

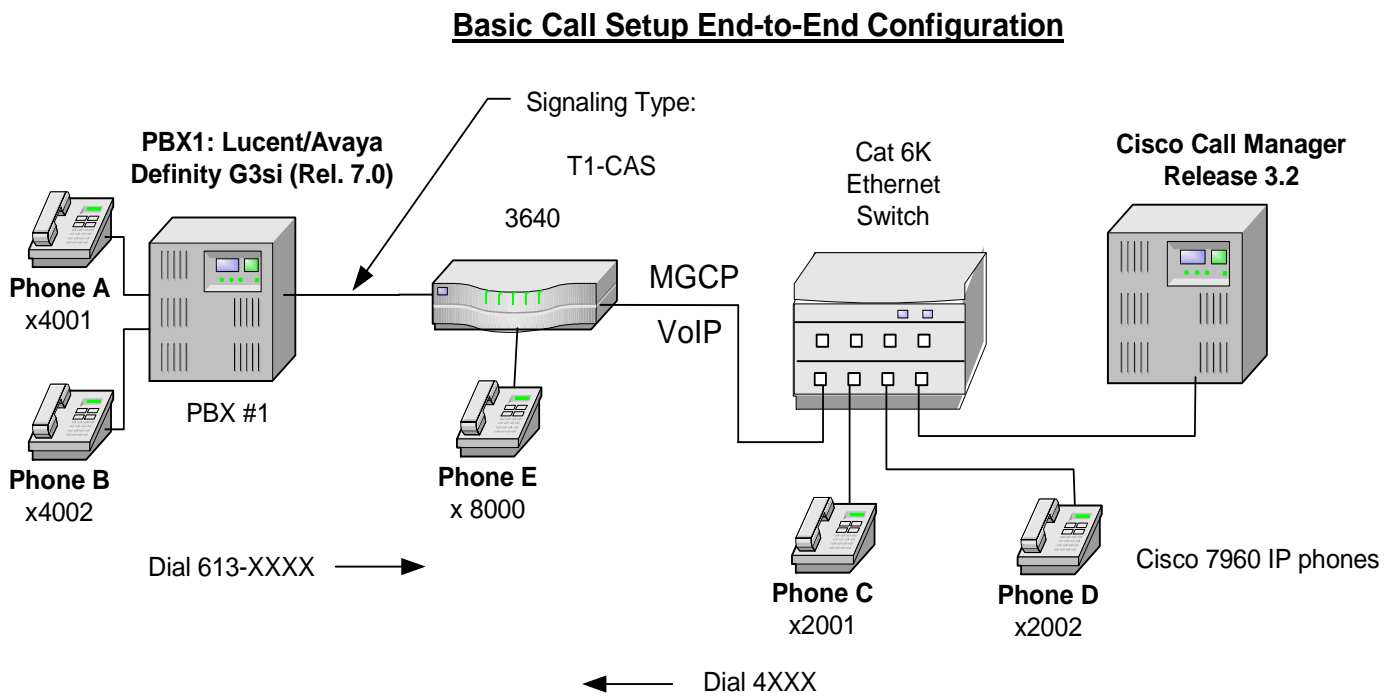
Cisco 3640 Router-PBX Interoperability: Lucent/Avaya Definity G3si V7 PBX with T1 CAS to an MGCP Gateway

Introduction

- This note describes interoperability of Lucent/Avaya Definity G3si Version 9 PBX with Cisco CallManager using Cisco 3640 with T1 CAS as an MGCP Gateway.
- The Network Topology diagram shows the test set-up for end-to-end interoperability between the Cisco CallManager connected to the PBX via Cisco 3640 with T1 CAS link as an MGCP Gateway.
- Connectivity is achieved by using the T1-CAS signaling protocol type on the MGCP gateway and the Lucent/Avaya PBX.
- Wink-Start signaling is best choice for reliability.

Network Topology

Figure 1. Network Topology or Test Setup





Limitations

E&M-Immediate-Start Signaling

- E&M-Immediate-start Signaling type is not supported on CCM Gateway configuration GUI.

