

Nortel CS1000 Succession 4.0 with Cisco Unified Border Element for H323-to-H323 Calls

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Introduction

- This is an application note for connectivity of Nortel CS1000 Succession 4.0 with Cisco Unified Border Element via H.323 (10/100baseT).
- The network topology diagram (Figure 1) shows the test setup for end-to-end interoperability with the Cisco Unified Border Element (CUBE) connected to the IP PBX via H.323 (10/100baseT). Connectivity is achieved by using the H.323 protocol.
- This Application Note uses the c3845 IOS-voice-gateway, however other Cisco voice gateways are also an option to use since CUBE implementation does not depend on the platform. Here is a list of Cisco Products capable of CUBE functionality:

[Cisco 2800 Series Integrated Services Routers](#)

[Cisco 3800 Series Integrated Services Routers](#)

[Cisco AS5350XM Universal Gateway](#)

[Cisco AS5400XM Universal Gateway](#)



Network Topology

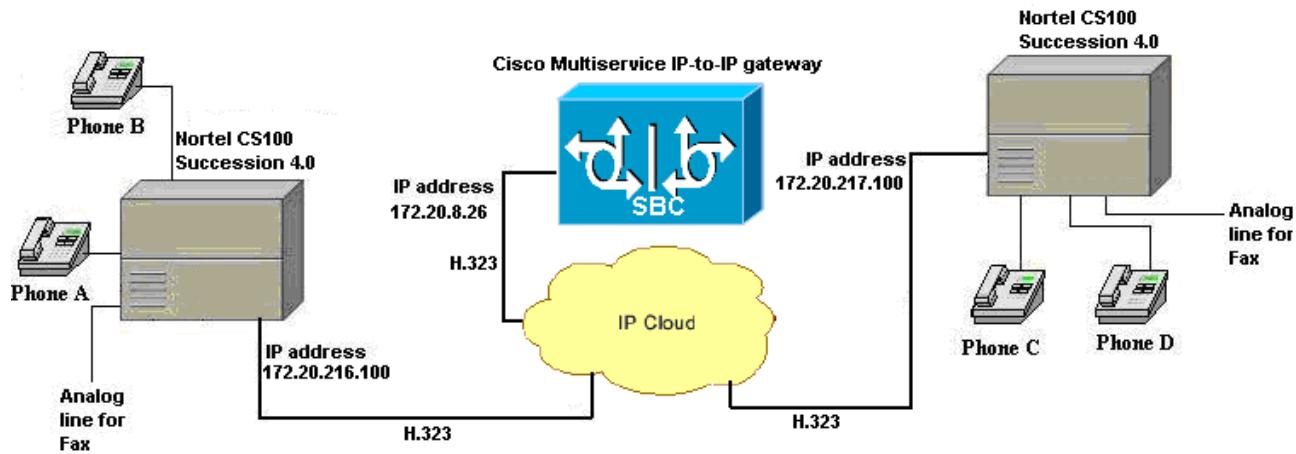


Figure 1. Network Topology or Test Setup

Limitations

- Connected Name is not presented to the originating (calling) Phone display. CUBE relays the "Connected Number" info in a method not understood by Nortel CS1000 PBX
- Basic Call using G.726 codec is not accepted on Nortel PBX.
- Call Transfer Network/External (Trombone), When phone A calls Phone C and Phone C xfers call to Phone B, call is dropped. Nortel PBX drops call.
- Call Conference Network/External , When Phone A calls Phone C and Phone C attempts to conference in Phone B, call is dropped. Nortel PBX drops call.
- Call Forward All and No Reply Network/External, when Phone C is set to CFA/B to Phone B and Phone A calls Phone C, the call is dropped. Nortel PBX drops call.
- Fax T.38 did not interoperate, when attempted to use T.38 for fax transmission the fax was unsuccessful. H245 terminalCapabilities negotiations were unsuccessful between the CUBE and the Nortel CS1000
- DTMF in-band signaling did not interoperate. Nortel PBX did not play in-band DTMF tones



System Components

Hardware Requirements

Cisco equipment

- Cisco 3845 (Cisco 3800 family routers)
- Cisco Catalyst 6500

Nortel equipment

- Nortel Communication System 1000 (which includes Call Server, Signaling Server and Media gateway)

Software Requirements

- PBX Software: Nortel Succession 4.0 Release
- Cisco IOS Release: c3845-ipvoice_ivs-mz.124-9.T

