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-T1/E1 Voice Interface Modules
- Siemens HiCom 330E PBX

Software Requirements

- Cisco CallManager release 4.01
- Siemens HiCom 330E PBX software release 5.1-c2.404-0-k-uk-c6s2
## 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

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Page 3 of 23
AMOUNT OF B-CHANNELS IN THIS DISPLAY-OUTPUT: 30

AMO-TDCSU-111    DIGITAL TRUNKS

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

H500:  AMO COSSU STARTED

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|    | TA | NOCO | NOCO | NOCO | TA |
|    | TNOTCR | NOTIE | NOTIE | NOTIE | TNOTCR |
|    | | | | | BASIC |
|    | | | | | MSN |
|    | | | | | CDRINT |
|    | | | | | MULTRA |
|    | | | | | |
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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

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TRUNK SIGNALING ANSWER
CHANGEOVER FROM HOLD TO RING TONE
KNOCKING OVERRIDE POSSIBLE
CALL EXTEND FOR BUSY, RING OR CALL STATE
NETWORKWIDE AUTOMATIC CALLBACK ON BUSY
NETWORKWIDE AUTOMATIC CALLBACK ON FREE
DON’T RELEASE CALL TO BUSY HUNT GROUP
CONNECTION TO ROUTE OPTIMIZATION NODE
TSC-SIGNALING FOR NETWORKWIDE FEATURES (MANDATORY)
INCOMING CDR BY ZONE OR FROM LINE
AOC PER CALL (AUTOMATICAL OR ON REQUEST), MAND. CORNET-NQ
LINE WITH IMPLICIT NUMBERS
NO TONE

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
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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|XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX|  .  |
|    |>32:TRUNKS                                                                 |
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AMO-COSSU-111       CLASSES OF SERVICE, SWITCHING UNIT

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DISPLAY-SBCSU:STNO=8003,TYPE=OPTIDAT;
H500: AMO SBCSU STARTED

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

DISPLAY COMPLETED;

DIGITAL STATION PHONE CONFIGURATION

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

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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       CBKBM=5
      SEC= N      LCOSD1 =31    DSSTNA=N       RCBKB =N
      INS      LCOSD2 =31    DSSTNB =Y       RCBKNA =N
      TRACE    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 =
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AMO-COSSU-111  CLASSES OF SERVICE, SWITCHING UNIT

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DISPLAY-COSSU:TYPE=LCOSV,LCOSV=31;
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|  V |         1         2         3         4         5         6    |OPTS=|
|    |1234567890123456789012345678901234567890123456789012345678901234|LCRET|
|    |>SERVICE INFORMATION                                            | LCR |
+----+----+----|----+----|----+----|----+----|----+----|----+-----+
|  31|XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX|  .  |
|    |>31:OPERATOR                                                          |
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AMO-COSSU-111  CLASSES OF SERVICE, SWITCHING UNIT

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DISPLAY-LDAT:TYPE=LCR;
H500:  AMO LDAT  STARTED
<DISPLAY-LODR;>
DISPLAY-LODR;:
H500: AMO LODR STARTED

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

DIS-RICHT: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 | 8 | 79 | 1 |
|              | 1   | 79   | 1 | 9 | 79 | 1 | 9 | 79 | 1 |
|              | 2   | 79   | 1 | 10 | 79 | 1 | 10 | 79 | 1 |
|              | 3   | 79   | 1 | 11 | 79 | 1 | 11 | 79 | 1 |
|              | 4   | 79   | 1 | 12 | 79 | 1 | 12 | 79 | 1 |
|              | 5   | 79   | 1 | 13 | 79 | 1 | 13 | 79 | 1 |
|              | 6   | 79   | 1 | 14 | 79 | 1 | 14 | 79 | 1 |
|              | 7   | 79   | 1 | 15 | 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

