NEC IPX2400 PBX with Cisco 3845 T1 QSIG as an MGCP Gateway to Cisco Unified CallManager 4.2 and Cisco Emergency Responder 1.

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Note:  Cisco CallManager is now known as Cisco Unified CallManager in release 4.0 and later releases.
Introduction

The following is an Application Note for Interoperability of a Cisco Unified CallManager 4.2, Cisco Emergency Responder 1.3 and Cisco 3845 with CAMA interface and T1-QSIG trunk with a NEC IPX2400 PBX interconnected via VWIC-2MFT-T1

Test emergency 911 call from a PBX digital station was routed to the T1 QSIG trunk, of the Cisco 3845 MGCP gateway, and was correctly associated to the appropriate Emergency Response Location. The call was connected through the Cisco 3845 CAMA trunk to the PSAP Emulator. The Emergency Response Location associated the ten digit DID call back number (ELIN) correctly and sent it to the PSAP, audio connection was also achieved. The PBX digital station was then disconnected.

A return call was originated from an incoming trunk (PSTN side) in the same Cisco Unified CallManager Partition. The number dialed was the DID digits of the 10 digit call back number sent to the PSAP on the previous 911 call (ELIN number). The call was routed through to the PBX digital station that had originated the E911 call. The call was disconnected and an alternate trunk was used to dial the same DID number and the call was routed through, again, to the PBX digital station that had originated the E911 call.

Test emergency 911 calls were made from each PBX digital station and Cisco IP phone. All calls were confirmed to select its associated Emergency Response Location and the associated 10 digit DID call back number. In each case, the call was disconnected and the call back number was confirmed to reach the phone that had originated the E911 call.

Emergency 911 calls made from a NEC IPX2400 PBX utilizing a T1 QSIG trunk configured as ISO, 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.

Figure 1 shows the test set-up for interoperability between the Cisco Unified CallManager and Cisco Emergency Responder connected to the PBX via a T1 QSIG trunk using Cisco3845 MGCP Gateway.
**Network Topology**

**Figure 1.** Network Topology or Test Setup

---

**Limitations**

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.

**System Components**

**Hardware Requirements**

**Cisco Hardware**

- Cisco 3845 Gateway with NM-HD/VWIC-2MFT-T1 (QSIG trunk) and NM-HD/VIC2-4FXO (CAMA trunk)
- Cisco Catalyst 6x00 switch
- Cisco Unified CallManager
- Cisco Emergency Responder
- NEC IPX2400 PBX

**Software Requirements**

- Cisco IOS Software releases “c3845-ipvoice-mz.123-14.T4”.
- PBX Software: Release 15
Cisco Unified CallManager 4.2 (0.839)
Cisco Emergency Responder 1.3 (0.105)

**Features**

Calling Number

E911 ERL DID number passed to PSAP

Incoming DID calling to disconnected 911 originating caller
Configuration

Cisco Unified CallManager Configuration

Partitions

Find and List Partitions

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

Find Partitions where Partition Name begins with 
and show 20 items per page

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

Matching record(s) 1 to 2 of 2

<table>
<thead>
<tr>
<th>Partition Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>E911</td>
<td>E911</td>
</tr>
<tr>
<td>Phones</td>
<td>Phones</td>
</tr>
</tbody>
</table>

Delete Selected
### Partition Configuration

**Partition**: E911

**Status**: Ready

<table>
<thead>
<tr>
<th>Button</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Update</td>
<td></td>
</tr>
<tr>
<td>Delete</td>
<td></td>
</tr>
<tr>
<td>Restart Devices</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partition Name</td>
<td>E911</td>
</tr>
<tr>
<td>Description</td>
<td>E911</td>
</tr>
<tr>
<td>Time Schedule</td>
<td>&lt; None &gt;</td>
</tr>
</tbody>
</table>

- **Time Zone**
  - Originating Device: GMT
  - Specific Time Zone: Casablanca

* indicates required item
Calling Search Space

Find and List Calling Search Spaces

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

Find Calling Search Spaces where CSS Name begins with [dropdown] and show [number] items per page

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

Matching record(s) 1 to 2 of 2

<table>
<thead>
<tr>
<th></th>
<th>CSS Name</th>
<th>Description</th>
<th>Copy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>E911CSS</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>phoneCSS</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Delete Selected First Previous Next Last Page 1 of 1
Calling Search Space Configuration

Calling Search Space: E911CSS

Status: Ready

Calling Search Space Information

Calling Search Space Name*: E911CSS

Description

Route Partitions for this Calling Search Space

Find Partitions containing

Available Partitions

Selected Partitions*
(ordered by highest priority)

E911
Phones

* indicates required item
Phone Configuration

Phone: SEP000BC303B28F4 (Auto 4100)
Registration: Registered with Cisco CallManager CM-GUANATOS
IP Address: 172.20.8.11
Status: Ready

Copy Update Delete Reset Phone

Phone Configuration (Model = Cisco 7940)
Device Information
MAC Address*: 000C303B28F4
Description: Auto 4100
Owner User ID
Device Pool*: Default
Common Profile: <None>
Calling Search Space: phoneCSS
AAR Calling Search Space: <None>
Media Resource Group List: <None>
User Hold Audio Source: <None>
<table>
<thead>
<tr>
<th>Setting</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Network Hold Audio Source</td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>Location</td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>AAR Group</td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>User Locale</td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>Network Locale</td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>Device Security Mode</td>
<td>Use System Default</td>
</tr>
<tr>
<td>Signal Packet Capture Mode</td>
<td>None</td>
</tr>
<tr>
<td>Packet Capture Duration</td>
<td>0</td>
</tr>
<tr>
<td>Built In Bridge</td>
<td>Default</td>
</tr>
<tr>
<td>Privacy</td>
<td>Default</td>
</tr>
<tr>
<td>Device Mobility Mode</td>
<td>Default</td>
</tr>
</tbody>
</table>

Device security mode only takes effect if the enterprise parameter Cluster Security Mode is set to 1.