E&M-Delay-Dial Signaling

- E&M-Delay-Dial signaling is not functional when the default timer setting (300 msec) for the Delay-Start parameter is used on the Gateway. Since this timer parameter can't be changed by the CCM Gateway configuration GUI, the Wink Timer trunk parameter on the Lucent/Avaya PBX needs to be changed from the default of 300 msec. to 400 msec. in order for the Delay-Dial signaling type to work properly. Note that the Delay-Dial signaling type is a delayed version of a Wink-Start Signaling, therefore the Wink Timer on the PBX needs to be set to a greater value than the Delay-Start timer on the Gateway.
- Wink-Start signaling is best choice for reliability.

System Components

Hardware Requirements

- Cisco 3640 Gateway with 2MFT T1 Port
- Cisco Cat6K switch
- Cisco CallManager 3.2
- Lucent/Avaya Definity G3si V9 PBX, TN464F, DS1 INTFC 24/32.

Software Requirements

- Cisco IOS Software Release "c3640-is-mz.122-10.8.PI5".
- PBX Software Release 7 Version G3V9i.02.0.033.2
- Cisco CallManager Release 3.2

Configuration

Configuring the Lucent/Anaya Definity G3si PBX

Configure in the following sequence:

- Add the new circuit pack.
- Add the new Trunk group.
- Configure Dialing Plan.



DS1 Circuit Pack

DEFINITY® Site Administration - [Lucent V6 GED]

File Edit View System Action Tools Window Help

change ds1 a13 | word (return) | help (F5) | cancel (esc) | enter (F3) | schedule (F9) | next (F7) | previous (F8) | next form (F6)

