    =           |
| ISDNIP   =           ISDNNP   =           |
| PNPL2C   =           PNPL1C   =           PNPLC     =           |
| PNPL2P   =           PNPL1P   =           PNPAC     =           |
| TRACOUNT = 31         SATCOUNT = MANY     NNO       = 55         |
| ALARMNO  = 0          FIDX     = 1          CARRIER  = 1          |
| ZONE     = EMPTY     COTX     = 4          FWDX      = 10         |
| DOMTYPE  =           DOMAINNO =           TPROFNO  =           |
| INIGHT   =           |
| CCHDL    =           UUSCCX   = 16         UUSCCY    = 8          |
|-----|
| TGRP     = 70         SRCHMODE = ASC        BCNEG     = N          |
| BCGR     = 1          INS      = Y          LWPAR    = 2          |
| LWPP     = 0          LWLT    = 0          LWPS     = 0          |
| LWR1     = 0          LWR2    = 0          |
| BCHAN    1 && 30     |
|-----|
```



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

AMO-TDCSU-111 DIGITAL TRUNKS

DISPLAY COMPLETED;

<DISPLAY-COSSU:TYPE=COS,COS=32;

DISPLAY-COSSU:TYPE=COS,COS=32;

H500: AMO COSSU STARTED

```

+-----+-----+-----+-----+-----+-----+
| COS | VOICE | FAX | TTX | VTX | DTE |
+-----+-----+-----+-----+-----+
| 32 |>32:TRUNKS | | | | |
| | TA | NOCO | NOCO | NOCO | TA |
| | TNOTCR | NOTIE | NOTIE | NOTIE | TNOTCR |
| | | | | | BASIC |
| | | | | | MSN |
| | | | | | CDRINT |
| | | | | | MULTRA |
+-----+-----+-----+-----+-----+

```

AMO-COSSU-111 CLASSES OF SERVICE, SWITCHING UNIT

DISPLAY COMPLETED;

<DISPLAY-COT:COTNO=5;

DISPLAY-COT:COTNO=5;

H500: AMO COT STARTED

COT: 5 INFO: 5:ECMA1 V2.0

DEVICE: INDEP SOURCE: DB

PARAMETER:

```

PRIORITY FOR AC WILL BE DETERMINED FROM MESSAGE          PRI
RECALL IF USER HANGS UP IN CONSULTATION CALL            RCL
TRUNK CALL TRANSFER                                     XFER

```



TRUNK SIGNALING ANSWER	ANS
CHANGEOVER FROM HOLD TO RING TONE	CHRT
KNOCKING OVERRIDE POSSIBLE	KNOR
CALL EXTEND FOR BUSY, RING OR CALL STATE	CEBC
NETWORKWIDE AUTOMATIC CALLBACK ON BUSY	CBBN
NETWORKWIDE AUTOMATIC CALLBACK ON FREE	CBFN
DON'T RELEASE CALL TO BUSY HUNT GROUP	BSHT
CONNECTION TO ROUTE OPTIMIZATION NODE	ROPT
TSC-SIGNALING FOR NETWORKWIDE FEATURES (MANDATORY)	TSCS
INCOMING CDR BY ZONE OR FROM LINE	ICZL
AOC PER CALL (AUTOMATICAL OR ON REQUEST), MAND. CORNET-NQ	AOCC
LINE WITH IMPLICIT NUMBERS	LINO
NO TONE	NTON

AMO-COT -111 CLASS OF TRUNK FOR CALL PROCESSING
DISPLAY COMPLETED;

<DISPLAY-COP:COPNO=4;
DISPLAY-COP:COPNO=4;
H500: AMO COP STARTED

COP: 4 INFO: 4:Q931

DEVICE: INDEP SOURCE: DB

PARAMETER:

LINE WITH END-OF-DIAL	EOD
SPECIAL MODE	SFRM
CODE CALLING RELEASE AFTER EVERY TASK	CCR
REGISTRATION OF LAYER 3 ADVISORIES	L3AR

AMO-COP -111 CLASS OF PARAMETER FOR DEVICE HANDLER
DISPLAY COMPLETED;



<DISPLAY-COSSU:TYPE=LCOSV,LCOSV=32;

DISPLAY-COSSU:TYPE=LCOSV,LCOSV=32;

H500: AMO COSSU STARTED

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| LCOS |                                     LAUTH                                     | LCR | |
|  V  |           1           2           3           4           5           6 | OPTS=|
|     | |1234567890123456789012345678901234567890123456789012345678901234 | LCRET|
|     | |>SERVICE INFORMATION                                     | LCR |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|  32 |XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX | .   |
|     | |>32:TRUNKS                                             |     |
+-----+-----+-----+-----+-----+-----+-----+-----+