- Retry Video Call as Audio
- Ignore Presentation Indicators (internal calls only)
- Logged into Hunt Group

**Phone Button Template Information**

| Phone Button Template*          | Standard 7940 |

(View button list)

**Softkey Template Information**

| Softkey Template               | <None>       |

**Firmware Load Information (leave blank to use default)**

| Phone Load Name                |             |

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

| Information                    |             |
### Authentication String

- **Key Size (bits):** 1024
- **Operation Completes By:** [ ]
- **Certificate Operation Status:** None

### Multilevel Precedence and Preemption (MLPP) Information

- **MLPP Domain:** [ ] (e.g., "0000FF")
- **MLPP Indication:** Default
- **MLPP Preemption:** Default

### Product Specific Configuration

<table>
<thead>
<tr>
<th>Setting</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disable Speakerphone</td>
<td>[ ]</td>
</tr>
<tr>
<td>Disable Speakerphone and Headset</td>
<td>[ ]</td>
</tr>
<tr>
<td>PC Port*</td>
<td>Enabled</td>
</tr>
<tr>
<td>Settings Access*</td>
<td>Enabled</td>
</tr>
<tr>
<td>Gratuitous ARP*</td>
<td>Enabled</td>
</tr>
<tr>
<td>PC Voice VLAN Access*</td>
<td>Enabled</td>
</tr>
<tr>
<td>Video Capabilities*</td>
<td>Disabled</td>
</tr>
<tr>
<td>Auto Line Select*</td>
<td>Disabled</td>
</tr>
<tr>
<td>Web Access*</td>
<td>Enabled</td>
</tr>
</tbody>
</table>

* indicates a required item.
** Indicates time on Publisher.
### Directory Number Configuration

#### Associated With
- SEP000C303026F4 (Line 1)

#### Directory Number: 4100 (Phones)
- **Status:** Ready
- **Note:** Any update to this Directory Number automatically resets the associated devices

#### Directory Number
- **Directory Number:** 4100
- **Partition:** Phones

#### Directory Number Settings
- **Voice Mail Profile:** <None>
- **Calling Search Space:** phoneCSS
- **User Hold Audio Source:** <None>
- **Network Hold Audio Source:** <None>
- **Auto Answer:** Auto Answer Off

#### AAR Settings
- **Voice Mail:**
- **AAR Destination Mask:**
- **AAR Group:** <None>

- **Remove this destination from the call forwarding history**
- **Edit **

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### Call Forward and Pickup Settings

<table>
<thead>
<tr>
<th>Voice Mail</th>
<th>Coverage/Destination</th>
<th>Calling Search Space</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forward All</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Forward Busy Internal</td>
<td>4200</td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>Forward Busy External</td>
<td>4200</td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>Forward No Answer Internal</td>
<td>4200</td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>Forward No Answer External</td>
<td>4200</td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>Forward No Coverage Internal</td>
<td></td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>Forward No Coverage External</td>
<td></td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>Forward Unregistered Internal</td>
<td>4200</td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>Forward Unregistered External</td>
<td>4200</td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>No Answer Ring Duration</td>
<td></td>
<td>(seconds)</td>
</tr>
<tr>
<td>Call Pickup Group</td>
<td>&lt;None&gt;</td>
<td>(View Details)</td>
</tr>
</tbody>
</table>

### MLPP Alternate Party Settings

<table>
<thead>
<tr>
<th>Target (Destination)</th>
<th>Calling Search Space</th>
<th>No Answer Ring Duration</th>
<th>(seconds)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&lt;None&gt;</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Line Settings for all Devices

<table>
<thead>
<tr>
<th>Alerting Name</th>
<th>Cmer Bravo</th>
</tr>
</thead>
</table>

### Line Settings for this Device

<table>
<thead>
<tr>
<th>Display (Internal Caller ID)</th>
<th>Cmer Bravo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Setting</td>
<td>Value</td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>Display (Internal Caller ID)</td>
<td>Omar Bravo</td>
</tr>
<tr>
<td>Line Text Label</td>
<td>Omar Bravo</td>
</tr>
<tr>
<td>External Phone Number Mask</td>
<td></td>
</tr>
<tr>
<td>Message Waiting Lamp Policy</td>
<td>Use System Policy</td>
</tr>
<tr>
<td>Ring Setting (Phone Idle)</td>
<td>Use System Default</td>
</tr>
<tr>
<td>Ring Setting (Phone Active) **</td>
<td>Use System Default</td>
</tr>
<tr>
<td>Call Pickup Group Audio Alert Setting (Phone Idle)</td>
<td>Use System Default</td>
</tr>
<tr>
<td>Call Pickup Group Audio Alert Setting (Phone Active)</td>
<td>Use System Default</td>
</tr>
</tbody>
</table>

**Multiple Call / Call Waiting Settings**

- Maximum Number of Calls*: 4 (1 - 200)
- Busy Trigger*: 2 (< Max. Calls)

**Forwarded Call Information Display**

- Caller Name
- Redirected Number
- Dialed Number

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

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

** Note:**

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

**Character Set:** Western European (Latin 1)
## Find and List CTI Route Points

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

Find CTI Route Points where

- **Device Name**
- **begins with**

and show **20** items per page.

To list all items, click **Find** without entering any search text, or use "Device Name is not 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>Common Profile</th>
<th>Status</th>
<th>IP Address</th>
<th>Copy</th>
</tr>
</thead>
<tbody>
<tr>
<td>R911</td>
<td>RPS11</td>
<td>Default</td>
<td>MigratedCommonPro...</td>
<td>CM-GUANATOS</td>
<td>172.20.8.254</td>
<td></td>
</tr>
<tr>
<td>RPELIN913</td>
<td>RPELIN913</td>
<td>Default</td>
<td>MigratedCommonPro...</td>
<td>CM-GUANATOS</td>
<td>172.20.8.254</td>
<td></td>
</tr>
</tbody>
</table>

Delete Selected  Reset Selected  First Previous Next Last  Page of 1
Directory Number Configuration

Associated With
RP911 (Line 1)

Directory Number: 911 (Phones)
Status: Ready
Note: Any update to this Directory Number automatically resets the associated devices
Update  Remove from Device  Reset Devices

Directory Number
Directory Number*  911
Partition  Phones

Directory Number Settings
Voice Mail Profile  (Choose <None> to use default)
Calling Search Space  E911CSS
User Hold Audio Source  <None>
Network Hold Audio Source  <None>
Auto Answer  Not available on this device

AAR Settings
Voice Mail  AAR Destination Mask  AAR Group
AAR:  
Remove this destination from the call forwarding history
Retain this destination in the call forwarding history
### Call Forward and Pickup Settings

<table>
<thead>
<tr>
<th>Call Forward and Pickup Settings</th>
<th>Voice Mail</th>
<th>Coverage/Destination</th>
<th>Calling Search Space</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forward All</td>
<td></td>
<td></td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>Forward Busy Internal</td>
<td></td>
<td></td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>Forward Busy External</td>
<td></td>
<td></td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>Forward No Answer Internal</td>
<td></td>
<td></td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>Forward No Answer External</td>
<td></td>
<td></td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>Forward No Coverage Internal</td>
<td></td>
<td></td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>Forward No Coverage External</td>
<td></td>
<td></td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>Forward Unregistered Internal</td>
<td></td>
<td></td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>Forward Unregistered External</td>
<td></td>
<td></td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>Forward On Failure Ext/Int</td>
<td></td>
<td></td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>No Answer Ring Duration</td>
<td></td>
<td></td>
<td>(seconds)</td>
</tr>
<tr>
<td>Call Pickup Group</td>
<td>&lt;None&gt;</td>
<td>(View Details)</td>
<td></td>
</tr>
</tbody>
</table>

