



Alcatel 4400 Release 6.0 using E1 ISO QSIG to Cisco Unified Communications Manager Release 5.0

October 25, 2007 Revision 2

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Introduction

This is an Application Note for connectivity between an Alcatel 4400 Release 6.0 PBX and Cisco Unified CallManager Release 5.0 using a Cisco 3745 voice gateway with MGCP and ISO QSIG protocol.

The network topology diagrams (Figures 1 and 2) show the test setup for end-to-end interoperability with Cisco Unified CallManager Release 5.0 connected to the PBX via the 3745 E1 QSIG link as MGCP gateway. A NM-HDV and VWIC-2MFT-E1 were used for the E1 QSIG interfaces. Calls were made to test basic call, caller ID, conference, transfer, forward, call back, reroute, MWI, and path replacement features.

Connectivity is achieved by using the QSIG ISDN switch type on the MGCP gateway with the Cisco Unified CallManager services parameter "QSIG variant" set to ISO, and ISO switch type on the Alcatel 4400 PBX.

This Application Note uses the 3745 voice gateway. However, the use of other Cisco voice gateways is also an option since CCM QSIG implementation does not depend on the physical interface.

Network Topology

Figure 1. Network Topology or Test Setup – basic calls configuration.

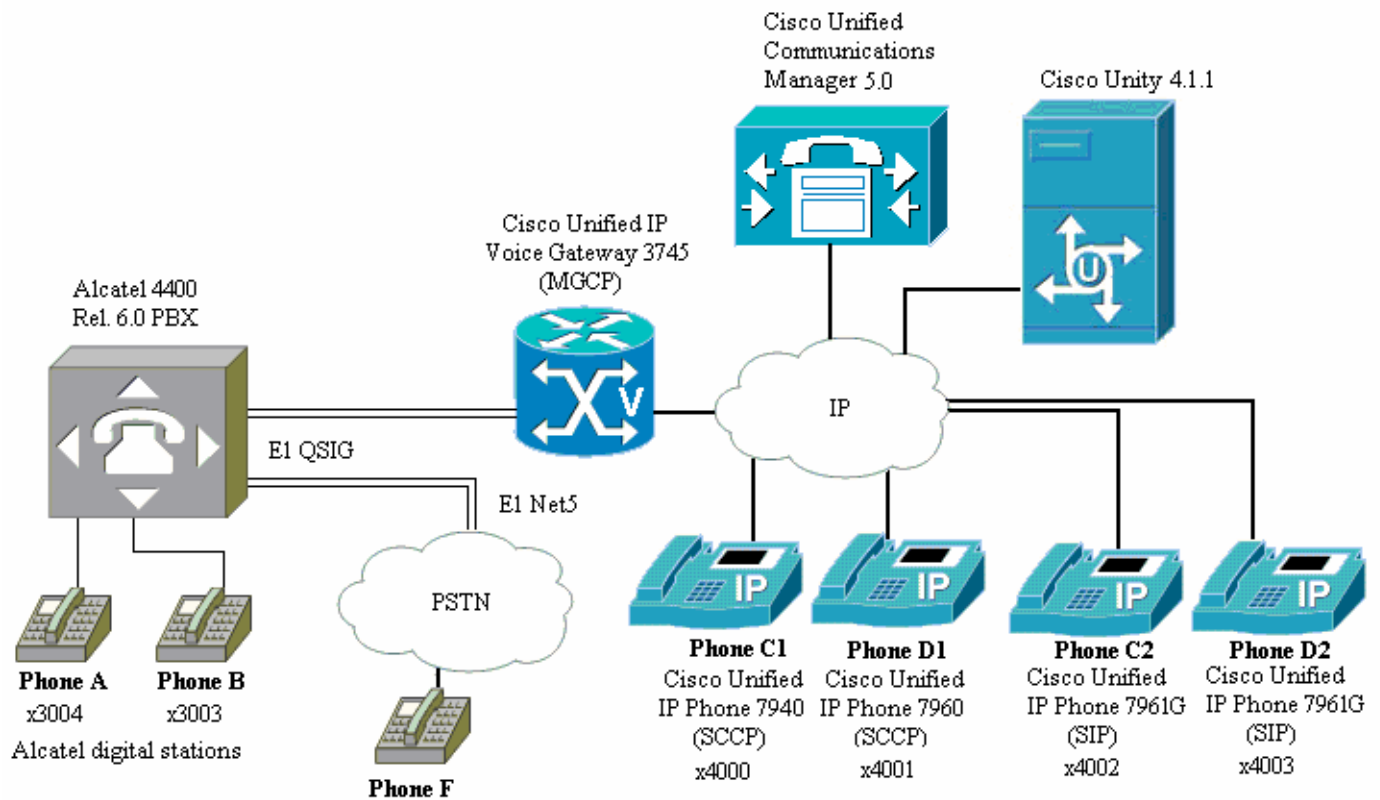
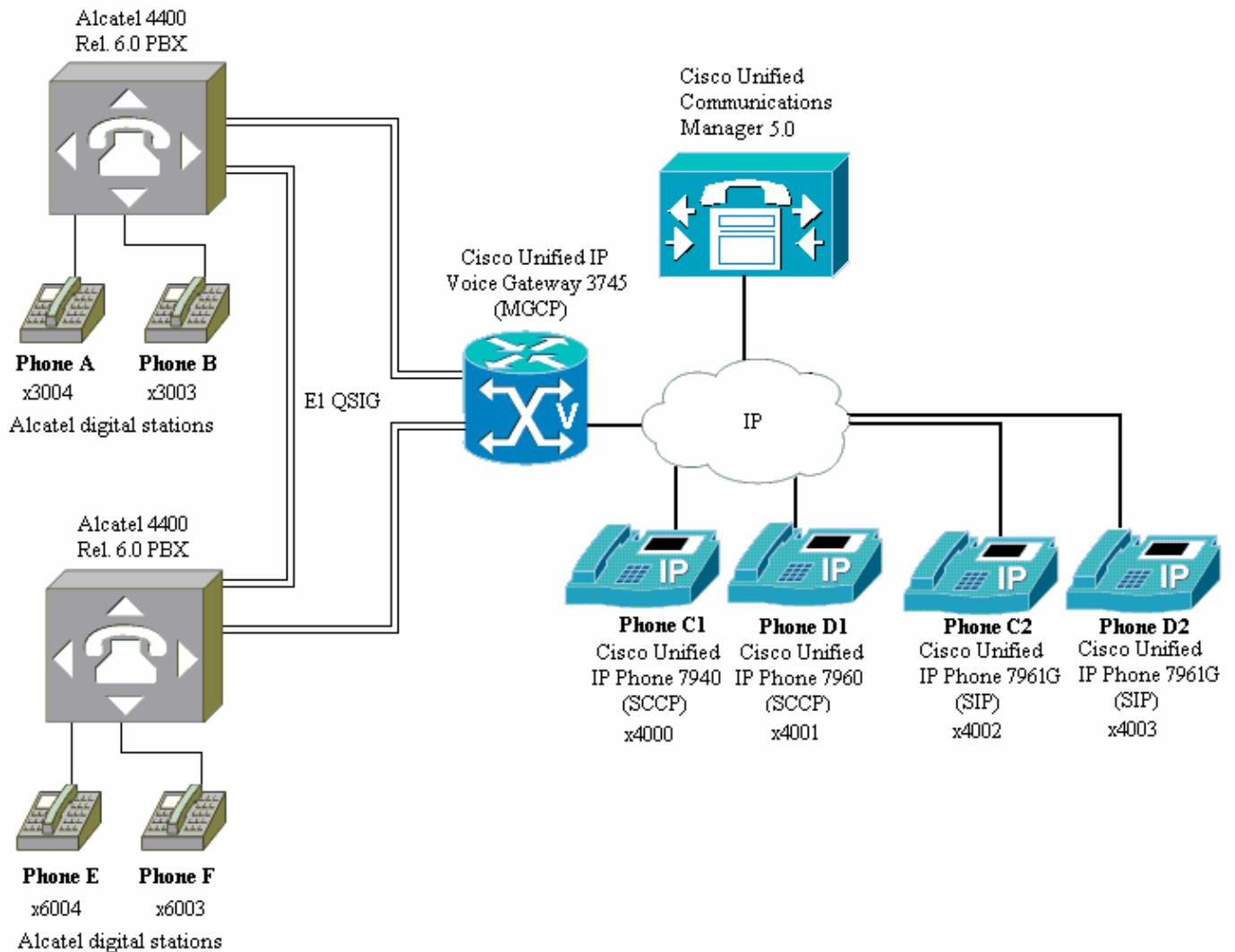




Figure 2. Network Topology or Test Setup – path replacement configuration.





Limitations

Basic Calls – Overlap

Connected number is sent from Cisco Unified CallManager, but not displayed on Alcatel phone when call is placed from PBX to IP phone.

