Alcatel 4400, Release 5.1 using E1 QSIG to Cisco Unified CallManager 4.1

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Introduction

- This is an application note for connectivity of Alcatel 4400 Release 5.1 PBX with Cisco Unified CallManager Release 4.1 using 2650XM_E1 QSIG as MGCP gateway.

- The network topology diagram (Figure 1) shows the test setup for end-to-end interoperability with the Cisco Unified CallManager connected to the PBX via 2650XM_E1 QSIG link as MGCP gateway.

- Connectivity is achieved by using the PRI QSIG E1 protocol type on the MGCP gateway and ABC_F (QSIG_GF filtered) switch type on the Alcatel 4400 PBX.

- This Application Note uses the 2650XM_E1 voice gateway, however other Cisco voice gateways are also an option to use since CallManager QSIG implementation does not depend on the physical interface.
Limitations

The following section lists known limitations, caveats, or integration issues.

Basic Call with Overlap Sending

- Alcatel does not display connected number when configured for Overlap Sending. CCM does send connected name and number when answering the original call.

Call Forward by Join

- Alcatel does not support call forwarding by join. Instead the Alcatel performs a reroute.

Path Replacement for Call Transfer

- Alcatel did not update connected name and number after Path Replacement.
Additional Network Feature Path Replacement for Call Diversion

- Alcatel does not send Path Replacement proposal for Call Diversion by forward switch.

**MWI**

- Unfortunately Cisco has not been able to validate MWI functionality in our labs due to the fact that we do not have an internal voicemail system on our Alcatel PBX. However, Alcatel’s documentation confirms that OmniPCX 4400 PBX’s does support MWI as long as the Alcatel PBX is the message center PINX. Also MWI was confirmed to be working at a Cisco customer’s site on an Alcatel 4400 Release 4.2 system supporting an internal Octel voicemail blade.

- With Cisco Unified CallManager configured as the message center PINX, Alcatel 4400 PBX Release 4.2 system does not support QSIG MWI.

**System Components**

**Hardware Requirements**

The following hardware is required:

- Cisco 2650XM router with 2MFT-E1 ports
- Cisco CallManager
- Alcatel 4400 PBX:
  - Alcatel PRA2 Card (PRI Interface Card)

**Software Requirements**

The following software is required:

- Alcatel PBX Software version 5.1
- Cisco Unified CallManager 4.1
- Cisco IOS Release or Cisco CatOS Release (for the gateway)

**Features**

This section lists new and changed features and features that are not supported.

**Features Supported**

- CLIP-Calling Line (Number) Identification Presentation
- CLIR-Calling Line (Number) Identification Restriction
- CNIP-Calling Name Identification Presentation
- CNIR-Calling Name Identification Restriction
- COLP-Connected Line (Number) Identification Presentation
- COLR- Connected Line (Number) Identification Restriction
- CONP-Connected Name Identification Presentation
- CONR- Connected Name Identification Restriction
- Sending Alerting Name
- CT-Call Transfer (by join)
• CFU-Call Forwarding Unconditional (by join)
• CFB-Call Forwarding Busy (by join)
• CFNR-Call Forwarding No Reply (by join)
• CFU-Call Forwarding Unconditional (by Reroute)
• CFB-Call Forwarding Busy (by Reroute)
• CFNR-Call Forwarding No Reply (by Reroute)
• CCBS-Call Completion to Busy Subscriber
• CCNR-Call Completion No Reply
• ANF-PR-Additional Network Feature Path Replacement (for Call Transfer by join).
• ANF-PR-Additional Network Feature Path Replacement (for Call Diversion by forward switching)
• ANF-PR-Additional Network Feature Path Replacement (for Trombone connection)
• Message Waiting Indication is supported by Alcatel OmniPCX PBX’s (lamp ON, lamp OFF, (See Limitation))

Features Not Supported
• None

Configuration

This section contains configuration menus and commands and describes configuration sequences and tasks.

Configuring the Alcatel 4400
1. Configure Board.
2. Configure Digital Access
4. Configure PRI-ABC_F Trunk Group
5. Configure PSTN Trunk Group
6. Configure Network Routing
7. Configure Network Routing “Own Node”.
8. Configure Routing Prefix.
9. Configure Digital Station
10. Configure Digital Station Phone Facilities
**Configuration Menus and Commands**

**Configure Board**

![Configuration Interface](image-url)

[1:35:20 PM] > Request 5 sent to alcatel51.

[1:35:20 PM] > Request 5 completed on alcatel51: 1 instance(s) received.
Configuration: alcatel51

Board Address
ISDN Board Layer 2 Parameters
  Retransmission Timer 100
  TEI Identity Check Timer 100
  Polling Timer 1000
  No. Of Retransmissions 3
Max Frame Size (Bytes) 260
T0 ISDN Board Layer 2 Parameters
  Window Size in Frames SAP 1
  Window Size in Frames SAP 3
  Window Size in Frames SAP 7
T2 ISDN Board Layer 2 Parameters
  Window Size in Frames SAP 1
  Window Size in Frames SAP 3
  Window Size in Frames SAP 7
Virtual board NO

[1:35:21 PM] > Request 8 sent to alcatel51.
[1:35:21 PM] > Request 8 completed on alcatel51: 1 instance[s] received.
Configure Digital Access

Configure: alcatel51

<table>
<thead>
<tr>
<th>Digital Access</th>
<th>0 T2 BPRA2 255 YES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 TO BPRA2 255 NO</td>
</tr>
<tr>
<td></td>
<td>2 TO BPRA2 0 YES 2</td>
</tr>
<tr>
<td></td>
<td>3 TO BPRA2 0 NO 2</td>
</tr>
</tbody>
</table>

Configure: alcatel51:0

<table>
<thead>
<tr>
<th>T0/T2 Access No.</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access Type</td>
<td>T2</td>
</tr>
<tr>
<td>Access Board Type</td>
<td>BPRA2</td>
</tr>
<tr>
<td>Synchronization Priority</td>
<td>255</td>
</tr>
<tr>
<td>Network Mode</td>
<td>YES</td>
</tr>
<tr>
<td>Max No Of Used B Channels</td>
<td>30</td>
</tr>
<tr>
<td>Max No Of Compressed B Chans</td>
<td>0</td>
</tr>
<tr>
<td>Timeline Mode</td>
<td>YES</td>
</tr>
<tr>
<td>With Alarm</td>
<td>NO</td>
</tr>
<tr>
<td>Reserved1</td>
<td>NO</td>
</tr>
<tr>
<td>Reserved2</td>
<td>NO</td>
</tr>
<tr>
<td>Network Date Time Update</td>
<td>NO</td>
</tr>
<tr>
<td>CRC4</td>
<td>YES</td>
</tr>
</tbody>
</table>

[1:37:32 PM] > Request 6 sent to alcatel51.
[1:37:32 PM] > Request 6 completed on alcatel51: 4 instance(s) received.