```

AMO-COSSU-111 CLASSES OF SERVICE, SWITCHING UNIT

DISPLAY COMPLETED;

<DISPLAY-SBCSU:STNO=8003,TYPE=OPTIDAT;

DISPLAY-SBCSU:STNO=8003,TYPE=OPTIDAT;

H500: AMO SBCSU STARTED

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|          OPTISET INDIVIDUAL DEVICE DATA          STNO = 8003          |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| PHONE-ID / OPTION-ID          | ASSET-ID          | SW-VERSION | SELF TEST |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| OPTISET E ADVANCE PLUS          | 23 90 C7 D0 | RA02.0A   | 0         |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|          HARDWARE SETTINGS          |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| RINGVOL : 4          RINGSOUN : 2          ALERTVOL : 2          |

```



```

| CALLVOL : 1          SPKRVOL : 4          ROOMCHAR : NORMAL      |
+-----+

```

```

AMO-SBCSU-111          STATION AND S0-BUS CONFIGURATION OF SWITCHING UNIT
DISPLAY COMPLETED;

```

DIGITAL STATION PHONE CONFIGURATION

```

<DISPLAY-SBCSU:STNO=8003;
DISPLAY-SBCSU:STNO=8003;
H500: AMO SBCSU STARTED

```

----- USER DATA -----

```

STNO   =8003   OPT    =OPTI   COS1   =7     DPLN   =0     SPDI   =Y
MAINO  =8003   CONN   =DIR    COS2   =7     ITR    =0     SPDC1  =0
PEN    = 1- 1- 55- 3          LCOSV1 =31    COSX   =0     SPDC2  =1
INS    =Y      STD    =3      LCOSV2 =31    SERVID =0     CBKBMX =5
          SECR   =N      LCOSD1 =31    DSSTNA =N     RCBKB  =N
SSTNO  =N      DIGNODIS=N    LCOSD2 =31    DSSTNB =Y     RCBKNA =N
TRACE  =N      HFREE   =      ASYNCT =500  PERMACT=     CBKNAMB=Y
ALARMNO =0     HMUSIC  =0     API    =N     TEXTSEL=ENGLISH
EXTBUS =      REP    =0     OPTICOM=N    OPTISPA:0    DLAUT  =
CALLOG =NONE   IDCR   =N     OPTICA  =0    OPTISOA:0    DLMAN  =
          HEADSET =N     OPTIDA  =0    OPTIABA:0    PRIO   =
          HSKEY  =NORMAL  ATMADDR=     VPI    =
          DFSVCANA=     TFAGRP =     PATTERN=     VCI    =
DVCFIG =OPTISET TSI    =1     SOPTIDX=     SPROT  =
          DOPTIDX=     DPROT  =
          FOPTIDX=     FPROT  =
          TOPTIDX=     TPROT  =
          VOPTIDX=     VPROT  =

```

----- ACTIVATION IDENTIFIERS FOR FEATURES -----



```

FWDS      :N      FWDT      :N      FWDV      :N      FWDF      :N      FWDD      :N
HTOS      :N      HTOT      :N      HTOV      :N      HTOF      :N      HTOD      :N
DND       :N      VCP       :Y      CWT       :N      TCLOGIN:N

```

----- FEATURES AND GROUP MEMBERSHIPS -----