Blind Network/External Transfers

For "trombone" calls originating on Cisco Unified CallManager and ending with a blind transfer from the PBX back to an IP phone on the Cisco Unified CallManager, the transfer is not implemented immediately. Therefore, all caller ID info is updated about 20 seconds after the transfer is completed by the PBX phone, or immediately after the final destination answers, whichever comes first. Also, the originating phone hears a "hold" tone instead of ring-back during this time. This is a result of the Alcatel 6.0 PBX sending a "CallTransferIdentify" Facility IE after the middle party (PBX phone) instigates the blind transfer. The Cisco Unified CallManager does not respond to this Facility IE, and a PBX timer must expire before the transfer is completed. At that point, the PBX issues a "CallTransferAbandon" Facility IE and "CallTransferComplete" Facility IEs, whereupon the transfer is completed, the originating phone hears ringback, and Caller ID information is updated. This phenomenon was not seen in Alcatel Release 5.0/5.1. It is not observed on a 3-node scenario involving a Cisco Unified CallManager and 2 PBXs, as the PBX responds to the "call transfer Identify" message and thus avoids the timeout. It was confirmed that a Cisco Unified CallManager should reply to this "call transfer Identify" message, but is not doing so. A defect (CSCse80285) was opened.

Call Forwards

For most call forwards, the forwarding called number is not displayed on the final destination.

Network/External Call Forward by Join

The Alcatel PBX does not support call forward by join. Instead, the Alcatel PBX performs a reroute.

MWI

Unfortunately, Cisco has not been able to validate MWI function in our labs because we do not have an internal voicemail system on our Alcatel PBX.

Cisco Unified CallManager can not be the message center PINX for stations on the Alcatel 4400 Release 6.0 PBX. This is because MWI across QSIG is not supported by the Alcatel 4400 Release 6.0 PBX.



System Components

Hardware Requirements

Cisco MCS 7800 Unified CallManager Appliance

Cisco 3745 voice gateway

NM-HDV

VWIC-2MFT-E1

Cisco Unified IP phone 7940

Cisco Unified IP phone 7960

(2) Cisco Unified IP phone 7961G

(2) Alcatel 4400 PBXs

(4) PRA2 trunk cards

(4) 4035 *Advanced Reflexes* digital phones

Software Requirements

Cisco Unified CallManager Release 5.0

Alcatel 4400 software release 6.0

Cisco IOS Release 12.4(3)



Features Supported

Basic Call, ENBLOC

Basic Call, Overlap

CLIP-Calling Line (Number) Identification Presentation

CLIR-Calling Line (Number) Identification Restriction

CNIP-Calling Name Identification Presentation

CNIR-Calling Name Identification Restriction

COLP-Connected Line (Number) Identification Presentation

COLR- Connected Line (Number) Identification Restriction

CONP-Connected Name Identification Presentation

CONR- Connected Name Identification Restriction

Tandem PSTN call

Consultation Transfer – Local

Consultation Transfer – Network/External

Blind Transfer – Local

Blind Transfer – Network/External

Call Forward Unconditional by Join – Local

Call Forward Unconditional by Join – Network/External (See Limitations section for details.)

Call Forward Busy by Join – Local

Call Forward Busy by Join – Network/External (See Limitations section for details.)

Call Forward No Reply by Join – Local

Call Forward No Reply by Join – Network/External (See Limitations section for details.)

Call Forward Unconditional by Reroute – Network/External

Call Forward Busy by Reroute – Network/External

Call Forward No Reply by Reroute – Network/External

Call Completion to Busy Subscriber (Call Back when Free)

Call Completion on No Reply (Call Back Next Used)

Path Replacement for Call Transfer by Join

Path Replacement for Trombone Connection (accomplished by consultation transfer)



Features Not Supported

List any features that are required, supported, not required or not supported.

Any Call Forward (CFU, CFB, CFNR) by join from PBX. PBX always performs a reroute.

Path Replacement for Call Diversion by Forward Switch

MWI (see Limitations section for details.)

Configuration

Configuration Sequence for the Alcatel 4400 PBX

1. Configure Board.
2. Configure Digital Access
3. Configure "ECMA Function" System Parameter.
4. Configure PRI-ABC_F Trunk Group
5. Configure PSTN Trunk Group
6. Configure Network Routing
7. Configure Network Routing "Own Node".
8. Configure Routing Prefix.
9. Configure Digital Station
10. Configure Digital Station Phone Facilities



Configuring the Alcatel 4400 PBX

Circuit Board

Figure 3. Circuit board configuration – 1 of 2.