Features

Features Supported

- Basic call using G711u and A law, G729 and G723 codecs
- Local Call Transfer blind and Local Call Transfer supervised
- Local Call Conference
- Call on-hold
- Local Call Forward Busy and All
- Call Forward no reply (both local and external)
- Out-of-band DTMF signaling (H.245)
- FAX integrity (only using G.711)

Features Not Supported

- Connected Name
- Call Transfer Nework/External (Trombone)
- Call Conference Network/External
- Call Forward All and No Reply Network/External
- Fax T.38
- DTMF in-band



Configuration

Configuration Sequence and Tasks

Configuration Menus and Commands

Nortel Configuration

Call Server Setup via SSC card console

1. LD 17 – Configure the D-channel (signaling channel) between the Call Server and the Signaling Server
2. LD 97 – Configure the Super-loop for the Virtual Trunks
3. LD 14 – Configure the H.323 Virtual Trunks to the Signaling Server
4. LD 14 – Configure the Virtual Gateway Trunks
5. LD 16 – Configure the H.323 route
6. LD 86 – Configure the Route List Block for the Virtual Trunk route
7. LD 87 – Configure CDP steering codes
8. LD 11 – Configure Digital Stations

Signaling Server Setup via the Nortel Element Manager

1. Configure the Zones
2. Configure a new IP Telephony Node summary
3. Configure the Node section
4. Configure the VGW and IP phone codec profile section
5. Configure the Quality of Service (QoS) section
6. Configure LAN Configuration section
7. Configure the H323 GW Setting section
8. Configure the Card section for the MC-32 VGMC card section
9. Configure the Signaling Server section

NRS (Network Routing Server)

10. Configure the System Wide Settings
11. Configure the NRS Server Settings
12. Configure a Service Domain
13. Configure a L1 Domain (UDP)
14. Configure a L0 Domain (CDP)
15. Configure a H.323 gateway
16. Configure the Routing Entries

Call Server Setup:

1. LD 17 – Configure the D-channel (signaling channel) between the Call Server and the Signaling Server

```
>ld 22  
PT2000
```

```
REQ prt
```

```
TYPE adan dch 3
```

```
ADAN DCH 3
```

```
CTYP DCIP
```

```
DES IP_Trunk_DCH
```

```
USR ISLD
```

```
ISLM 4000
```

```
SSRC 1800
```



OTBF 32
NASA NO
IFC SL1
CNEG 1
RLS ID 4
RCAP ND2
MBGA NO
H323
OVLR NO
OVLS NO

2. LD 97 – Configure the Super-loop for the Virtual Trunks

```
>ld 97
SCSYS000
MEM AVAIL: (U/P): 2854769  USED U P: 182454 59352  TOT: 3096575
DISK RECS AVAIL: 1152
REQ prt
TYPE supl
SUPL

SUPL SUPT SLOT XPEC0  XPEC1

000 STD LEFT 01 0 1  ----
004 STD LEFT 02 0 1  ----
008 STD LEFT 03 0 1  ----
012 STD LEFT 04 0 1  ----
016 STD LEFT 05 0 1  ----
032 STD LEFT 06 0 3  ----
036 STD LEFT 07 0 3  ----
040 STD LEFT 08 0 3  ----
044 STD LEFT 10 0 3  ----
048 STD LEFT 09 0 3  ----
064 STD LEFT 11 0 3  ----
068 STD LEFT 12 0 3  ----
072 STD LEFT 13 0 3  ----
096 VIRTUAL CARDS 61 - 64  81 - 84
100 VIRTUAL CARDS 65 - 68  85 - 88
128 STD LEFT 32 0 1  33 2 3
132 STD LEFT 34 0 1  35 2 3
136 STD LEFT 36 0 1  37 2 3
140 STD LEFT 38 0 1  39 2 3
144 STD LEFT 40 0 1  41 2 3
148 STD LEFT 42 0 1  43 2 3
152 STD LEFT 44 0 1  45 2 3
156 STD LEFT 46 0 1  47 2 3
```

3. LD 14 – Configure the H.323 Virtual Trunks to the Signaling Server (One trunk = one line connection)

```
>ld 20
REQ: prt
TYPE: tnb
TN 63 0 0 0
DATE
```

➔ **H323 Virtual trunk to Signaling Server**



PAGE
DES

DES H323_IP_VTRK
TN 063 0 00 00 VIRTUAL
TYPE IPTI
CDEN 8D
CUST 0
XTRK VTRK
ZONE 000
LDOP BOP
TIMP 600
BIMP 600
AUTO_BIMP NO
TRK ANLG
NCOS 0
RTMB 11 1
CHID 101
TGAR 1
STRI/STRO IMM IMM
SUPN YES
AST NO
IAPG 0
CLS CTD DTN WTA LPR APN THFD
P10 NTC MID
TKID
AACR NO
DATE 25 FEB 2005