```

ESSTN     :
PUGR      :      HUNTING GROUP      : N
KEYSYS    :N      NIGHT OPTION      : N      ASSOCIATED STN      : N

```

----- SUBSCRIBER ATTRIBUTES (AMO SDAT) -----

NONE

AMO-SBCSU-111 STATION AND S0-BUS CONFIGURATION OF SWITCHING UNIT

DISPLAY COMPLETED;

<dis-cossu:cos,7;

DIS-COSSU: COS,7;

H500: AMO COSSU STARTED

COS	VOICE	FAX	TTX	VTX	DTE
7	>7:STANDARD/FWDNWK - NOANSA&FWDBSY				
	TA	NOCO	NOCO	NOCO	TA
	TSUID	NOTIE	NOTIE	NOTIE	TNOTCR
	TNOTCR				BASIC
	CDRINT				MSN
	CDRS				CDRINT
	CDRC				MULTRA
	MB				
	COSXCD				
	VCE				
	SPKR				
	DATA				



	NOANSA						
	FWDNWK						
	RERING						
	MSN						
	FWDBSY						
	FWDECA						
	CCBS						
	FWDEXT						

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

AMO-COSSU-111 CLASSES OF SERVICE, SWITCHING UNIT
 DISPLAY COMPLETED;

<DISPLAY-COSSU:TYPE=LCOSV,LCOSV=31;

DISPLAY-COSSU:TYPE=LCOSV,LCOSV=31;

H500: AMO COSSU STARTED

LCOS	LAUTH						LCR
V	1	2	3	4	5	6	OPTS=
	1234567890123456789012345678901234567890123456789012345678901234						LCRET
	>SERVICE INFORMATION						LCR
31	XX						.
	>31:OPERATOR						

AMO-COSSU-111 CLASSES OF SERVICE, SWITCHING UNIT
 DISPLAY COMPLETED;

<DISPLAY-LDAT:TYPE=LCR;

DISPLAY-LDAT:TYPE=LCR;

H500: AMO LDAT STARTED



```

+-----+
| LROUTE = 79   LDPLN      NAME = OPEN NUMBER E1           SERVICE = ALL |
| TYPE = LCR                                DNNO OF ROUTE =   999 |
| SERVICE INFO =                               |
+-----+-----+-----+-----+-----+-----+-----+-----+
|           |           |           |           |           | SCHEDULE | CARRIER | BAND |           |
| LRTEL | LVAL | TGRP | ODR | LAUTH | ABCDEFGH |           | ZONE | WIDTH | LATTR |
+-----+-----+-----+-----+-----+-----+-----+-----+
|     1 |     1 |    70 |    1 |    1 | ***** |    1 | EMPTY |    1 |    NONE |
|           | DNNO =      999                               |           |
+-----+

```

<DISPLAY-LODR;;

DISPLAY-LODR;

H500: AMO LODR STARTED

```

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

```

DIS-RICT:LRTE,79,;

H500: AMO RICHT STARTED