<table>
<thead>
<tr>
<th>SYSTEM NO.</th>
<th>AMO</th>
<th>APS NO.</th>
<th>START</th>
<th>USER</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>SWU: L31900Q2999A00001 REGEN P30252B4200B00105</td>
<td>10.04.04</td>
<td>04:19 HIM</td>
<td>FREE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SWU RES CODE APS: P30252B4200S00105</td>
<td>(DIR FILE: :PDS:APSI/PS/S0-EK0SC)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SWU AMO CODE APS: P30252B4200B00105</td>
<td>(DIR FILE: :PDS:APSI/PS/B0-EK0BC)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SWU AMO TEXT APS: P30252B4200B00105</td>
<td>(DIR FILE: :PDS:APSI/PS/B0-EK0BC)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BREAK MARK : NO</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RESERVATION : NO</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| 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)**

![Cisco CallManager Administration](image)

**Find and List Route Patterns/Hunt Pilots**

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

Find Route Patterns/Hunt Pilots where:

- Pattern: [ ]
- 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**

<table>
<thead>
<tr>
<th>Route Pattern/Hunt Pilot</th>
<th>Description</th>
<th>Route Filter</th>
<th>Gateway/Route List</th>
<th>Copy</th>
</tr>
</thead>
<tbody>
<tr>
<td>11XX</td>
<td>11xx</td>
<td>S4/DS1-0@A-3745</td>
<td></td>
<td>![Copy Icon]</td>
</tr>
<tr>
<td>3XXX</td>
<td>3xxx</td>
<td>S4/DS1-0@A-3745</td>
<td></td>
<td>![Copy Icon]</td>
</tr>
<tr>
<td>42XX</td>
<td></td>
<td>S4/DS1-0@A-3745</td>
<td></td>
<td>![Copy Icon]</td>
</tr>
<tr>
<td>5.2</td>
<td></td>
<td>S1/DS1-0@B-2511X</td>
<td></td>
<td>![Copy Icon]</td>
</tr>
<tr>
<td>5.5</td>
<td></td>
<td>S1/DS1-0@B-2511X</td>
<td></td>
<td>![Copy Icon]</td>
</tr>
<tr>
<td>7.3 XXXX</td>
<td></td>
<td>S4/DS1-0@A-3745</td>
<td></td>
<td>![Copy Icon]</td>
</tr>
<tr>
<td>8.3</td>
<td></td>
<td>S4/DS1-0@A-3745</td>
<td></td>
<td>![Copy Icon]</td>
</tr>
<tr>
<td>8.8</td>
<td></td>
<td>S4/DS1-0@A-3745</td>
<td></td>
<td>![Copy Icon]</td>
</tr>
<tr>
<td>8XXX</td>
<td>8xxx</td>
<td>S4/DS1-0@A-3745</td>
<td></td>
<td>![Copy Icon]</td>
</tr>
<tr>
<td>9.XXXXX</td>
<td></td>
<td>S1/DS1-0@B-2511X</td>
<td></td>
<td>![Copy Icon]</td>
</tr>
</tbody>
</table>

[![Delete Selected](image)](image)  

First Previous Next Last

Page 1 of 1
### 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

#### Pattern Definition

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Route Pattern/Hunt Pilot</td>
<td>7.XXXX</td>
</tr>
<tr>
<td>Partition</td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>Description</td>
<td></td>
</tr>
<tr>
<td>Numbering Plan*</td>
<td>North American Numbering Plan</td>
</tr>
<tr>
<td>Route Filter</td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>MLPP Precedence</td>
<td>Default</td>
</tr>
<tr>
<td>Gateway or Route/Hunt List*</td>
<td>S4/D31+0A-3725</td>
</tr>
<tr>
<td>Route Option</td>
<td>Block this pattern</td>
</tr>
</tbody>
</table>

#### Calling Party Transformations

- Use Calling Party's External Phone Number Mask

#### Connected Party Transformations

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connected Line ID Presentation</td>
<td>Default</td>
</tr>
<tr>
<td>Connected Name Presentation</td>
<td>Default</td>
</tr>
</tbody>
</table>

#### Called Party Transformations

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discard Digits</td>
<td>PreDot11/10D-&gt;7D</td>
</tr>
<tr>
<td>Called Party Transform Mask</td>
<td></td>
</tr>
<tr>
<td>Prefix Digits (Outgoing Calls)</td>
<td></td>
</tr>
</tbody>
</table>

