Cisco CallManager Release 4.01 and Cisco Emergency Responder 1.2(3) PBX Interoperability: Nortel Meridian PBX using a Cisco Catalyst 6608 Gateway with T1 PRI as MGCP

DISCLAIMER/NOTICE

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

THE CUSTOMER ASSUMES ALL RESPONSIBILITY FOR PROPERLY CONFIGURING THE CISCO EMERGENCY RESPONDER. CISCO HEREBY DISCLAIMS ANY AND ALL LIABILITY ARISING FROM OR IN CONNECTION WITH A USER’S INABILITY TO ACCESS EMERGENCY SERVICE RESPONDERS (INCLUDING INABILITY TO REACH A PUBLIC SAFETY ANSWERING POINT) OR THE INABILITY OF EMERGENCY SERVICE RESPONDERS TO IDENTIFY A USER’S LOCATION. CISCO STRONGLY RECOMMENDS THAT ALL CUSTOMERS VERIFY AND TEST CONFIGURATION OF THE CISCO EMERGENCY RESPONDER IMMEDIATELY FOLLOWING INITIAL CONFIGURATION AND ON A PERIODIC BASIS THEREAFTER. CISCO FURTHER RECOMMENDS THAT ALL CUSTOMERS PROVIDE ADEQUATE TRUNK AND BANDWIDTH CAPACITY TO ENSURE THAT AUDIO PATHS ARE AVAILABLE FOR EMERGENCY CALLS.

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

- The following is an application note for interoperability of a Cisco CallManager, Cisco Emergency Responder and Cisco 2600XM CAMA interface with an Nortel Meridian Option 11 PBX using a Cisco Catalyst 6608 Gateway-T1 PRI as a MGCP.
- The Network Topology diagram (figure 1) shows the test set-up for interoperability between the Cisco CallManager and Cisco Emergency Responder connected to the PBX via a T1 PRI trunk using Cisco Catalyst 6608 Gateway.

Emergency 911 calls made from a Nortel Meridian Option 11 PBX utilizing a T1 PRI trunk configured as DMS-100, associates with the correct Emergency Response Location and routes to the associated PSAP with the correctly formatted 10 digit DID call back number.

The call back DID number routes the return call to the correct phone that had originated the E911 call from the PBX digital phone.

Network Topology

Figure 1. Network Topology Test Setup

Limitations

- Calling Number must be supported to identify the calling party for Emergency Response Location identification.
- Unique DID numbers must be used to associate with each Emergency Response Location to allow the return call if the 911 caller is disconnected.
- Each available calling party that might dial 911 from the PBX side must have that calling party number configured in the Manually Configured Phones screen of the Cisco Emergency Responder.
- The Nortel Meridian Opt11C supports “User” side only when switch type is set to DMS-100.
**System Components**

**Hardware Requirements**
- Cisco Catalyst 6608 Gateway with T1 Ports installed in a Cisco Cat6k switch
- Cisco 2611XM with CAMA Interface
  - Cisco Cat6k Switch
  - Cisco CallManager
  - Cisco Emergency Responder
- PBX hardware including interface card
- Nortel Meridian Option 11

**Software Requirements**
- Cisco CallManager 4.01
- Cisco Emergency Responder 1.2(3)
  - Cisco IOS Software releases c2600-ipvoice-mz.123-10
  - PBX software release: VERSION 2111, RELEASE 24, ISSUE 24

**Features**

**Features Supported**
- Calling Number
  - E911 ERL DID number passed to PSAP
  - Incoming DID routing to disconnected 911 caller origination

**Features Not Supported**
None noted

**Configuration**

Configuring the Nortel Meridian Option 11

```
Nortel Version:
>ld 22
PT2000
REQ iss

VERSION 2111
RELEASE 24
ISSUE 24
```
Common Equipments configured in the Nortel:

REQ  prt
TYPE cequ

CEQU
MPED 8D
SUPL  000 004 008 012
  016 032 036 040
  044 048 064 068
  072
XCT   000
CONF  029 030 031 062
  094 095

DLOP  NUM DCH FRM LCMT YALM T1TE TRSH
PRI  003 23  ESF B8S  FDL - 00
     004 23  ESF B8S  FDL - 00
PRI2 07 08 09
DTI2  05 06
MISP

ISDN D-channel configuration for the T1 PRI:

REQ  prt
TYPE adan dch 3

ADAN     DCH 3
CTYP MSDL
CARD 03
PORT 1
DES T1_100
USR PRI
DCHL 3
OTBF 32
PARM RS422 DTE
DRAT 64KC
CLOK EXT
IFC D100
SIDE USR
CNEG 1
RLS ID **
RCAP ND2 MWI
MBGA NO
OVLR NO
OVLS NO
T200 3
T203 10
N200 3
N201 260
K 7

REQ

*************************************************************
Route Data Block information:

>ld 21
PT1000

REQ: prt
TYPE: rdb
CUST 1

SCH0152

CUST 0
ROUT 111

TYPE RDB
CUST 00
DMOD
ROUT 111
DES T1_D100
TKTP TIE
BSN NO
CNVT NO
SAT NO
RCLS EXT
DTRK YES
BRTP NO
DGTP PRI
ISDN YES

MODE PRA
IFC D100
SBN NO
PNI 00000
NCNA YES
NCRD NO
CHTY BCH
CTYP UKWN
INAC NO
ISAR NO
DAPC NO
BCOT 0
DSEL VOD
PTYP PRI
AUTO NO
DNIS NO
DCDR NO
ICOG IAO
SRCH RRB
TRMB YES
STEP
ACOD 4444
TCPP NO
PII NO
TARG 01
CLEN 1
BILN NO
OABS
INST
ANTK
SIGO STD
ICIS YES
TIMR ICF 512
OGF 512
EOD 13952
NRD 10112
DDL 70
ODT 4096
RGV 640
GRD 896
SPB 3
NBS 2048
NBL 4096
TFD 0
DRNG NO
CDR NO
MUS NO
OHQ NO
OHQT 00
CBQ NO
AUTH NO
TTBL 0
PLEV 2
ALRM NO
ART 0
SGRP 0
AACR NO

REQ:

*************************************************************
Trunk Numbering Block information:

>ld 20

PT0000
REQ: prt
TYPE: tnb
TN 3
CUST 0
DATE
PAGE
DES
TN   003  01
TYPE TIE
CDEN SD
CUST 0
TRK  PRI
PDCA 1
PCML MU
NCOS 0
RTMB 111 1
B-CHANNEL SIGNALING
TGAR 0
AST  NO
IAPG 0
CLS  UNR DTN CND WTA LPR APN THFD HKD
   P10 VNL
TKID
TN   003  02
TYPE TIE
CDEN SD
CUST 0
TRK  PRI
PDCA 1
PCML MU
NCOS 0
RTMB 111 2
B-CHANNEL SIGNALING
TGAR 0
AST  NO
IAPG 0
CLS  UNR DTN CND WTA LPR APN THFD HKD
   P10 VNL
TKID
TN   003 03
TYPE TIE
CDEN SD
CUST 0
TRK  PRI
PDCA 1
PCML MU
NCOS 0
RTMB 111 3
B-CHANNEL SIGNALING
TGAR 0
AST  NO
IAPG 0
CLS  UNR DTN CND WTA LPR APN THFD HKD
   P10 VNL
TKID