4. LD 14 – Configure the Virtual Gateway Trunks (upto 32 trunks per MC-32)

```
>ld 20
REQ: prt
TYPE: tnb
TN 3
CDEN
CUST
DATE
PAGE
DES

DES
TN 003 0 00 00
TYPE VGW
CUST 0
XTRK MC32
ZONE 000

DES
TN 003 0 00 01
TYPE VGW
CUST 0
XTRK MC32
ZONE 000
```



5. LD 16 – Configure the H.323 route

```
>ld 21
PT1000

REQ: prt
TYPE: rdb
CUST 0
ROUT 11

TYPE RDB
CUST 00
DMOD
ROUT 11
DES H323_TIE
TKTP TIE
NPID_TBL_NUM 0
ESN NO
CNVT NO
SAT NO
RCLS EXT
VTRK YES
ZONE 000
PCID H323
CRID NO
NODE 101
DTRK NO
ISDN YES
MODE ISLD
DCH 3
IFC SL1
PNI 00001
NCNA YES
NCRD YES
TRO NO
FALT NO
CTYP UKWN
INAC NO
ISAR NO
DAPC NO
PTYP ATT
AUTO NO
DNIS NO
DCDR NO
ICOG IAO
SRCH LIN
TRMB YES
STEP
ACOD 2311
TCPP NO
TARG 01
CLEN 1
BILN NO
```



OABS
INST
ANTK
SIGO STD
STYP SDAT
ICIS YES
TIMR ICF 512
OGF 512
EOD 13952
DSI 34944
NRD 10112
DDL 70
ODT 4096
RGV 640
GRD 896
SFB 3
NBS 2048
NBL 4096

IENB 5

PAGE 002

TFD 0
VSS 0
VGD 6
SST 5 0
NEDC ORG
FEDC ORG
CPDC NO
DLTN NO
HOLD 02 02 40
SEIZ 02 02
SVFL 02 02
DRNG NO
CDR NO
VRAT NO
MUS NO
MANO NO
FRL 0 0
FRL 1 0
FRL 2 0
FRL 3 0
FRL 4 0
FRL 5 0
FRL 6 0
FRL 7 0
OHQ NO
OHQT 00
CBQ NO
AUTH NO
TTBL 0
ATAN NO



OHTD NO
PLEV 2
ALRM NO
ART 0
SGRP 0
AACR NO

6. LD 86 – Configure the Route List Block for the Virtual Trunk route

>ld 86
ESN000

MEM AVAIL: (U/P): 2854769 USED U P: 182454 59352 TOT: 3096575
DISK RECS AVAIL: 1152
REQ prt
CUST 0
FEAT rlb
RLI 11

RLI 11
ENTR 0
LTER NO
ROUT 11
TOD 0 ON 1 ON 2 ON 3 ON
 4 ON 5 ON 6 ON 7 ON
VNS NO
SCNV NO
CNV NO
EXP NO
FRL 0
DMI 0
ISDM 0
FCI 0
FSNI 0
SBOC NRR
IDBB DBD
IOHQ NO
OHQ NO
CBQ NO

ISET 0
NALT 5
MFRL 0
OVLL 1

7. LD 87 – Configure CDP steering codes

>ld 87
ESN000

MEM AVAIL: (U/P): 2828167 USED U P: 200856 67552 TOT: 3096575
DISK RECS AVAIL: 1152
REQ prt
CUST 0



FEAT dsc

ESN009
FEAT cdp
TYPE dsc
DSC 533
DSC 533 =====→ Dial 533 number pattern goes out H.323
FLEN 0
DSP LSC
RLI 11 =====→ H.323 Trunk
NPA
NXN

MEM AVAIL: (U/P): 2828167 USED U P: 200856 67552 TOT: 3096575
DISK RECS AVAIL: 1152
REQ prt
CUST 0
FEAT cdp
TYPE dsc
DSC 54
DSC 54 =====→ Dial 533 number pattern goes out H.323
FLEN 0
DSP LSC
RLI 11 =====→ H.323 Trunk
NPA
NXN

