

Cisco 3600 Series-PBX Interoperability: Ericsson MD110 with Cisco CallManager Using E1 R2 for a H.323 Gateway

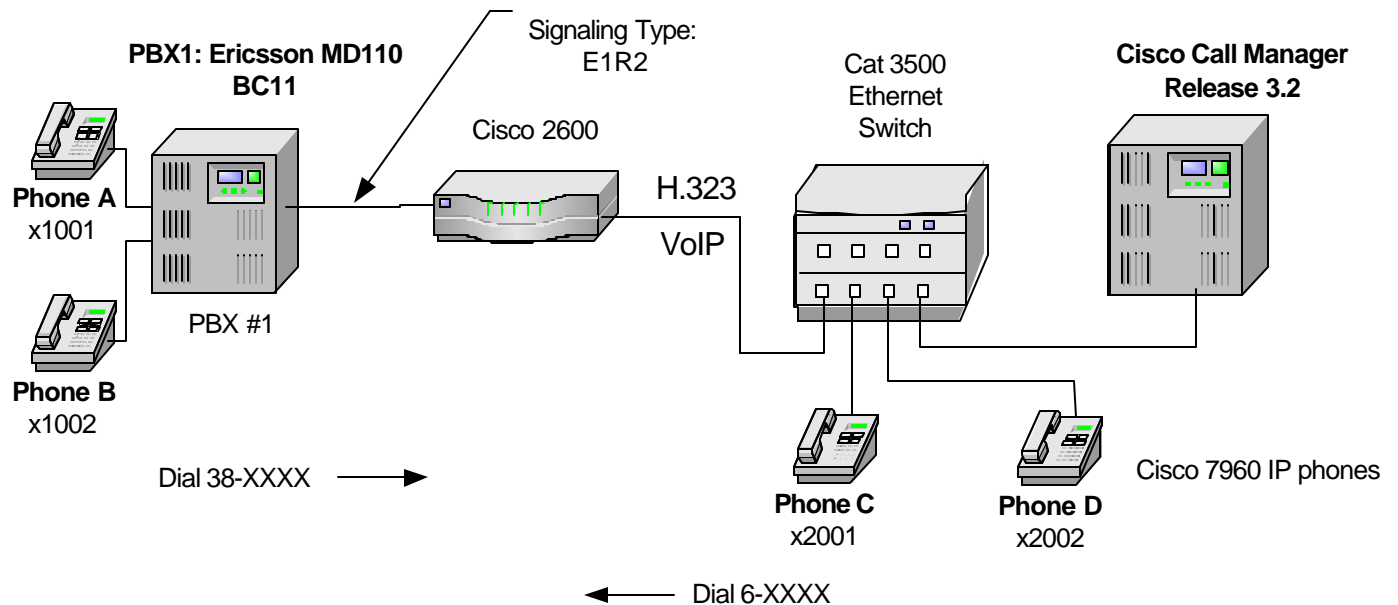
Introduction

- This note describes the connectivity of the Ericsson MD110 version BC11 PBX with Cisco CallManager using Cisco 2600XM series router with a multiflex trunk (MFT) card with an E-1/E1R2 signaling protocol link and a H.323 signaling protocol link to the Cisco Call Manager (CCM).
- The network topology diagram shows the set-up for end-to-end interoperability between the CCM connected to the PBX using E1R2 and H.323 signaling protocol links.

Note: The dial peer configuration for the router pointing to the Ethernet H.323 signaling protocol link must include one of the G.711 codec types. Otherwise, the conferencing features work in one direction only.

Network Topology

Basic Call Setup End-to-End Configuration





Limitations

- A calling name is not supported across the E1R2 signaling protocol link.
- A Codec type G.711 must be specified for the dial peer pointing to the H.323 signaling protocol link to support network conferencing.

System Components

Hardware Requirements

- Cisco Hardware
 - Cisco 2600XM series router with dual multiflex trunk (2MFT) E1 signaling protocol links
 - Cisco Catalyst series Ethernet 3500 switch
 - Cisco CallManager Release 3.2
- Ericsson MD110 version BC11
Hardware: TLU76 R9a -3 E1 CAS

Software Requirements

- Cisco IOS Software Releases 12.2(12)
- PBX Software Release BC11
- Cisco CallManager Release 3.2

