

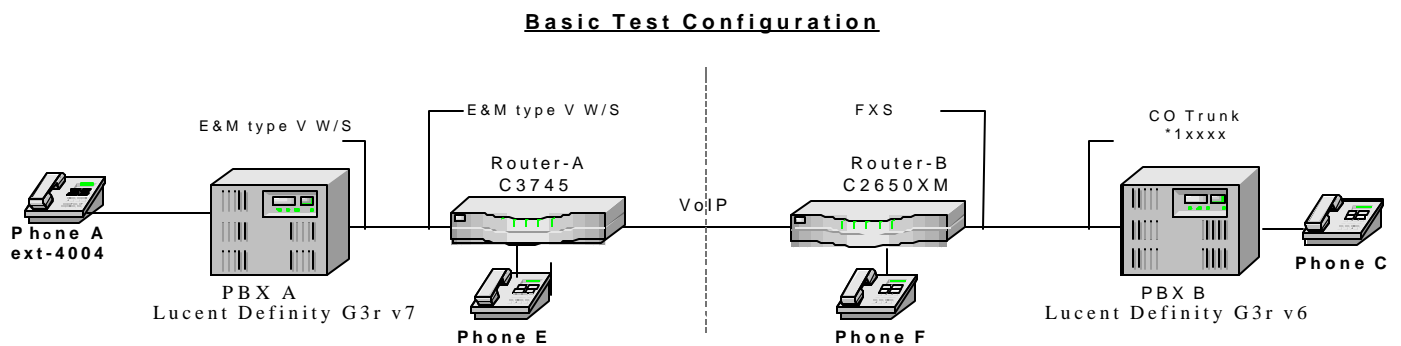
Cisco 3745 Gateway - PBX Interoperability: Avaya Definity G3 PBX using Analog E&M Interfaces to an H.323 Gateway

Introduction

- This note describes the interoperability between the Avaya Definity G3 PBX and a Cisco 3745 using analog E&M interfaces to an H.323 gateway.
- The Network Topology diagram shows the end-to-end interoperability.

Network Topology

Figure 1. Network Topology



Limitations

None noted.

System Components

Hardware Requirements

- Cisco 3745 router
- Cisco VIC-VG-2E/M
- Avaya Definity G3r PBX

Software Requirements

- Cisco IOS Software Release 12.2(15)ZJ
- PBX Software Release, Version 7



Configuration

Configuring the Avaya Definity G3r PBX

Configure the Avaya Definity G3r PBX. Use the following tables as a reference.

Trunk Group

The screenshot shows the Avaya Site Administration interface for configuring a Trunk Group. The window title is "Avaya Site Administration - [lucent_V7 GEDI]". The menu bar includes File, Edit, View, System, Action, Tools, Window, and Help. The toolbar contains various icons for file operations and navigation. The main area displays the configuration for Trunk Group 3. The configuration is organized into sections: "TRUNK GROUP" and "TRUNK PARAMETERS".

TRUNK GROUP

Group Number:	3	Group Type:	tie	CDR Reports:	y		
Group Name:	OUTSIDE CALL	COR:	1	TN:	1	TAC:	603
Direction:	two-way	Outgoing Display?	n	Trunk Signaling Type:			
Dial Access?	y	Busy Threshold:	99	Night Service:			
Queue Length:	0	Incoming Destination:					
Comm Type:	voice	Auth Code?	n	Trunk Flash?	n		

TRUNK PARAMETERS

Trunk Type (in/out):	wink/wink	Incoming Rotary Timeout(sec):	5		
Outgoing Dial Type:	tone	Incoming Dial Type:	tone		
Wink Timer(msec):	300	Disconnect Timing(msec):	500		
Digit Treatment:		Digits:			
Connected to Toll?	n	Sig Bit Inversion:	none		
Incoming Dial Tone?	y	STT Loss:	normal	DTT to DCO Loss:	normal
Disconnect Supervision - In?	y	Out?	y	Receive Answer Supervision?	y
Answer Supervision Timeout:	0				