17. LD 11 – Configure Digital Stations (Phones)

DES CS101A
TN 001 0 00 08
TYPE 2616
CDEN 8D
CUST 0
AOM 0
FDN 6001
TGAR 1
LDN NO
NCOS 0
SGRP 0
RNPG 0
SCI 0
SSU
XLST
CLS CTD FBA WTA LPR MTD FNA HTA ADD HFD
MWA LMPN RMMD SMWD AAD IMD XHD IRD NID OLD VCE DRG1
POD DSX VMD CMSD SLKD CCSD SWD LND CNDA
CFTA SFD MRD DDV CNID CDCA MSID DAPA BFED RCBD
ICDD CDMD LLCN MCTD CLBD AUTU
GPUD DPUD DNDA CFXA ARHD CLTD ASCD
CPFA CPTA ABDD CFHD FICD NAID BUZZ AGRD MOAD AHD



DDGA NAMA
DRDD EXR0
USRD ULAD RTDD RBDD RBHD PGND OCBD FLXD FTTC DNDY DNO3 MCBN CDMR
CPND_LANG ENG
RCO 0
EFD 6001
HUNT 6001
EHT 6001
LHK 0
PLEV 02
CSDN
AST
IAPG 0
AACs NO
ITNA NO
DGRP
MLWU_LANG 0
DNDR 0
KEY 00 SCR 2332 0 MARP
CPND
NAME ZEUS_2332
XPLN 9
DISPLAY_FMT FIRST, LAST
01
02
03 CFW 4 4103
04 AO6
05 TRN
06
07
08
09
10
11
12
13
14
15 RGA
DATE 7 MAR 2006

DES CS101A
TN 001 0 00 09
TYPE 2616
CDEN 8D
CUST 0
AOM 0
FDN 6001
TGAR 1
LDN NO
NCOS 0
SGRP 0
RNPG 0
SCI 0



SSU
XLST
CLS CTD FBA WTA LPR MTD FNA HTA ADD HFD
MWA LMPN RMMD SMWD AAD IMD XHD IRD NID OLD VCE DRG1
POD DSX VMD CMSD SLKD CCSD SWD LND CNDA
CFTA SFD MRD DDV CNID CDCA MSID DAPA BFED RCBD
ICDD CDMD LLCN MCTD CLBD AUTU
GPUD DPUD DNDA CFXA ARHD CLTD ASCD
CPFA CPTA ABDD CFHD FICD NAID BUZZ AGRD MOAD AHD
DDGA NAMA
DRDD EXR0
USRD ULAD RTDD RBDD RBHD PGND OCBD FLXD FTTC DNDY DNO3 MCBN CDMR
CPND_LANG ENG
RCO 0
EFD 6001
HUNT 6001
EHT 6001
LHK 0
PLEV 02
CSDN
AST
IAPG 0
AACs NO
ITNA NO
DGRP
MLWU_LANG 0
DNDR 0
KEY 00 SCR 2333 0 MARP
CPND
NAME ZEUS_2333
XPLN 9
DISPLAY_FMT FIRST, LAST
01
02
03 CFW 4 5332
04 AO6
05 TRN
06
07
08
09
10
11
12
13
14
15 RGA
DATE 7 MAR 2006
NACT

Signaling Server Setup:



Configure the Zones

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NORTEL NETWORKS

System Status Call Server IP Telephony

Configuration Call Server IP Telephony

Network Numbering Plan Call Server Network Routing Service

Software Upgrade Patching System Utility Administration Support Tools Logout

Zone Basic Property and Bandwidth Management

Site: 172.20.216.101 > Configuration > Call Server Configuration > Zone List > Zone 0 >

Input Description	Input Value
Zone Number (ZONE):	<input type="text" value="0"/>
Intrazone Bandwidth (INTRA_BW):	<input type="text" value="10000"/>
Intrazone Strategy (INTRA_STGY):	<input type="button" value="Best Quality (BO)"/>
Interzone Bandwidth (INTER_BW):	<input type="text" value="10000"/>
Interzone Strategy (INTER_STGY):	<input type="button" value="Best Quality (BO)"/>
Resource Type (RES_TYPE):	<input type="button" value="Shared (SHARED)"/>
Branch Office Support (ZBRN):	<input type="checkbox"/>
Description (ZDES):	<input type="text"/>

Submit Refresh Delete Cancel

Done Internet

start CCM4-1_NortelSucc... C:\WINDOWS\System... Network Connections Tera Term - 172.20... Internet Explorer 5:33 PM Friday 4/22/2005

Configure a new IP Telephony Node summary



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NORTEL NETWORKS

Site: 172.20.218.101 > Configuration > IP Telephony Configuration >

Node Summary

New Node [] to Add Import Node Files

Node: 101 Node IP: 172.20.216.100 Edit Transfer / Status Delete

Voice LAN (TLAN) IP address TN

Signaling Server 172.20.216.103

Pentium Card 172.20.216.102 3 0 VGW Channels

Configure the Node section



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NORTEL NETWORKS

Site: 172.20.218.101 > Configuration > IP Telephony Configuration > Node Summary > IP Telephony: Node ID 101 >