TN   003 04
TYPE TIE
CDEN SD
CUST 0
TRK  PRI
PDCA 1
PCML MU
NCOS 0
RTMB 111 4
B-CHANNEL SIGNALING
TGAR 0
AST  NO
IAPG 0
CLS  UNR DTN CND WTA LPR APN THFD HKD
   P10 VNL
TKID
TN 003 05
TYPE TIE
CDEN SD
CUST 0
TRK PRI
PDCA 1
PCML MU
NCOS 0
RTMB 111 5
B-CHANNEL SIGNALING
TGAR 0
AST NO
IAPG 0
CLS UNR DTN CND WTA LPR APN THFD HKD
P10 VNL
TKID
TN 003 06
TYPE TIE
CDEN SD
CUST 0
TRK PRI
PDCA 1
PCML MU
NCOS 0
RTMB 111 6
B-CHANNEL SIGNALING
TGAR 0
AST NO
IAPG 0
CLS UNR DTN CND WTA LPR APN THFD HKD
P10 VNL
TKID
TN 003 07
TYPE TIE
CDEN SD
CUST 0
TRK PRI
PDCA 1
PCML MU
NCOS 0
RTMB 111 7
B-CHANNEL SIGNALING
TGAR 0
AST NO
IAPG 0
CLS UNR DTN CND WTA LPR APN THFD HKD
    P10 VNL
TKID
TN 003 08
TYPE TIE
CDEN SD
CUST 0
TRK PRI
PDCA 1
PCML MU
NCOS 0
RTMB 111 8
B-CHANNEL SIGNALING
TGAR 0
AST NO
IAPG 0
CLS UNR DTN CND WTA LPR APN THFD HKD
    P10 VNL
TKID
TN  003 09
TYPE TIE
CDEN SD
CUST 0
TRK  PRI
PDCA 1
PCML MU
NCOS 0
RTMB 111 9
B-CHANNEL SIGNALING
TGAR 0
AST  NO
IAPG 0
CLS  UNR DTN CND WTA LPR APN THFD HKD
    P10 VNL
TKID

TN  003 10
TYPE TIE
CDEN SD
CUST 0
TRK  PRI
PDCA 1
PCML MU
NCOS 0
RTMB 111 10
B-CHANNEL SIGNALING
TGAR 0
AST  NO
IAPG 0
CLS  UNR DTN CND WTA LPR APN THFD HKD
    P10 VNL
TKID
TN  003 11
TYPE TIE
CDEN SD
CUST 0
TRK  PRI
PDCA 1
PCML MU
NCOS 0
RTMB 111 11
B-CHANNEL SIGNALING
TGAR 0
AST  NO
IAPG 0
CLS  UNR DTN CND WTA LPR APN THFD HKD
    P10 VNL
TKID
TN  003 12
TYPE TIE
CDEN SD
CUST 0
TRK  PRI
PDCA 1
PCML MU
NCOS 0
RTMB 111 12
B-CHANNEL SIGNALING
TGAR 0
AST  NO
IAPG 0
CLS  UNR DTN CND WTA LPR APN THFD HKD
    P10 VNL
TKID
TN  003 13
TYPE TIE
CDEN SD
CUST 0
TRK PRI
PDCA 1
PCML MU
NCOS 0
RTMB 111 13
B-CHANNEL SIGNALING
TGAR 0
AST NO
IAPG 0
CLS  UNR DTN CND WTA LPR APN THFD HKD
   P10 VNL
TKID
TN  003 14
TYPE TIE
CDEN SD
CUST 0
TRK PRI
PDCA 1
PCML MU
NCOS 0
RTMB 111 14
B-CHANNEL SIGNALING
TGAR 0
AST NO
IAPG 0
CLS  UNR DTN CND WTA LPR APN THFD HKD
   P10 VNL
TKID
TN  003 15
TYPE TIE
CDEN SD
CUST 0
TRK  PRI
PDCA 1
PCML MU
NCOS 0
RTMB 111 15
B-CHANNEL SIGNALING
TGAR 0
AST  NO
IAPG 0
CLS  UNR DTN CND WTA LPR APN THFD HKD
  P10 VNL
TKID

TN  003 16
TYPE TIE
CDEN SD
CUST 0
TRK  PRI
PDCA 1
PCML MU
NCOS 0
RTMB 111 16
B-CHANNEL SIGNALING
TGAR 0
AST  NO
IAPG 0
CLS  UNR DTN CND WTA LPR APN THFD HKD
  P10 VNL
TKID
P10 VNL
TKID
TN  003 19
TYPE TIE
CDEN SD
CUST 0
TRK PRI
PDCA 1
PCML MU
NCOS 0
RTMB 111 19
B-CHANNEL SIGNALING
TGAR 0
AST NO
IAPG 0
CLS  UNR DTN CND WTA LPR APN THFD HKD

P10 VNL
TKID
TN  003 20
TYPE TIE
CDEN SD
CUST 0
TRK PRI
PDCA 1
PCML MU
NCOS 0
RTMB 111 20
B-CHANNEL SIGNALING
TGAR 0
AST NO
IAPG 0
CLS  UNR DTN CND WTA LPR APN THFD HKD
P10 VNL

TKID

TN  003 23

TYPE TIE

CDEN SD

CUST 0

TRK PRI

PDCA 1

PCML MU

NCOS 0

RTMB 111 23

B-CHANNEL SIGNALING

TGAR 0

AST NO

IAPG 0

CLS UNR DTN CND WTA LPR APN THFD HKD

P10 VNL

TKID

NACT

REQ:

*****************************************************************************

Digital phone configuration:

> ld 11

SL1000

MEM AVAIL: (U/P): 1340417 USED U P: 105177 28965 TOT: 1474559

SCH5066

TNS AVAIL: 106 USED: 94 TOT: 200

ACD AGENTS AVAIL: 300 USED: 0 TOT: 300

© 2005 Cisco Systems, Inc. All right reserved.
Important notices, privacy statements, and trademarks of Cisco Systems, Inc. can be found on cisco.com
Page 20 of 65
AST     AVAIL:   100    USED:     0    TOT:   100
DIGITAL TELEPHONES AVAIL:  2497    USED:     3    TOT:  2500

REQ:  prt
TYPE:  2616
TN   1
CUST 0
DATE
PAGE
DES

DES  TEST1
TN   001 0 00 00
TYPE 2616
CDEN 8D
CUST 0
AOM  0
FDN
TGAR 0
LDN NO
NCOS 0
SGRP 0
RNPG 0
SCI 0
SSU
LNRS 16
XLST