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Configure “ISO Function” System Parameter

<table>
<thead>
<tr>
<th>Instance (reserved)</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trunk seizure via attendant</td>
<td>✓</td>
</tr>
<tr>
<td>No detect of On-hook tone</td>
<td>✓</td>
</tr>
<tr>
<td>TrkGrp in ticket for trans.call</td>
<td>✓</td>
</tr>
<tr>
<td>VPN service</td>
<td>✓</td>
</tr>
<tr>
<td>ISVPN Node No.</td>
<td>✓</td>
</tr>
<tr>
<td>No. Digits displayed on sets</td>
<td>18</td>
</tr>
<tr>
<td>Melody Ringing Type</td>
<td>✓</td>
</tr>
<tr>
<td>Int.Call Ringing Cadence No.</td>
<td>✓</td>
</tr>
<tr>
<td>Ext.Call Ringing Cadence No.</td>
<td>✓</td>
</tr>
<tr>
<td>Executive Type Ringing Cadence No.</td>
<td>✓</td>
</tr>
<tr>
<td>Priority Call Cadence No.</td>
<td>✓</td>
</tr>
<tr>
<td>ISO Function</td>
<td>✓</td>
</tr>
<tr>
<td>Reserve B Channel</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Configure PRI ABC_F Trunk Group
Configuration: alcatel51

[1:42:21 PM] > Request 8 sent to alcatel51.
[1:42:21 PM] > Request 8 completed on alcatel51: 1 instance[s] received.
[1:42:21 PM] > Request 8 sent to alcatel51.
[1:42:21 PM] > Request 8 completed on alcatel51: 1 instance(s) received.

### alcatel51:1

<table>
<thead>
<tr>
<th>Instance (reserved)</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automated Attendant</td>
<td>NO</td>
</tr>
<tr>
<td>Calling party Rights COS</td>
<td>0</td>
</tr>
<tr>
<td>Entity Number</td>
<td>1</td>
</tr>
<tr>
<td>TS Overflow</td>
<td>YES</td>
</tr>
<tr>
<td>Number To Be Added</td>
<td>NO</td>
</tr>
<tr>
<td>Supervised by Routing</td>
<td>NO</td>
</tr>
<tr>
<td>VPN Cost Limit for incoming calls</td>
<td>0</td>
</tr>
<tr>
<td>Immediate Trunk Listening if VPN</td>
<td>YES</td>
</tr>
<tr>
<td>VPN TS %</td>
<td>50</td>
</tr>
<tr>
<td>CSTA Monitored</td>
<td>NO</td>
</tr>
<tr>
<td>Max % of trunks out CCD</td>
<td>0</td>
</tr>
<tr>
<td>Charge Calling And ADN Creating</td>
<td>NO</td>
</tr>
<tr>
<td>Ratio analog to ISDN cost</td>
<td>15</td>
</tr>
<tr>
<td>Logical Channel</td>
<td>199 &amp; 170_31</td>
</tr>
<tr>
<td>TS Distribution on Accesses</td>
<td>YES</td>
</tr>
<tr>
<td>No calls</td>
<td>NO</td>
</tr>
</tbody>
</table>
[1:42:21 PM] > Request 8 sent to alcatel51.
[1:42:21 PM] > Request 8 completed on alcatel51: 1 instance(s) received.
Configure PSTN Trunk Group

Trunk Group ID: 0
Trunk Group Type: T2
Trunk Group Name: PRI-ABCF
Node number: 1
Transcom Trunk Group: unchecked
Auto reserv. by Attendant: unchecked
Overflow trunk group No.: -1
Tone on seizure: checked
Private Trunk Group: unchecked
Q931 Signal variant: ISDN all countries
SS7 Signal variant: No variant
Number Compatible With: -1
Number Of Digits To Send: 10
Channel selection type: Quantified
Configure Network Routing

[Image of a network configuration interface]

[Log messages]
[1:48:16 PM] > Request 16 completed on alcatel51: 16 instance(s) received.
Configure Network Routing Own Node

[Image showing network configuration interface with nodes and routing tables.]

[Log messages:

Request is sent to alcatel51.
Request is completed on alcatel51: 94 instance[s] received.]
Configure Routing Prefix

[Image of a network configuration screen showing routing prefixes and details]

Request 15 sent to alcatel51.
Request 15 completed on alcatel51: 94 instance[s] received.
Configure Digital Station

[Screen capture of a digital station configuration interface showing the directory number, directory name, location node, shelf address, board address, equipment address, set type, entity number, set function, profile name, key profiles, domain identifier, add-on module 1, and add-on module 2.]

[Text messages:]
[1:30:23 PM] > Request 17 sent to alcatel51.
[1:30:24 PM] > Request 17 completed on alcatel51: 11 instance(s) received.
[13:08:23 PM] > Request 17 sent to alcatel51.
[1:38:23 PM] > Request 17 sent to alcatelS1.
[1:38:24 PM] > Request 17 completed on alcatelS1: 11 instance(s) received.
[13:03:23 PM] > Request 17 sent to alcatel51.
[13:03:24 PM] > Request 17 completed on alcatel51: 11 instance(s) received.
[13:30:23 PM] > Request 17 sent to alcatelS1.
[13:30:24 PM] > Request 17 completed on alcatelS1: 11 instance(s) received.
Configure Digital Station Phone Facilities

[Diagram of a Cisco configuration tool with various options and settings for configuring digital station phone facilities.]
## Configuration: alcatel51

<table>
<thead>
<tr>
<th>Tel. Features COS ID</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suffixes Rotary End-to-End Dial</td>
<td>1</td>
</tr>
<tr>
<td>Suffixes DTMF end-to-end dial</td>
<td>1</td>
</tr>
<tr>
<td>Suffixes Malicious Call</td>
<td>0</td>
</tr>
<tr>
<td>Suffixes Voice Mail Message Dis</td>
<td>0</td>
</tr>
<tr>
<td>Suffixes Camp-on Control</td>
<td>0</td>
</tr>
<tr>
<td>Suffixes Voice Mail Access</td>
<td>0</td>
</tr>
<tr>
<td>Suffixes By pass on Do Not Dis</td>
<td>0</td>
</tr>
<tr>
<td>Speed Dialing Area Area</td>
<td>0</td>
</tr>
<tr>
<td>Speed Dialing Area Area 1</td>
<td>1</td>
</tr>
<tr>
<td>Speed Dialing Area Area 2</td>
<td>1</td>
</tr>
<tr>
<td>Speed Dialing Area Area 3</td>
<td>1</td>
</tr>
<tr>
<td>Speed Dialing Area Area 4</td>
<td>1</td>
</tr>
<tr>
<td>Speed Dialing Area Area 5</td>
<td>1</td>
</tr>
</tbody>
</table>

### Phone Features Classes

- 0 000010000110000
- 0 000010000110000
- 0 000010000110000
- 0 000010000110000
- 0 000010000110000
- 0 000010000110000
- 0 000010000110000
- 0 000010000110000
- 0 000010000110000
- 0 000010000110000
- 0 000010000110000
- 0 000010000110000
- 0 000010000110000

### Networks

- Media Gateway
- PWT/DECT System
- System
- Translator
- Classes of Service
- Private Calls Connect
- Phone Features Class

### PCX

- Shelf
- Media Gateway
- PWT/DECT System
- System
- Translator
- Classes of Service
- Private Calls Connect
- Phone Features Class

---

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Configuration: alcatel51

- Shelf
- Media Gateway
- PWT/DECT System
- System
- Translator
- Classes of Service
  - Access COS
  - Connection COS
  - Transfer COS
  - Private Calls Connect COS
- Phone Features Class
  - 0: 000010000001000
  - 1: 000110000000000
  - 2: 000011000000000
  - 3: 000000000000000
  - 4: 000000000000000
  - 5: 000000000000000
  - 6: 000000000000000
  - 7: 000000000000000
  - 8: 000000000000000
  - 9: 000000000000000
  - 10: 000010000001111
  - 11: 000010000001111
  - 12: 000010010001111
  - 13: 000001000001111