Edit

Save and Transfer Cancel

Node

Node ID 101

Voice LAN (TLAN) Node IP address 172.20.216.100

Management LAN (ELAN) gateway IP address 172.20.218.1

Management LAN (ELAN) subnet mask 255.255.255.0

Voice LAN (TLAN) subnet mask 255.255.255.0

SNMP Add

VGW and IP phone codec profile

QoS

LAN configuration

SNTP

H323 GW Settings

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Configure the VGW and IP phone codec profile section



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NORTEL NETWORKS

System Status Call Server IP Telephony Configuration Call Server IP Telephony Network Numbering Plan Call Server Network Routing Service Software Upgrade Patching System Utility Administration Support Tools Logout

VGW and IP phone codec profile

Enable Echo canceller	<input checked="" type="checkbox"/>
Echo canceller tail delay	128
Voice activity detection threshold	-17 Range: -20 to +10
Idle noise level	-65 Range: -327 to +327
DTMF Tone detection	<input checked="" type="checkbox"/>
Enable V.21 FAX tone detection	<input checked="" type="checkbox"/>
FAX maximum rate (bps)	14400
FAX playout nominal delay	100 Range: 0 to 300
FAX no activity timeout	20 Range: 10 to 32000
FAX packet size	30
Codec G711	Select <input checked="" type="checkbox"/>
Codec G729A	Select <input checked="" type="checkbox"/>
Codec G723.1	Select <input type="checkbox"/>
Codec T38 FAX	Select <input checked="" type="checkbox"/>
QoS	
LAN configuration	
SNTP	

start C:\WINDOWS\System32\Network Connections Tera Term - 172.20... Internet Explorer 5:38 PM Friday 4/22/2005



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NORTEL NETWORKS

System Status Call Server IP Telephony

Configuration Call Server IP Telephony

Network Numbering Plan Call Server Network Routing Service

Software Upgrade Patching System Utility Administration

Support Tools Logout

Codec G711 Select
Codec Name G711
Voice payload size (ms/frame) 20
Voice playout (jitter buffer) nominal delay 40
Modifications may cause changes to dependent settings
Voice playout (jitter buffer) maximum delay 80
Modifications may cause changes to dependent settings
VAD

Codec G729A Select
Codec Name G729A
Voice payload size (ms/frame) 20
Voice playout (jitter buffer) nominal delay 40
Modifications may cause changes to dependent settings
Voice playout (jitter buffer) maximum delay 80
Modifications may cause changes to dependent settings
VAD

Codec G723.1 Select

Codec T38 FAX Select
Codec Name T38 FAX

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Configure the QoS section



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NORTEL NETWORKS

System Status

- Call Server
- IP Telephony

Configuration

- Call Server
- IP Telephony

Network Numbering Plan

- Call Server
- Network Routing Service

> Software Upgrade

> Patching

> System Utility

> Administration

> Support

> Tools

Logout

Codec

Codec G711	Select <input type="checkbox"/>
Codec G729A	Select <input checked="" type="checkbox"/>
Codec G723.1	Select <input type="checkbox"/>
Codec T38 FAX	Select <input type="checkbox"/>

QoS

Diffserv Codepoint(DSCP) Control packets	40	Range: 0 to 63
Diffserv Codepoint(DSCP) Voice packets	46	Range: 0 to 63
Enable 802.1Q support	<input type="checkbox"/>	
802.1Q Bits value (802.1p)	6	Range: 0 to 7

> LAN configuration

> SNTP

> H323 GW Settings

> Firmware

> SIP GW Settings

> SIP URI Map

> SIP CD Services

> Cards

> Signaling Servers

http://172.20.216.103/cgi/xfiles.cgi?u=cisco&t=25bf63c00000023&h=context/voipsvr/btpcfg&c=GetSingleNode&n=101#ROW_4_cdc_CODEC_

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Configure LAN Configuration section

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NORTEL NETWORKS

System Status

- Call Server
- IP Telephony

Configuration

- Call Server
- IP Telephony

Network Numbering Plan

- Call Server
- Network Routing Service

> Software Upgrade

> Patching

> System Utility

> Administration

> Support

Tools

Logout

Codec T38 FAX

QoS

Diffserv Codepoint(DSCP) Control packets: 40 Range: 0 to 63

Diffserv Codepoint(DSCP) Voice packets: 46 Range: 0 to 63

Enable 802.1Q support:

802.1Q Bits value (802.1p): 6 Range: 0 to 7

LAN configuration

Management LAN (ELAN) configuration

Call server IP address: 172.20.218.101

Survivable Succession Media Gateway IP address: 0.0.0.0

Signaling port: 15000 Range: 1024 to 65535

Broadcast port: 15001 Range: 1024 to 65535

Voice LAN (TLAN) configuration

Signaling port: 5000 Range: 1024 to 65535

Voice port: 5200 Range: 1024 to 65535

Routes

Add

IP address

IP address: 172.20.216.1	Subnet mask: 255.255.255.0
Remove	

Internet

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Configure the H323 GW Setting section

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NORTEL NETWORKS

System Status

- Call Server
- IP Telephony

Configuration

- Call Server
- IP Telephony

Network Numbering Plan

- Call Server
- Network Routing Service

Software Upgrade

Patching

System Utility

Administration

Support

Tools

Logout

SNTP Server

Mode: active

Interval: 256 Range: 1 to 2147483647

Port: 20101

SNTP Client

Mode: passive

Interval: 256 Range: 1 to 2147483647

Port: 20101

SNTP server IP address: 0.0.0.0

H323 GW Settings

Primary gatekeeper IP address: 172.20.216.103

Alternate gatekeeper IP address: 172.20.217.103

Primary Network Connect Server IP address: 172.20.216.103

Primary Network Connect Server Port number: 16500 Range: 1024 to 65535

Alternate Network Connect Server IP address: 172.20.217.103

Alternate Network Connect Server Port number: 16500 Range: 1024 to 65535

Primary Network Connect Server timeout: 10 Range: 1 to 30

Internet

start C:\CCM-1_N... C:\WINDO... Network C... Tera Term... 2 Intern... Helmsman... Adobe Re... 5:42 PM Friday 4/22/2005



Configure the Card section for the MC-32 VGMC card section

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NORTEL NETWORKS

System Status Call Server IP Telephony Configuration Call Server IP Telephony Network Numbering Plan Call Server Network Routing Service Software Upgrade Patching System Utility Administration Support Tools Logout

SIP GW Settings SIP URI Map SIP CD Services Cards Add Remove Card 172.20.218.102 Properties Follower Management LAN (ELAN) IP address 172.20.218.102 Management LAN (ELAN) MAC address 00:11:F9:E4:D0:11 Voice LAN (TLAN) IP address 172.20.216.102 Voice LAN (TLAN) gateway IP address 172.20.216.1 Hostname MG_Node101_3 Card TN 3 Card processor type Succession Media Card H323 ID MG_Node101 Enable set TPS checked System name MG_Node_101 System location Dewey Lab System contact Fred McClintic

Internet

start C:\CCM4-1_N... C:\WINDO... Network C... Tera Term... 2 Intern... Helmsman... Adobe Re... 5:43 PM Friday 4/22/2005



Configure the Signaling Server section

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NORTEL NETWORKS

System Status
Call Server IP Telephony

Configuration
Call Server IP Telephony

Network Numbering Plan
Call Server Network Routing Service

Software Upgrade

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Signaling Servers

Signaling Server 172.20.218.103 Properties

Add **Remove**

Role Leader

Management LAN (ELAN) IP address 172.20.218.103 *

Management LAN (ELAN) MAC address 00:02:b3:f7:3a:86 *

Voice LAN (TLAN) IP address 172.20.216.103 *

Voice LAN (TLAN) gatewayIP address 172.20.216.1

Hostname SS_Node101_Ldr *

H323 ID Gateway_Node101

Enable set TPS

Enable virtual trunk TPS H.323 and SIP

Enable SIP Proxy / Redirect Server

SIP Transport Protocol TCP

Local SIP Port 5060

SIP Domain name birch.com

SIP Gateway Endpoint Name Gateway_Node101

SIP Gateway Authentication Password ****

Enable H323 Gatekeeper

Network Routing Service Role Primary

System name SS_Node101_Ldr



Network Routing Server Setup:

Configure the System Wide Settings

The screenshot shows the NRS Manager interface in Microsoft Internet Explorer. The title bar reads "NRS Manager - Microsoft Internet Explorer provided by Cisco Systems, Inc.". The main content area displays the "System Wide Settings" configuration page for the NORTEL NETWORKS Network Routing Service. The left sidebar lists "NRS Overview" and "NRS Server Settings". The main form contains the following settings:

DB sync interval for alternate [Hours]	24
SIP registration time to live timer [Seconds]	30
H.323 gatekeeper registration time to live timer [Seconds]	30
H.323 alias name	H323NRS101 *
Alternate NRS server is permanent	<input type="checkbox"/>
Auto backup time [HH:MM]	23:59
Auto backup to FTP site enabled	<input type="checkbox"/>
Auto backup FTP site IP address	[Empty]
Auto backup FTP site path	[Empty]
Auto backup FTP username	[Empty]
Auto backup FTP password	[Empty]

A "Save" button is located at the bottom left of the form.