#### ISDN Network-Specific Facilities Information Element

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carrier Identification Code</td>
<td></td>
</tr>
<tr>
<td>Network Service Protocol</td>
<td>NotSelected</td>
</tr>
<tr>
<td>Network Service</td>
<td>NotSelected</td>
</tr>
<tr>
<td>Service Parameter Name</td>
<td>NotExist</td>
</tr>
<tr>
<td>Service Parameter Value</td>
<td></td>
</tr>
</tbody>
</table>

* indicates required item.
## Cisco CallManager 4.0 Administration - Route Pattern/Hunt Pilot Configuration - Microsoft Internet Explorer

### 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

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Route Pattern/Hunt Pilot*</td>
<td>8.8</td>
</tr>
<tr>
<td>Partition</td>
<td>&lt; None &gt;</td>
</tr>
<tr>
<td>Description</td>
<td></td>
</tr>
<tr>
<td>Numbering Plan*</td>
<td>North American Numbering Plan</td>
</tr>
<tr>
<td>Route Filter</td>
<td>&lt; None &gt;</td>
</tr>
<tr>
<td>MLPP Precedence</td>
<td>Default</td>
</tr>
<tr>
<td>Gateway or Route/Hunt List*</td>
<td>S4/DST-0@A-3745 (Edit)</td>
</tr>
<tr>
<td>Route Option</td>
<td>Route this pattern</td>
</tr>
<tr>
<td></td>
<td>Block this pattern Not Selected —</td>
</tr>
<tr>
<td>Provide Outside Dial Tone</td>
<td>Yes</td>
</tr>
<tr>
<td>Allow Overlap Sending</td>
<td>Yes</td>
</tr>
<tr>
<td>Urgent Priority</td>
<td>No</td>
</tr>
</tbody>
</table>

### 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**
- **Called Party Transform Mask**
- **Prefix Digits (Outgoing Calls)**

### ISDN Network-Specific Facilities Information Element

- **Carrier Identification Code**
- **Network Service Protocol** Not Selected
- **Network Service** Not Selected
- **Service Parameter Name** Not Exist
- **Service Parameter Value**

* indicates required item.
Screenshot for CCM – 3745 (Router ‘A’) Gateway Configuration

Gateway Configuration

Product: Cisco 3745
Gateway: A-3745

Status: Ready
Update Delete Reroot Gateway

Domain Name: A-3745
Description: A-3745
Cisco CallManager Group: Default

Installed Voice Interface Cards

<table>
<thead>
<tr>
<th>Mainboard Slot</th>
<th>Module in Slot 1</th>
<th>Module in Slot 2</th>
<th>Module in Slot 3</th>
<th>Module in Slot 4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&lt;None&gt;</td>
<td>&lt;None&gt;</td>
<td>&lt;None&gt;</td>
<td>NM-HD-2VE</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Subunit 0</th>
<th>Subunit 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>VC2-2PXS Begin</td>
<td>VS402MF-B Begin</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Product Specific Configuration

<table>
<thead>
<tr>
<th>Global ISDN Switch Type</th>
<th>A4ES8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Switchback Timing*</td>
<td>Grateful</td>
</tr>
<tr>
<td>Switchback uptime-delay (min)</td>
<td>10</td>
</tr>
<tr>
<td>Switchback schedule (hh:mm)</td>
<td>12:00</td>
</tr>
</tbody>
</table>

* Indicates required item

Back to Find/List Gateways
Screenshot for CCM – 3745 (Router ‘A’) E1 PRI Trunk Configuration
### Call Routing Information

**Inbound Calls**
- Significant Digits: All
- Calling Search Space: None
- AAR Calling Search Space: None
- Profile DN: 

**Outbound Calls**
- Calling Line ID Presentation: Default
- Calling Party Selection: Originator
- Called party IE number type: Cisco CallManager
- Called 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: 
- SDI/Basic 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-ESDN Progress Indicator IE Enable****
- Maximum Channel Number Extension Bit Set to 0**
- Send Calling Name In Facility IE
- Interface Identifier Present***
- Interface Identifier Value***
- Connected Line IE Presentation (Q931 Inbound Call)**
- Connected PBX Model: 

### 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 CMS-100 protocol only
*** applicable to CMS-100 protocol and CMS-250 protocol only
**** may be required to force rangecode from same PBX

---

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Page 18 of 23
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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