Tel Features COS ID

- Speed Dialing Area Area 6: 1
- Speed Dialing Area Area 7: 1
- Speed Dialing Area Area 8: 1
- Speed Dialing Area Area 9: 1
- Speed Dialing Area Area 10: 1
- Speed Dialing Area Area 11: 1
- Speed Dialing Area Area 12: 1
- Speed Dialing Area Area 13: 1
- Speed Dialing Area Area 14: 1
- Speed Dialing Area Area 15: 1
- Speed Dialing Area Area 16: 1
- Speed Dialing Area Area 17: 1
- Speed Dialing Area Area 18: 1
- Speed Dialing Area Area 19: 1
Software Release

[Image of a software configuration interface]

[Text] [1:58:23 PM] > Request 17 sent to alcatel51.
[Text] [1:58:24 PM] > Request 17 completed on alcatel51: 11 instance[s] received.
Configuring the Cisco Unified CallManager

2650XM_E1 Gateway Configuration

Gateway Configuration

Product: Cisco 26XX
Gateway: S1/DS1-1@2650XMB4_E1
Device Protocol: Digital Access PRI
Registration: Registered with Cisco CallManager CM-ANTARES
IP Address: 172.20.5.2

Status: Ready
Update Delete Reset Gateway

Device Information
End-Point Name: S1/DS1-1@2650XMB4_E1
Description: S1/DS1-1@2650XMB4_E1
Device Pool: Default
Call Classification: Use System Default
Network Locale: United States
Media Resource Group List: <None>
Location: <None>
AAR Group: <None>
Load Information: 
V150 (subset): 

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

Interface Information
PRI Protocol Type: PRI QSIG E1
Protocol Side: User
Channel Selection Order: Top Down
Channel IE Type: Timeslot Number
PCM Type: A-law
Delay for first restart (1/8 sec ticks): 32
Delay between restarts (1/8 sec ticks): 
Inhibit restarts at PRI initialization:

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<table>
<thead>
<tr>
<th>Call Routing Information</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inbound Calls</strong></td>
<td></td>
</tr>
<tr>
<td>Significant Digits*</td>
<td>All</td>
</tr>
<tr>
<td>Calling Search Space</td>
<td>Incoming Trunk</td>
</tr>
<tr>
<td>AAR Calling Search Space</td>
<td>&lt; None &gt;</td>
</tr>
<tr>
<td>Prefix DN</td>
<td></td>
</tr>
<tr>
<td><strong>Outbound Calls</strong></td>
<td></td>
</tr>
<tr>
<td>Calling Line ID Presentation*</td>
<td>Default</td>
</tr>
<tr>
<td>Calling Party Selection*</td>
<td>Originator</td>
</tr>
<tr>
<td>Called party IE number type unknown*</td>
<td>Unknown</td>
</tr>
<tr>
<td>Calling party IE number type unknown*</td>
<td>Unknown</td>
</tr>
<tr>
<td>Called Numbering Plan*</td>
<td>Private</td>
</tr>
<tr>
<td>Calling Numbering Plan*</td>
<td>Private</td>
</tr>
<tr>
<td>Number of digits to strip*</td>
<td>0</td>
</tr>
<tr>
<td>Caller ID DN</td>
<td></td>
</tr>
<tr>
<td>SMDI Base Port*</td>
<td>0</td>
</tr>
<tr>
<td><strong>PRI Protocol Type Specific Information</strong></td>
<td></td>
</tr>
<tr>
<td>Display IE Delivery</td>
<td></td>
</tr>
<tr>
<td>Redirecting Number IE Delivery - Outbound</td>
<td></td>
</tr>
<tr>
<td>Redirecting Number IE Delivery - Inbound</td>
<td></td>
</tr>
<tr>
<td>Send Extra Leading Character In DisplayIE***</td>
<td></td>
</tr>
<tr>
<td>Setup non-ISDN Progress Indicator IE Enable***</td>
<td></td>
</tr>
<tr>
<td>MCDN Channel Number Extension Bit Set to Zero**</td>
<td></td>
</tr>
<tr>
<td>Send Calling Name In Facility IE</td>
<td></td>
</tr>
<tr>
<td>Interface Identifier Present**</td>
<td></td>
</tr>
<tr>
<td>Interface Identifier Value**</td>
<td>0</td>
</tr>
<tr>
<td>Connected Line ID Presentation (QSIG Inbound Call)*</td>
<td>Default</td>
</tr>
<tr>
<td>Calling Numbering Plan*</td>
<td>Private</td>
</tr>
<tr>
<td>------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>Number of digits to strip*</td>
<td>0</td>
</tr>
<tr>
<td>Caller ID DN</td>
<td></td>
</tr>
<tr>
<td>SMDC Base Port*</td>
<td>0</td>
</tr>
</tbody>
</table>

**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****
- MCDN Channel Number Extension Bit Set to Zero**
- Send Calling Name In Facility IE
- Interface Identifier Present**

**Interface Identifier Value**

<table>
<thead>
<tr>
<th>Interface Identifier Value**</th>
<th>0</th>
</tr>
</thead>
</table>

**Connected Line ID Presentation (QSIG Inbound Call)***

<table>
<thead>
<tr>
<th>Connected Line ID Presentation (QSIG Inbound Call)*</th>
<th>Default</th>
</tr>
</thead>
</table>

**UIUI Configuration**

- Passing Precedence Level Through UIUI

<table>
<thead>
<tr>
<th>Security Access Level</th>
<th>2</th>
</tr>
</thead>
</table>

**Product Specific Configuration**

<table>
<thead>
<tr>
<th>Line Coding*</th>
<th>HDB3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Framing*</td>
<td>CRC4</td>
</tr>
<tr>
<td>Clock*</td>
<td>External</td>
</tr>
<tr>
<td>Input Gain (~6..14 db)*</td>
<td>0</td>
</tr>
<tr>
<td>Output Attenuation (~6..14 db)*</td>
<td>0</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
** 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
### 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>☑Incoming Trunk</td>
<td>Incoming Trunk</td>
</tr>
<tr>
<td>☑Phones</td>
<td>Phones</td>
</tr>
</tbody>
</table>

Delete Selected  

First Previous Next Last  

Page 1 of 1
## Calling Search Space Configuration

**Calling Search Space:** Phones (in use)

**Status:** Reedy

### Calling Search Space Information

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Calling Search Space Name</strong></td>
<td>Phones</td>
</tr>
<tr>
<td><strong>Description</strong></td>
<td></td>
</tr>
</tbody>
</table>

### Route Partitions for this Calling Search Space

**Available Partitions**

- Incoming Trunk

**Selected Partitions**

- Phones

* indicates required item
Calling Search Space
Configuration

Calling Search Space:  PathreplacementCCS
Status:  Ready

[Copy]  [Update]  [Delete]

Calling Search Space Information

Calling Search Space Name*:  PathreplacementCCS
Description

Route Partitions for this Calling Search Space

Find Partitions containing
Available Partitions

Selected Partitions*:  Phones
(ordered by highest priority)
Incoming Trunk

* indicates required item

Add New Calling Search Space
Back to Find/List Calling Search Spaces
Dependency Records
### Connected Party Transformations