The screenshot displays the Cisco Configuration Manager (CCM) interface for configuring the nextiraone circuit board. The left sidebar shows a tree view of the configuration hierarchy, with the 'nextiraone' node selected. The main pane shows the configuration details for the 'nextiraone:0' board. The configuration table lists various parameters and their values.

nextiraone:0	
Board Address	9
Interface Type	BPRA2
Usage State	Busy
Operational State	Enabled
Main/Standby State	Main (Master)
Number Of Sets Connected	4
Country Protocol Type	Default
Incidents Teleservice	YES
ISDN Board Layer 2 Parameters	
Retransmission Timer	100
TEI Identity Check Timer	100
Polling Timer	1000
No. Of Retransmissions	3
Max Frame Size (Bytes)	260

The bottom status bar shows the following messages:

```
[9:17:01 AM] > Request 5 sent to nextiraone.  
[9:17:02 AM] > Request 5 completed on nextiraone: 10 instance(s) received.
```



Figure 4. Circuit board configuration – 2 of 2.

File Applications Security Preferences Configuration Windows Help

Log on to 4760

Directory

Configuration

Reports

Alarms

Scheduler

Maintenance

Configuration: nextiraone

Search Users In nextiraone

Users Where Directory Number Equal

Configuration

nextiraone:0

Board Address	
ISDN Board Layer 2 Parameters	
Retransmission Timer	100
TEI Identity Check Timer	100
Polling Timer	1000
No. Of Retransmissions	3
Max Frame Size (Bytes)	260
T0 ISDN Board Layer 2 Parameters	
Window Size In Frames SAPI S T0	1
Window Size In Frames SAPI P T0	3
T2 ISDN Board Layer 2 Parameters	
Window Size In Frames SAPI S T2	7
Window Size In Frames SAPI P T2	7
Virtual board	NO

All Action

1

[9:17:01 AM] > Request 5 sent to nextiraone.
[9:17:02 AM] > Request 5 completed on nextiraone: 10 instance(s) received.

6 Configuration: nextiraone



Digital Access

Figure 5. Digital access configuration – 1 of 1.

File Applications Security Preferences Configuration Windows Help

Configuration: nextiraone

Search Users In nextiraone

Users Where Directory Number Equal

Configuration

nextiraone:0:9

T0/T2 Access No.	0
Access Type	T2
Access Board Type	BPRA2
Synchronization Priority	255
Network Mode	NO
Max No Of Used B Channels	30
Max No. Of Compressed B Channels	0
Tieline Mode	YES
With Alarm	NO
Reserved1	NO
Reserved2	NO
Network Date Time Update	NO
CRC4	YES

All

[3:11:04 PM] > Request 6 sent to nextiraone.



“ISO Function” System Parameter

Figure 6. ISO function system parameter configuration – 1 of 3.

File Applications Security Preferences Configuration Windows Help

Configuration: nextiraone

Search Users In nextiraone

Users Where Directory Number Equal

Configuration

nextiraone:1	
Instance (reserved)	1
Trunk seizure via attendant	<input checked="" type="checkbox"/>
No detect of On-hook tone	<input checked="" type="checkbox"/>
TrkGrp in ticket for trans.call	<input checked="" type="checkbox"/>
VPN service	<input type="checkbox"/>
ISVPN Node No.	1
No. Digits displayed on sets	16
Melody Ringing Type	1
Int.Call Ringing Cadence No.	1
Ext.Call Ringing Cadence No.	1
Executive Type Ringing Cadence No.	1
Priority Call Cadence No.	1
ISO Function	<input checked="" type="checkbox"/>
Reserve B Channel	<input checked="" type="checkbox"/>
No control: Business Account Code	<input type="checkbox"/>
Business Pref.With Business No.	<input checked="" type="checkbox"/>
Business prefix with code	<input type="checkbox"/>
Follow-Me on Remote forwarding	<input type="checkbox"/>

All

1



Figure 7. ISO function system parameter configuration – 2 of 3.

