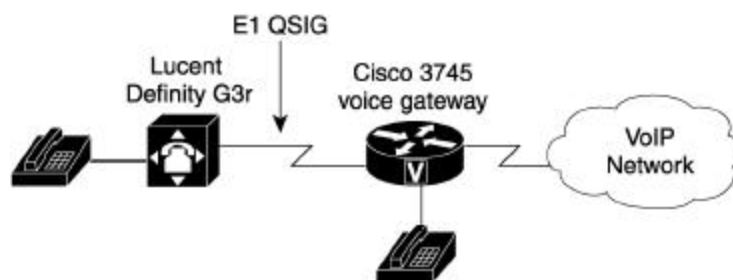


Cisco 3745 Gateway -PBX Interoperability: Lucent Definity G3 PBX Using E1 QSIG Interfaces to an H.323 Gateway

Introduction

- This Application Note describes the interoperability of a Cisco 3745 gateway and a Lucent Definity G3 PBX using E1 QSIG interfaces.
- The network topology diagram shows the end-to-end interoperability.

Network Topology



System Components

Hardware Requirements

- Cisco 3745 with 1MFT-E1 Card
- Lucent Definity G3r

Software Requirements

- Cisco 3745: Cisco IOS Release 12.2(15)ZJ
- Lucent Definity G3r Software Version G3V7i.01.0.343.7

Configuration

Configuring the Lucent Definity G3r

Configure the PBX in the following sequence:

- CO Trunk
- Trunk Group
- Trunk Features
- Optional Features



Configuring the CO Trunk

DEFINITY Site Administration - Lucent Test PBX GEDI

File Edit View Tools Window Help

Lucent Test PBX

Lucent Test PBX GEDI

change ds1 at 2 send (m) help (F5) cancel (esc) enter (F3) schedule (F9) next (F7) previous (F6)

1

DS1 CIRCUIT PACK

Location:	01A12	Name:	isdn
Bit Rate:	2.048	Line Coding:	hdb3
Signaling Mode:	isdn-pri	Interface:	peer-master
Connect:	pbx	Peer Protocol:	Q-SIG
Interface Companding:	alaw	Side:	a
Idle Code:	11111111	CRC?	<input checked="" type="checkbox"/>
		Channel Numbering:	timeslot
		DCP/Analog Bearer Capability:	3.1kHz

Slip Detection? Near-end CSU Type: other

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

Ready NUM



Configuring the Trunk Group

DEFINITY Site Administration - [Lucent Test PBX GED]

File Edit View Tools Window Help

LucentTestPBX

change-trunk-group 7 save (F5) help (F5) cancel (esc) enter (E) schedule (F9) next (F7) previous (F8)

1 2 3 4 5 6 7 8 9

TRUNK GROUP

Group Number: 7 Group Type: isdn CDR Reports: y
Group Name: ISDN-E1-QSIG COR: 1 TN: 1 TAC: 668
Direction: two-way Outgoing Display? n
Dial Access? y Busy Threshold: 99 Night Service:
Queue Length: 0
Service Type: tie Auth Code? n TestCall ITC: rest
Far End Test Line No:
TestCall BCC: 4

TRUNK PARAMETERS

Codeset to Send Display: 0 Codeset to Send TCM.Lookahead: 7
Max Message Size to Send: 260 Charge Advice: none
Supplementary Service Protocol: d Digit Handling (in/out): overlap/overlap
Digit Treatment: Digits:
Trunk Hunt: ascend
Connected to Toll? n STT Loss: normal DTT to DCO Loss: normal
Calling Number - Delete: Insert: Numbering Format:
Bit Rate: 1200 Synchronization: async Duplex: full
Disconnect Supervision - In? y Out? n
Answer Supervision Timeout: 0

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

Ready



Configuring Trunk Features

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File Edit View Tools Window Help

Lucent Test PBX

change trunk group 7 send (ctrl) help (F5) cancel (esc) enter (F3) schedule (F9) next (F7) previous (F8)

1 2 3 4 5 6 7 8 9 10

TRUNK FEATURES

ACA Assignment? Measured: none Wideband Support?
Maintenance Tests?
Data Restriction? NCA-TSC Trunk Member:
Send Name: Send Calling Number:
Used for DCS? Hop Dgt?
Suppress # Outpulsing? Numbering Format: public
Outgoing Channel ID Encoding: preferred UIE Treatment: service-provider

Send Connected Number:

Send UCID?
Send Codeset 6/7 LAI IE?