1 | 2 |

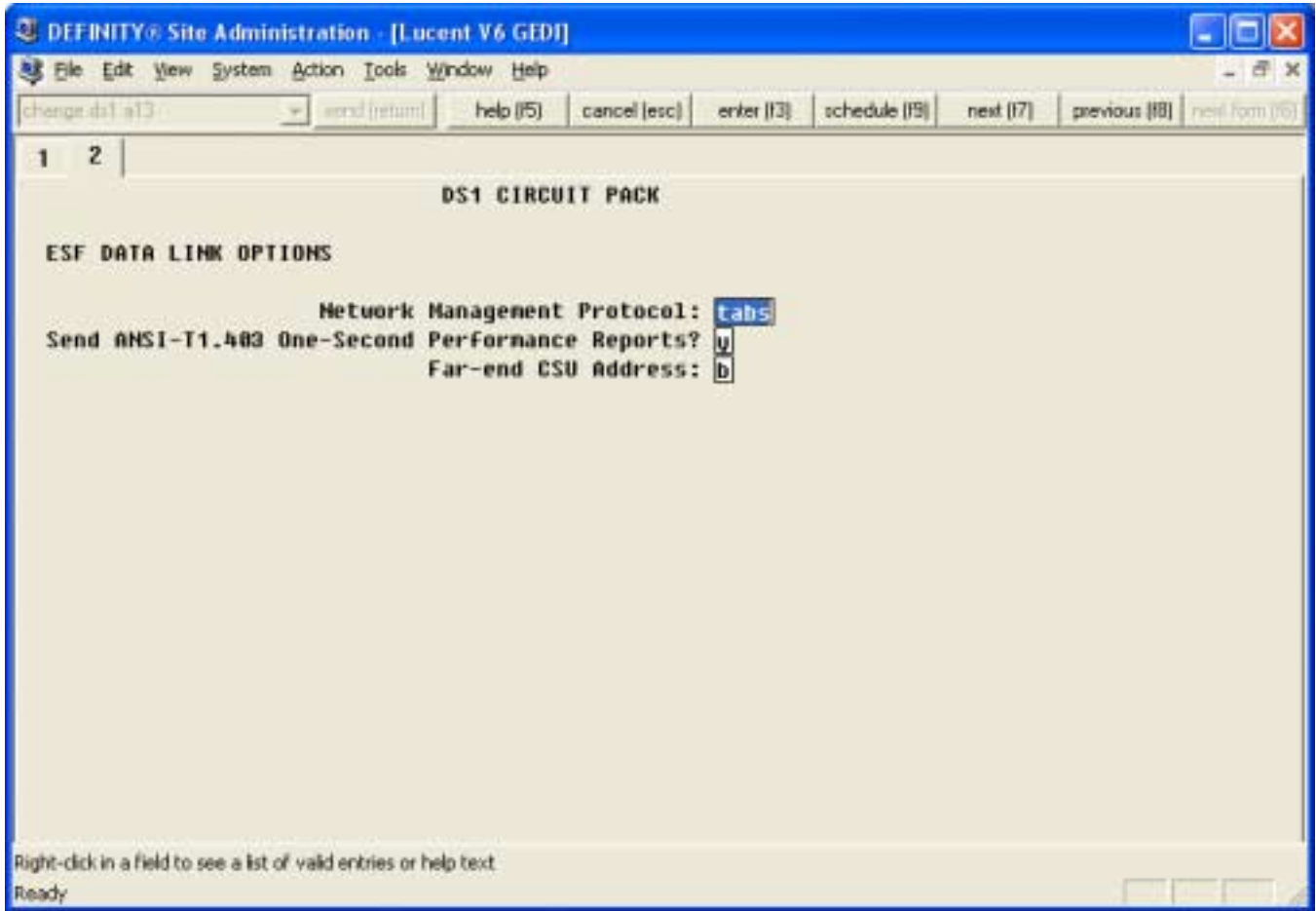
DS1 CIRCUIT PACK

Location:	01A13	Name:	T1 -CAS
Bit Rate:	1.544	Line Coding:	b8zs
Line Compensation:	1	Framing Mode:	esf
Signaling Mode:	robbed-bit		

Interface Companding:	mulaw
Idle Code:	11111111

Slip Detection?	<input checked="" type="checkbox"/>	Near-end CSU Type:	other
-----------------	-------------------------------------	--------------------	-------

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





Trunk Group (Wink-Start signaling)

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File Edit View System Action Tools Window Help

change-trunk-group 13 send (return) help (F5) cancel (esc) enter (F3) schedule (F9) next (F7) previous (F8) next form (F6)

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

TRUNK GROUP

Group Number: 13 Group Type: tandem CDR Reports:
Group Name: T1 CAS COR: 1 TN: 1 TAC: 613
Direction: two-way Outgoing Display? Trunk Signaling Type:
Dial Access? Busy Threshold: 99 Night Service:
Queue Length: 0 Incoming Destination:
Conn Type: voice

TRUNK PARAMETERS

Trunk Type (in/out): wink/wink Incoming Rotary Timeout(sec):
Outgoing Dial Type: tone Incoming Dial Type: tone
Wink Timer(msec): 300 Disconnect Timing(msec):
Digit Treatment: 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



DEFINITY® Site Administration - [Lucent V6 GED]

File Edit View System Action Tools Window Help

change-trunk-group 1.1 | end (return) | help (F5) | cancel (esc) | enter (F3) | schedule (F9) | next (F7) | previous (F8) | next form (F6)

1 2 3 4 5 6 7 8 9 10 11

TRUNK FEATURES

ACA Assignment? Measured: Maintenance Tests?

Data Restriction? Glare Handling:

Used for DCS? Hop Dgt?

Suppress # Outpulsing? Seize When Maintenance Busy:

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

Per Call CPN Unblocking Code:

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

Ready



DEFINITY® Site Administration - [Lucent V6 GED]

File Edit View System Action Tools Window Help

change-trunk-group 1.1 | end (return) | help (F5) | cancel (esc) | enter (F3) | schedule (F9) | next (F7) | previous (F8) | next form (F6)

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
100% Hz Loss:	-2	21	-2	21
	-Dev	+Dev	-Dev	+Dev
40% Hz Loss:	9	9	9	9
280% 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?