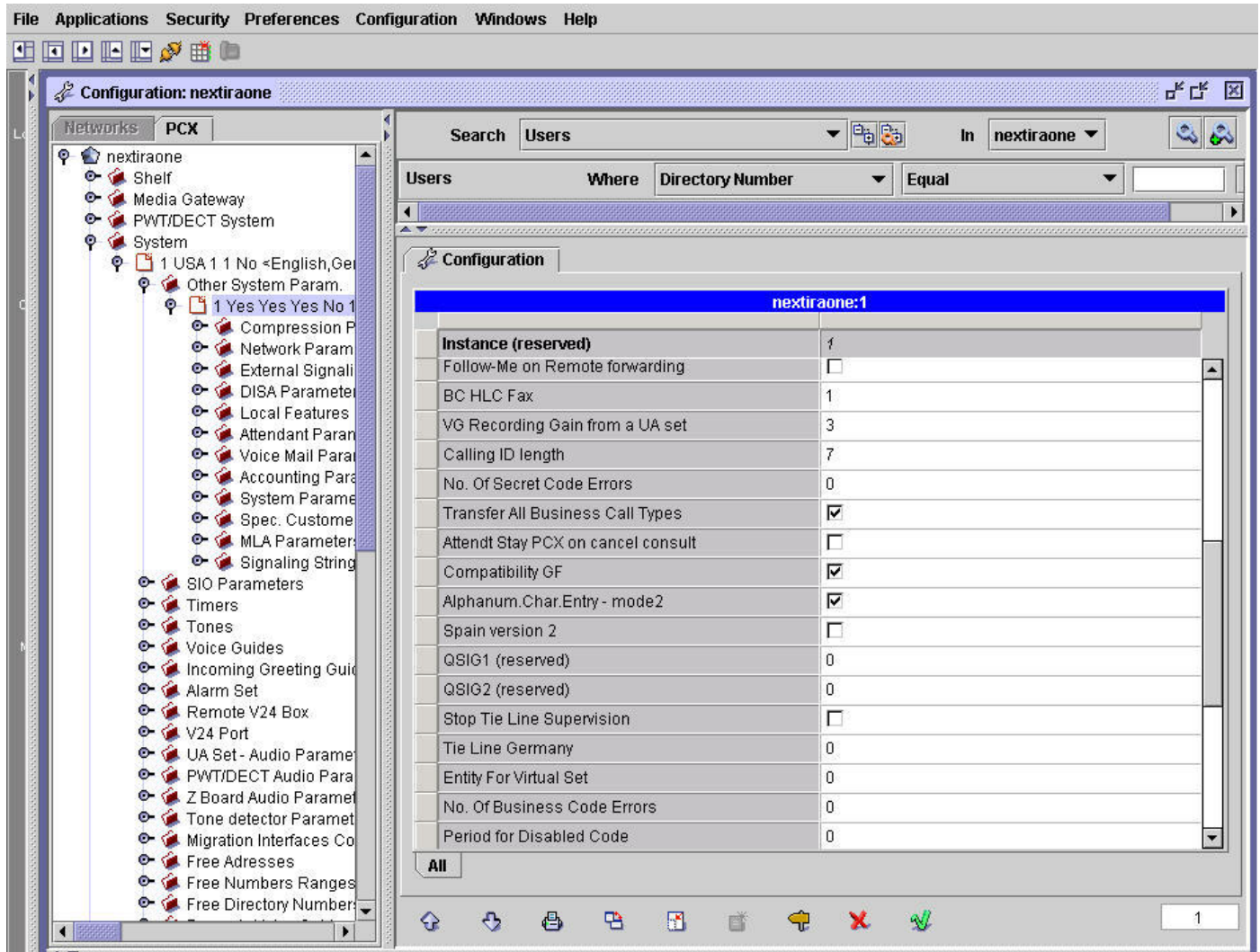
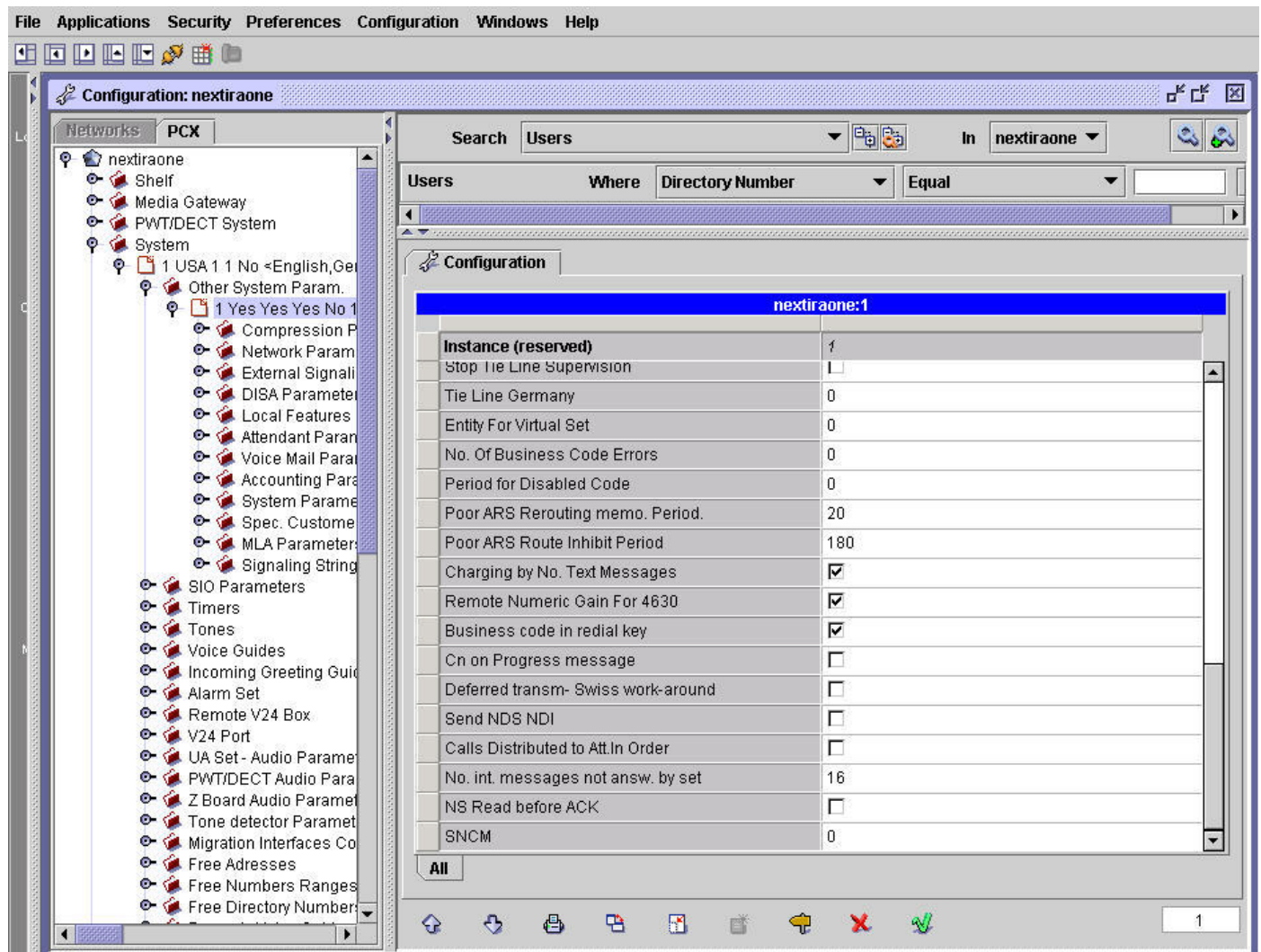