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

Ready NUM



Configuring Optional Features

DEFINITY Site Administration - Lucent Test PBX GEDI

File Edit View Tools Window Help

Lucent Test PBX

Lucent Test PBX GEDI

display system parameters custom send (m) help (h) cancel (esc) enter (c) schedule (s) next (n) previous (p)

1 2 3 4

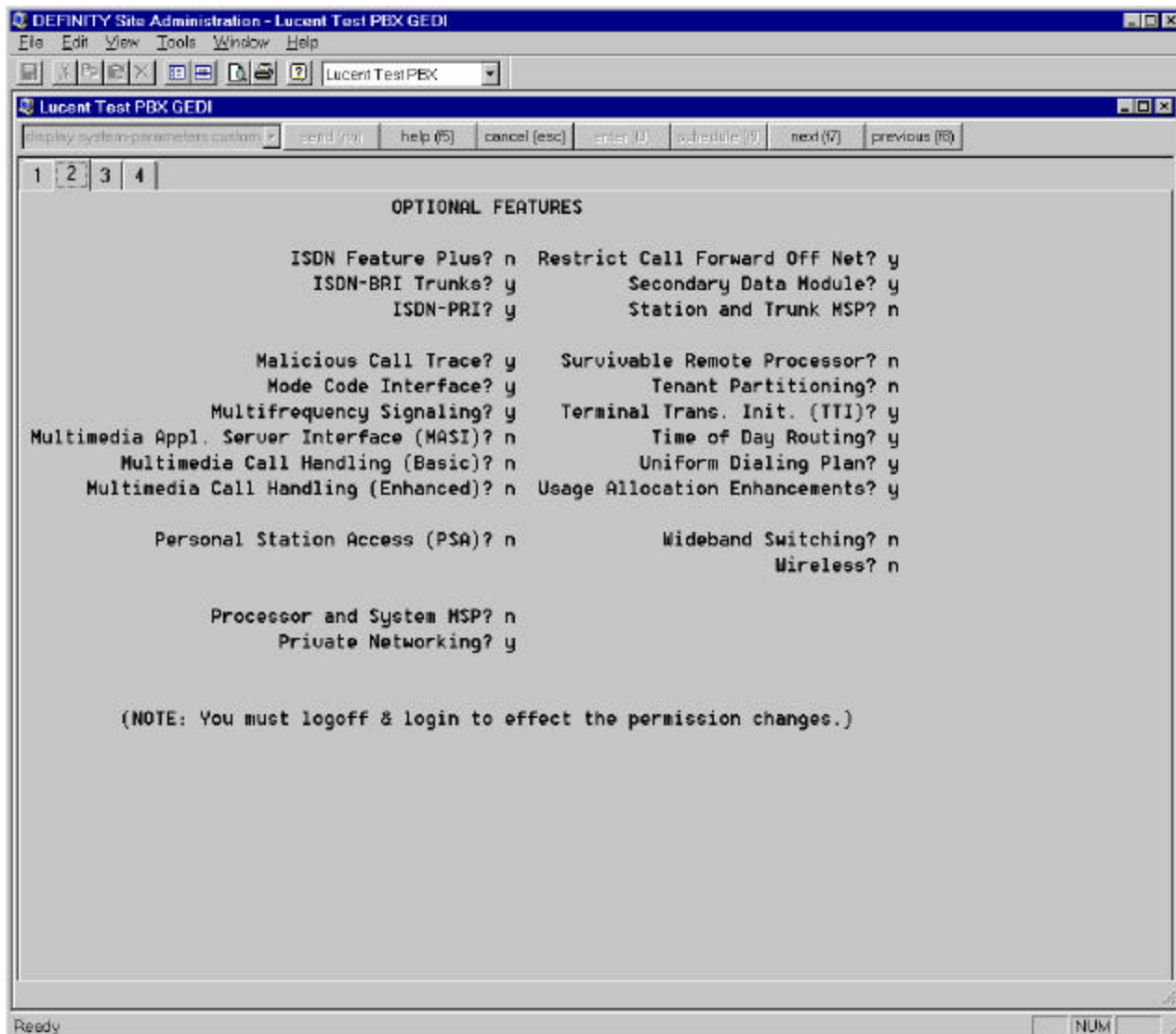
OPTIONAL FEATURES

G3 Version: U7 Maximum Ports: 200
Location: 1

Abbreviated Dialing Enhanced List? y	CAS Main? n
Access Security Gateway (ASG)? n	Cug Of Calls Redirected Off-net? n
Analog Trunk Incoming Call ID? y	DCS (Basic)? n
A/D Grp/Sys List Dialing Start at 01? y	DCS Call Coverage? n
Answer Supervision by Call Classifier? y	DCS with Rerouting? n
ARS? y	DEFINITY Network Admin? n
ARS/AAR Partitioning? y	DS1 MSP? n
ARS/AAR Shortcut Dialing? y	Emergency Access to Attendant? y
ASAI Interface? n	Extended Cug/Fwd Admin? n
ASAI Proprietary Adjunct Links? n	External Device Alarm Admin? y
	Flexible Billing? n
Async. Transfer Mode (ATM) Trunking? n	Forced Entry of Account Codes? y
ATMS? y	Global Call Classification? y
Audible Message Waiting? y	Hospitality (Basic)? y
Authorization Codes? y	Hospitality (G3U3 Enhancements)? y
CAS Branch? n	

(NOTE: You must logoff & login to effect the permission changes.)

Ready NUM





Configuring the Cisco 3745

```
c3745# show running-config
Building configuration...

Current configuration : 2202 bytes
!
version 12.3
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
!
hostname c3745
!
boot system slot0:c3745-js-mz.mcebu_sb.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-qsig