CLS   CTD FBD WTA LPR MTD FND HTD ADD HFA
     MWD LMPN RMMD SMWD AAD IMD XHD IRD NID OLD VCE DRG1
     POD DSX VMD CMSD CCSD SWD LNA CNDA
     CFTD SFD MRD DDV CNID CDCA MSID DAPA BFED RCB
DRDD EXR0
USMD USRD ULAD RTDD RBDD RBHD PGND FLXD FTTC DNDY DNO3
CPND_LANG ENG
RCO 0
HUNT
PLEV 02
AST
IAPG 0
AACS NO
ITNA NO
DGRP
MLWU_LANG 0
DNDR 0
KEY 00 SCR 2602 0  MARP
   CPND
      NAME bert
      XPLN 27
      DISPLAY_FMT FIRST,LAST
01 SCR 2612 0  MARP
02
03 CFW 12  2005
04 AO6
05 TRN
06 DSP
07
08 ADL 16
09 ADL 16
10 ADL 16
11 ADL 16
12 ADL 16
13 ADL 16
14 ADL 16
15
DES TEST1
TN 001 0004
TYPE 2616
CDEN 8D
CUST 0
AOM 0
FDN
TGAR 0
LDN NO
NCOS 0
SGRP 0
RNPG 0
SCI 0
SSU
LNRS 16
XLST
CLS CTD FBD WTA LPR MTD FND HTD ADD HFA
  MWD LMPN RMMD SMWD AAD IMD XHD IRD NID OLD VCE DRG1
  POD DSX VMD CMXD CCSD SWD LNA CNDA
  CFTD SFD MRD DDV CNID CDCA MSID DAPA BFED RCBD
  ICDD CDMD LLCN MCTD CLBR AUTU
  GPUD DPUD DNDA CFXA ARHD CLTD ASCD
  CPFA CPTA ABDD CFHD FICD NAID BUZZ AHD
  DDGA NAMA
  DRDD EXR0
  USMD USRD ULAD RTDD RBDD RBHD PGND FLXD FTTC DNDY DNO3
CPND_LANG ENG
HUNT
PLEV 02
AST
IAPG 0
AACS NO
ITNA NO
DGRP
MLWU_LANG 0
DNR 0
KEY 00 SCR 2603 0 MARP
    CPND
     NAME PHONE A
     XPLN 27
     DISPLAY_FMT FIRST,LAST
01 SCR 2610 0
02
03 CFW 12 7103003
04 AO6
05 TRN
06 DSP
07
08 ADL 16
09 ADL 16
10 ADL 16
11 ADL 16
12 ADL 16
13 ADL 16
14 ADL 16
15
### Cisco CallManager Configuration

**Cisco CallManager:** 172.20.16.250 (172.20.16.250) on 172.20.16.250  
**CTI ID:** 1

#### Server Information
- **Cisco CallManager Name**: 172.20.16.250
- **Description**: 172.20.16.250

#### Auto-registration Information
- **Starting Directory Number**: 2000
- **Ending Directory Number**: 2010
- **Partition**: E311Phones
- **External Phone Number Mask**: 
- **Auto-registration Disabled on this Cisco CallManager**

#### Cisco CallManager TCP Port Settings for this Server
- **Ethernet Phone Port**: 2000
- **Digital Port**: 2000
- **Analog Port**: 2010
- **MCCP Listen Port**: 2427
- **MCCP Keep-alive Port**: 2428

*indicates required item.*
Partition Configuration

Partition: E911Phones

Status: Ready

Update  Delete  Restart Devices

Partition Name*  E911Phones
Description  E911Phones

* indicates required item

Calling Search Space Configuration

Calling Search Space: E911CSS (in use)

Status: Ready

Copy  Update  Delete

Calling Search Space Information

Calling Search Space Name*  E911CSS
Description

Route Partitions for this Calling Search Space

Find Partitions containing
Available Partitions

Find

Selected Partitions*  E911Phones
(Ordered by highest priority)

* indicates required item
### Route/Hunt List Detail Configuration

**Route/Hunt List Details**
- **Route/Hunt List:** E911
- **Route Group:** E911
- **Status:** Ready

**Details for E911**

1. **Calling Party Transformations**
   - Use Calling Party's External Phone Number Mask: On
   - Calling Party Transform Mask:
   - Prefix Digits (Outgoing Calls):

2. **Called Party Transformations**
   - Dial Plan*: North American Numbering Plan
     - Discard Digits: None
     - Called Party Transform Mask:
     - Prefix Digits (Outgoing Calls):

* indicates required item

### Route/Hunt List Configuration

**Route/Hunt List Details**
- **Route/Hunt List:** E911

**Route/Hunt List Information**
- **Route/Hunt List Name:** E911
- **Description:** E911
- **Cisco CallManager Group*: Default

**Enable this Route/Hunt List (change effective on Update; no reset required)**

**Route/Hunt List Member Information**
- **Add Route Group**
- **Add Line Group**

**Selected Groups* (ordered by highest priority)**

- E911

**Removed Groups**

* Indicates required item

---

© 2005 Cisco Systems, Inc. All right reserved.
Important notices, privacy statements, and trademarks of Cisco Systems, Inc. can be found on cisco.com
Page 29 of 65
## Route Group Configuration

**Route Group: E911**

*Status: Ready*

### Route Group Information

- **Route Group Name**: E911
- **Distribution Algorithm**: Top Down

### Route Group Member Information

**Find Devices to Add to Route Group**

**Device Name contains**: 

**Available Devices**

- AALN/SI/SU0@2611XM-CAMA
- AALN/SI/SU1@2611XM-CAMA

**Port(s)**

- **None Available**
- **Add to Route Group**

### Current Route Group Members

**Selected Devices**

- (ordered by highest priority)
  - AALN/SI/SU0@2611XM-CAMA (All Ports)
  - AALN/SI/SU1@2611XM-CAMA (All Ports)

**Removed Devices**

(to be removed from Route Group when you click Update)

* indicates required item
Find and List Route Patterns/Hunt Pilots

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

Find Route Patterns/Hunt Pilots where Pattern begins with

and show 20 items per page

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

Matching record(s) 1 to 6 of 6

<table>
<thead>
<tr>
<th>Route Pattern/Hunt Pilot</th>
<th>Partition</th>
<th>Description</th>
<th>Route Filter</th>
<th>Gateway/Route List</th>
<th>Copy</th>
</tr>
</thead>
<tbody>
<tr>
<td>100911</td>
<td></td>
<td>E911Phones default</td>
<td>E911</td>
<td></td>
<td></td>
</tr>
<tr>
<td>101911</td>
<td></td>
<td>E911Phones High School</td>
<td>E911</td>
<td></td>
<td></td>
</tr>
<tr>
<td>102911</td>
<td></td>
<td>E911Phones Education Co</td>
<td>E911</td>
<td></td>
<td></td>
</tr>
<tr>
<td>103911</td>
<td></td>
<td>E911Phones Elementary I...</td>
<td>E911</td>
<td></td>
<td></td>
</tr>
<tr>
<td>104911</td>
<td></td>
<td>E911Phones Nortel Merid...</td>
<td>E911</td>
<td></td>
<td></td>
</tr>
<tr>
<td>260(3-4)</td>
<td></td>
<td>E911Phones Nortel Merid...</td>
<td>SC/DSI-0@SD40001C...</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Delete Selected

First Previous Next Last

Page 1 of 1
**Route Pattern/Hunt Pilot Configuration**

**Route Pattern/Hunt Pilot:** 100911.

**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>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Route Pattern/Hunt Pilot</td>
<td>100911</td>
</tr>
<tr>
<td>Partition</td>
<td>E911Phones</td>
</tr>
<tr>
<td>Description</td>
<td>default</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>E911</td>
</tr>
<tr>
<td>Route Option</td>
<td>Route this pattern</td>
</tr>
</tbody>
</table>

- 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
- Called Party Transform Mask
- Prefix Digits (Outgoing Calls) 4083937000

### ISDN Network-Specific Facilities Information Element

| Carrier Identification Code | - Not Selected - |
| Network Service Protocol | - Not Selected - |

**© 2005 Cisco Systems, Inc. All right reserved.**

Important notices, privacy statements, and trademarks of Cisco Systems, Inc. can be found on cisco.com

Page 32 of 65
# Route Pattern/Hunt Pilot Configuration

**Route Pattern/Hunt Pilot:** 102911

**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>102911</td>
</tr>
<tr>
<td>Partition</td>
<td>E911Phones</td>
</tr>
<tr>
<td>Description</td>
<td>Education Center IP Phone</td>
</tr>
<tr>
<td>Numbering Plan*</td>
<td>North American Numbering Plan</td>
</tr>
<tr>
<td>Route Filter</td>
<td>(None)</td>
</tr>
<tr>
<td>MLPP Precedence</td>
<td>Default</td>
</tr>
<tr>
<td>Gateway or Route/Hunt List*</td>
<td>E911</td>
</tr>
<tr>
<td>Route Option</td>
<td>Block this pattern</td>
</tr>
</tbody>
</table>

**Checkboxes:**

- [x] 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.*
**Route Pattern/Hunt Pilot Configuration**

Route Pattern/Hunt Pilot: 104911.