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

### Called Party Transformations

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discard Digits</td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>Called Party Transform Mask</td>
<td></td>
</tr>
<tr>
<td>Prefix Digits (Outgoing Calls)</td>
<td></td>
</tr>
</tbody>
</table>

### ISDN Network-Specific Facilities Information Element

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Carrier Identification Code</td>
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</tr>
<tr>
<td>Network Service Protocol</td>
<td>— Not Selected —</td>
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<table>
<thead>
<tr>
<th>Network Service</th>
<th>Service Parameter Name</th>
<th>Service Parameter Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>— Not Selected —</td>
<td>&lt;Not Exist&gt;</td>
<td></td>
</tr>
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</table>

* indicates required item.
Overlap Sending Route Pattern Configuration

**Route Pattern Configuration**

**Route Pattern:** 9.X  
**Status:** Ready

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

### Pattern Definition

<table>
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<th>Pattern Definition</th>
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<tr>
<td>Partition</td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>Description</td>
<td></td>
</tr>
<tr>
<td>Numbering Plan</td>
<td>North American Numbering Plan</td>
</tr>
<tr>
<td>Route Filter</td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>MLSP Precedence</td>
<td>Default</td>
</tr>
<tr>
<td>Gateway or Route List*</td>
<td>S1/DS1-T@2651PME4_E1</td>
</tr>
<tr>
<td>Route Option</td>
<td>Route this pattern</td>
</tr>
<tr>
<td></td>
<td>Block this pattern</td>
</tr>
<tr>
<td>Call Classification*</td>
<td>OffNet</td>
</tr>
<tr>
<td></td>
<td></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>
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<table>
<thead>
<tr>
<th>Require Forced Authorization Code</th>
<th>Authorization Level</th>
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<tbody>
<tr>
<td>Yes</td>
<td>0</td>
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</table>

### Calling Party Transformations

<table>
<thead>
<tr>
<th>Calling Party Transformations</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use Calling Party's External Phone Number Mask</td>
<td></td>
</tr>
<tr>
<td>Calling Party Transform Mask</td>
<td></td>
</tr>
<tr>
<td>Prefix Digits (Outgoing Calls)</td>
<td>Default</td>
</tr>
<tr>
<td>Calling Line ID Presentation</td>
<td>Default</td>
</tr>
<tr>
<td>Calling Name Presentation</td>
<td>Default</td>
</tr>
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</table>

### Connected Party Transformations

<table>
<thead>
<tr>
<th>Connected Party Transformations</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connected Line ID Presentation</td>
<td>Default</td>
</tr>
</tbody>
</table>
## PSTN Route Pattern Configuration

### Route Pattern Configuration

**Route Pattern:** 91650364XXXX  
**Status:** Ready  
**Note:** Any update to this Route Pattern automatically resets the associated gateway or Route List

#### Pattern Definition

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<tr>
<td>Route Pattern</td>
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<tr>
<td>Partition</td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>Description</td>
<td>PSTN Gateway</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>S1/DS1-1@2650@MB4_E1</td>
</tr>
<tr>
<td>Route Option</td>
<td></td>
</tr>
<tr>
<td>Call Classification</td>
<td>OffNet</td>
</tr>
</tbody>
</table>

- **Call Classification**
  - **Override Options**
    - Allow Device Override
    - Allow Overlap Sending
    - Urgent Priority

- **Rule Changes**
  - Block this pattern
- **Authorization Level**
  - 0

#### 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
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<thead>
<tr>
<th>Description</th>
<th>PSTN Gateway</th>
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</thead>
<tbody>
<tr>
<td>Numbering Plan*</td>
<td>North American Numbering Plan</td>
</tr>
<tr>
<td>Route Filter</td>
<td>&lt;&lt; None &gt;&gt;</td>
</tr>
<tr>
<td>MLPP Precedence</td>
<td>Default</td>
</tr>
<tr>
<td>Gateway or Route List*</td>
<td>S1/D51-1@2650XME4_E1 (Edit)</td>
</tr>
<tr>
<td>Route Option</td>
<td>- Route this pattern</td>
</tr>
<tr>
<td></td>
<td>- Block this pattern</td>
</tr>
<tr>
<td></td>
<td>- NotSelected</td>
</tr>
<tr>
<td>Call Classification*</td>
<td>OffNet</td>
</tr>
<tr>
<td></td>
<td>- Allow Device Override</td>
</tr>
<tr>
<td></td>
<td>- Provide Outside Dial Tone</td>
</tr>
<tr>
<td></td>
<td>- Allow Overlap Sending</td>
</tr>
<tr>
<td></td>
<td>- Require Forced Authorization Code</td>
</tr>
<tr>
<td></td>
<td>- Require Client Matter Code</td>
</tr>
<tr>
<td></td>
<td>- Authorization Level</td>
</tr>
<tr>
<td>Calling Party</td>
<td></td>
</tr>
<tr>
<td>Transformations</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Use Calling Party's External Phone Number Mask</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Calling Party</td>
<td></td>
</tr>
<tr>
<td>Transform Mask</td>
<td></td>
</tr>
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<td></td>
<td></td>
</tr>
<tr>
<td>Prefix Digits</td>
<td></td>
</tr>
<tr>
<td>(Outgoing Calls)</td>
<td></td>
</tr>
<tr>
<td>Calling Line ID</td>
<td>Default</td>
</tr>
<tr>
<td>Presentation</td>
<td></td>
</tr>
<tr>
<td>Calling Name</td>
<td>Default</td>
</tr>
<tr>
<td>Presentation</td>
<td></td>
</tr>
<tr>
<td>Connected Party</td>
<td></td>
</tr>
<tr>
<td>Transformations</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Connected Line ID</td>
<td>Default</td>
</tr>
<tr>
<td>Presentation</td>
<td></td>
</tr>
<tr>
<td>Connected Name</td>
<td>Default</td>
</tr>
<tr>
<td>Presentation</td>
<td></td>
</tr>
<tr>
<td>Called Party</td>
<td></td>
</tr>
<tr>
<td>Transformations</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Discard Digits</td>
<td>&lt;&lt; None &gt;&gt;</td>
</tr>
<tr>
<td>Called Party</td>
<td></td>
</tr>
<tr>
<td>Transform Mask</td>
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</tr>
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<td></td>
<td></td>
</tr>
<tr>
<td>Prefix Digits</td>
<td></td>
</tr>
<tr>
<td>(Outgoing Calls)</td>
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<tr>
<td>ISDN Network Specific</td>
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<tr>
<td>Facilities Information Element</td>
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<td>Carrier Identification Code</td>
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<td>Network Service</td>
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<td>Protocol</td>
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<td>Service Parameter</td>
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<td>Value</td>
<td></td>
</tr>
<tr>
<td>* indicates required item.</td>
<td></td>
</tr>
</tbody>
</table>
Translation Pattern for Incoming Calls

**Translation Pattern Configuration**

- **Translation Pattern:** 4XXX
- **Status:** Ready
- **Partition:** Incoming Trunk
- **Description:**
- **Numbering Plan:** North American Numbering Plan
- **Route Filter:** <None>
- **Calling Search Space:** Phones
- **MLPP Precedence:** Default
- **Route Option:**
  - [ ] Route this pattern
  - [x] Block this pattern
  - Not Selected
- **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):**