### MLPP Alternate Party Settings

<table>
<thead>
<tr>
<th>MLPP Alternate Party Settings</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Target (Destination)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calling Search Space</td>
<td>&lt;None&gt;</td>
<td></td>
</tr>
<tr>
<td>No Answer Ring Duration</td>
<td></td>
<td>(seconds)</td>
</tr>
</tbody>
</table>

### Line Settings for all Devices

<table>
<thead>
<tr>
<th>Line Settings for all Devices</th>
<th>Alerting Name</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Line Settings for this Device

<table>
<thead>
<tr>
<th>Line Settings for this Device</th>
<th></th>
</tr>
</thead>
</table>
### Line Settings for all Devices

- **Alerting Name**

### 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)***
- **Call Pickup Group Audio Alert (Phone Idle)**
- **Call Pickup Group Audio Alert (Phone Active)** Not available on this device.

### Multiple Call / Call Waiting Settings

- **Maximum Number of Calls**
- **Busy Trigger**

### Forwarded Call Information Display

- **Caller Name**
- **Redirected Number**
- **Dialed 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)
## Directory Number Configuration

**Directory Number:** 913XXXXXXXX (E911)

**Status:** Ready

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

<table>
<thead>
<tr>
<th>Action</th>
<th>Button</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

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Directory Number</td>
<td>913XXXXXXXX</td>
</tr>
<tr>
<td>Partition</td>
<td>E911</td>
</tr>
</tbody>
</table>

### Directory Number Settings

<table>
<thead>
<tr>
<th>Setting</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voice Mail Profile</td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>Calling Search Space</td>
<td>E911CSS</td>
</tr>
<tr>
<td>User Hold Audio Source</td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>Network Hold Audio Source</td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>Auto Answer</td>
<td>Not available on this device.</td>
</tr>
</tbody>
</table>

### AAR Settings

<table>
<thead>
<tr>
<th>AAR</th>
<th>Voice Mail</th>
<th>AAR Destination Mask</th>
<th>AAR Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAR</td>
<td></td>
<td></td>
<td>&lt;None&gt;</td>
</tr>
</tbody>
</table>

- Remove this destination from the call forwarding history
- Retain this destination in the call forwarding history
## Call Forward and Pickup Settings

<table>
<thead>
<tr>
<th>Voice Mail</th>
<th>Coverage/Destination</th>
<th>Calling Search Space</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forward All</td>
<td></td>
<td>(None)</td>
</tr>
<tr>
<td>Forward Busy Internal</td>
<td></td>
<td>(None)</td>
</tr>
<tr>
<td>Forward Busy External</td>
<td></td>
<td>(None)</td>
</tr>
<tr>
<td>Forward No Answer Internal</td>
<td></td>
<td>(None)</td>
</tr>
<tr>
<td>Forward No Answer External</td>
<td></td>
<td>(None)</td>
</tr>
<tr>
<td>Forward No Coverage Internal</td>
<td></td>
<td>(None)</td>
</tr>
<tr>
<td>Forward No Coverage External</td>
<td></td>
<td>(None)</td>
</tr>
<tr>
<td>Forward Unregistered Internal</td>
<td></td>
<td>(None)</td>
</tr>
<tr>
<td>Forward Unregistered External</td>
<td></td>
<td>(None)</td>
</tr>
<tr>
<td>Forward On Failure Ext/Int</td>
<td></td>
<td>(None)</td>
</tr>
<tr>
<td>No Answer Ring Duration</td>
<td></td>
<td>(seconds)</td>
</tr>
<tr>
<td>Call Pickup Group</td>
<td></td>
<td>(None)</td>
</tr>
</tbody>
</table>
Note: A Backup CER server was not used during testing therefore CTI route point for 912 was not created.
Phone Configuration

Phone: CERSec1 (CERSec1)
Registration: Registered with Cisco CallManager CM-GUANATOS
IP Address: 172.20.0.50
Status: Ready

Phone Configuration (Model = CTI Port)

Device Information

Device Name: CERSec1
Description: CERSec1

Owner User ID: (Select User ID)
Device Pool: Default (View Details)
Common Profile: None (View Details)
Calling Search Space: phoneCSS
AAR Calling Search Space: None
Media Resource Group List: None
User Hold Audio Source: None
Network Hold Audio Source: None
Location: None

Add a new phone
Dependency Records
Back to Find/List Phones
<table>
<thead>
<tr>
<th>Description</th>
<th>CERSec1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owner User ID</td>
<td>(Select User ID)</td>
</tr>
<tr>
<td>Device Pool*</td>
<td>Default (View Details)</td>
</tr>
<tr>
<td>Common Profile</td>
<td>&lt; None &gt; (View Details)</td>
</tr>
<tr>
<td>Calling Search Space</td>
<td>phoneCSS (View Details)</td>
</tr>
<tr>
<td>AAR Calling Search Space</td>
<td>&lt; None &gt; (View Details)</td>
</tr>
<tr>
<td>Media Resource Group List</td>
<td>&lt; None &gt; (View Details)</td>
</tr>
<tr>
<td>User Hold Audio Source</td>
<td>&lt; None &gt; (View Details)</td>
</tr>
<tr>
<td>Network Hold Audio Source</td>
<td>&lt; None &gt; (View Details)</td>
</tr>
<tr>
<td>Location</td>
<td>&lt; None &gt; (View Details)</td>
</tr>
<tr>
<td>AAR Group</td>
<td>&lt; None &gt; (View Details)</td>
</tr>
<tr>
<td>Device Mobility Mode</td>
<td>Default (View Current Settings)</td>
</tr>
<tr>
<td></td>
<td>Logged into Hunt Group</td>
</tr>
</tbody>
</table>

**Multilevel Precendence and Preemption (MLPP) Information**

- **MLPP Domain**: (e.g., '0000FF')
- **MLPP Indication**: Not available on this device
- **MLPP Preemption**: Not available on this device

* indicates a required item.