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>104911</td>
</tr>
<tr>
<td>Partition</td>
<td>E311Phones</td>
</tr>
<tr>
<td>Description</td>
<td>Norstar Meridian TT FR1</td>
</tr>
<tr>
<td>Numbering Plan</td>
<td>North American Numbering Plan</td>
</tr>
<tr>
<td>Route Filter</td>
<td>(None)</td>
</tr>
<tr>
<td>MLPP Precedence</td>
<td>Default</td>
</tr>
</tbody>
</table>

Gateway or Route/Hunt List:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Route Option</td>
<td>Route this pattern</td>
</tr>
<tr>
<td></td>
<td>Block this pattern</td>
</tr>
</tbody>
</table>

- Provide Outside Dial Tone: Yes
- Allow Overlap Sending: No
- Urgent Priority: No

### 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): 4089997004

### ISDN Network-Specific Facilities Information Element

- Carrier Identification Code: 
- Network Service Protocol: 

<table>
<thead>
<tr>
<th>Field</th>
<th>Service Parameter Name</th>
<th>Service Parameter Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Network Service</td>
<td></td>
<td></td>
</tr>
<tr>
<td>— Not Selected —</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* indicates required item.
## Find and List Translation Patterns

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

Find Translation patterns where Pattern begins with 
and show 20 items per page

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

### Matching record(s) 1 to 1 of 1

<table>
<thead>
<tr>
<th>Translation Pattern</th>
<th>Partition</th>
<th>Description</th>
<th>Route Filter</th>
<th>Copy</th>
</tr>
</thead>
<tbody>
<tr>
<td>XXXX</td>
<td>E911Phones</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Delete Selected

First Previous Next Last

Page 1 of 1
### Translation Pattern Configuration

**Translation Pattern: 7XXX**

**Status:** Ready

#### Pattern Definition

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Translation Pattern</td>
<td>7XXX</td>
</tr>
<tr>
<td>Partition</td>
<td>E911Phones</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>Calling Search Space</td>
<td>E911CSS</td>
</tr>
<tr>
<td>MLPP Precedence</td>
<td>Default</td>
</tr>
<tr>
<td>Route Option</td>
<td></td>
</tr>
</tbody>
</table>

Provide Outside Dial Tone: Yes

Block this pattern: No

Urgent Priority: Yes

#### Calling Party Transformations

- **Use Calling Party's External Phone Number Mask:**

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calling Party Transform Mask</td>
<td></td>
</tr>
<tr>
<td>Prefix Digits (Outgoing Calls)</td>
<td></td>
</tr>
<tr>
<td>Calling Line ID Presentation</td>
<td>Default</td>
</tr>
<tr>
<td>Calling Name Presentation</td>
<td>Default</td>
</tr>
</tbody>
</table>

#### 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):** 913

* * indicates required item.
Find and List CTI Route Points

2 matching record(s) for Device Name begins with ""

Find CTI Route Points where Device Name begins with [Enter search text above] and show [20] items per page

To list all items, click Find without entering any search text, or use "Device Name is empty" as the search criteria.

Matching record(s) 1 to 2 of 2
Real-time Information Service returned information for 2 of 2 devices listed below.

<table>
<thead>
<tr>
<th>Device Name</th>
<th>Description</th>
<th>Device Pool</th>
<th>Status</th>
<th>IP Address</th>
<th>Copy</th>
</tr>
</thead>
<tbody>
<tr>
<td>RP911</td>
<td>RP911</td>
<td>Default</td>
<td>172.20.16.250</td>
<td>172.20.16.250</td>
<td>D</td>
</tr>
<tr>
<td>RP913</td>
<td>RP913</td>
<td>Default</td>
<td>172.20.16.250</td>
<td>172.20.16.250</td>
<td>D</td>
</tr>
</tbody>
</table>

Delete Selected  Reset Selected  First Previous Next Last  Page 1 of 1

CTI Route Point Configuration

Device: RP911 (RP911)
Registration: Registered with Cisco CallManager 172.20.16.250
IP Address: 172.20.16.250
Status: Ready

Copy  Update  Delete  Reset

CTI Route Point Configuration

Device Information

Device Name* | RP911
Description     | RP911
Device Pool*    | Default
Calling Search Space | E911CSS
Location        | <None>
Media Resource Group List | <None>
User Hold Audio Source | <None>
Network Hold Audio Source | <None>

* indicates a required item.
**Directory Number Configuration**

**Directory Number: 911 (E911Phones)**

**Directory Number**
- Directory Number: 911
- Partition: E911Phones

**Directory Number Settings**
- Voice Mail Profile: <None>
- Calling Search Space: E911CSS
- AAR Group: <None>
- User Hold Audio Source: <None>
- Network Hold Audio Source: <None>
- Auto Answer: Not available on this device

**Call Forward and Pickup Settings**

<table>
<thead>
<tr>
<th>Voice Mail Destination</th>
<th>Calling Search Space</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forward All</td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>Forward Busy</td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>Forward No Answer</td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>Forward On Failure</td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>No Answer Ring Duration</td>
<td>(seconds)</td>
</tr>
<tr>
<td>Call Pickup Group</td>
<td>&lt;None&gt;</td>
</tr>
</tbody>
</table>

**MLPP Alternate Party Settings**

<table>
<thead>
<tr>
<th>Target (Destination)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calling Search Space</td>
</tr>
<tr>
<td>No Answer Ring Duration</td>
</tr>
</tbody>
</table>

**Line Settings for This Device**

<table>
<thead>
<tr>
<th>Display (Internal Caller ID)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Line Text Label</td>
</tr>
<tr>
<td>External Phone Number Mask</td>
</tr>
<tr>
<td>Message Waiting Lamp Policy</td>
</tr>
<tr>
<td>Ring Setting (Phone Idle)</td>
</tr>
<tr>
<td>Ring Setting (Phone Active)**</td>
</tr>
</tbody>
</table>

**Multiple Call / Call Waiting Settings**

<table>
<thead>
<tr>
<th>Maximum Number of Calls*</th>
</tr>
</thead>
<tbody>
<tr>
<td>5000  (1 - 10000)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Busy Trigger*</th>
</tr>
</thead>
<tbody>
<tr>
<td>4500  (&lt;= Max. Calls)</td>
</tr>
</tbody>
</table>

**Forwarded Call Information Display**

- Caller Name
- Caller Number
- Redirected Number
- Dialed Number

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

**Notes:**
- 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.)

<table>
<thead>
<tr>
<th>Character Set</th>
</tr>
</thead>
<tbody>
<tr>
<td>Western European (Latin)</td>
</tr>
</tbody>
</table>
CTI Route Point Configuration

**Directory Numbers**

- **Line 1**: E911Phones
- **Line 2**: Add DN

**Device**: RP913 (RP913)

**Registration**: Registered with Cisco CallManager 172.20.16.250

**IP Address**: 172.20.16.250

**Status**: Ready

**CTI Route Point Configuration**

**Device Information**

- **Device Name**: RP913
- **Description**: RP913
- **Device Pool**: Default
- **Calling Search Space**: E911CSS
- **Location**: <None>
- **Media Resource Group List**: <None>
- **User Hold Audio Source**: <None>
- **Network Hold Audio Source**: <None>

* indicates a required item.
### Directory Number Configuration

**Directory Number:** 910XXX (E911Phones)

**Status:** Ready

Note: Any updates to this Directory Number automatically resets the associated devices.