Figure 8. ISO function system parameter configuration – 3 of 3.





PRI ABC_F Trunk Group

Figure 9. PRI ABC_F Trunk configuration – 1 of 7.

The screenshot displays the Cisco Configuration Manager interface for configuring a PRI ABC_F Trunk Group. The left pane shows the network hierarchy with 'nextiraone' selected. The right pane shows the configuration details for the selected trunk group.

Configuration: nextiraone

Search Users In **nextiraone**

Users **Where** **Directory Number** **Equal**

Configuration

nextiraone	
Trunk Group ID	4
Trunk Group Type	72
Trunk Group Name	PRI-ABCF
Node number	1
Transcom Trunk Group	<input type="checkbox"/>
Auto.reserv.by Attendant	<input type="checkbox"/>
Overflow trunk group No.	-1
Tone on seizure	<input checked="" type="checkbox"/>
Private Trunk Group	<input type="checkbox"/>
Q931 Signal variant	ABC-F
SS7 Signal variant	No variant
Number Compatible With	-1
Number Of Digits To Send	4
Channel selection type	Quantified
Remote Network	2
Shared Trunk Group	<input type="checkbox"/>
Auto.DTMF dialing on outgoing call	YES
T2 Specification	None

All



Figure 10. PRI ABC_F Trunk configuration – 2 of 7.