```

+-----+
| LRTE = 79   NAME = OPEN NUMBER E1   (NEUTRAL)  SRVC = ALL |
| DNNO =      999  DESTNO = 99          |
| ROUTOPT = YES  REROUT = YES  PLB = NO    FWDBL = NO |
| MFV: CNV=WITHOUT DSP=WITHOUT TEXT=          PULS= |
| ROUTENO =    17  BUGS = LIN  ROUTATT = NO    MAINGRP = 17 |
| INFO =                               |
+-----+-----+
| TGRP = 70  LDAT OPEN NUMBER E1   (NEUTRAL)  SUBGROUP = 18 |

```



+-----+

AMO-RICHT-111 TRUNK ROUTING

DISPLAY COMPLETED;

<DISPLAY-LDPLN:TYPE=LDP;

DISPLAY-LDPLN:TYPE=LDP;

H500: AMO LDPLN STARTED

+-----+

	LDPNO :	35		LDP :	79-XXXX				
				SPC :	22				

+-----+

	DPLN	LRTE	LAUTH	DPLN	LRTE	LAUTH
	0	79	1	8	79	1
	1	79	1	9	79	1
	2	79	1	10	79	1
	3	79	1	11	79	1
	4	79	1	12	79	1
	5	79	1	13	79	1
	6	79	1	14	79	1
	7	79	1	15	79	1

+-----+

AMO-LDPLN-111 ADMINISTRATION LCR DIALPLAN

DISPLAY COMPLETED;

PBX SOFTWARE RELEASE/VERSION

<DISPLAY-VEGAS:LIST=LONG;

DISPLAY-VEGAS:LIST=LONG;



H500: AMO VEGAS STARTED

SYSTEM NO.	AMO	APS NO.	START	USER	STATUS
SWU: L31900Q2999A00001	REGEN	P30252B4200B00105	10.04.04	04:19 HIM	FREE
SWU RES CODE	APS: P30252B4200S00105	(DIR FILE:	:PDS:APSI/PS/S0-EK0SC)		
SWU AMO CODE	APS: P30252B4200B00105	(DIR FILE:	:PDS:APSI/PS/B0-EK0BC)		
SWU AMO TEXT	APS: P30252B4200B00105	(DIR FILE:	:PDS:APSI/PS/B0-EK0BC)		
BREAK MARK	: NO				
RESERVATION	: NO				
ADS: L31900Q2999A00001	REGEN	P30252B4200A00105	10.04.04	04:19 HIM	FREE
ADS RES CODE	APS: P30252B4200D00105	(DIR FILE:	:PDS:APSI/PS/D0-EK0DC)		
ADS AMO CODE	APS: P30252B4200A00105	(DIR FILE:	:PDS:APSI/PS/A0-EK0AC)		
ADS AMO TEXT	APS: P30252B4200A00105	(DIR FILE:	:PDS:APSI/PS/A0-EK0AC)		
BREAK MARK	: NO				
RESERVATION	: NO				

AMO-VEGAS-111 ADMIN. OF DATABASE GENERATION RUNS ON SUPPORT SYSTEM

DISPLAY COMPLETED;

<



Configuring Cisco CallManager

Route Patterns

Screenshot for Cisco CallManager Route Patterns (Overview)

The screenshot shows the Cisco CallManager 4.0 Administration interface in Microsoft Internet Explorer. The browser address bar shows `http://b9/CCMAdmin/routepatternlist.asp`. The page title is "Find and List Route Patterns/Hunt Pilots". The interface includes a navigation menu with options like System, Route Plan, Service, Feature, Device, User, Application, and Help. The main content area displays "10 matching record(s) for Pattern begins with "" and a search form with a "Find" button. Below the search form, there is a table of matching records with columns for Route Pattern/Hunt Pilot, Partition, Description, Route Filter, Gateway/Route List, and Copy. The table lists 10 records, including patterns like 11XX, 3XXX, 42XX, 5.3, 5.5, 7.XXXX, 8.3, 8.8, 8XXX, and 9.XXXX. At the bottom of the page, there is a "Delete Selected" button and pagination controls showing "Page 1 of 1".

System Route Plan Service Feature Device User Application Help

Cisco CallManager Administration
For Cisco IP Telephony Solutions

CISCO SYSTEMS

Find and List Route Patterns/Hunt Pilots

[Add a New Route Pattern/Hunt Pilot](#)

10 matching record(s) for Pattern begins with ""

Find Route Patterns/Hunt Pilots where begins with

and show items per page

To list all items, click Find without entering any search text.

Matching record(s) 1 to 10 of 10

<input type="checkbox"/>	Route Pattern/Hunt Pilot	Partition	Description	Route Filter	Gateway/Route List	Copy
<input type="checkbox"/>	11XX		11xx		S4/DS1-0@A-3745	
<input type="checkbox"/>	3XXX		3xxx		S4/DS1-0@A-3745	
<input type="checkbox"/>	42XX				S4/DS1-0@A-3745	
<input type="checkbox"/>	5.3				S1/DS1-0@B-2611XM	
<input type="checkbox"/>	5.5				S1/DS1-0@B-2611XM	
<input type="checkbox"/>	7.XXXX				S4/DS1-0@A-3745	
<input type="checkbox"/>	8.3				S4/DS1-0@A-3745	
<input type="checkbox"/>	8.8				S4/DS1-0@A-3745	
<input type="checkbox"/>	8XXX		8xxx		S4/DS1-0@A-3745	
<input type="checkbox"/>	9.XXXX				S1/DS1-0@B-2611XM	

Page of 1



Screenshot for Cisco CallManager Route Patterns (Pattern 7.XXXX to Siemens HiCom 330E PBX, ENBLOC)

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

File Edit View Favorites Tools Help

Address http://b9/CCMAdmin/routepatternconfig.asp?pkid={698615D4-2613-4161-AD6E-D480CED274EF}

Route Pattern/Hunt Pilot: 7.XXXX

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*	7.XXXX	
Partition	< None >	
Description		
Numbering Plan*	North American Numbering Plan	
Route Filter	< None >	
MLPP Precedence	Default	
Gateway or Route/Hunt List*	S4/DS1-0@A-3745 (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	Default
Calling Name Presentation	Default

Connected Party Transformations