<table>
<thead>
<tr>
<th>Action</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Update</td>
<td></td>
</tr>
<tr>
<td>Remove from Device</td>
<td></td>
</tr>
<tr>
<td>Reset Devices</td>
<td></td>
</tr>
</tbody>
</table>

**Directory Number**

- **Directory Number:** 910XXX
- **Partition:** E911Phones

**Directory Number Settings**

- **Voice Mail Profile:** <None>
- **Calling Search Space:** E911Phones
- **AAR Group:** <None>
- **User Held Audio Source:** <None>
- **Network Held Audio Source:** <None>
- **Auto Answer:** Not available on this device.

**Call Forward and Pickup Settings**

<table>
<thead>
<tr>
<th>Forward Type</th>
<th>Voice Mail Destination</th>
<th>Calling Search Space</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forward All</td>
<td>&lt;None&gt;</td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>Forward Busy</td>
<td>&lt;None&gt;</td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>Forward No Answer</td>
<td>&lt;None&gt;</td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>Forward On Failure</td>
<td>&lt;None&gt;</td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>No Answer Ring Duration</td>
<td>(seconds)</td>
<td></td>
</tr>
<tr>
<td>Call Pickup Group</td>
<td>&lt;None&gt;</td>
<td></td>
</tr>
</tbody>
</table>

**MLPP Alternate Party Settings**

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

**Line Settings for this Device**

- **Display (Internal Caller ID):**
- **Line Text Label:** Not available on this device.
- **External Phone Number Mask:**
- **Message Waiting Lamp Policy:** Not available on this device.
- **Ring Setting (Phone Idle):** Not available on this device.
- **Ring Setting (Phone Active):** Not available on this device.

**Multiple Call / Call Waiting Settings**

- **Maximum Number of Calls:** 5000
- **Busy Trigger:** 4000

**Forwarded Call Information Display**

- **Caller Name**
- **Redirected Number**
- **Dialled Number**

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

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)
Configuring the Cisco Emergency Responder

Cisco Emergency Responder Administration

Copyright (C) 2002-2003 Cisco Systems, Inc. All rights reserved.
## Telephony settings

Specify the values for the configuration attributes and then press Update settings.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Status: Ready</td>
<td></td>
</tr>
<tr>
<td>UDP Port Begin *</td>
<td>32000</td>
</tr>
<tr>
<td>Inter Cisco ER Group Route Pattern</td>
<td></td>
</tr>
<tr>
<td>PSAP Callback Route Point Pattern *</td>
<td>913xxxx</td>
</tr>
<tr>
<td>ELIN Digit Strip Pattern *</td>
<td>913</td>
</tr>
<tr>
<td>Route Point for Primary Cisco ER Server *</td>
<td>911</td>
</tr>
<tr>
<td>Route Point for Standby Cisco ER Server *</td>
<td>912</td>
</tr>
</tbody>
</table>

* indicates required item
Find and List ERLs

Find Details of ERLs Where  EPL Name  contains  Find

and show 20 items per page
To list all items, click Find without entering any search text.

Configure Default ERL
Add New ERL
Status : Ready

Matching Records 1 to 5 of 5

<table>
<thead>
<tr>
<th>ERL Name</th>
<th>Route/Translation Pattern—ELIN</th>
<th>Onsite Alert Ids.</th>
<th>Street Name</th>
<th>Community Name</th>
<th>State</th>
<th>Copy</th>
<th>Delete</th>
<th>Audit Trail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default</td>
<td>100911--7066</td>
<td>Tasman</td>
<td>cisco</td>
<td>CA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education Center</td>
<td>102211--7002</td>
<td>Taishan</td>
<td>Big Sky</td>
<td>TX</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elementary</td>
<td>103911--7003</td>
<td>Rain</td>
<td>Big Cloud</td>
<td>TX</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High School</td>
<td>101911--7001</td>
<td>Rain</td>
<td>Big Cloud</td>
<td>TX</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meridian Opt 11</td>
<td>104911--7004</td>
<td>Nortel</td>
<td>Mendian Opt 11</td>
<td>MC</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

First | Previous | Next | Last

Page 1 of 1
### Find and List Manually Configured Phones

Find phones where extension contains and show 20 items per page. To list all items, click Find without entering any search text.

#### List Manually Configured Phones

<table>
<thead>
<tr>
<th>Line Number</th>
<th>ERL Name</th>
<th>IP Address</th>
<th>MAC Address</th>
<th>Delete</th>
</tr>
</thead>
<tbody>
<tr>
<td>2603</td>
<td>Meridian Opt 11</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2604</td>
<td>Meridian Opt 11</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Add/Modify Phones

Status: Please enter any change for the current Manual Phone

#### Modify Phones

<table>
<thead>
<tr>
<th>Line Number</th>
<th>Phone Type</th>
<th>Version</th>
<th>IP Address</th>
<th>MAC Address</th>
<th>ERL Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>2603</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Meridian Opt 11</td>
</tr>
</tbody>
</table>

* indicates required item
ERL Information for Meridian Opt 11

* indicates required item

**Help for this screen**

ERL Name * Meridian Opt 11

Notes T1 PRI

Test ERL (Select if this ERL is used for Synthetic Testing)

ELIN Settings

<table>
<thead>
<tr>
<th>Route/Translation pattern</th>
<th>Add</th>
<th>Update</th>
<th>Remove</th>
</tr>
</thead>
<tbody>
<tr>
<td>104911</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ELIN</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7004</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Onsite Alert Settings

Available Onsite Alert IDs

Onsite Alert IDs for the ERL

ERL Address

**All Details**

Update Copy Cancel Changes Close
# ALI Information for Meridain Opt 11

* indicates required item

Help for this screen

Fill all prevalidated fields from validation file by selecting a tag.