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
  framing NO-CRC4
  pri-group timeslots 1-31
!
controller E1 2/1
!
interface FastEthernet0/0
  ip address 172.16.1.1 255.255.255.0
  duplex auto
  speed auto
```



```
!  
interface FastEthernet0/1  
  ip address 10.1.1.9 255.255.255.0  
  duplex auto  
  speed auto  
!  
interface Serial2/0:15  
  no ip address  
  no logging event link-status  
  isdn switch-type primary-qsig  
  isdn overlap-receiving  
  isdn incoming-voice voice  
  isdn T203 30000  
  isdn T310 60000  
  isdn bchan-number-order ascending  
  no cdp enable  
!  
interface BRI4/0  
  no ip address  
  isdn switch-type basic-qsig  
!  
interface BRI4/1  
  no ip address  
  isdn switch-type basic-qsig  
!  
ip default-gateway 10.1.1.2  
ip http server  
ip classless  
!  
call rsvp-sync  
!  
voice-port 2/0:15  
!  
voice-port 2/1/0  
  ring cadence pattern06  
!  
voice-port 2/1/1  
  ring cadence pattern06  
!  
mgcp profile default  
!  
dial-peer cor custom  
!  
dial-peer voice 1 pots  
  destination-pattern 4...  
  direct-inward-dial  
  port 2/0:15  
  prefix 4  
!
```




```

dial-peer voice 3 voip
 destination-pattern 5...
 session target ipv4:172.16.1.2
!
dial-peer voice 4 voip
 destination-pattern 6...
 session target ipv4:172.16.1.2
!
dial-peer voice 11 pots
 destination-pattern 3211
 port 2/1/1
!
dial-peer voice 10 pots
 destination-pattern 3210
 port 2/1/0
!
gatekeeper
 shutdown
!
!
line con 0
line aux 0
line vty 0 4
 login
!
!

```



FO

GE

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