Back to top of page
Back to Find/List Phones
Directory Number Configuration

Directory Number: 4050 (Phones)

Status: Ready
Note: Any update to this Directory Number automatically resets the associated devices

Update | Remove from Device | Reset Devices

Directory Number

Directory Number* 4050
Partition  Phones

Directory Number Settings

Voice Mail Profile  <None>
(Choose <None> to use default)

Calling Search Space phoneCSS

User Hold Audio Source  <None>

Network Hold Audio Source  <None>

Auto Answer  Not available on this device

AAR Settings

Voice Mail  AAR Destination Mask  AAR Group
AAR:  

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Page 29 of 77
### Call Forward and Pickup Settings

<table>
<thead>
<tr>
<th>Voice Mail</th>
<th>Coverage/Destination</th>
<th>Calling Search Space</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forward All</td>
<td></td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>Forward Busy Internal</td>
<td></td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>Forward Busy External</td>
<td></td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>Forward No Answer Internal</td>
<td></td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>Forward No Answer External</td>
<td></td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>Forward No Coverage Internal</td>
<td></td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>Forward No Coverage External</td>
<td></td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>Forward Unregistered Internal</td>
<td></td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>Forward Unregistered External</td>
<td></td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>Forward On Failure Ext/Int</td>
<td></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>(View Details)</td>
</tr>
</tbody>
</table>

#### MLPP Alternate Party Settings

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

#### Line Settings for all Devices

<table>
<thead>
<tr>
<th>Alerting Name</th>
<th></th>
</tr>
</thead>
</table>

#### Line Settings for this Device
### Line Settings for this Device

<table>
<thead>
<tr>
<th>Setting</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display (Internal Caller ID)</td>
<td></td>
</tr>
<tr>
<td>Line Text Label</td>
<td></td>
</tr>
<tr>
<td>External Phone Number Mask</td>
<td></td>
</tr>
<tr>
<td>Message Waiting Lamp Policy</td>
<td>Use System Policy</td>
</tr>
<tr>
<td>Ring Setting (Phone Idle)</td>
<td>Not available on this device.</td>
</tr>
<tr>
<td>Ring Setting (Phone Active)**</td>
<td>Not available on this device.</td>
</tr>
<tr>
<td>Call Pickup Group Audio Alert Setting (Phone Idle)</td>
<td>Not available on this device.</td>
</tr>
<tr>
<td>Call Pickup Group Audio Alert Setting (Phone Active)</td>
<td>Not available on this device.</td>
</tr>
</tbody>
</table>

### Multiple Call / Call Waiting Settings

<table>
<thead>
<tr>
<th>Setting</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Number of Calls*</td>
<td>4 (1 - 200)</td>
</tr>
<tr>
<td>Busy Trigger**</td>
<td>2 (&lt; Max. Calls)</td>
</tr>
</tbody>
</table>

### Forwarded Call Information Display

- [x] Caller Name
- [ ] Caller Number
- [ ] Redirected Number
- [x] Dialed 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)
## Find and List Route Patterns

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

Find Route Patterns 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 6 of 6

<table>
<thead>
<tr>
<th>Route Pattern</th>
<th>Partition</th>
<th>Description</th>
<th>Route Filter</th>
<th>Gateway/Route List</th>
<th>Copy</th>
</tr>
</thead>
<tbody>
<tr>
<td>10911</td>
<td>E911</td>
<td></td>
<td>AALV/S3/SU0/0@ton...</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11911</td>
<td>E911</td>
<td></td>
<td>AALV/S3/SU0/0@ton...</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11XX</td>
<td></td>
<td></td>
<td>S1/DSI-0@tony_3640</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13911</td>
<td>E911</td>
<td></td>
<td>AALV/S3/SU0/0@ton...</td>
<td></td>
<td></td>
</tr>
<tr>
<td>40XX</td>
<td></td>
<td></td>
<td>S0/SU0/DSI-0@tony...</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4500</td>
<td></td>
<td></td>
<td>S1/DSI-0@tony_3640</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Route Pattern Configuration

**Route Pattern:** 10911.

**Status:** Ready

*Note:* Any update to this Route Pattern automatically resets the associated gateway or Route List.

<table>
<thead>
<tr>
<th>Pattern Definition</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Route Pattern*</td>
<td>10911</td>
</tr>
<tr>
<td>Partition</td>
<td>E911</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>None</td>
</tr>
<tr>
<td>MLPP Precedence</td>
<td>Default</td>
</tr>
<tr>
<td>Gateway or Route List*</td>
<td>AALN/S3/SU1/0@tony3845</td>
</tr>
<tr>
<td>Route Option</td>
<td>Route this pattern</td>
</tr>
<tr>
<td>Call Classification*</td>
<td>OffNet</td>
</tr>
<tr>
<td>Provide Outside Dial Tone</td>
<td>Yes</td>
</tr>
<tr>
<td>Allow Overlap Sending</td>
<td>No</td>
</tr>
<tr>
<td>Allow Device Override</td>
<td>No</td>
</tr>
<tr>
<td>Urgent Priority</td>
<td>No</td>
</tr>
<tr>
<td>Require Forced Authorization Code</td>
<td>No</td>
</tr>
<tr>
<td>Authorization Level</td>
<td>0</td>
</tr>
<tr>
<td>---------------------</td>
<td>---</td>
</tr>
</tbody>
</table>

### Calling Party Transformations

- **Use Calling Party's External Phone Number Mask**
- **Calling Party Transform Mask**: 4089934200
- **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
- **Called Party Transform Mask**: 4089934200
- **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.
## Route Pattern Configuration

**Route Pattern:** 11911.

**Status:** Ready

**Note:** Any update to this Route Pattern automatically resets the associated gateway or Route List.

<table>
<thead>
<tr>
<th>Pattern Definition</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Route Pattern*</td>
<td>11911</td>
</tr>
<tr>
<td>Partition</td>
<td>E911</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 List*</td>
<td>AALN/S3/SU/0@lony3845</td>
</tr>
<tr>
<td>Route Option</td>
<td></td>
</tr>
<tr>
<td>Call Classification*</td>
<td>OffNet</td>
</tr>
<tr>
<td>Provide Outside Dial Tone</td>
<td></td>
</tr>
<tr>
<td>Allow Overlap Sending</td>
<td></td>
</tr>
<tr>
<td>Allow Device Override</td>
<td></td>
</tr>
<tr>
<td>Urgent Priority</td>
<td></td>
</tr>
<tr>
<td>Require Forced Authorization Code</td>
<td></td>
</tr>
</tbody>
</table>

Add a New Route Pattern
Back to Find/List Route Patterns
### Calling Party Transformations

- **Authorization Level**: 0
  - **Require Client Matter Code**: [ ]
  - **Use Calling Party's External Phone Number Mask**: [ ]
  - **Calling Party Transform Mask**: 4089394201
  - **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
- **Called Party Transform Mask**: 
- **Prefix Digits (Outgoing Calls)**: 4089394201