Configure the NRS Server Settings



NRS Manager - Microsoft Internet Explorer provided by Cisco Systems, Inc.

File Edit View Favorites Tools Help

Address http://172.20.216.103/cgi/nrsm.cgi Go

Google Search Web Site popups allowed AutoFill Options

NORTEL NETWORKS Network Routing Service

Home Configuration Tools Reports Administration Help Logout

Location: Home > NRS Server Settings >

NRS Overview

System Wide Settings

=> **NRS Server Settings**

NRS Settings

Host name SS_Node101_Ldr *

Primary IP (TLAN) 172.20.216.103 *

Alternate IP (TLAN) 172.20.217.103 *

Control priority 40

H.323 Gatekeeper Settings

Location request (LRQ) response timeout (Seconds) 3

SIP Server Settings

Mode Redirect

UDP transport enabled

UDP port 5060

UDP maximum transmission unit (MTU) 1500

Save

NRS Manager - Microsoft Internet Explorer provided by Cisco Systems, Inc.

File Edit View Favorites Tools Help

Address http://172.20.216.103/cgi/nrsm.cgi Go

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NORTEL NETWORKS Network Routing Service

Home Configuration Tools Reports Administration Help Logout

SIP Server Settings

Mode Redirect

UDP transport enabled

UDP port 5060

UDP maximum transmission unit (MTU) 1500

TCP transport enabled

TCP port 5060

TCP maximum transmission unit (MTU) 1500

Network Connection Server (NCS) Settings

Primary NCS port 16500

Alternate NCS port 16500

Primary NCS timeout [Seconds] 10

Save

Configure a Service Domain



NRS Manager - Microsoft Internet Explorer provided by Cisco Systems, Inc.

File Edit View Favorites Tools Help

Back Search Favorites Media Options

Address: http://172.20.216.103/cgi/nrsm.cgi Go

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NORTEL NETWORKS Network Routing Service

Home Configuration Tools Reports Administration Active DB view (set Standby DB view) Help Logout

Location: Configuration > Service Domains > View Service Domain Property >

View Service Domain Property

Domain name: birch.com *

Domain description: required service domain

<> Service Domains
L1 Domains (UDP)
L0 Domains (CDP)
Gateway Endpoints
User Endpoints
Routing Entries
Default Routes
Collaborative Servers

* Mandatory field indicator

Internet



Configure a L1 Domain (UDP)

NRS Manager - Microsoft Internet Explorer provided by Cisco Systems, Inc.

File Edit View Favorites Tools Help

Address http://172.20.216.103/cgi/nrsm.cgi

Google Search Web Site popups allowed AutoFill Options

NORTEL NETWORKS Network Routing Service

Home Configuration Tools Reports Administration Help | Logout

View L1 Domain Property (birch.com)

Service Domains
=> L1 Domains (UDP)
L0 Domains (CDP)
Gateway Endpoints
User Endpoints
Routing Entries
Default Routes
Collaborative Servers

Domain name *
Domain description
Endpoint authentication enabled
Authentication password
E.164 country code
E.164 area code
International dialing access code
L1 domain dialing access code
National dialing access code
Local dialing access code
Special number 1
Special number 2

Configure a L0 Domain (CDP)

NRS Manager - Microsoft Internet Explorer provided by Cisco Systems, Inc.