Right-click in a field to see a list of valid entries or help text

Ready



Avaya Site Administration - [lucent_V7 GEDI]

File Edit View System Action Tools Window Help

lucent_V7

change trunk-group 3 send (return) help (f5) cancel (esc) enter (f3) schedule (f9) next (f7) previous (f8)

1	2	3	4	5	6	7	8	9	10	11
---	---	---	---	---	---	---	---	---	----	----

TRUNK FEATURES

ACA Assignment? Measured:

Internal Alert? Maintenance Tests? y

Data Restriction? n

Used for DCS? n

Suppress # Outpulsing? n

Seize When Maintenance Busy:

Incoming Tone (DTMF) ANI: Per Call CPN Blocking Code:

Connected to CO? n Per Call CPN Unblocking Code:

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1 2 3 4 5 6 7 8 9 10 11

TRUNK GROUP

ADMINISTRABLE TIMERS

Incoming Disconnect(msec):	<input type="text" value="500"/>	Outgoing Disconnect(msec):	<input type="text" value="500"/>
Incoming Dial Guard(msec):	<input type="text" value="70"/>	Outgoing Dial Guard(msec):	<input type="text" value="1600"/>
Incoming Glare Guard(msec):	<input type="text" value="1500"/>	Outgoing Glare Guard(msec):	<input type="text" value="1500"/>

Programmed Dial Pause(msec):	<input type="text" value="1500"/>	Outgoing Seizure Response(sec):	<input type="text" value="5"/>
Flash Length(msec):	<input type="text" value="540"/>	Disconnect Signal Error(sec):	<input type="text" value="240"/>
		Incoming Incomplete Dial Alarm(sec):	<input type="text" value="255"/>

END TO END SIGNALING

Tone(msec):	<input type="text" value="350"/>	Pause(msec):	<input type="text" value="150"/>
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OUTPUTSING INFORMATION

PPS:	<input type="text" value="10"/>	Make(msec):	<input type="text" value="40"/>	Break(msec):	<input type="text" value="60"/>
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Ready



Avaya Site Administration - [lucent_V7 GEDI]

File Edit View System Action Tools Window Help

lucent_V7

change trunk-group 3 send (return) help (f5) cancel (esc) enter (f3) schedule (f9) next (f7) previous (f8)

1 2 3 4 5 6 7 8 9 10 11

ATMS THRESHOLDS

TTL Type: Far End Test No:

TTL Vendor: TTL Contact:

Trunk Vendor: Trunk Contact:

Trunk Length:

	MARGINAL		UNACCEPTABLE	
	Min	Max	Min	Max
1004 Hz Loss:	<input type="text" value="-2"/>	<input type="text" value="21"/>	<input type="text" value="-2"/>	<input type="text" value="21"/>
	-Dev	+Dev	-Dev	+Dev
404 Hz Loss:	<input type="text" value="9"/>	<input type="text" value="9"/>	<input type="text" value="9"/>	<input type="text" value="9"/>
2004 Hz Loss:	<input type="text" value="9"/>	<input type="text" value="9"/>	<input type="text" value="9"/>	<input type="text" value="9"/>
Maximum C Message Noise:	<input type="text" value="55"/>		<input type="text" value="55"/>	
Maximum C Notched Noise:	<input type="text" value="74"/>		<input type="text" value="74"/>	
Minimum SRL-HI:	<input type="text" value="0"/>		<input type="text" value="0"/>	
Minimum SRL-LO:	<input type="text" value="0"/>		<input type="text" value="0"/>	
Minimum ERL:	<input type="text" value="0"/>		<input type="text" value="0"/>	

Allow ATMS Busyout, Error Logging and Alarming?