### ISDN Network-Specific Facilities Information Element

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

* indicates required item.
Route Pattern 13911

Route Pattern Configuration

Route Pattern: 13911.
Status: Ready
Note: Any update to this Route Pattern automatically resets the associated gateway or Route List

Pattern Definition

Route Pattern*: 13911
Partition: E911
Description:
Numbering Plan*: North American Numbering Plan
Route Filter: <None>
MLPP Precedence: Default
Gateway or Route List*: AALN/S5/SU1/0@tony3845
Route Option
- Route this pattern
- Block this pattern
Call Classification*
- OffNet
- Provide Outside Dial Tone
- Allow Device Override
- Allow Overlap Sending
- Urgent Priority
- Require Forced Authorization Code
Translation Pattern for ELINs

Translation Pattern Configuration

Translation Pattern: 408999XXX
Status: Ready

Pattern Definition
Translation Pattern: 408999XXX
Partition: E911
Description:
Numbering Plan*: North American Numbering Plan
Route Filter: <None>
Calling Search Space: E911CSS
MLPP Precedence: Default
Route Option:
  * Route this pattern
  * Block this pattern: Not Selected

Provide Outside Dial Tone: checked
Urgent Priority: unchecked

Calling Party Transformations
Use Calling Party's External Phone Number Mask: unchecked

Add a New Translation Pattern
Back to Find/List Translation Patterns
**Cisco CallManager 4.2 Administration - Translation Pattern Configuration - Microsoft Internet Explorer**

<table>
<thead>
<tr>
<th><strong>Numbering Plan</strong></th>
<th>North American Numbering Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Route Filter</strong></td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td><strong>Calling Search Space</strong></td>
<td>E911CSS</td>
</tr>
<tr>
<td><strong>MLFP Precedence</strong></td>
<td>Default</td>
</tr>
<tr>
<td><strong>Route Option</strong></td>
<td>Route this pattern</td>
</tr>
<tr>
<td></td>
<td>Block this pattern</td>
</tr>
<tr>
<td></td>
<td>Not Selected</td>
</tr>
<tr>
<td><strong>Provide Outside Dial Tone</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Urgent Priority</strong></td>
<td></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** <None>
- **Called Party Transform Mask**
- **Prefix Digits (Outgoing Calls)** 913

* indicates required item.
PSAP Gateway Configuration (CAMA Trunk)

Gateway Configuration

Product: Cisco 3845
Gateway: AALN/J3/Y0/0@tony3845
Registration: Registered with Cisco CallManager CM-GUANATOS
IP Address: 172.20.8.26

Status: Ready

Gateway Information

<table>
<thead>
<tr>
<th>Description</th>
<th>AALN/J3/Y0/0@tony3845</th>
</tr>
</thead>
<tbody>
<tr>
<td>Device Pool*</td>
<td>Default</td>
</tr>
<tr>
<td>Common Profile</td>
<td>&lt; None &gt;</td>
</tr>
<tr>
<td>Call Classification*</td>
<td>Use System Default</td>
</tr>
<tr>
<td>Calling Search Space</td>
<td>E911CSS</td>
</tr>
<tr>
<td>AAR Calling Search Space</td>
<td>&lt; None &gt;</td>
</tr>
<tr>
<td>Media Resource Group List</td>
<td>&lt; None &gt;</td>
</tr>
<tr>
<td>Location</td>
<td>&lt; None &gt;</td>
</tr>
<tr>
<td>AAR Group</td>
<td>&lt; None &gt;</td>
</tr>
<tr>
<td>Network Locale</td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>----------------</td>
<td>--------</td>
</tr>
</tbody>
</table>

### Multilevel Precedence and Preemption (MLPP) Information

<table>
<thead>
<tr>
<th>MLPP Domain</th>
<th>(e.g., '0000FF')</th>
</tr>
</thead>
<tbody>
<tr>
<td>MLPP Indication</td>
<td>Not available on this device</td>
</tr>
<tr>
<td>MLPP Preemption</td>
<td>Not available on this device</td>
</tr>
</tbody>
</table>

### Port Information

<table>
<thead>
<tr>
<th>Port Direction*</th>
<th>Bothways</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attendant DN*</td>
<td>3000</td>
</tr>
</tbody>
</table>

### Product Specific Configuration

<table>
<thead>
<tr>
<th>Hookflash Timer (50-1550ms) *</th>
<th>500</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inter-digit Duration Timer (50-500 ms)*</td>
<td>100</td>
</tr>
<tr>
<td>Input Gain (-6..14 db)*</td>
<td>0</td>
</tr>
<tr>
<td>Output Attenuation (0..14 db)*</td>
<td>3</td>
</tr>
<tr>
<td>Echo Cancellation Enable*</td>
<td>Enable</td>
</tr>
<tr>
<td>Echo Cancellation Coverage (ms)*</td>
<td>Default</td>
</tr>
</tbody>
</table>

* indicates required item
User Configuration

User: Emergency 911Response

Application Profiles of Emergency
- Device Association
- Cisco IPMA
- Extension Mobility
- Softphone

User Profile Information
- Status: Ready
- First Name: Emergency
- Last Name*: 911Response
- User ID: cer
- User Password*: Change...
- PIN*: Change...
- Telephone Number
- Manager User ID
- Department
- User Locale: English United States
- Enable CTI Application Use: ✓
- Enable CTI Super Provider: 
- Call Park Retrieval Allowed: 

Add a New User
Back to User List
User Configuration

Application Profiles of Emergency
- Device Association
- Cisco IPMA
- Extension Mobility
- SoftPhone

User Locale

Enable CTI Application Use
Enable CTI Super Provider
Call Park Retrieval Allowed
Enable Calling Party Number Modification
Associated PC
Primary Extension
Controlled Devices
Enable Authentication Proxy Rights
Controlled Device Profiles

* indicates required item.

Add a New User
Back to User List

View page in English, United States

Page displayed at Wed Jan 18 16:24:17 PST 2006
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T1-QSIG Gateway

Gateway Configuration

Product: Cisco 3845
Gateway: S0/SU0/D81-0@tony3845
Device Protocol: Digital Access PRI
Registration: Registered with Cisco CallManager CM-GUANATOS
IP Address: 172.20.8.26

Status: Ready
Update | Delete | Reset Gateway

Device Information

End-Point Name* | S0/SU0/D81-0@tony3845
Description | S0/SU0/D81-0@tony3845
Device Pool* | Default
Common Profile | <None>
Call Classification* | Use System Default
Network Locale | <None>
Media Resource Group List | <None>
Location | <None>
### Outbound Calls

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Significant Digits*</td>
<td>All</td>
</tr>
<tr>
<td>Calling Search Space</td>
<td>phoneCSS</td>
</tr>
<tr>
<td>AAR Calling Search Space</td>
<td>&lt; None &gt;</td>
</tr>
<tr>
<td>Prefix DN</td>
<td></td>
</tr>
</tbody>
</table>

### Calling Line ID Presentation*

- Default

### Calling Party Selection*

- Originator

### 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

- 

### SMDI Base Port*

- 0

---

**PRI Protocol Type Specific Information**

- Display IE Delivery
- Redirecting Number IE Delivery - Outbound
- Redirecting Number IE Delivery - Inbound
- Send Extra Leading Character In DisplayIE**
- Setup non-IEDN Progress Indicator IE Enable***
### Route Pattern Configuration

**Route Pattern:** 40XX  
**Status:** Ready  
**Note:** Any update to this Route Pattern automatically resets the associated gateway or Route List.