---

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### CLIR Route Pattern Configuration

**Route Pattern Configuration**

**Route Pattern:** 3XXX  
**Status:** Ready  
**Note:** Any update to this Route Pattern automatically resets the associated gateway or Route List

#### Pattern Definition
- **Route Pattern:** 3XXX
- **Partition:** <None>
- **Description:**
- **Numbering Plan:** North American Numbering Plan
- **Route Filter:** <None>
- **MLPP Precedence:** Default
- **Gateway or Route List:** S1/DS1-1@2650-MB4_E1 (Edit)
- **Route Option:**
  - Route this pattern
  - Block this pattern: NotSelected
- **Call Classification:** OffNet
- **Provide Outside Dial Tone:**
- **Allow Overlay Sending:**
- **Urgent Priority:**
- **Require Forced Authorization Code:**
- **Authorization Level:**
- **Require Client Matter Code:**

#### Calling Party Transformations
- **Use Calling Party’s External Phone Number Mask**
- **Calling Party Transform Mask:**
- **Prefix Digits (Outgoing Calls):**
- **Calling Line ID Presentation:** Restricted
- **Calling Name Presentation:** Default

#### Connected Party Transformations
- **Connected Line ID Presentation:** Default
- **Connected Name Presentation:** Default

---

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# CNIR Route Pattern Configuration

## Route Pattern Configuration

**Route Pattern:** 3XXX

**Status:** Ready

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

### Pattern Definition

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
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<tbody>
<tr>
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<tr>
<td>Partition</td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>Description</td>
<td></td>
</tr>
<tr>
<td>Numbering Plan</td>
<td>North American Numbering Plan</td>
</tr>
<tr>
<td>Route Filter</td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>MLPP Precedence</td>
<td>Default</td>
</tr>
<tr>
<td>Gateway or Route List</td>
<td>S1/DS1-1@2659#MB4_E1 (Edit)</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>[ ] Allow Overlap Sending</td>
</tr>
<tr>
<td>Require Forced Authorization Code</td>
<td>[ ] Allow Device Overides</td>
</tr>
<tr>
<td>Authorization Level</td>
<td>0</td>
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<tr>
<td>Require Client Matter Code</td>
<td>[ ] Urgent Priority</td>
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### Calling Party Transformations

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Use Calling Party's External Phone Number Mask</td>
<td>[ ]</td>
</tr>
<tr>
<td>Calling Party Transform Mask</td>
<td></td>
</tr>
<tr>
<td>Prefix Digits (Outgoing Calls)</td>
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</tr>
<tr>
<td>Calling Line ID Presentation</td>
<td>Default</td>
</tr>
<tr>
<td>Calling Name Presentation</td>
<td>Restricted</td>
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### Connected Party Transformations

<table>
<thead>
<tr>
<th>Field</th>
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</thead>
<tbody>
<tr>
<td>Connected Line ID Presentation</td>
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### Translation Pattern Configuration

**Translation Pattern:** 4XXX

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<th>Value</th>
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</thead>
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<tr>
<td>Translation Pattern</td>
<td>4XXX</td>
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<tr>
<td>Partition</td>
<td>Incoming Trunk</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>Phones</td>
</tr>
<tr>
<td>MLPP Precedence</td>
<td>Default</td>
</tr>
<tr>
<td>Route Option</td>
<td>Radio this pattern</td>
</tr>
<tr>
<td>Block this pattern</td>
<td>Not Selected</td>
</tr>
<tr>
<td>Provide Outside Dial Tone</td>
<td>Urgent Priority</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:** Required
- **Connected Name Presentation:** Default

#### Called Party Transformations

- **Discard Digits:** <None>
- **Called Party Transform Mask:**
- **Prefix Digits (Outgoing Calls):**

* indicates required item.
CONR Translation Pattern Configuration

Translation Pattern Configuration

Translation Pattern: 4XXX
Status: Ready

Pattern Definition

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
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<tbody>
<tr>
<td>Translation Pattern</td>
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<tr>
<td>Partition</td>
<td>Incoming Trunk</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>Phones</td>
</tr>
<tr>
<td>MLPP Precedence</td>
<td>Default</td>
</tr>
<tr>
<td>Route Option</td>
<td>☑ Route this pattern</td>
</tr>
<tr>
<td></td>
<td>☑ Block this pattern</td>
</tr>
<tr>
<td>Provide Outside Dial Tone</td>
<td></td>
</tr>
<tr>
<td>Urgent Priority</td>
<td></td>
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</table>

Calling Party Transformations

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
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<tbody>
<tr>
<td>Use Calling Party's External Phone Number Mask</td>
<td>☐</td>
</tr>
<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>
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Connected Party Transformations

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

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Discard Digits</td>
<td>&lt;None&gt;</td>
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<tr>
<td>Called Party Transform Mask</td>
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</tr>
<tr>
<td>Prefix Digits (Outgoing Calls)</td>
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</tbody>
</table>

* indicates required item.
### Message Waiting Configuration

**Message Waiting Number**: 7001

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<td>Message Waiting Number</td>
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<tr>
<td>Description</td>
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</tr>
<tr>
<td>Message Waiting Indicator</td>
<td>On Off</td>
</tr>
<tr>
<td>Partition</td>
<td>Phones</td>
</tr>
<tr>
<td>Calling Search Space</td>
<td>Phones</td>
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</table>

* indicates required item
## Message Waiting Configuration

**Message Waiting Number**: 7000

**Status**: Ready

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<th>000</th>
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</thead>
<tbody>
<tr>
<td><strong>Description</strong></td>
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</tr>
<tr>
<td><strong>Message Waiting Indicator</strong></td>
<td>On</td>
</tr>
<tr>
<td><strong>Partition</strong></td>
<td>Phones</td>
</tr>
<tr>
<td><strong>Calling Search Space</strong></td>
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</tbody>
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* indicates required item
## Translation Pattern Configuration

**Translation Pattern:** 7700  
**Status:** Ready

### Pattern Definition

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<tr>
<td>Partition</td>
<td>Phones</td>
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<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>Phones</td>
</tr>
<tr>
<td>MLPP Precedence</td>
<td>Default</td>
</tr>
<tr>
<td>Route Option</td>
<td>Route this pattern</td>
</tr>
<tr>
<td></td>
<td>Block this pattern</td>
</tr>
<tr>
<td>Provide Outside Dial Tone</td>
<td>— Not Selected —</td>
</tr>
<tr>
<td>Urgent Priority</td>
<td>— Not Selected —</td>
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</table>

### Calling Party Transformations

- **Use Calling Party’s External Phone Number Mask**
  - Prefix Digits (Outgoing Calls): 3004
  - 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: 7000
- Prefix Digits (Outgoing Calls): 7000

*Indicates required item.
## Translation Pattern Configuration

**Translation Pattern:** 7701

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<td>Description</td>
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</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>Phones</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**
- **Urgent Priority**

### Calling Party Transformations

- **Use Calling Party's External Phone Number Mask**
- **Calling Party Transform Mask** 5004
- **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** 7001
- **Prefix Digits (Outgoing Calls)**  