Right-click in a field to see a list of valid entries or help text

Ready



Avaya Site Administration - [lucent_V7 GEDI]

File Edit View System Action Tools Window Help

lucent_V7

change trunk-group 3 send (return) help (F5) cancel (esc) enter (F3) schedule (F9) next (F7) previous

1 2 3 4 5 6 7 8 9 10 11

TRUNK GROUP

Administered Members (min/max): 1/1
Total Administered Members: 1

GROUP MEMBER ASSIGNMENTS

	Port	Code	Sfx	Name	Night	Mode	Type	Ans	Delay
1:	01A0301	TN760	E			e&m	type-5		
2:									
3:									
4:									
5:									
6:									
7:									
8:									
9:									
10:									
11:									
12:									
13:									
14:									
15:									

Right-click in a field to see a list of valid entries or help text

Ready

NUM

Configuring the Cisco 3745 Router

- The following sample output shows the router configuration for interoperability with the PBX.

```
c3745#sho run
Building configuration...

Current configuration : 1692 bytes
!
version 12.2
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
!
hostname c3745
!
boot system flash:c3745-jsx-mz-v122_15_zj_throttle.0.5.0
logging queue-limit 100
logging buffered 1000000 debugging
!
ip subnet-zero
!
no ip domain lookup
```



```
!  
mpls ldp logging neighbor-changes  
isdn switch-type primary-ni  
!  
voice-card 2  
  no dspfarm  
!  
voice-card 3  
  no dspfarm  
!  
voice-card 4  
  no dspfarm  
!  
no voice hpi capture buffer  
no voice hpi capture destination  
!  
mta receive maximum-recipients 0  
!  
controller E1 2/0  
  ds0-group 1 timeslots 1-5 type r2-analog r2-compelled ani  
  cas-custom 1  
  country argentina  
  metering  
  dnis-digits min 4 max 5  
!  
controller E1 2/1  
!  
interface FastEthernet0/0  
  ip address 100.1.1.1 255.255.255.0  
  duplex auto  
  speed auto  
!  
interface FastEthernet0/1  
  ip address 172.20.8.20 255.255.255.0  
  duplex auto  
  speed auto  
!  
ip default-gateway 10.1.1.2  
ip http server  
ip classless  
ip route 0.0.0.0 0.0.0.0 FastEthernet0/1  
!  
call rsvp-sync  
!  
voice-port 2/0:1  
!  
voice-port 2/1/0  
!  
voice-port 2/1/1  
!  
voice-port 4/0/0  
  operation 4-wire  
  type 5  
!  
voice-port 4/0/1  
  operation 4-wire  
  type 5  
!
```



```
mgcp profile default
!
dial-peer cor custom
!
dial-peer voice 1 pots
 destination-pattern 20..
 port 4/0/0
 prefix 20
!
dial-peer voice 3 voip
 destination-pattern 26..
 session target ipv4:100.1.1.2
!
dial-peer voice 4 voip
 destination-pattern 4000
 session target ipv4:100.1.1.2
!
dial-peer voice 2 pots
 destination-pattern 3000
 port 2/1/1
!
dial-peer voice 5 voip
 destination-pattern 4004
 session target ipv4:100.1.1.2
!
gatekeeper
 shutdown
!
line con 0
line aux 0
line vty 0 4
 login
!
end
```

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**Corporate Headquarters**

Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
www.cisco.com
Tel: 408 526-4000
800 553-NETS (6387)
Fax: 408 526-4100

European Headquarters

Cisco Systems International BV
Haarlerbergpark
Haarlerbergweg 13-19
1101 CH Amsterdam
The Netherlands
www-europe.cisco.com
Tel: 31 0 20 357 1000
Fax: 31 0 20 357 1100

Americas Headquarters

Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
www.cisco.com
Tel: 408 526-7660
Fax: 408 527-0883

Asia Pacific Headquarters

Cisco Systems, Inc.
Capital Tower
168 Robinson Road
#22-01 to #29-01
Singapore 068912
www.cisco.com
Tel: +65 317 7777
Fax: +65 317 7799

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