<table>
<thead>
<tr>
<th>Pattern Definition</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Route Pattern</strong></td>
<td>40XX</td>
</tr>
<tr>
<td><strong>Partition</strong></td>
<td>&amp;</td>
</tr>
<tr>
<td><strong>Description</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Numbering Plan</strong></td>
<td>North American Numbering Plan</td>
</tr>
<tr>
<td><strong>Route Filter</strong></td>
<td>&amp;</td>
</tr>
<tr>
<td><strong>MLPP Precedence</strong></td>
<td>Default</td>
</tr>
<tr>
<td><strong>Gateway or Route List</strong></td>
<td>SQ/SU0/DS1-0@tony3845</td>
</tr>
<tr>
<td><strong>Route Option</strong></td>
<td>Route this pattern</td>
</tr>
<tr>
<td><strong>Call Classification</strong></td>
<td>OnNet</td>
</tr>
<tr>
<td><strong>Provide Outside Dial Tone</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Allow Overlap Sending</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Urgent Priority</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Require Forced Authorization Code</strong></td>
<td></td>
</tr>
</tbody>
</table>
Note: For detailed information regarding QSIG interoperability between CCM and NEC IPX2400 PBX go to:
SNMP service must be active and set to READ-ONLY
## Cisco CallManager Details

### Cisco CallManagers

| 172.20.110.254 |

**Status:** Please enter any change for the current Cisco CallManager

### Modify Cisco CallManager

- **Cisco CallManager:** 172.20.110.254
  - **CallManager List**

- **CTI Manager:** 172.20.110.254
  - **ctetst**

- **CTI Manager User Name:**
  - **ctetst**

- **CTI Manager Password:**
  - **Password**

- **BackUp CTI Manager 1**

- **BackUp CTI Manager 2**

- **Telephony Port Begin Address:** 4250

- **Number of Telephony Ports:** 2

* Indicates required item
Cisco ER Group Settings

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

Status: Ready

Cisco ER Group Name *
Peer TCP Port *
Heart beat Count *
Heart beat Interval (in sec) *
Active Cell Time out (in min) *
SMTP Mail Server
Source Mail ID (mandatory if SMTP Server configured)
System Administrator Mail ID
Calling Party Modification
SysLog
Syslog Server (mandatory if Syslog enabled) (eg:logserver.cisco.com)
Notes
* indicates required item

Update Settings  Cancel Changes
Telephony settings

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

Status: Ready

UDP Port Begin * 32000
Inter Cisco ER Group Route Pattern
PSAP Callback Route Point Pattern * 91389138
ELIN Digit Strip Pattern * 913
Route Point for Primary Cisco ER Server * 911
Route Point for Standby Cisco ER Server 912
* indicates required item
Server Settings

Server Settings for CERServerGroup

<table>
<thead>
<tr>
<th>Servers</th>
<th>Status: Ready</th>
</tr>
</thead>
<tbody>
<tr>
<td>Publisher (primary)</td>
<td></td>
</tr>
</tbody>
</table>

**Modify Server Settings**

- **Server Name**: Publisher
- **Host Name**: CER-P

**Debug Package List**

- CER_DATABASE
- CER_SYSADMIN
- CER_REMOTEUPDATE
- CER_TELEPHONY
- CER_PHONETRACKINGENGINE
- CER_AGREGGATOR
- CER_OFFSITEALERT
- CER_GROUP
- CER_CALLENGINE
- CER_CLUSTER

**Trace Package List**

- CER_DATABASE
- CER_SYSADMIN
- CER_REMOTEUPDATE
- CER_TELEPHONY
- CER_PHONETRACKINGENGINE
- CER_AGREGGATOR
- CER_OFFSITEALERT
- CER_GROUP
- CER_CALLENGINE
- CER_CLUSTER

* indicates required item
## ERLs List

### Find and List ERLs

Find Details of ERLs Where

<table>
<thead>
<tr>
<th>ERL Name</th>
<th>Route/Translation Pattern</th>
<th>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>100911-4C00</td>
<td></td>
<td></td>
<td>Tasman</td>
<td>cisco</td>
<td>ca</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Test1</td>
<td>10911-4059994...</td>
<td></td>
<td></td>
<td>Tasman</td>
<td>Big Sky</td>
<td>TX</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Test2</td>
<td>11911-4059994...</td>
<td></td>
<td></td>
<td>Tasman</td>
<td>Big Sky</td>
<td>TX</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Test3</td>
<td>13911-4059994...</td>
<td></td>
<td></td>
<td>Tasman</td>
<td>Big Sky</td>
<td>TX</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Configure Default ERL
Add New ERL

Status: Deleted successfully.

Click on record to view/edit.

First | Previous | Next | Last
Configure Default ERL
Add New ERL

Page 56 of 77
ERL Information for Test1

* indicates required item

ERL Name  *  Test1

Notes

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

ELIN Settings

Route/Translation pattern
10911

ELIN
4089934200

Add  10911-4089934200
Update
Remove

Onsite Alert Settings

Available Onsite Alert IDs

Onsite Alert IDs for the ERL

ERL Address

ALL Details

Update  Copy  Cancel Changes  Close
ERL Information for Test3

* indicates required item

Help for this screen

ERL Name * Test3

Notes

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

ELIN Settings

Route/Translation pattern

Add

Update

Remove

13911-4089964203

ELIN

Onsite Alert Settings

Available Onsite Alert IDs

Onsite Alert IDs for the ERL

ERL Address

ALL Details

Update

Copy

Cancel Changes

Close

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Page 59 of 77
SNMP Connection

SNMP Settings

- Entries can be added in any order.
- IP Address can consist of a wild card "*" or range of values like 20:30 or an exact number.
- Entry that is the closest match will be used for a given switch or Cisco CallManager.
- If no match is found, public will be used as the default Read Community string.
- Some valid IP examples: 164.20.4.5  64.20-30.30-60. " *, *.*.*