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

Ready



DEFINITY® Site Administration - [Lucent V6 GED]

File Edit View System Action Tools Window Help

change-trunk-group 1.1 | end (return) | help (F5) | cancel (esc) | enter (F3) | schedule (F9) | next (F7) | previous (F8) | next form (F6)

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

TRUNK GROUP

ADMINISTRABLE TIMERS

Incoming Disconnect(nsec):	500	Outgoing Disconnect(nsec):	500
Incoming Dial Guard(nsec):	70	Outgoing Dial Guard(nsec):	1600
Incoming Glare Guard(nsec):	1500	Outgoing Glare Guard(nsec):	1500

Programmed Dial Pause(nsec):	1500	Outgoing Seizure Response(sec):	5
		Disconnect Signal Error(sec):	240
		Incoming Incomplete Dial Alarm(sec):	255

END TO END SIGNALING

Tone(msec):	350	Pause(nsec):	150
-------------	-----	--------------	-----

OUTPULSING INFORMATION

PPS:	10	Make(nsec):	40	Break(nsec):	60
------	----	-------------	----	--------------	----

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

Ready



DEFINITY® Site Administration - [Lucent V6 GED]

File Edit View System Action Tools Window Help

change-trunk-group 1.1 end (return) help (F5) cancel (esc) enter (F3) schedule (F9) next (F7) previous (F8) next form (F6)

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

TRUNK GROUP

Administered Members (min/max): 1/2
Total Administered Members: 2

GROUP MEMBER ASSIGNMENTS

	Port	Code	Sfx	Name	Night	Node	Type	Ans Delay
1:	01A1301	TN464	F			e&n	t1-stan	
2:	01A1302	TN464	F			e&n	t1-stan	
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



Trunk Group for Delay-Dial Signaling

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File Edit View System Action Tools Window Help

change trunk group 13 send (return) help (F5) cancel (esc) enter (F3) schedule (F9) next (F7) previous (F8) next form (F6)

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

TRUNK GROUP

Group Number: 13 Group Type: tandem CDR Reports:
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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



DEFINITY® Site Administration - [Lucent V6 GEDJ]

File Edit View System Action Tools Window Help

change route pattern 13 send (return) help (F5) cancel (esc) enter (13) schedule (F9) next (17) previous (18) next form (F6)

1

Pattern Number: 13

Grp. No.	FRL	NPA	Pfx	Hop	Toll	No. Del	Inserted	IXC
	0	1	2	3	4	5	6	
1:	0	408		2		3	408522	user
2:								user
3:								user
4:								user
5:								user
6:								user

Grp. No.	BCC VALUE					TSC	CA-TSC	ITC	BCIE	Service/Feature	Numbering Format	LAR
	0	1	2	3	4	Request						
1:	y	y	y	y	n	y	none	rest				none
2:	y	y	y	y	n	n		rest				none
3:	y	y	y	y	n	n		rest				none
4:	y	y	y	y	n	n		rest				none
5:	y	y	y	y	n	n		rest				none
6:	y	y	y	y	n	n		rest				none

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

Ready



Configuring Cisco CallManager

3640 -MGCP Gateway Configuration

The screenshot shows the Cisco CallManager Administration web interface in Microsoft Internet Explorer. The browser address bar shows the URL: `http://klingon/CCMAdmin/mgcpconfig.asp?MGCP={B9EB7EDF-42B6-47F9-A308-D2144F20C566}`. The page title is "Cisco CallManager Administration - MGCP Configuration".

The main content area has a navigation menu with "System", "Route Plan", "Service", "Feature", "Device", "User", "Application", and "Help". Below the menu is the "Cisco CallManager Administration" header with the Cisco Systems logo.

MGCP Configuration

[Back to Find/List Gateways](#)

Product: Cisco 364X
MGCP : 3640_B_MGCP

Status: Ready

Update Delete Reset Gateway Cancel Changes

MGCP Domain Name*

Description

Cisco CallManager Group*

Installed Voice Interface Cards	Endpoint Identifiers
Module in Slot 0 <input type="text" value="< None >"/>	
Module in Slot 1 <input type="text" value="NM-HDV"/>	
Sub-Unit 0 <input type="text" value="VVIC-2MFT-T1"/>	(1/0) (1/1)
Module in Slot 2 <input type="text" value="NM-2V"/>	
Sub-Unit 0 <input type="text" value="VIC-2FXS"/>	(2/0/0) (2/0/1)
Sub-Unit 1 <input type="text" value="< None >"/>	
Module in Slot 3 <input type="text" value="< None >"/>	

Done Local intranet



Cisco CallManager 3.2 Administration - MGCP Configuration - Microsoft Internet Explorer