* * indicates required item.*
### CallBack Service Parameters

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Parameter Value</th>
<th>Suggested Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Callback Enabled Flag*</td>
<td>True</td>
<td>True</td>
</tr>
<tr>
<td>Callback Notification Name*</td>
<td>CallBack.raw</td>
<td>CallBack.raw</td>
</tr>
<tr>
<td>Connection Proposal Type*</td>
<td>Connection Retention</td>
<td>Connection Retention</td>
</tr>
<tr>
<td>Connection Response Type*</td>
<td>Default to Connection Retention</td>
<td>Default to Connection Retention</td>
</tr>
<tr>
<td>Callback Request Protection Timer (T1) (sec)*</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Callback Recall Timer (T3) (sec)*</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Callback Calling Search Space</td>
<td>&lt; None &gt;</td>
<td>&lt; None &gt;</td>
</tr>
</tbody>
</table>
### Softkey Template Configuration

**Softkey Template:** Standard User CallBack  
**Status:** Ready

<table>
<thead>
<tr>
<th>Action</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copy</td>
<td>Standard Softkey Template for CallManager only</td>
</tr>
<tr>
<td>Update</td>
<td>Standard User CallBack</td>
</tr>
<tr>
<td>Delete</td>
<td>Cisco CallManager</td>
</tr>
</tbody>
</table>

* indicates required item
Softkey Layout Configuration

Softkey Template: Standard User CallBack

Status: Ready

Update Restart Devices

Unselected Softkeys
- Conference List (30)(ConfList)
- Direct Transfer (20)(DirTrf)
- Immediate Divert (31)(Divert)
- Join (15)(Join)
- Quality Report Tool (22)(QRT)
- Remove Last Conference Party (19)
- Select (23)(Select)
- Undefined (0)(Undefined)
- Video Mode Command (3)(CmdMode)

Selected Softkeys (ordered by position)**
- Redial (1)(Redial)
- **NewCall (2)(NewCall)
- Forward All (5)(FwdAll)
- Call Back (20)(CallBack)

** indicates mandatory fields
* indicates required item
Softkey Layout Configuration

Softkey Template: Standard User CallBack

Status: Ready

Update  Restart Devices

Unselected Softkeys

Selected Softkeys (ordered by position)*

Undef (0) (Undef)

Undef (3) (Undef)

**End Call (5) (EndCall)

Call Back (23) (CallBack)

** indicates mandatory fields

* indicates required item
Path Replacement Service Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Parameter Value</th>
<th>Suggested Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Path Replacement Enabled*</td>
<td>True</td>
<td>False</td>
</tr>
<tr>
<td>Path Replacement on Tromboned Calls*</td>
<td>True</td>
<td>True</td>
</tr>
<tr>
<td>Start Path Replacement Minimum Delay Time (sec)*</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Start Path Replacement Maximum Delay Time (sec)*</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Path Replacement T1 Timer (sec)*</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Path Replacement T2 Timer (sec)*</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Path Replacement PINX Id</td>
<td>41:00</td>
<td></td>
</tr>
<tr>
<td>Path Replacement Calling Search Space</td>
<td>PathreplacementCCS</td>
<td></td>
</tr>
</tbody>
</table>
Call Pickup Configuration

Call Pickup Number: 4100 - Phones
Status: Ready

- Copy
- Update
- Delete

- Call Pickup Number: 4100
- Description
- Partition: Phones

* indicates required item
## Forward by Reroute Service Parameter

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Parameter Value</th>
<th>Suggested Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forward Maximum Hop Count*</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Forward No Answer Timer (sec)*</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Max Forward Hops to DN*</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Retain Forward Information*</td>
<td>False</td>
<td>False</td>
</tr>
<tr>
<td>Forward By Reroute Enabled*</td>
<td>False</td>
<td>False</td>
</tr>
<tr>
<td>Forward By Reroute T1 Timer (sec)*</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>
### Phone Configuration

**Phone Configuration (Model = Cisco 7960)**

**Device Information**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAC Address</td>
<td>00024BCE045</td>
</tr>
<tr>
<td>Description</td>
<td>Auto 4000</td>
</tr>
<tr>
<td>Owner User ID</td>
<td>(Select User ID)</td>
</tr>
<tr>
<td>Device Pool</td>
<td>Default</td>
</tr>
<tr>
<td>Calling Search Space</td>
<td>(View details)</td>
</tr>
<tr>
<td>AAR Calling Search Space</td>
<td>(View details)</td>
</tr>
<tr>
<td>Media Resource Group List</td>
<td></td>
</tr>
<tr>
<td>User Hold Audio Source</td>
<td>(View details)</td>
</tr>
<tr>
<td>Network Hold Audio Source</td>
<td></td>
</tr>
<tr>
<td>Location</td>
<td></td>
</tr>
<tr>
<td>User Locale</td>
<td></td>
</tr>
<tr>
<td>Network Locale</td>
<td></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></td>
</tr>
<tr>
<td>Built In Bridge</td>
<td></td>
</tr>
<tr>
<td>Privacy</td>
<td></td>
</tr>
</tbody>
</table>

- **Retry Video Call as Audio**: Yes
- **Ignore Presentation Indicators (internal calls only)**: No

**Phone Button Template Information**

- **Phone Button Template**: Standard 7960

**Softkey Template Information**

- **Softkey Template**: Standard User CallBack

**Expansion Module Information**
<table>
<thead>
<tr>
<th>Expansion Module Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Module 1: &lt;None&gt;</td>
</tr>
<tr>
<td>Module 2: &lt;None&gt;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Firmware Load Information (leave blank to use default)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phone Load Name:</td>
</tr>
<tr>
<td>Module 1 Load Name: (Module 1 selection required)</td>
</tr>
<tr>
<td>Module 2 Load Name: (Module 2 selection required)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cisco IP Phone - External Data Locations (leave blank to use default)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information:</td>
</tr>
<tr>
<td>Directory:</td>
</tr>
<tr>
<td>Messages:</td>
</tr>
<tr>
<td>Services:</td>
</tr>
<tr>
<td>Authentication Server:</td>
</tr>
<tr>
<td>Proxy Server:</td>
</tr>
<tr>
<td>Idle:</td>
</tr>
<tr>
<td>Idle Timer (seconds):</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Extension Mobility (Device Profile) Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enable Extension Mobility Feature</td>
</tr>
<tr>
<td>Log Out Profile: —Not Selected—</td>
</tr>
<tr>
<td>Log In User ID: &lt;None&gt;</td>
</tr>
<tr>
<td>Log In Time: &lt;None&gt;</td>
</tr>
<tr>
<td>Log Out Time: &lt;None&gt;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Certification Authority Proxy Function (CAPF) Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certificate Operation: No Pending Operation</td>
</tr>
<tr>
<td>Authentication Mode: By Authentication String</td>
</tr>
<tr>
<td>Authentication String:</td>
</tr>
<tr>
<td>Key Size (bits): 1024</td>
</tr>
<tr>
<td>Operation Completes By**:</td>
</tr>
<tr>
<td>Certificate Operation Status: None</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Multilevel Precendence and Preemption (MLPP) Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>MLPP Domain:</td>
</tr>
<tr>
<td>MLPP Indication: Default</td>
</tr>
<tr>
<td>MLPP Preemption: Default</td>
</tr>
</tbody>
</table>
### Extension Mobility (Device Profile) Information

<table>
<thead>
<tr>
<th>Option</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enable Extension Mobility Feature</td>
<td>Not Selected</td>
</tr>
<tr>
<td>Log Out Profile</td>
<td>Not Selected</td>
</tr>
<tr>
<td>Log In User ID</td>
<td>None</td>
</tr>
<tr>
<td>Log In Time</td>
<td>None</td>
</tr>
<tr>
<td>Log Out Time</td>
<td>None</td>
</tr>
</tbody>
</table>