Select a tag: Not Selected

Save your validation file as C:\Program Files\Cisco Systems\CiscosR\nena_msag_records\validate.txt on CER-P

For sample validation file refer to C:\Program Files\Cisco Systems\CiscosR\nena_msag_records\samplevalidate.txt on CER-P

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>House Number</td>
<td>123</td>
</tr>
<tr>
<td>Street Name</td>
<td>Nortel Meridian Opt 11</td>
</tr>
<tr>
<td>Street Suffix</td>
<td>EXT</td>
</tr>
<tr>
<td>Community Name</td>
<td>MC</td>
</tr>
<tr>
<td>Main NPA</td>
<td></td>
</tr>
<tr>
<td>Class Of Service</td>
<td>Business PBX</td>
</tr>
<tr>
<td>Exchange</td>
<td></td>
</tr>
<tr>
<td>Order Number</td>
<td></td>
</tr>
<tr>
<td>County ID</td>
<td></td>
</tr>
<tr>
<td>Zip Code</td>
<td></td>
</tr>
<tr>
<td>Customer Code</td>
<td>123</td>
</tr>
<tr>
<td>Longitude</td>
<td></td>
</tr>
<tr>
<td>Latitude</td>
<td></td>
</tr>
<tr>
<td>Elevation</td>
<td></td>
</tr>
<tr>
<td>Location</td>
<td></td>
</tr>
<tr>
<td>House Number Suffix</td>
<td></td>
</tr>
<tr>
<td>Prefix Directional</td>
<td></td>
</tr>
<tr>
<td>Post Directional</td>
<td></td>
</tr>
<tr>
<td>State</td>
<td>CA</td>
</tr>
<tr>
<td>Main Telephone No</td>
<td></td>
</tr>
<tr>
<td>Type of Service</td>
<td>Non-Pub</td>
</tr>
<tr>
<td>Customer Name</td>
<td>Meridian PBX</td>
</tr>
<tr>
<td>Company ID</td>
<td>45678</td>
</tr>
<tr>
<td>Extract Date</td>
<td>112204</td>
</tr>
<tr>
<td>Zip Code Extension</td>
<td></td>
</tr>
<tr>
<td>Comments</td>
<td></td>
</tr>
<tr>
<td>TAR Code</td>
<td></td>
</tr>
<tr>
<td>Reserved</td>
<td></td>
</tr>
</tbody>
</table>

Update ALI Info  Cancel Changes  Close
ERL Information for Education Center

* indicates required item

Help for this screen

ERL Name * Education Center

Notes

Test ERL (Select if this ERL is used for Synthetic Testing)

ELIN Settings

Route/Translation pattern

<table>
<thead>
<tr>
<th>102911</th>
<th>Add</th>
<th>102911-7002</th>
</tr>
</thead>
<tbody>
<tr>
<td>7002</td>
<td>Update</td>
<td>Remove</td>
</tr>
</tbody>
</table>

Onsite Alert Settings

Available Onsite Alert IDs

Onsite Alert IDs for the ERL

ERL Address

ALL Details

Update Copy Cancel Changes Close
### ALI Information for Education Center

* indicates required item

Fill all prevalidated fields from validation file by selecting a tag.

### Field Details

- **House Number**: 510
- **Street Name**: Toeman
- **Street Suffix**: DR
- **Community Name**: Big Sky
- **Main NPA**: 
- **Class Of Service**: Business
- **Order Number**: 
- **County ID**: 
- **Zip Code**: 95134
- **Customer Code**: 123
- **Longitude**: 
- **Elevation**: 
- **Location**: 

**Select a Tag**

---

© 2005 Cisco Systems, Inc. All right reserved.

Important notices, privacy statements, and trademarks of Cisco Systems, Inc. can be found on cisco.com

Page 48 of 65
## Switch Port Details

### Find Switch Port Information
Find ports where
- **All** or **Any** of the conditions are satisfied

<table>
<thead>
<tr>
<th>ERL Name</th>
<th>Switch IP Address</th>
<th>T1Name</th>
<th>Location</th>
<th>Phone Extension</th>
<th>Phone IP Address</th>
<th>Phone Type</th>
<th>Port Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>172.20.43.20</td>
<td>1/1</td>
<td>View</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>172.20.43.20</td>
<td>1/2</td>
<td>View</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>172.20.43.20</td>
<td>1/3</td>
<td>View</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>172.20.43.20</td>
<td>2/1</td>
<td>View</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>172.20.43.20</td>
<td>2/2</td>
<td>View</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>172.20.43.20</td>
<td>2/3</td>
<td>View</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>172.20.43.20</td>
<td>2/4</td>
<td>View</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>172.20.43.20</td>
<td>2/5</td>
<td>View</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>172.20.43.20</td>
<td>2/6</td>
<td>View</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>172.20.43.20</td>
<td>2/7</td>
<td>View</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>172.20.43.20</td>
<td>2/8</td>
<td>View</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>172.20.43.20</td>
<td>2/9</td>
<td>View</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>172.20.43.20</td>
<td>2/10</td>
<td>View</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>172.20.43.20</td>
<td>2/11</td>
<td>View</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>172.20.43.20</td>
<td>2/12</td>
<td>View</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>172.20.43.20</td>
<td>2/13</td>
<td>View</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>172.20.43.20</td>
<td>2/14</td>
<td>View</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>172.20.43.20</td>
<td>2/15</td>
<td>View</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>172.20.43.20</td>
<td>2/16</td>
<td>View</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>172.20.43.20</td>
<td>2/17</td>
<td>View</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>172.20.43.20</td>
<td>2/18</td>
<td>View</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>172.20.43.20</td>
<td>2/19</td>
<td>View</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>172.20.43.20</td>
<td>2/20</td>
<td>View</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>172.20.43.20</td>
<td>2/21</td>
<td>View</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IP Address</td>
<td>Time</td>
<td>IP Address</td>
<td>Time</td>
<td>IP Address</td>
<td>Time</td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------</td>
<td>------</td>
<td>------------</td>
<td>------</td>
<td>------------</td>
<td>------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>172.20.43.20</td>
<td>3/22</td>
<td>View</td>
<td>172.20.43.20</td>
<td>3/23</td>
<td>View</td>
<td></td>
<td></td>
</tr>
<tr>
<td>172.20.43.20</td>
<td>3/24</td>
<td>View</td>
<td>Education Center</td>
<td>172.20.43.20</td>
<td>3/25</td>
<td>View</td>
<td></td>
</tr>
<tr>
<td>Education Center</td>
<td>172.20.43.20</td>
<td>3/26</td>
<td>Education Center</td>
<td>View</td>
<td>Education Center</td>
<td>172.20.43.20</td>
<td>3/27</td>
</tr>
<tr>
<td>Education Center</td>
<td>172.20.43.20</td>
<td>3/28</td>
<td>Education Center</td>
<td>View</td>
<td>Elementary</td>
<td>172.20.43.20</td>
<td>3/29</td>
</tr>
<tr>
<td>Elementary</td>
<td>172.20.43.20</td>
<td>3/30</td>
<td>Elementary View</td>
<td>2003</td>
<td>172.20.16.102</td>
<td>Cisco 7960</td>
<td></td>
</tr>
<tr>
<td>Elementary</td>
<td>172.20.43.20</td>
<td>3/31</td>
<td>Elementary View</td>
<td>High School</td>
<td>172.20.43.20</td>
<td>3/32</td>
<td>View</td>
</tr>
<tr>
<td>High School</td>
<td>172.20.43.20</td>
<td>3/33</td>
<td>High School View</td>
<td>2001</td>
<td>172.20.16.103</td>
<td>Cisco 7960</td>
<td></td>
</tr>
<tr>
<td>High School</td>
<td>172.20.43.20</td>
<td>3/34</td>
<td>High School View</td>
<td>High School</td>
<td>172.20.43.20</td>
<td>3/35</td>
<td>View</td>
</tr>
<tr>
<td>High School</td>
<td>172.20.43.20</td>
<td>3/36</td>
<td>High School View</td>
<td>High School</td>
<td>172.20.43.20</td>
<td>3/37</td>
<td>View</td>
</tr>
<tr>
<td>High School</td>
<td>172.20.43.20</td>
<td>3/38</td>
<td>View</td>
<td>172.20.43.20</td>
<td>3/39</td>
<td>View</td>
<td></td>
</tr>
<tr>
<td>High School</td>
<td>172.20.43.20</td>
<td>3/40</td>
<td>View</td>
<td>172.20.43.20</td>
<td>3/41</td>
<td>View</td>
<td></td>
</tr>
<tr>
<td>High School</td>
<td>172.20.43.20</td>
<td>3/42</td>
<td>View</td>
<td>172.20.43.20</td>
<td>3/43</td>
<td>View</td>
<td></td>
</tr>
<tr>
<td>High School</td>
<td>172.20.43.20</td>
<td>3/44</td>
<td>View</td>
<td>172.20.43.20</td>
<td>3/45</td>
<td>View</td>
<td></td>
</tr>
<tr>
<td>High School</td>
<td>172.20.43.20</td>
<td>3/46</td>
<td>View</td>
<td>172.20.43.20</td>
<td>3/47</td>
<td>View</td>
<td></td>
</tr>
<tr>
<td>High School</td>
<td>172.20.43.20</td>
<td>3/48</td>
<td>View</td>
<td>172.20.43.20</td>
<td>3/49</td>
<td>View</td>
<td></td>
</tr>
</tbody>
</table>
### Gateway Configuration