Address: http://kingon/CCMAdmin/mgcpconfig.asp?MGCP={B9EB7EDF-42B6-47F9-A308-D2144F20C566}

Update Delete Reset Gateway Cancel Changes

MGCP Domain Name* 3640_B_MGCP

Description 3640 MGCP Regression Gateway

Cisco CallManager Group* Default

Installed Voice Interface Cards		Endpoint Identifiers	
Module in Slot 0	< None >		
Module in Slot 1	NM-HDV		
	Sub-Unit 0	VVIC-2MFT-T1	(1/0) ricks (1/1)
Module in Slot 2	NM-2V		
	Sub-Unit 0	VIC-2FXS	(2/0/0) ports (2/0/1)
	Sub-Unit 1	< None >	
Module in Slot 3	< None >		

Product Specific Configuration

Global ISDN Switch Type NI2

Switchback Timing* Graceful

Switchback uptime-delay (min) 10

Switchback schedule (hh:mm) 12:00

* indicates required item

[Back to Find/List Gateways](#)



Digital Access T1-CAS Configuration

Cisco CallManager 3.2 Administration - Gateway Configuration - Microsoft Internet Explorer

Address: http://kingon/CCMAdmin/gatewayconfig.asp?pkid={64BBB71C-87D2-4FA6-A3B3-78DA9DC5CB27}&Action=Update&Type=52&MGCP={B9EB7EDF-42B6-47F9-A308-D2144F20C566}

System Route Plan Service Feature Device User Application Help

Cisco CallManager Administration
For Cisco IP Telephony Solutions

Gateway Configuration [Back to MGCP Configuration](#) [Back to Find/List Gateways](#)

Ports

- <Add a New Port>
- Port 1
- Port 2
- Port 3
- Port 4
- Port 5
- Port 6
- Port 7
- Port 8
- Port 9
- Port 10
- Port 11
- Port 12
- Port 13
- Port 14
- Port 15
- Port 16
- Port 17

Product : Cisco 364X
Gateway : S1/DS1-0@3640_B_MGCP
Device Protocol: Digital Access T1
Registration: Not Registered
IP Address: 10.1.1.73

Status: Ready

End-Point Name*

Description

Device Pool*

Media Resource Group List

Network Hold Audio Source

User Hold Audio Source

Calling Search Space

Location

Load Information

Port Selection Order*

Digit Plan*

Done Local intranet



Cisco CallManager 3.2 Administration - Gateway Configuration - Microsoft Internet Explorer

Address <http://klingon/CCMAdmin/gatewayconfig.asp?pkid={64BBB71C-87D2-4FA6-A3B3-78DA9DC5CB27}&Action=Update&Type=52&MGCP={B9EB7EDF-42B6-47F9-A308-D2144F20C566}>

Port 5	End-Point Name*	S1/DS1-0@3640_B_MGCP
Port 6	Description	S1/DS1-0@3640_B_MGCP
Port 7	Device Pool*	Default
Port 8	Media Resource Group List	< None >
Port 9	Network Hold Audio Source	< None >
Port 10	User Hold Audio Source	< None >
Port 11	Calling Search Space	< None >
Port 12	Location	< None >
Port 13	Load Information	
Port 14	Port Selection Order*	Top Down
Port 15	Digit Sending*	DTMF
Port 16	Network Locale	United States

Product Specific Configuration

Port 17	Line Coding*	B8ZS
Port 18	Framing*	ESF
Port 19	Clock*	External

* indicates required item

[Back to MGCP Configuration](#)
[Back to Find/List Gateways](#)



T1-CAS Port Configuration

Cisco CallManager 3.2 Administration - Port Configuration - Microsoft Internet Explo...