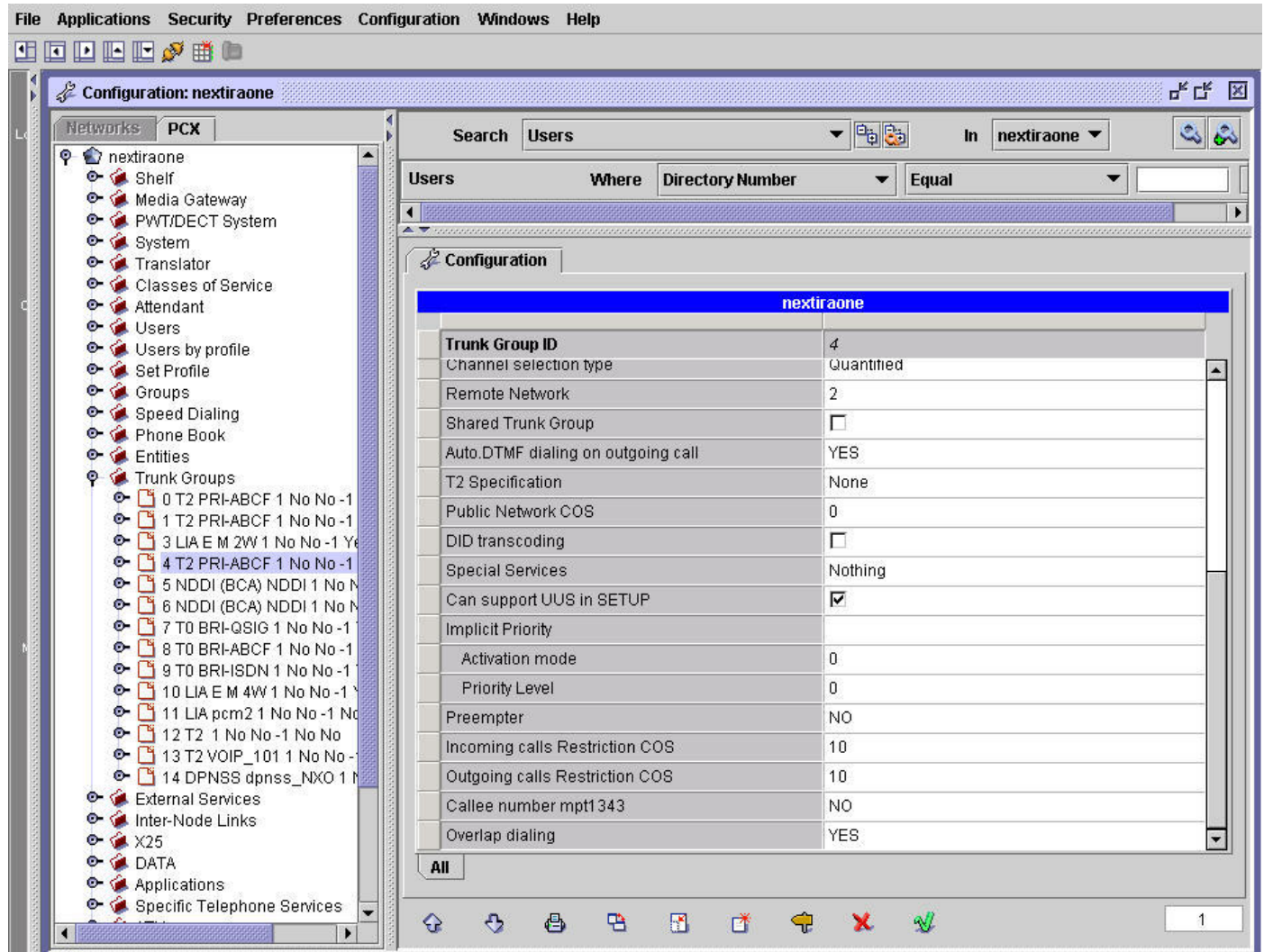




Figure 11. PRI ABC_F Trunk configuration – 3 of 7.

File Applications Security Preferences Configuration Windows Help

Configuration: nextiraone

Search Users In nextiraone

Users Where Directory Number Equal

Configuration

nextiraone:4

Instance (reserved)	1
Trunk Group Type	T2
Public Network Ref.	
End-to-end dialing	NO
DTMF end-to-end signal.	NO
Trunk group used in DISA	NO
DISA Secret Code	
VG for non-existent No.	YES
Routing To Manager	NO
Trunk COS	18
Sending of Progress message	YES
No. of digits unused (ISDN)	0
B Channel Choice	YES
Channels: Attendant Control (Rsvd)	0
Redirection For ACD (Dissuasion)	NO
DTO joining	NO
Consultation Call On B Channel	NO
Automated Attendant	NO

All Action

1



Figure 12. PRI ABC_F Trunk configuration – 4 of 7.