Status: Please enter any change for the current SNMP Setting

Modify SNMP Setting

<table>
<thead>
<tr>
<th>IP Address/Host Name</th>
<th>Timeout(in sec)</th>
<th>Retries</th>
<th>Read Community</th>
</tr>
</thead>
<tbody>
<tr>
<td>172.20.8.20</td>
<td>10</td>
<td>2</td>
<td>public</td>
</tr>
</tbody>
</table>

* indicates required item

Click on a record to view or modify

Configure ERLs
### LAN Switch Identifying

LAN Switch Details

<table>
<thead>
<tr>
<th>LAN Switches</th>
<th>Modify LAN Switch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Export</td>
<td>Status: Please enter any change for the current LAN Switch</td>
</tr>
<tr>
<td>Import</td>
<td></td>
</tr>
<tr>
<td>172.20.8.20</td>
<td></td>
</tr>
</tbody>
</table>

**Switch Host Name / IP Address**: 172.20.8.20

**Notes**

- **Enable CAM based Phone Tracking**

*indicates required item*
### Switch Port Details

<table>
<thead>
<tr>
<th>ERL Name</th>
<th>Start Date</th>
<th>View</th>
<th>Status</th>
<th>IP Address</th>
<th>Router</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test3</td>
<td>172.20.8.20</td>
<td>3/25</td>
<td>View</td>
<td>172.20.110.252</td>
<td>Cisco 7960</td>
</tr>
<tr>
<td>Test3</td>
<td>172.20.8.20</td>
<td>3/29</td>
<td>View</td>
<td>4201</td>
<td></td>
</tr>
<tr>
<td>Test3</td>
<td>172.20.8.20</td>
<td>3/30</td>
<td>View</td>
<td>4201</td>
<td></td>
</tr>
<tr>
<td>Test3</td>
<td>172.20.8.20</td>
<td>3/31</td>
<td>View</td>
<td>172.20.110.253</td>
<td>Cisco 7960</td>
</tr>
</tbody>
</table>

- **ERL Name**: Identifies the Emergency Response Location Name.
- **Start Date**: The date the port was added.
- **View**: Indicates whether the port is visible for further configuration.
- **Status**: Shows the current status of the port.
- **IP Address**: The IP address associated with the port.
- **Router**: The router on which the port is configured.
### Defining Manual Phones (PBX Stations)

#### 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**

**Status:** Ready

Matching record(s) 1 to 2 of 2

<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>4059</td>
<td>Test2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4060</td>
<td>Test1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

First  Previous  Next  Last  Page 1 of 1
Add/Modify Phones

Status: Please enter any change for the current Manual Phone

Modify Phones

<table>
<thead>
<tr>
<th>Line Number</th>
<th>4060</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phone Type</td>
<td></td>
</tr>
<tr>
<td>Version</td>
<td></td>
</tr>
<tr>
<td>IP Address</td>
<td></td>
</tr>
<tr>
<td>MAC Address</td>
<td></td>
</tr>
<tr>
<td>ERL Name</td>
<td>Test1</td>
</tr>
</tbody>
</table>

* indicates required item
Cisco 3845 Cisco IOS Gateway Configuration

Router3845# show running-config
Building configuration...

Current configuration : 3087 bytes

!  
Version 12.3
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption

hostname Router3845
! boot-start-marker
boot system flash:c3845-ipvoice-mz.123-14.T4.bin
boot-end-marker
!
enable password cisco
!
no aaa new-model
!
resource policy
!
no network-clock-participate slot 3
no network-clock-participate slot 4
network-clock-participate wic 0
voice-card 0
no dspfarm
!
voice-card 3
no dspfarm
!
voice-card 4
dspfarm
!
ip subnet-zero
ip cef
!
no ip dhcp use vrf connected
!
!
ip host CM-GUANATOS 172.20.8.254
ip host CM-BARZA 172.20.110.254
no ftp-server write-enable
isdn switch-type primary-4ess
!
!
!
!
!
!
!
!
!
controller T1 0/0/0
framing esf
linecode b8zs
pri-group timeslots 1-24 service mgcp
!
controller T1 0/0/1
framing esf
linecode b8zs
!
controller E1 4/0/0
shutdown
pri-group timeslots 1-31 service mgcp
!
controller E1 4/0/1
!
!
interface GigabitEthernet0/0
ip address 172.20.8.26 255.255.255.0
duplex half
speed 100
media-type rj45
negotiation auto
!
interface GigabitEthernet0/1
ip address 172.20.110.104 255.255.255.0
shutdown
duplex auto
speed auto
media-type rj45
negotiation auto
!
interface Serial0/0/0:23
no ip address
isdn switch-type primary-qsig
isdn protocol-emulate network
isdn incoming-voice voice
isdn T310 120000
isdn bind-i3 ccm-manager
no cdp enable
!
interface Serial4/0/0:15
no ip address
shutdown
isdn switch-type primary-qsig
isdn incoming-voice voice
isdn bind-i3 ccm-manager
no cdp enable
!
ip default-gateway 172.20.8.1
ip classless
ip route 0.0.0.0 0.0.0.0 172.20.8.1

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ip http server
!
!
!
control-plane
!
!
voice-port 0/0/0.23
!
voice-port 3/0/0
  signal cama KP-NPD-NXX-XXXX-ST
dial-type mf
timing hookflash-out 500
!
voice-port 3/0/1
dial-type mf
timing hookflash-out 500
!
voice-port 3/0/2
dial-type mf
timing hookflash-out 500
!
voice-port 3/0/3
dial-type mf
timing hookflash-out 500
!
voice-port 3/1/0
!
voice-port 3/1/1
!
voice-port 4/0/0.15
!
ccm-manager mgcp
ccm-manager music-on-hold
ccm-manager config server CM-GUANATOS
ccm-manager config
!
mgcp
mgcp call-agent CM-GUANATOS 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
mgcp package-capability pre-package
no mgcp timer receive-rtcp
mgcp sdtp simple
mgcp fax t38 inhibit
mgcp rtp payload-type g726r16 static

mgcp profile default


dial-peer voice 999300 pots
  service mgcpapp
  port 3/0/0


dial-peer voice 999301 pots
  service mgcpapp
  port 3/0/1


dial-peer voice 999310 pots
  service mgcpapp
  port 3/1/0


dial-peer voice 999311 pots
  service mgcpapp
  port 3/1/1


dial-peer voice 999302 pots
  service mgcpapp
  port 3/0/2


dial-peer voice 999303 pots
  service mgcpapp
  port 3/0/3


line con 0
  password cisco
  stopbits 1

line aux 0
  stopbits 1

line vty 0 4
  password cisco
  login

  scheduler allocate 20000 1000

End

Router3845# show version
Cisco IOS Software, 3800 Software (C3845-IPVOICE-M), Version 12.3(14)T4, RELEASE SOFTWARE (fc2)
Router3845 uptime is 1 week, 2 days, 5 hours, 15 minutes
System returned to ROM by power-on
System image file is "flash:c3845-ipvoice-mz.123-14.T4.bin"