Port Configuration

S1/DS1-0@3640_B_MGCP Port Type: E&M Port Number: 1
Status: Ready

New Update Update and Close Delete Cancel Changes

Port Details

Port Direction*	Bothways
Calling Party Selection*	Originator
Caller ID Type*	ANI
Caller ID DN	
Prefix DN	
Num Digits*	4
Expected Digits*	4

Product Specific Configuration

Signaling Type*	Wink Start
-----------------	------------

* indicates required item

Done Local intranet



Route Pattern Configuration

Cisco CallManager 3.2 Administration - Route Pattern Configuration - Microsoft Internet Explorer

Address: http://kingon/CCMAdmin/routepatternconfig.asp?pkid={C71AEF17-7B41-4B1F-90FB-FA2FE360B869}

System Route Plan Service Feature Device User Application Help

Cisco CallManager Administration
For Cisco IP Telephony Solutions

CISCO SYSTEMS

Route Pattern Configuration

[Add a New Route Pattern](#)
[Back to Find/List Route Patterns](#)

Route Pattern: 2004
Status: Ready
Note: Any update to this route pattern automatically resets the associated gateway/route list

Copy Update Delete Cancel Changes

Pattern Definition

Route Pattern*	<input type="text" value="2XXX"/>
Partition	< None >
Numbering Plan*	North American Numbering Plan
Route Filter	< None >
Gateway/Route List*	S1/DS1-0@3640_B_MGCP (Edit)
Route Option	<input checked="" type="radio"/> Route this pattern <input type="radio"/> Block this pattern
<input checked="" type="checkbox"/> Provide Outside Dial Tone	<input type="checkbox"/> Urgent Priority

Calling Party Transformations

Use Calling Party's External Phone Number Mask

Calling Party Transform Mask

Prefix Digits (Outgoing Calls)

Called Party Transformations

Discard Digits

Done Local intranet



Configuring the Cisco 3640 Router

```
3640_B_mgcp#sh ver
Cisco Internetwork Operating System Software
IOS (tm) 3600 Software (C3640-IS-M), Version 12.2(10.8)PI5, MAINTENANCE INTERIM
SOFTWARE
Synched to technology version 12.2(10.8u)T
TAC Support: http://www.cisco.com/tac
Copyright (c) 1986-2002 by cisco Systems, Inc.
Compiled Fri 07-Jun-02 17:40 by cmong
Image text-base: 0x60008930, data-base: 0x61924000
```

```
ROM: System Bootstrap, Version 11.1(17)AA, EARLY DEPLOYMENT RELEASE SOFTWARE (fc
2)
ROM: 3600 Software (C3640-IS-M), Version 12.2(10.8)PI5, MAINTENANCE INTERIM SOF
TWARE
```

```
3640_B_mgcp uptime is 1 week, 1 day, 21 hours, 31 minutes
System returned to ROM by reload
System image file is "slot0:c3640-is-mz.122-10.8.PI5"
```

```
cisco 3640 (R4700) processor (revision 0x00) with 59392K/6144K bytes of memory.
Processor board ID 07658970
R4700 CPU at 100Mhz, Implementation 33, Rev 1.0
Bridging software.
X.25 software, Version 3.0.0.
SuperLAT software (copyright 1990 by Meridian Technology Corp).
Primary Rate ISDN software, Version 1.1.
2 Ethernet/IEEE 802.3 interface(s)
2 Channelized T1/PRI port(s)
2 Voice FXS interface(s)
DRAM configuration is 64 bits wide with parity disabled.
125K bytes of non-volatile configuration memory.
8192K bytes of processor board System flash (Read/Write)
16384K bytes of processor board PCMCIA Slot1 flash (Read/Write)
```

```
Configuration register is 0x0
```

```
3640_B_mgcp#sh run
Building configuration...
```

```
Current configuration : 1580 bytes
```

```
!
version 12.2
no parser cache
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
no service dhcp
!
hostname 3640_B_mgcp
!
!
voice-card 1
!
ip subnet-zero
!
!
no ip domain lookup
!
!
!
voice call carrier capacity active
!
!
!
!
```



```
!  
!  
!  
!  
fax interface-type fax-mail  
mta receive maximum-recipients 0  
ccm-manager mgcp  
ccm-manager music-on-hold  
ccm-manager config server 10.1.1.2  
ccm-manager config  
!  
controller T1 1/0  
  framing esf  
  linecode b8zs  
  ds0-group 1 timeslots 1-24 type e&m-wink-start  
!  
controller T1 1/1  
  framing sf  
  linecode ami  
!  
!  
!  
interface Ethernet0/0  
  ip address 10.1.1.78 255.255.255.0  
  half-duplex  
  no cdp enable  
!  
interface Ethernet0/1  
  no ip address  
  shutdown  
  half-duplex  
  no cdp enable  
!  
ip classless  
ip http server  
ip pim bidir-enable  
!  
!  
!  
call rsvp-sync  
!  
voice-port 1/0:1  
!  
voice-port 2/0/0  
!  
voice-port 2/0/1  
!  
mgcp  
mgcp call-agent 10.1.1.2 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 modem passthrough voip mode nse  
mgcp package-capability rtp-package  
mgcp package-capability sst-package  
no mgcp timer receive-rtcp  
mgcp sdp simple  
!  
mgcp profile default  
!  
dial-peer cor custom  
!  
!  
!  
dial-peer voice 201 pots  
  application mgcpapp  
  port 2/0/1  
!  
dial-peer voice 200 pots  
  application mgcpapp  
  port 2/0/0
```



```
!  
dial-peer voice 300 pots  
  application mgcpapp  
!  
dial-peer voice 101 pots  
  application mgcpapp  
!  
dial-peer voice 999101 pots  
  application mgcpapp  
  port 1/0:1  
!  
!  
line con 0  
line aux 0  
line vty 0 4  
  login  
!  
!  
end
```

```
3640_B_mgcp#sh diag  
Slot 0:
```

```
  Combo 2E, 2W Port adapter, 4 ports  
  Port adapter is analyzed  
  Port adapter insertion time unknown  
  EEPROM contents at hardware discovery:  
  Hardware revision 1.2          Board revision A0  
  Serial number      6986074     Part number      800-01171-04  
  FRU Part Number:  NM-2E2W=  
  
  Test history      0x0          RMA number      00-00-00  
  EEPROM format version 1  
  EEPROM contents (hex):  
    0x20: 01 1E 01 02 00 6A 99 5A 50 04 93 04 00 00 00 00  
    0x30: 50 00 00 00 98 02 14 17 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 00 04 00  
    0x30: 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  
    0x50: 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  
    0x70: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
```

```
WIC Slot 0:
```

```
  T1 (2 Port) Multi-Flex Trunk (Drop&Insert) WAN Daughter Card  
  Hardware revision 1.0          Board revision B0  
  Serial number      28355670     Part number      800-04614-03  
  Test history      0x0          RMA number      00-00-00  
  Connector type    PCI  
  EEPROM format version 1  
  EEPROM contents (hex):  
    0x20: 01 24 01 00 01 B0 AC 56 50 12 06 03 00 00 00 00  
    0x30: 58 00 00 00 02 05 31 00 FF FF FF FF FF FF FF FF
```