### Certification Authority Proxy Function (CAPF) Information

<table>
<thead>
<tr>
<th>Option</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certificate Operation</td>
<td>No Pending Operation</td>
</tr>
<tr>
<td>Authentication Mode</td>
<td>By Authentication String</td>
</tr>
<tr>
<td>Authentication String</td>
<td>Generate String</td>
</tr>
<tr>
<td>Key Size (bits)</td>
<td>1024</td>
</tr>
<tr>
<td>Operation Completes By*</td>
<td>YYYY : MM : DD : HH</td>
</tr>
<tr>
<td>Certificate Operation Status</td>
<td>None</td>
</tr>
</tbody>
</table>

### Multilevel Precedence and Preemption (MLPP) Information

<table>
<thead>
<tr>
<th>Option</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>MLPP Domain</td>
<td>0000 (e.g., &quot;0000FF&quot;)</td>
</tr>
<tr>
<td>MLPP Indication</td>
<td>Default</td>
</tr>
<tr>
<td>MLPP Preemption</td>
<td>Default</td>
</tr>
</tbody>
</table>

### Product Specific Configuration

<table>
<thead>
<tr>
<th>Option</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disable Speakerphone</td>
<td>Disabled</td>
</tr>
<tr>
<td>Disable Speakerphone and Headset</td>
<td>Disabled</td>
</tr>
<tr>
<td>Forwarding Delay*</td>
<td>Disabled</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.
<table>
<thead>
<tr>
<th>Setting</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forward No Answer Internal</td>
<td></td>
</tr>
<tr>
<td>Forward No Answer External</td>
<td></td>
</tr>
<tr>
<td>Forward No Coverage Internal</td>
<td></td>
</tr>
<tr>
<td>Forward No Coverage External</td>
<td></td>
</tr>
<tr>
<td>No Answer Ring Duration</td>
<td></td>
</tr>
<tr>
<td>Call Pickup Group</td>
<td></td>
</tr>
<tr>
<td>MLPP Alternate Party Settings</td>
<td></td>
</tr>
<tr>
<td>Target (Destination)</td>
<td></td>
</tr>
<tr>
<td>Calling Search Space</td>
<td></td>
</tr>
<tr>
<td>No Answer Ring Duration</td>
<td></td>
</tr>
<tr>
<td>Line Settings for all Devices</td>
<td></td>
</tr>
<tr>
<td>Alerting Name</td>
<td>John Smith</td>
</tr>
<tr>
<td>Line Settings for this Device</td>
<td></td>
</tr>
<tr>
<td>Display (Internal Caller ID)</td>
<td>John Smith</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>Use System Default</td>
</tr>
<tr>
<td>Ring Setting (Phone Active)**</td>
<td>Use System Default</td>
</tr>
<tr>
<td>Multiple Call / Call Waiting Settings</td>
<td></td>
</tr>
<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>
<tr>
<td>Forwarded Call Information Display</td>
<td></td>
</tr>
<tr>
<td>Caller Name</td>
<td></td>
</tr>
<tr>
<td>Caller Number</td>
<td></td>
</tr>
<tr>
<td>Redirected Number</td>
<td></td>
</tr>
<tr>
<td>Dialed Number</td>
<td></td>
</tr>
</tbody>
</table>

* 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.)

<table>
<thead>
<tr>
<th>Character Set</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Western European (Latin 1)</td>
</tr>
</tbody>
</table>
CallManager Software Release

Microsoft Internet Explorer

When reporting or troubleshooting a problem, please give the following information to Technical Assistance:

Cisco CallManager System version: 4.1(1.31)
Cisco CallManager Administration version: 4.1(0.6)
Cisco CallManager Installation ID: CCM4.1(1.31)

Database Information
DSN: CiscoCallManager
SERVER: CM-ANTARES
DATABASE: CCM0300

OK
**Configuring the Cisco 2650XM**

```plaintext
2650XMB4_E1#sho ver
Cisco Internetwork Operating System Software
IOS (tm) C2600 Software (C2600-JS-M), Version 12.3(3), RELEASE SOFTWARE (fc2)
Copyright (c) 1986-2003 by cisco Systems, Inc.
Compiled Tue 19-Aug-03 16:31 by dchih
Image text-base: 0x80008098, data-base: 0x81D2D464

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

2650XMB4_E1 uptime is 1 week, 5 days, 2 hours, 54 minutes
System returned to ROM by power-on
System image file is "flash:c2600-js-mz.123-3.bin"
cisco 2650XM (MPC860P) processor (revision 0x100) with 124928K/6144K bytes of memory.
Processor board ID JAD06150HXS (761445799)
M860 processor: part number 5, mask 2
Channelized E1, Version 1.0.
Bridging software.
X.25 software, Version 3.0.0.
SuperLAT software (copyright 1990 by Meridian Technology Corp).
TN3270 Emulation software.
Primary Rate ISDN software, Version 1.1.
1 FastEthernet/IEEE 802.3 interface(s)
62 Serial network interface(s)
Channelized E1/PRI port(s)
32K bytes of non-volatile configuration memory.
49152K bytes of processor board System flash (Read/Write)

Configuration register is 0x2
```

```plaintext
2650XMB4_E1#
2650XMB4_E1#
2650XMB4_E1#
2650XMB4_E1#
2650XMB4_E1#
2650XMB4_E1#
2650XMB4_E1#
2650XMB4_E1#

2650XMB4_E1#sho run
Building configuration...

Current configuration : 2217 bytes
v
version 12.3
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
v
hostname 2650XMB4_E1
v
boot-start-marker
boot-end-marker
v
v
voice-card 1
v
no aaa new-model
ip subnet-zero
```
ip tcp synwait-time 13
!
!
no ip domain lookup
ip host whiz 171.69.1.162
ip host dirt 171.69.1.129
ip host danube 171.69.17.14
ip host CM-ANTARES 172.20.237.254
ip name-server 172.20.237.254
!
ip cef
isdn switch-type primary-qsig
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voice call carrier capacity active
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!
!
!
!
!
isdn bind-l3 ccm-manager
isdn bchan-number-order ascending
no cdp enable
!
ip http server
ip classless
ip route 0.0.0.0 0.0.0.0 FastEthernet0/0
ip route 0.0.0.0 0.0.0.0 172.20.31.1
ip route 0.0.0.0 0.0.0.0 172.20.33.1
ip route 0.0.0.0 0.0.0.0 172.20.237.1
!
!
dialer-list 1 protocol ip permit
!
!
!
!
voice-port 1/0:15
!
voice-port 1/1:15
!
!
mgcp
mgcp call-agent CM-ANTARES 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 package-capability rtp-package
no mgcp package-capability res-package
mgcp package-capability sst-package
no mgcp package-capability fxr-package
no mgcp timer receive-rtcp
mgcp sdp simple
mgcp fax t38 inhibit
mgcp rtp payload-type g726r16 static
!
mgcp profile default
!
!
dial-peer cor custom
!
!
!
!
dial-peer voice 1 pots
application mgcpcapp
port 1/0:15
!
dial-peer voice 2 pots
application mgcpcapp
port 1/1:15
!
!
!
!
!
!
!
!
!
!
!
!
!
!
!
!
!
!
end