File Edit View Favorites Tools Help

Address http://172.20.216.103/cgi/nrsm.cgi

Google Search Web Site popups allowed AutoFill Options

NORTEL NETWORKS Network Routing Service

Home Configuration Tools Reports Administration Help | Logout

View L0 Domain Property (birch.com / mcccomm.com)

Service Domains
L1 Domains (UDP)
=> L0 Domains (CDP)
Gateway Endpoints
User Endpoints
Routing Entries
Default Routes
Collaborative Servers

Domain name *
Domain description
Special number label
Unqualified number label
Endpoint authentication enabled
Authentication password
E.164 country code
E.164 area code
International dialing access code
L1 domain dialing access code
National dialing access code
Local dialing access code





Configure a H.323 gateway

NRS Manager - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Refresh Search Favorites Media Print Find

NORTEL NETWORKS Network Routing Service

Home Configuration Tools Reports Administration Active DB view (set Standby DB view) Help | Logout

Location: Configuration > Gateway Endpoints > View Gateway Endpoint Property >

View Gateway Endpoint Property (pbxlab.org / rtp / interop)

Service Domains

L1 Domains (UDP)

L0 Domains (CDP)

=> Gateway Endpoints

User Endpoints

Routing Entries

Default Routes

Collaborative Servers

Endpoint name *

Endpoint description

Tandem endpoint name Look up

Endpoint authentication enabled

Authentication password

E.164 country code

E.164 area code

International dialing access code

L1 domain dialing access code

National dialing access code

Local dialing access code

Special number 1

Special number 2

Static endpoint address type

Static endpoint address

H.323 Support

SIP support



Configure the Routing Entries

NRS Manager - Microsoft Internet Explorer provided by Cisco Systems, Inc.

File Edit View Favorites Tools Help

Back Search Favorites Media Go

Address: http://172.20.216.103/cgi/nrsm.cgi

Google Search Web Site popups allowed AutoFill Options

NORTEL NETWORKS Network Routing Service

Home Configuration Tools Reports Administration Active DB view (set Standby DB view) Help Logout

Location: Configuration > Routing Entries >

Service Domains L1 Domains (UDP) L0 Domains (CDP) Gateway Endpoints User Endpoints => **Routing Entries** Default Routes Collaborative Servers

Routing Entries

Show Routing Entries for (Service Domain / L1 Domain / L0 Domain / Endpoint):

birch.com / mcccomm.com / CDP / NortelCS101 Look up

Showing 1 - 1 of 1 < Previous Next >

#	DN Prefix	DN Type	Route Cost	SIP URI Phone Context
1	3	Level0 regional	1	CDP.mcccomm.com



Cisco 3845 IOS Configuration

```
tony_3845#sh run
Building configuration...
```

```
Current configuration : 2286 bytes
!
version 12.4
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname tony_3845
!
boot-start-marker
boot system flash:c3845-ipvoice_ivs-mz.124-3.9.PI3d
boot-end-marker
!
logging buffered 100000000 debugging
no logging console
enable password cisco
!
no aaa new-model
!
resource policy
!
ip subnet-zero
ip cef
!
!
!
!
no ip domain lookup
voice-card 0
no dspfarm
!
!
!
!
!
voice service voip
allow-connections h323 to h323
allow-connections h323 to sip
allow-connections sip to h323
allow-connections sip to sip
fax protocol t38 ls-redundancy 0 hs-redundancy 0 fallback pass-through g711ulaw
h323
sip
!
!
!
!
voice class codec 1
codec preference 1 g711ulaw ===> Note: This is set to G.729 or G.723 to test voice quality and initiate T.38
!
!
!
!
```



!
!
!
!
!
!

```
interface GigabitEthernet0/0
ip address 172.20.8.26 255.255.255.0
duplex auto
speed auto
media-type rj45
negotiation auto
```

!

```
interface GigabitEthernet0/1
```

```
no ip address
```

```
shutdown
```

```
duplex auto
```

```
speed auto
```

```
media-type rj45
```

```
negotiation auto
```

!

```
ip default-gateway 172.20.8.1
```

```
ip classless
```

```
ip route 0.0.0.0 0.0.0.0 172.20.8.1
```

!

```
ip http server
```

!

!

!

```
control-plane
```

!

!

!

dial-peer voice 5330 voip

```
destination-pattern 5...
```

```
signaling forward unconditional
```

```
voice-class codec 1
```

```
session target ipv4:172.20.217.100
```

```
dtmlf-relay h245-alphanumeric
```

```
no fax-relay sg3-to-g3
```

```
no vad
```

```
supplementary-service pass-through
```

!

dial-peer voice 2330 voip

```
destination-pattern 2...
```

```
signaling forward unconditional
```

```
voice-class codec 1
```

```
session target ipv4:172.20.216.100
```

```
dtmlf-relay h245-alphanumeric
```

```
no fax-relay sg3-to-g3
```

```
no vad
```

```
supplementary-service pass-through
```

!

!

```
gatekeeper
```



```
shutdown
!
!
line con 0
password cisco
stopbits 1
line aux 0
stopbits 1
line vty 0 4
password cisco
login
!
scheduler allocate 20000 1000
!
end

tony_3845#
```



Acronyms



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