HDV firmware: Compiled Thu 27-Dec-01 13:17 by miriyala
HDV memory size 524280 heap free 197225

Slot 2:

4 PORT Voice PM for MARS Port adapter
Port adapter is analyzed
Port adapter insertion time unknown
EEPROM contents at hardware discovery:
Hardware revision 1.0 Board revision B0
Serial number 7968450 Part number 800-02491-01
FRU Part Number: NM-2V=

Test history 0x0 RMA number 00-00-00
EEPROM format version 1
EEPROM contents (hex):
0x20: 01 65 01 00 00 79 96 C2 50 09 BB 01 00 00 00 00
0x30: 58 00 00 00 98 04 01 17 FF FF FF FF FF FF FF FF

WIC Slot 0:

FXS Voice daughter card (2 port)
Hardware revision 1.1 Board revision B0
Serial number 24298176 Part number 800-02493-02
Test history 0x0 RMA number 00-00-00
Connector type Wan Module
EEPROM format version 1
EEPROM contents (hex):
0x20: 01 0E 01 01 01 72 C2 C0 50 09 BD 02 00 00 00 00
0x30: 58 00 00 00 01 02 05 01 FF FF FF FF FF FF FF FF

3640_B_mgcp#sh controller t1 1/0

T1 1/0 is up.

Applique type is Channelized T1
Cablelength is long gain36 0db
No alarms detected.

alarm-trigger is not set

Version info Firmware: 20020306, FPGA: 11

Framing is ESF, Line Code is B8ZS, Clock Source is Line.

Data in current interval (7 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

3640_B_mgcp#

Important Information

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