Connected Line ID Presentation	Default
Connected Name Presentation	Default

Called Party Transformations

Discard Digits	PreDot 11/10D->7D
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 >	

* indicates required item.



Screenshot for Cisco CallManager Route Patterns (Pattern 8.8 to Siemens HiCom 330E PBX, Overlap)

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

File Edit View Favorites Tools Help

Address <http://b9/CCMAdmin/routepatternconfig.asp?pkid={5DB3CA88-6ED8-4D5B-96A9-31BCCED807B3}>

Route Pattern/Hunt Pilot: 8.8
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

* indicates required item.

Done



Screenshot for CCM – 3745 (Router 'A') Gateway Configuration

Cisco CallManager Administration
For Cisco IP Telephony Solutions

Gateway Configuration

[Back to Find/List Gateways](#)

Product: Cisco 3745
Gateway : A-3745

Status: Ready

Domain Name*

Description

Cisco CallManager Group*

Installed Voice Interface Cards		Endpoint Identifiers	
Mainboard Slot	<input type="text" value="< None >"/>		
Module in Slot 1	<input type="text" value="< None >"/>		
Module in Slot 2	<input type="text" value="< None >"/>		
Module in Slot 3	<input type="text" value="< None >"/>		
Module in Slot 4	<input type="text" value="NM-HD-2VE"/>		
Subunit 0	<input type="text" value="VIC2-2FXS"/>	Begin Port 0 (4/0/0) POTS	(4/0/1) POTS
Subunit 1	<input type="text" value="VWIC-2MFT-E1"/>	Begin Port 0 (4/0) E1PRI	(4/1) E1PRI

Product Specific Configuration

Global ISDN Switch Type

Switchback Timing*

Switchback uptime-delay (min)

Switchback schedule (hh:mm)

* indicates required item

[Back to Find/List Gateways](#)



Screenshot for CCM – 3745 (Router 'A') E1 PRI Trunk Configuration

Cisco CallManager 4.0 Administration - Gateway Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address http://b9/CCMAdmin/gatewayconfig.asp?pkid={ED10CCCF-BF7F-48A9-BEB7-0CA87FCE3005}&Action=Update&Type=55&MGCP={295}

System Route Plan Service Feature Device User Application Help

Cisco CallManager Administration

For Cisco IP Telephony Solutions

CISCO SYSTEMS

Gateway Configuration

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

Product : Cisco 3745
Gateway : S4/DS1-0@A-3745
Device Protocol: Digital Access PRI
Registration: Registered with Cisco CallManager 172.20.43.253
IP Address: [172.20.43.151](#)

Status: Ready

Device Information

End-Point Name*	S4/DS1-0@A-3745
Description	S4/DS1-0@A-3745
Device Pool*	Default
Network Locale	< None >
Media Resource Group List	< None >
Location	< None >
AAR Group	< None >
Load Information	

Multilevel Precedence and Preemption (MLPP) Information

MLPP Domain (e.g., "0000FF")	
MLPP Indication	Not available on this device
MLPP Preemption	Not available on this device

Interface Information

PRI Protocol Type*	PRI ISO QSIG E1
Protocol Side*	User
Channel Selection Order*	Bottom Up
Channel IE Type*	Use Number when 1B
PCM Type*	A-law
Delay for first restart (1/8 sec ticks)	32
Delay between restarts (1/8 sec ticks)	4
<input checked="" type="checkbox"/> Inhibit restarts at PRI initialization	
<input type="checkbox"/> Enable status poll	

Call Routing Information



Screenshot for CCM – 3745 (Router 'A') E1 PRI Trunk Configuration (Continued)

Cisco CallManager 4.0 Administration - Gateway Configuration - Microsoft Internet Explorer

Address: http://b9/CCMAdmin/gatewayconfig.asp?pkid={ED10CCCF-BF7F-48A9-BE87-0CA87FCE3005}&Action=Update&Type=55&MGCP={295}

Call Routing Information

Inbound Calls

Significant Digits*	All
Calling Search Space	< None >
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*	Cisco CallManager
Calling Numbering Plan*	Cisco CallManager
Number of digits to strip*	0
Caller ID DN	
SMDI Base Port*	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 type="checkbox"/> MCDN Channel Number Extension Bit Set to Zero**	
<input type="checkbox"/> Send Calling Name In Facility IE	
<input type="checkbox"/> Interface Identifier Present**	
Interface Identifier Value**	0
Connected Line ID Presentation (QSIG Inbound Call)*	Default
Connected PBX Model	None

Product Specific Configuration

Line Coding*	HDB3
Framing*	CRC4
Clock*	External
Input Gain (-6..14 db)*	0
Output Attenuation (-6..14 db)*	0
Echo Cancellation Enable*	Enable
Echo Cancellation Coverage (ms)*	Default

* 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 MGCP Configuration](#)
[Back to Find/List Gateways](#)



Configuring the Cisco C3745 Voice Router

A-3745#sho run

Building configuration...

Current configuration : 2207 bytes