2650XMB4_E1#
2650XMB4_E1#
2650XMB4_E1#
2650XMB4_E1#
2650XMB4_E1#

2650XMB4_E1# sho diag
Slot 0:
   C2650XM 1FE Mainboard Port adapter, 1 port
   Port adapter is analyzed
   Port adapter insertion time unknown
   EEPROM contents at hardware discovery:
      Hardware Revision        : 1.0
      PCB Serial Number        : JAD06150HXS (761445799)
      Part Number              : 73-7755-02
      RMA History              : 00
      RMA Number               : 0-0-0-0
      Board Revision           : A0
      Deviation Number         : 0-0
      EEPROM format version 4
      EEPROM contents (hex):
        0x00: 04 FF 40 03 6E 41 01 00 C1 17 4A 41 44 30 36 31
        0x10: 35 30 48 58 53 20 28 37 36 31 34 34 35 37 39 39
        0x20: 02 82 49 4E 4B 02 04 00 81 00 00 00 00 42 41 30
        0x30: 80 00 00 00 00 FF FF FF FF FF FF FF FF FF FF FF FF
        0x40: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
        0x50: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
        0x60: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
        0x70: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF

Slot 1:
   High Density Voice Port adapter
   Port adapter is analyzed
   Port adapter insertion time unknown
   EEPROM contents at hardware discovery:
      Hardware Revision        : 1.1
      Top Assy. Part Number     : 800-03567-01
      Board Revision           : E0
      Deviation Number         : 0-0
      Fab Version              : 02
      PCB Serial Number        : JAB043409F7
      RMA Test History         : 00
      RMA Number               : 0-0-0-0
      RMA History              : 00
      EEPROM format version 4
      EEPROM contents (hex):
        0x00: 04 FF 40 00 CC 41 01 01 C0 46 03 20 00 0D EF 01
        0x10: 42 45 30 80 00 00 00 00 02 02 C1 8B 4A 41 42 30
        0x20: 34 33 34 30 39 46 37 03 00 81 00 00 00 04 00
        0x30: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
        0x40: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
        0x50: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
        0x60: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
        0x70: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF

VIC Slot 0:
   E1 (2 Port) Multi-Flex Trunk WAN Daughter Card
   Hardware revision 1.0       Board revision A0
Serial number     27242745   Part number  800-04479-03
Test history     0x0          RMA number     00-00-00

Connector type   PCI
EEPROM format version 1
EEPROM contents (hex):
  0x20: 01 23 01 00 01 9F B0 F9 50 11 7F 03 00 00 00 00
  0x30: 50 00 00 00 01 11 13 00 FF FF FF FF FF FF FF FF

HDV firmware: Compiled Tue 10-Sep-02 19:12 by riche
HDV memory size 524280 heap free 142049

2650XMB4_E1# 2650XMB4_E1#
2650XMB4_E1# 2650XMB4_E1#
2650XMB4_E1# 2650XMB4_E1#
2650XMB4_E1# 2650XMB4_E1#
2650XMB4_E1# 2650XMB4_E1#

2650XMB4_E1# sho controller e1
E1 1/0 is up.
  Applique type is Channelized E1 - balanced
  No alarms detected.
  alarm-trigger is not set
  Version info Firmware: 20020812, FPGA: 11
  Framing is CRC4, Line Code is HDB3, Clock Source is Line.
  Data in current interval (543 seconds elapsed):
    0 Line Code Violations, 0 Path Code Violations
    0 Slip Secs, 0 Fr Loss Secs, 0 Line Err Secs, 0 Degraded Mins
    0 Errored Secs, 0 Bursty Err Secs, 0 Severely Err Secs, 0 Unavail Secs
  Total Data (last 24 hours)
    0 Line Code Violations, 0 Path Code Violations,
    0 Slip Secs, 0 Fr Loss Secs, 0 Line Err Secs, 0 Degraded Mins,
    0 Errored Secs, 0 Bursty Err Secs, 0 Severely Err Secs, 0 Unavail Secs
E1 1/1 is up.
  Applique type is Channelized E1 - balanced
  No alarms detected.
  alarm-trigger is not set
  Version info Firmware: 20020812, FPGA: 11
  Framing is CRC4, Line Code is HDB3, Clock Source is Line.
  Data in current interval (545 seconds elapsed):
    0 Line Code Violations, 0 Path Code Violations
    15 Slip Secs, 0 Fr Loss Secs, 0 Line Err Secs, 0 Degraded Mins
    15 Errored Secs, 0 Bursty Err Secs, 0 Severely Err Secs, 0 Unavail Secs
  Total Data (last 24 hours)
    0 Line Code Violations, 0 Path Code Violations,
    2376 Slip Secs, 0 Fr Loss Secs, 0 Line Err Secs, 0 Degraded Mins,
    2376 Errored Secs, 0 Bursty Err Secs, 0 Severely Err Secs, 0 Unavail Secs
2650XMB4_E1# 2650XMB4_E1#
2650XMB4_E1# 2650XMB4_E1#
## Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definitions</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANF-PR</td>
<td>Additional Network Feature Path Replacement</td>
</tr>
<tr>
<td>AOC</td>
<td>Advice-of-charge. Information element is sent with the connection setup information for incoming Euro-ISDN connections. The AOC IE is used for call charge calculation.</td>
</tr>
<tr>
<td>CCM</td>
<td>Cisco CallManager</td>
</tr>
<tr>
<td>CCBS</td>
<td>Call Completion to Busy Subscriber</td>
</tr>
<tr>
<td>CCNR</td>
<td>Call Completion on No Reply</td>
</tr>
<tr>
<td>CFB</td>
<td>Call Forwarding on Busy</td>
</tr>
<tr>
<td>CFNR</td>
<td>Call Forwarding No Reply</td>
</tr>
<tr>
<td>CFU</td>
<td>Call Forwarding Unconditional</td>
</tr>
<tr>
<td>CLIP</td>
<td>Calling Line (Number) Identification Presentation</td>
</tr>
<tr>
<td>CLIR</td>
<td>Calling Line (Number) Identification Restriction</td>
</tr>
<tr>
<td>CMM</td>
<td>Communication Media Module (CMM) is a Cisco Catalyst 6500 Series and Cisco 7600 Series line card that provides flexible and high-density T1/E1 gateways</td>
</tr>
<tr>
<td>CNIP</td>
<td>Calling Name Identification Presentation</td>
</tr>
<tr>
<td>CNIR</td>
<td>Calling Name Identification Restriction</td>
</tr>
<tr>
<td>COLP</td>
<td>Connected Line (Number) Identification Presentation</td>
</tr>
<tr>
<td>COLR</td>
<td>Connected Line (Number) Identification Restriction</td>
</tr>
<tr>
<td>CONP</td>
<td>Connected Name Identification Presentation</td>
</tr>
<tr>
<td>CONR</td>
<td>Connected Name Identification Restriction</td>
</tr>
<tr>
<td>CT</td>
<td>Call Transfer</td>
</tr>
<tr>
<td>MWI</td>
<td>Message Waiting Indicator</td>
</tr>
<tr>
<td>PSTN</td>
<td>Public Switched Telephone Network</td>
</tr>
<tr>
<td>CUCM</td>
<td>Cisco Unified CallManager</td>
</tr>
</tbody>
</table>
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