Configuration

Configuring the Ericsson MD110 PBX

E1 Trunks

```
ROUTE CATEGORY DATA
ROU SEL      TRM SERV   NODG DIST DISL TRAF  SIG    BCAP
8 211000000070001 5 0000100010 0 30 128 00151515 211100010050 001100
```

```
<KSCAP:DIR=ALL;
KEY SYSTEM CATEGORY PRINT
DIR  TRAF  SERV  CDIV  ROC  ITYPE TRM  ADC  LANG
1001 00151515 020272050 011151111 000001 19 0 00100013010 0
1002 00151515 020272050 011151111 000001 19 0 00100013010 0
1003 00151515 020212060 011151111 000001 19 0 00100013010 0
1004 00151515 020212060 011151111 000001 19 0 00100013010 0
1005 00151515 020212060 011151111 000001 19 0 00100013010 0
1006 00151515 020212060 011151111 000001 19 0 00100013010 0
1007 00151515 020212060 011151111 000001 19 0 00100013010 0
1008 00151515 020212060 011151111 000001 19 0 00100013010 0
1009 00151515 020212060 011151111 000001 19 0 00100013010 0
1010 00151515 020212060 011151111 000001 19 0 00100013010 0
1011 00151515 020212060 011151111 000001 19 0 00100013010 0
1012 00151515 020212060 011151111 000001 19 0 00100013010 0
1013 00151515 020212060 011151111 000001 19 0 00100013010 0
1014 00151515 020212060 011151111 000001 19 0 00100013010 0
1015 00151515 020212060 011151111 000001 19 0 00100013010 0
```



<RODAP:ROU=8;

ROUTE DATA

ROU	TYPE	VARC	VARI	VARO	FILTER
1	SL60	H'00000310	H'15480000	H'06300010	NO
6	TL30		H'00000036	H'00002016	NO
8	TL30	H'00000000	H'00002232	H'00002016	NO
11					
39	SL60	H'00000224	H'15480000	H'46304010	NO
40	SL60	H'00000314	H'15400000	H'46400000	NO

<ROEDP:ROU=ALL,TRU=ALL;

ROUTE EQUIPMENT DATA

ROU	TRU	EQU	SQU	INDDAT	CNTRL
1	001-27	001-0-30-28		H'000000000000	
1	001-28	001-0-30-29		H'000000000000	
1	001-29	001-0-30-30		H'000000000000	
1	001-30	001-0-30-31		H'000000000000	
8	001-1	001-0-00-01			
8	001-2	001-0-00-02			
8	001-3	001-0-00-03			
8	001-4	001-0-00-04			
8	001-5	001-0-00-05			
8	001-6	001-0-00-06			
8	001-7	001-0-00-07			
8	001-8	001-0-00-08			
8	001-9	001-0-00-09			
8	001-10	001-0-00-10			
8	001-11	001-0-00-11			
8	001-12	001-0-00-12			
8	001-13	001-0-00-13			
8	001-14	001-0-00-14			
8	001-15	001-0-00-15			
8	001-16	001-0-00-17			
8	001-17	001-0-00-18			
8	001-18	001-0-00-19			
8	001-19	001-0-00-20			
8	001-20	001-0-00-21			
8	001-21	001-0-00-22			
8	001-22	001-0-00-23			
8	001-23	001-0-00-24			
8	001-24	001-0-00-25			
8	001-25	001-0-00-26			
8	001-26	001-0-00-27			
8	001-27	001-0-00-28			
8	001-28	001-0-00-29			
8	001-29	001-0-00-30			
8	001-30	001-0-00-31			



Configuring Cisco CallManager

2600XM H.323 Gateway Configuration

Cisco CallManager 3.2 Administration - Gateway Configuration - Microsoft Internet Explorer

System Route Plan Service Feature Device User Application Help

Cisco CallManager Administration
For Cisco IP Telephony Solutions

CISCO SYSTEMS

Gateway Configuration

[Back to Find/List Gateways](#)

Product : H.323 Gateway
Gateway : 10.10.10.227
Device Protocol: H.225
Registration: Unknown
IP Address: 10.10.10.227

Status: Ready

Device Name*	<input type="text" value="10.10.10.227"/>
Description	<input type="text" value="H.323 gateway"/>
Device Pool*	<input type="text" value="Default"/>
Media Resource Group List	<input type="text" value="< None >"/>
Network Hold Audio Source	<input type="text" value="< None >"/>
User Hold Audio Source	<input type="text" value="< None >"/>
Calling Search Space	<input type="text" value="< None >"/>
Location	<input type="text" value="< None >"/>
Caller ID DN	<input type="text" value=""/>
Calling Party Selection*	<input type="text" value="Originator"/>
Presentation Bit*	<input type="text" value="Allowed"/>
Display IE Delivery	<input checked="" type="checkbox"/>
Gatekeeper Name	<input type="text" value="< None >"/>
Media Termination Point Required	<input type="checkbox"/>
Num Digits*	<input type="text" value="7"/>

Local intranet



Cisco CallManager 3.2 Administration - Gateway Configuration - Microsoft Internet Explorer