```
!  
version 12.3  
service timestamps debug datetime msec  
service timestamps log datetime msec  
no service password-encryption  
!  
hostname A-3745  
!  
boot-start-marker  
boot-end-marker  
!  
card type e1 4 1  
logging buffered 4096 debugging  
!  
no network-clock-participate slot 1  
no network-clock-participate slot 2  
no network-clock-participate slot 3  
no network-clock-participate slot 4  
no network-clock-participate wic 0  
no network-clock-participate wic 1  
no network-clock-participate wic 2  
no network-clock-participate aim 0  
no network-clock-participate aim 1  
no aaa new-model  
ip subnet-zero  
ip cef  
!
```



```
!  
!  
ip host B9 172.20.43.253  
ip audit po max-events 100  
no ftp-server write-enable  
isdn switch-type primary-4ess  
voice-card 4  
    dspfarm  
!  
!  
ccm-manager mgcp  
ccm-manager music-on-hold  
ccm-manager config server 172.20.43.253  
ccm-manager config  
!  
!  
controller E1 4/0  
    pri-group timeslots 1-14,16 service mgcp  
!  
controller E1 4/1  
!  
no crypto isakmp enable  
!  
!  
interface FastEthernet0/0  
    ip address 172.20.43.151 255.255.255.0  
    duplex auto  
    speed auto  
!  
interface FastEthernet0/1  
    no ip address  
    shutdown
```



```
duplex auto
speed auto
!
interface Serial4/0:15
  no ip address
  no logging event link-status
  isdn switch-type primary-qsig
  isdn incoming-voice modem
  isdn incoming-voice voice
  isdn bind-13 ccm-manager
  no cdp enable
!
ip classless
ip route 0.0.0.0 0.0.0.0 FastEthernet0/0
!
ip http server
no ip http secure-server
!
!
control-plane
!
!
voice-port 4/0/0
!
voice-port 4/0/1
!
voice-port 4/0:15
!
mgcp
mgcp call-agent 172.20.43.253 2427 service-type mgcp version 0.1
mgcp dtmf-relay voip codec all mode out-of-band
mgcp rtp unreachable timeout 1000 action notify
```



```
mgcp modem passthrough voip mode nse
mgcp package-capability rtp-package
no mgcp package-capability res-package
mgcp package-capability sst-package
no mgcp package-capability fxr-package
no mgcp timer receive-rtcp
mgcp sdp simple
mgcp fax t38 inhibit
mgcp rtp payload-type g726r16 static
!
mgcp profile default
!
!
dial-peer voice 999400 pots
  application mgcpapp
  port 4/0/0
!
dial-peer voice 999401 pots
  application mgcpapp
  port 4/0/1
!
!
line con 0
line aux 0
line vty 0 4
  login
!
!
end
```

A-3745#



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