

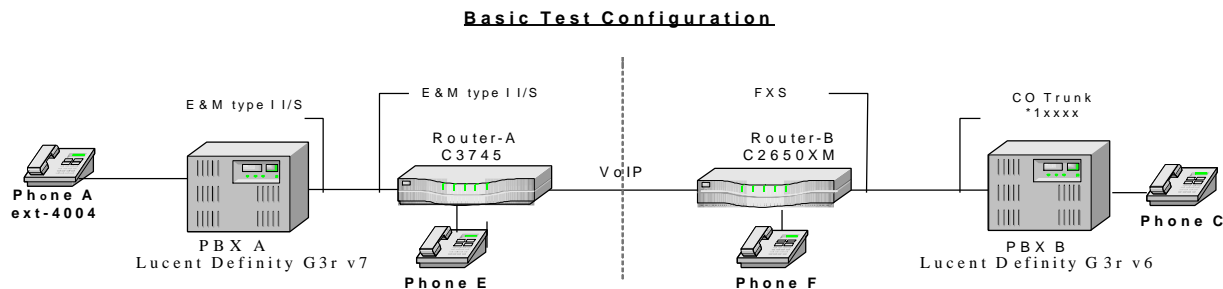
Cisco 3745 Gateway - PBX Interoperability: Lucent Definity G3r PBX using Analog E&M Interfaces to an H.323 Gateway

Introduction

This document contains the results for PBX interoperability testing between PBXs and the Cisco Network Module with E&M to the FXS Voice Interface Cards installed in Cisco voice gateways.

Network Topology

The following diagram shows a pair of Cisco voice gateways that are configured for back-to-back VoIP operation. In this example, connectivity and interoperability is achieved through a Lucent Definity G3r V7 PBX that is connected to a Cisco 3745 back-to-back via an Ethernet connection to a Cisco 2651XM connected to a Lucent Definity G3r V6 PBX.



Limitations

None

System Components

Hardware Requirements

- Cisco 3745 gateway
- Lucent Definity G3r PBX V7

Software Requirements

- Cisco IOS Software Release 12.2(15)ZJ (c3745-jsx-mz-v122_15_zj_throttle.0.5.0)
- Lucent Definity PBX Software Release G3r V7
- VIC-VG-2E/M network module



Configuration

Configuring the Lucent Definity G3r V7

Trunk Group

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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 GROUP

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

TRUNK PARAMETERS

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

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

Ready NUM



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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
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TRUNK FEATURES

ACA Assignment? Measured:
Internal Alert? Maintenance Tests?
Data Restriction?

Used for DCS?
Suppress # Outpulsing?
Seize When Maintenance Busy:

Incoming Tone (DTMF) ANI: Per Call CPN Blocking Code:
Connected to CO? 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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1 2 3 4 5 6 7 8 9 10 11

ATMS THRESHOLDS

TTL Type: 105-w-r1 Far End Test No:

TTL Vendor: TTL Contact:

Trunk Vendor: Trunk Contact:

Trunk Length:

	MARGINAL		UNACCEPTABLE	
	Min	Max	Min	Max
1004 Hz Loss:	-2	21	-2	21
	-Dev	+Dev	-Dev	+Dev
404 Hz Loss:	9	9	9	9
2804 Hz Loss:	9	9	9	9
Maximum C Message Noise:	55		55	
Maximum C Notched Noise:	74		74	
Minimum SRL-HI:	0		0	
Minimum SRL-LO:	0		0	
Minimum ERL:	0		0	

Allow ATMS Busyout, Error Logging and Alarming?

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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	t1-stan		
2:									
3:									
4:									
5:									
6:									
7:									
8:									
9:									
10:									
11:									
12:									
13:									
14:									
15:									

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send (return) help (f5) cancel (esc) enter (f3) schedule (f9) next (f7) previous (f8)

DIAL PLAN RECORD

Local Node Number: 1
ETA Node Number:
ETA Routing Pattern:

Uniform Dialing Plan: 4-digit
UDP Extension Search Order: udp-table-first

FIRST DIGIT TABLE

First Digit	- 1 -	- 2 -	- 3 -	Length	- 4 -	- 5 -	- 6 -
1:				extension			
2:				extension			
3:				extension			
4:				extension			
5:				extension			
6:			dac				
7:				pextension			
8:	fac						
9:	fac						
0:	attd						
*			fac				
#:							

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display aar analysis 6 send (return) help (f5) cancel (esc) enter (f3) schedule (f9) next (f7) previous (f8)

1 2

AAR DIGIT ANALYSIS TABLE

Percent Full: 7

Dialed String	Total		Route Pattern	Call Type	Node Num	ANI Req'd
	Min	Max				
6	7	7	254	aar	n	
603	7	7	3	aar	n	
608	7	7	8	aar	n	
609	7	7	9	aar	n	
611	7	7	11	aar	n	
612	7	7	12	aar	n	
613	7	7	13	aar	n	
614	7	7	14	aar	n	
615	7	7	15	aar	n	
617	7	7	17	aar	n	
7	7	7	254	aar	n	
8	7	7	9	aar	n	
9	7	7	253	aar	n	
972	6	10	12	aar	n	

Ready NUM

Configuring the Cisco 3745 Gateway

```
Router# show running config
```

```
Building configuration...
```

```
Current configuration : 1694 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
 signal immediate
!
voice-port 4/0/1
 operation 4-wire
!
```



```
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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