Cisco 3845 (revision 1.0) with 485376K/38912K bytes of memory.
Processor board ID FTX0933A1JA
2 Gigabit Ethernet interfaces
55 Serial interfaces
2 Channelized E1/PRI ports
2 Channelized T1/PRI ports
4 Voice FXO interfaces
2 Voice FXS interfaces
DRAM configuration is 64 bits wide with parity enabled.
479K bytes of NVRAM.
125184K bytes of ATA System CompactFlash (Read/Write)

Configuration register is 0x2102

Router3845#

Router3845#sh voice port 3/0/0

Foreign Exchange Office 3/0/0 Slot is 3, 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 64 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 250 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 8
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:

<table>
<thead>
<tr>
<th>NPD</th>
<th>NPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

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 100 ms
InterDigit Duration Timing is set to 100 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 500 ms
Supervisory Disconnect Timing is set to 350 ms
Router3845#

Cisco Catalyst 6x00 Configuration

Console> (enable) show snmp
SNMP: Enabled
RMON: Disabled
Extended RMON Netflow Enabled: None.
Memory usage limit for new RMON entries: 85 percent
EngineID: 00:00:00:09:00:01:97:31:c8:00:00:00
Chassis Alias:
Traps Enabled: None
Port Traps Enabled: None

Community-Access Community-String
------------------ -------------------
read-only public
read-write private
read-write-all secret

Additional-Access-
Community-String Access-Type Number View
-------------------- -------------- ------- -----------------------------------

Trap-Rec-Address Trap-Rec-Community Trap-Rec-Port Trap-Rec-Owner Trap-Rec-Index
---------------- ------------------ ------------- -------------- --------------

Console> (enable) show cdp
CDP: enabled
Message Interval: 60
Hold Time: 180
Version: V2
Device Id Format: Other

set interface sc0 109 172.20.8.20/255.255.255.0 172.20.8.255
**NEC IPX2400 Configuration**

The NEC requires a substantial amount of programming and circuit card switch settings to properly install T1 PRI. It is beyond the scope of this document to provide the entire configuration, therefore the NEC information below is directed to NEC techs.

The switch settings and software references in this document assume a familiarity with the NEC 2400. It is highly recommended to have a NEC ISDN certified technician setup the NEC portion.

Configure in the following sequence:
- Install Circuit Card
- Configure all software

**Circuit Card Configuration (PA-24PRTB)**

<table>
<thead>
<tr>
<th>Switch</th>
<th>Position</th>
<th>Description</th>
<th>Settings</th>
</tr>
</thead>
<tbody>
<tr>
<td>MB</td>
<td>Make Busy</td>
<td>Down</td>
<td></td>
</tr>
<tr>
<td>LB</td>
<td>Internal Loop Back</td>
<td>Off</td>
<td></td>
</tr>
<tr>
<td></td>
<td>External Loop Back</td>
<td>Off</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Payload Loop Back</td>
<td>Off</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dch Control Block MBR</td>
<td>Off</td>
<td></td>
</tr>
<tr>
<td>SENSE</td>
<td>Protocol</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0 = CCIS (NEC proprietary)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 = NI2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 = INS1500</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3 = AT&amp;T (#4 &amp; #5 ESS)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>7 = Nortel DMS100/DMS250</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A = Q.SIG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SW0</td>
<td>ON = Impedance 100 ohms</td>
<td>ON</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OFF = Impedance 110 ohms</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>XMT XFMR Ground</td>
<td>OFF</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RCV XFMR Ground</td>
<td>OFF</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fixed On</td>
<td>ON</td>
<td></td>
</tr>
<tr>
<td>SW1</td>
<td>Digital PAD ROM Count</td>
<td>OFF</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Off = 2 ROM chips on board</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>On = 3 ROM chips on board</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fixed On</td>
<td>ON</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ON = 24B</td>
<td>OFF</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OFF = 23B + D</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>D-Channel Packet Service</td>
<td>OFF</td>
<td></td>
</tr>
<tr>
<td>SW2</td>
<td>Equalizer</td>
<td>ON</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Equalizer</td>
<td>ON</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Equalizer</td>
<td>ON</td>
<td></td>
</tr>
<tr>
<td></td>
<td>12/24 Multiframe</td>
<td>ON</td>
<td></td>
</tr>
<tr>
<td></td>
<td>AMI/B8ZS</td>
<td>ON</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4K Data Link Control</td>
<td>ON</td>
<td></td>
</tr>
</tbody>
</table>
Route (ARTD) Configuration

[IPX-R15_IP::LRTD]  January 27, 2006

* Route Class Data List *

Starting                              Ending
RT  2                              RT  3

<table>
<thead>
<tr>
<th>CDN</th>
<th>Data</th>
<th>CDN</th>
<th>Data</th>
<th>CDN</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>001</td>
<td>OSGS</td>
<td>002</td>
<td>ONSG</td>
<td>003</td>
<td>ISGS</td>
</tr>
<tr>
<td>004</td>
<td>PRV</td>
<td>005</td>
<td>TF</td>
<td>006</td>
<td>TCL</td>
</tr>
<tr>
<td>007</td>
<td>L/T</td>
<td>008</td>
<td>RLP</td>
<td>009</td>
<td>TQ</td>
</tr>
<tr>
<td>010</td>
<td>SMDR</td>
<td>011</td>
<td>TD</td>
<td>012</td>
<td>DR</td>
</tr>
<tr>
<td>013</td>
<td>AC</td>
<td>014</td>
<td>TNT</td>
<td>015</td>
<td>LSG</td>
</tr>
<tr>
<td>016</td>
<td>SMDR2</td>
<td>017</td>
<td>H/M</td>
<td>018</td>
<td>MC</td>
</tr>
<tr>
<td>019</td>
<td>ANI</td>
<td>020</td>
<td>D</td>
<td>021</td>
<td>MSB</td>
</tr>
</tbody>
</table>

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<table>
<thead>
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NEC Software Release

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|Boot ROM     |     H   | 02.00     | 2002/11/20 |
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|ACDP         |    -    |     -     |     -      |
|MAT          |    15   | 02.00     | 2003/09/05 |
|TCP/IP       |     5   | 01.00     | 2003/09/04 |
|PHDP         |     2   | 02.00     | 2003/08/08 |
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Acronyms

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