**Product:** Cisco Catalyst 6000 T1 VoIP Gateway  
**Gateway:** 80/081-0@0DA0001C9D0UA9B  
**Device Protocol:** Digital Access PRI  
**Registration:** Registered with Cisco CallManager 172.20.16.250  
**IP Address:** 172.20.16.100

**Status:** Update completed

<table>
<thead>
<tr>
<th>Device Information</th>
</tr>
</thead>
</table>
| MAC Address* | 0001C0D83A9B  
| Description | 6608 T1 PRI  
| Device Pool* | Default  
| Network Locale | United States  
| 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 | Off  
| MLPP Preemption | Disabled  

### Interface Information

| PRI Protocol Type* | PRI DMS-100  
| Protocol Side* | Network  
| Channel Selection Order* | Bottom Up  
| Channel IE Type* | Use Number when 1B  
| PCM Type* | j=law  
| Delay for first restart (1/3 sec ticks) | 32  
| Delay between restarts (1/3 sec ticks) | 4  

- [ ] Inhibit restarts at PRI initialization  
- [ ] Enable status poll

---

© 2005 Cisco Systems, Inc. All right reserved.  
Important notices, privacy statements, and trademarks of Cisco Systems, Inc. can be found on cisco.com  
Page 51 of 65
### Call Routing Information

#### Inbound Calls

- **Significant Digits**
  - Field: All

- **Calling Search Space**
  - Field: E911CSS

- **AAR Calling Search Space**
  - Field: None

- **Prefix DN**
  - Field: None

#### Outbound Calls

- **Calling Line ID Presentation**
  - Field: Default

- **Calling Party Selection**
  - Field: Originator

- **Called party IE number type unknown**
  - Field: Cisco CallManager

- **Called party IE number type unknown**
  - Field: Cisco CallManager

- **Called Numbering Plan**
  - Field: Cisco CallManager

- **Calling Numbering Plan**
  - Field: Cisco CallManager

- **Number of digits to strip**
  - Field: 0

- **Caller ID DN**
  - Field: None

- **SMDI Base Port**
  - Field: 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***
- **MCDI Channel Number Extension Bit Set to Zero**
- **Send Calling Name In Facility IE**
- **Interface Identifier Present***

- **Interface Identifier Value***
  - Field: 0

- **Connected Line ID Presentation (QSIG Inbound Call)**
  - Field: Default

- **Connected PBX Model**
  - Field: None
<table>
<thead>
<tr>
<th><strong>PRI Protocol Type Specific Information</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>- Display IE Delivery</td>
</tr>
<tr>
<td>- Redirecting Number IE Delivery - Outbound</td>
</tr>
<tr>
<td>- Redirecting Number IE Delivery - Inbound</td>
</tr>
<tr>
<td>- Send Extra Leading Character In DisplayIE***</td>
</tr>
<tr>
<td>- Setup non-ISDN Progress Indicator IE Enable****</td>
</tr>
<tr>
<td>- MCDN Channel Number Extension Bit Set to Zero**</td>
</tr>
<tr>
<td>- Send Calling Name In Facility IE</td>
</tr>
<tr>
<td>- Interface Identifier Present***</td>
</tr>
<tr>
<td>Interface Identifier Value***</td>
</tr>
<tr>
<td>Connected Line ID Presentation (QSIG Inbound Call)**</td>
</tr>
<tr>
<td>Connected PBX Model</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Product Specific Configuration</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Clock Reference**</td>
</tr>
<tr>
<td>TX-Level CSU**</td>
</tr>
<tr>
<td>FDL Channel**</td>
</tr>
<tr>
<td>Framing**</td>
</tr>
<tr>
<td>Audio Signal Adjustment into IP Network**</td>
</tr>
<tr>
<td>Audio Signal Adjustment from IP Network**</td>
</tr>
<tr>
<td>Yellow Alarm**</td>
</tr>
<tr>
<td>Zero Suppression**</td>
</tr>
<tr>
<td>Digit On Duration(50-500ms)*</td>
</tr>
<tr>
<td>Interdigit Duration(50-500ms)*</td>
</tr>
<tr>
<td>SNMP Community String</td>
</tr>
<tr>
<td>Disable SNMP Set operations*</td>
</tr>
<tr>
<td>Debug Port Enable*</td>
</tr>
<tr>
<td>Hold Tone Silence Duration*</td>
</tr>
<tr>
<td>Port Used for Voice Calls**</td>
</tr>
<tr>
<td>Port Used for Modem Calls*</td>
</tr>
<tr>
<td>Port Used for Fax Calls*</td>
</tr>
</tbody>
</table>
### Fax and Modem Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fax Relay Enable*</td>
<td>checked</td>
</tr>
<tr>
<td>Fax Error Correction Mode Override*</td>
<td>checked</td>
</tr>
<tr>
<td>Maximum Fax Rate*</td>
<td>14400bps</td>
</tr>
<tr>
<td>Fax Payload Size*</td>
<td>20</td>
</tr>
<tr>
<td>Non Standard Facilities Country Code*</td>
<td>65535</td>
</tr>
<tr>
<td>Non Standard Facilities Vendor Code*</td>
<td>65535</td>
</tr>
<tr>
<td>Fax/Modem Packet Redundancy*</td>
<td>unchecked</td>
</tr>
<tr>
<td>NSE Type*</td>
<td>Non-IOS Gateways</td>
</tr>
</tbody>
</table>

### Playout Delay Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial Playout Delay*</td>
<td>40</td>
</tr>
<tr>
<td>Minimum Playout Delay*</td>
<td>20</td>
</tr>
<tr>
<td>Maximum Playout Delay*</td>
<td>150</td>
</tr>
</tbody>
</table>

### Echo Canceller Configuration

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Echo Tail Length (ms)*</td>
<td>32 ms</td>
</tr>
<tr>
<td>Minimum ERL (db)*</td>
<td>6 db</td>
</tr>
</tbody>
</table>