Back Forward Stop Home Search Favorites History Print

Description	H.323 gateway
Device Pool*	Default
Media Resource Group List	< None >
Network Hold Audio Source	< None >
User Hold Audio Source	< None >
Calling Search Space	< None >
Location	< None >
Caller ID DN	
Calling Party Selection*	Originator
Presentation Bit*	Allowed
Display IE Delivery	<input checked="" type="checkbox"/>
Gatekeeper Name	< None >
Media Termination Point Required	<input type="checkbox"/>
Num Digits*	7
Sig Digits	<input type="checkbox"/>
Prefix DN	
Redirecting Number IE Delivery - Outbound	<input type="checkbox"/>
Redirecting Number IE Delivery - Inbound	<input type="checkbox"/>
Run H225D On Every Node	<input checked="" type="checkbox"/>
Called party IE number type unknown*	Cisco CallManager
Calling party IE number type unknown*	Cisco CallManager
Called Numbering Plan*	Cisco CallManager
Calling Numbering Plan*	Cisco CallManager

* indicates required item

[Back to Find/List Gateways](#)

Local intranet



Route Plan

Cisco CallManager 3.2 Administration - Find and List Route Patterns - Microsoft Internet Explorer

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Find and List Route Patterns

[Add a New Route Pattern](#)









4 matching record(s) for Route Pattern Name begins with ""

Find route patterns where Pattern

and show items per page

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

Matching record(s) 1 to 4 of 4

<input type="checkbox"/>	Route Pattern	Partition	Route Filter	Gateway/Route List	Copy
<input type="checkbox"/>	 3.30XX			S1/DS1-0@26xx_MGCP	
<input type="checkbox"/>	 4.XXXX			10.10.10.103	
<input type="checkbox"/>	 5.XXXX			AALN/S1/SU1/0@C26...	
<input type="checkbox"/>	 6.XXXX			10.10.10.227	

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Done Local intranet



Cisco CallManager 3.2 Administration - Find and List Gateways - Microsoft Internet Explorer

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Find and List Gateways [Add a New Gateway](#)

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

Find gateways where begins with
and show items per page. endpoints.

To list all items, click Find without any search text, or use "Device Name is not empty" as the search criteria.

Matching record(s) 1 to 5 of 5
Real-time Information Service returned information for 3 of 5 devices listed below.

<input type="checkbox"/>	Device Name	Description	Device Pool	Status	IP Address
<input type="checkbox"/>	10.10.10.103		Default	Unknown	10.10.10.103
<input type="checkbox"/>	10.10.10.20	3640 H.323 gw	Default	Unknown	10.10.10.20
<input type="checkbox"/>	10.10.10.227	H.323 gateway	Default	Unknown	10.10.10.227
<input type="checkbox"/>	26xx_MGCP	26XX_e-1		See Endpoints	
<input type="checkbox"/>	C2651XM_MGCP	C2651XM_MGCP		See Endpoints	

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Done Local intranet



Configuring the 2600XM Router

Sh Run

Building configuration...

Busyout is not supported on this voice-port.

Busyout is not supported on this voice-port.

Busyout is not supported on this voice-port.

Busyout is not supported on this voice-port.

Current configuration : 1538 bytes

!

version 12.2

service timestamps debug uptime

service timestamps log uptime

no service password-encryption

!

hostname 26xx

!

enable password cisco

!

voice-card 1

!

ip subnet-zero

!

!

no ip domain-lookup

!

call rsvp-sync

!

!

!



```
!  
!  
!  
controller E1 1/0  
clock source internal  
ds0-group 1 timeslots 1-15,17-31 type r2-digital r2-compelled ani  
!  
controller E1 1/1  
framing NO-CRC4  
ds0-group 1 timeslots 1-15,17-31 type r2-digital r2-compelled ani  
!  
!  
!  
interface FastEthernet0/0  
ip address 10.10.10.227 255.255.255.0  
duplex auto  
speed auto  
!  
interface FastEthernet0/1  
no ip address  
shutdown  
duplex auto  
speed auto  
!  
ip classless  
ip route 0.0.0.0 0.0.0.0 FastEthernet0/0  
no ip http server  
!  
!
```



```
snmp-server engineID local 000000090200000196983000
```

```
snmp-server community public RO
```

```
snmp-server enable traps tty
```

```
!
```

```
voice-port 1/0:1
```

```
!
```

```
voice-port 1/1:1
```

```
!
```

```
dial-peer cor custom
```

```
!
```

```
!
```

```
!
```

```
dial-peer voice 1 pots
```

```
dial-peer voice 1015 pots
```

```
!
```

```
dial-peer voice 4000 voip
```

```
destination-pattern 490.
```

```
session target ipv4:10.1.1.205
```

```
!
```

```
dial-peer voice 5000 pots
```

```
destination-pattern 500.
```

```
direct-inward-dial
```

```
port 1/0:1
```

```
forward-digits all
```

```
!
```

```
dial-peer voice 6000 pots
```

```
destination-pattern 100.
```

```
direct-inward-dial
```

```
port 1/1:1
```



```
forward-digits all
!
dial-peer voice 6100 voip
destination-pattern 102.
session target ipv4:10.1.1.205
!
dial-peer voice 6200 voip
destination-pattern 200.
session target ipv4:10.10.10.10
codec g711ulaw
```



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