* 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
## Configuring the Cisco 2611XM MGCP Gateway

### Gateway Configuration

**Product:** Cisco 26XX  
**Gateway:** 2611XM-CAMA

<table>
<thead>
<tr>
<th>Item</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domain Name*</td>
<td>2611XM-CAMA</td>
<td></td>
</tr>
<tr>
<td>Description</td>
<td>2611XM-CAMA</td>
<td></td>
</tr>
<tr>
<td>Cisco CallManager Group*</td>
<td>Default</td>
<td></td>
</tr>
</tbody>
</table>

### Installed Voice Interface Cards

| Module in slot 0 | VIC-2FXO                  | (1/0/0)          |
| Module in slot 1 | VIC-2FXS                  | (1/1/0)          |

### Endpoint Identifiers

<table>
<thead>
<tr>
<th>Subunit 0</th>
<th>Subunit 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1/0/0)</td>
<td>(1/1/0)</td>
</tr>
</tbody>
</table>

### Product Specific Configuration

<table>
<thead>
<tr>
<th>Item</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Switchback Timing*</td>
<td>Greco/ul</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

© 2005 Cisco Systems, Inc. All right reserved.
Important notices, privacy statements, and trademarks of Cisco Systems, Inc. can be found on cisco.com
Page 55 of 65
2611XM-CAMA#show version
Cisco Internetwork Operating System Software
IOS (tm) C2600 Software (C2600-IPVOICE-M), Version 12.3(10), RELEASE SOFTWARE (fc3)
Copyright (c) 1986-2004 by cisco Systems, Inc.
Compiled Tue 17-Aug-04 05:11 by kellythw
Image text-base: 0x80008098, data-base: 0x81805F0C

ROM: System Bootstrap, Version 12.2(7r) [cmong 7r], RELEASE SOFTWARE (fc1)

2611XM-CAMA uptime is 3 days, 1 hour, 11 minutes
System returned to ROM by power-on
System image file is "flash:c2600-ipvoice-mz.123-10.bin"

cisco 2611XM (MPC860P) processor (revision 0x100) with 61440K/4096K bytes of memory.
Processor board ID JAD07060AU8 (1524871317)
M860 processor: part number 5, mask 2
Bridging software.
X.25 software, Version 3.0.0.
2 FastEthernet/IEEE 802.3 interface(s)
2 Voice FXO interface(s)
2 Voice FXS interface(s)
32K bytes of non-volatile configuration memory.
49152K bytes of processor board System flash (Read/Write)

Configuration register is 0x2102

2611XM-CAMA#show running-config
Building configuration...
Current configuration : 2174 bytes
!
version 12.3
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
!
hostname 2611XM-CAMA
!
boot-start-marker
boot-end-marker
!
no logging on
!
clock timezone gmt -8
no network-clock-participate slot 1
no network-clock-participate wic 0
no aaa new-model
ip subnet-zero
ip cef
ip tcp synwait-time 13
!
no ip domain lookup
no ftp-server write-enable
!
ccm-manager mgcp
ccm-manager music-on-hold
ccm-manager config server 172.20.16.250
ccm-manager config
!
interface FastEthernet0/0
  ip address 172.20.16.50 255.255.255.0
no ip route-cache cef
no ip route-cache
no ip mroute-cache
duplex auto
speed 100
no keepalive
no cdp enable
no clns route-cache
!
interface FastEthernet0/1
no ip address
no ip route-cache cef
no ip route-cache
no ip mroute-cache
shutdown
speed 100
full-duplex
no clns route-cache
!
ip classless
ip route 0.0.0.0 0.0.0.0 FastEthernet0/0
no ip http server
!
no logging trap
!
voice-port 1/0/0
  signal cama KP-NPD-NXX-XXXX-ST
dial-type mf
!
voice-port 1/0/1
  signal cama KP-NPD-NXX-XXXX-ST
dial-type mf


! 
voice-port 1/1/0 
! 
voice-port 1/1/1 
! 
mgcp 
mgcp call-agent 172.20.16.250 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 rtppackage 
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 cor custom 
! 
dial-peer voice 100 pots 
   application mgcpapp 
     port 1/0/0 
! 
dial-peer voice 101 pots 
   application mgcpapp 
     port 1/0/1 
! 
dial-peer voice 110 pots
application mgcpapp
port 1/1/0
!
dial-peer voice 999100 pots
  application mgcpapp
  port 1/0/0
!
dial-peer voice 999101 pots
  application mgcpapp
  port 1/0/1
!
dial-peer voice 999110 pots
  application mgcpapp
  port 1/1/0
!
dial-peer voice 999111 pots
  application mgcpapp
  port 1/1/1
!

line con 0
  exec-timeout 0 0
  login
line aux 0
line vty 0 4
  login
!
end

2611XM-CAMA#sho voice port 1/0/0

Foreign Exchange Office  (CAMA) 1/0/0 Slot is 1, Sub-unit is 0, Port is 0
  Type of VoicePort is FXO
  Operation State is DORMANT
Administrative State is UP
The Last Interface Down Failure Cause is Administrative Shutdown
Description is not set
Noise Regeneration is enabled
Non Linear Processing is enabled
Non Linear Mute is disabled
Non Linear Threshold is -21 dB
Music On Hold Threshold is Set to -38 dBm
In Gain is Set to 0 dB
Out Attenuation is Set to 3 dB
Echo Cancellation is enabled
Echo Cancellation NLP mute is disabled
Echo Cancellation NLP threshold is -21 dB
Echo Cancel Coverage is set to 8 ms
Echo Cancel worst case ERL is set to 6 dB
Playout-delay Mode is set to adaptive
Playout-delay Nominal is set to 60 ms
Playout-delay Maximum is set to 200 ms
Playout-delay Minimum mode is set to default, value 40 ms
Playout-delay Fax is set to 300 ms
Connection Mode is normal
Connection Number is not set
Initial Time Out is set to 10 s
Interdigit Time Out is set to 10 s
Call Disconnect Time Out is set to 60 s
Ringing Time Out is set to 180 s
Wait Release Time Out is set to 30 s
Companding Type is u-law
Region Tone is set for US

Analog Info Follows:
Currently processing none
Maintenance Mode Set to None (not in mtc mode)
Number of signaling protocol errors are 18
Impedance is set to 600r Ohm
Station name None, Station number None
Translation profile (Incoming):
Translation profile (Outgoing):

Voice card specific Info Follows:
Signal Type is cama
Cama Type is KP-NPD-NXX-XXXX-ST
NPD to NPA mapping is:
NPD  NPA
0    0
1    0
2    0
3    0

Battery-Reversal is enabled
Number Of Rings is set to 1
Supervisory Disconnect is signal
Answer Supervision is inactive
Hook Status is On Hook
Ring Detect Status is inactive
Ring Ground Status is inactive
Tip Ground Status is inactive
Dial Out Type is mf
Digit Duration Timing is set to 75 ms
InterDigit Duration Timing is set to 65 ms
Pulse Rate Timing is set to 10 pulses/second
InterDigit Pulse Duration Timing is set to 750 ms
Percent Break of Pulse is 60 percent
GuardOut timer is 2000 ms
Minimum ring duration timer is 125 ms
Hookflash-in Timing is set to 600 ms
Hookflash-out Timing is set to 400 ms

**Important Information**

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

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