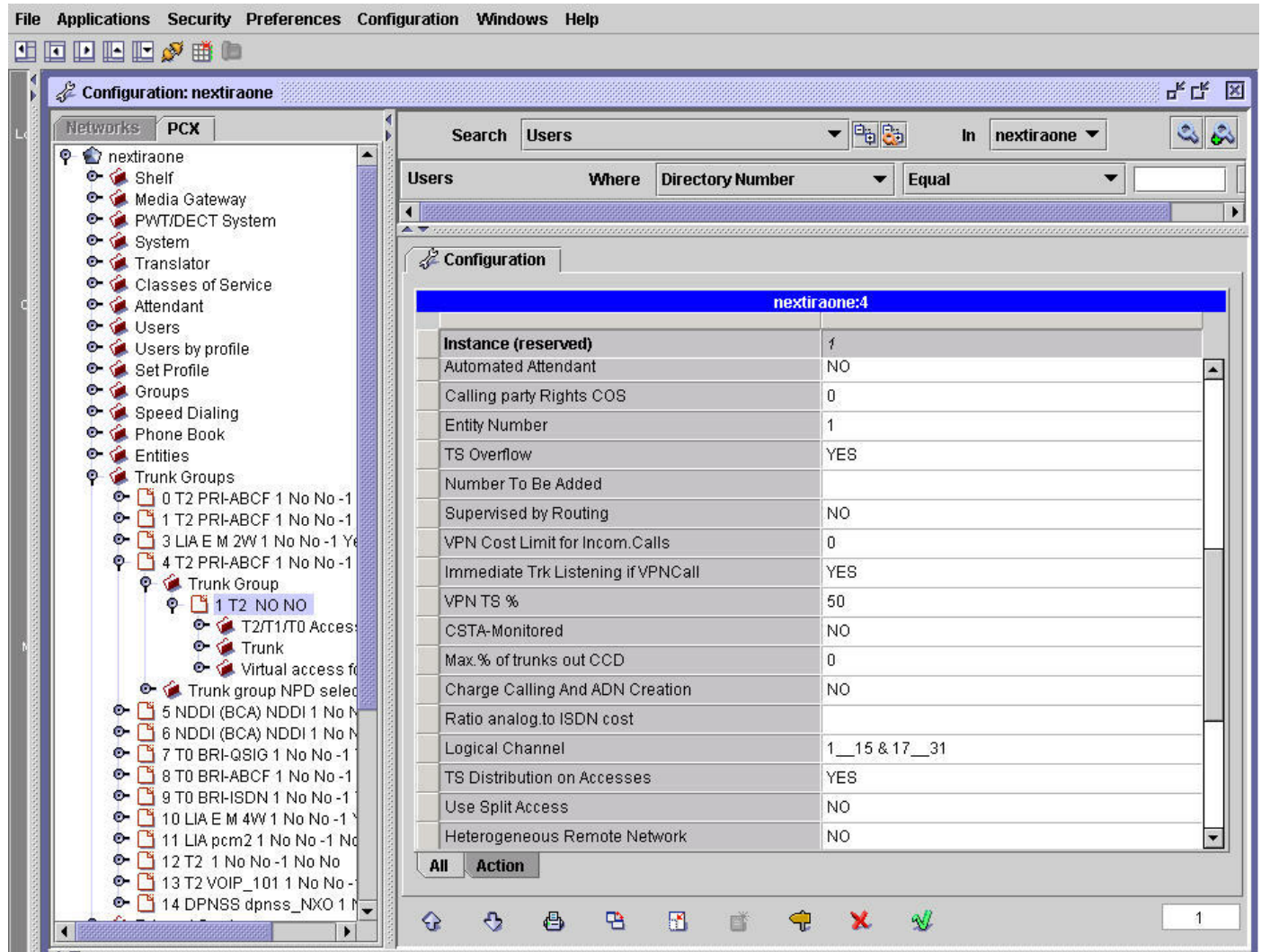




Figure 13. PRI ABC_F Trunk configuration – 5 of 7.

File Applications Security Preferences Configuration Windows Help

Configuration: nextiraone

Search Users In nextiraone

Users Where Directory Number Equal

Configuration

nextiraone:4

Instance (reserved)	1
Max % of trunks out CCD	U
Charge Calling And ADN Creation	NO
Ratio analog.to ISDN cost	
Logical Channel	1__15 & 17__31
TS Distribution on Accesses	YES
Use Split Access	NO
Heterogeneous Remote Network	NO
COS Restrictions - Barring mode	Not Restricted / Not barred
ARS Class of service	31
Quality profile for voice over IP	Profile #1
IP Compression Type	Default
Use of volume in system	YES
External Access Server	NO
CSTA Tracking MCDU Trk	
Announcement for dial tone	NO
Announcement for Ring tone	NO
Private to Public Overflow	YES

All Action

1



Figure 14. PRI ABC_F Trunk configuration – 6 of 7.

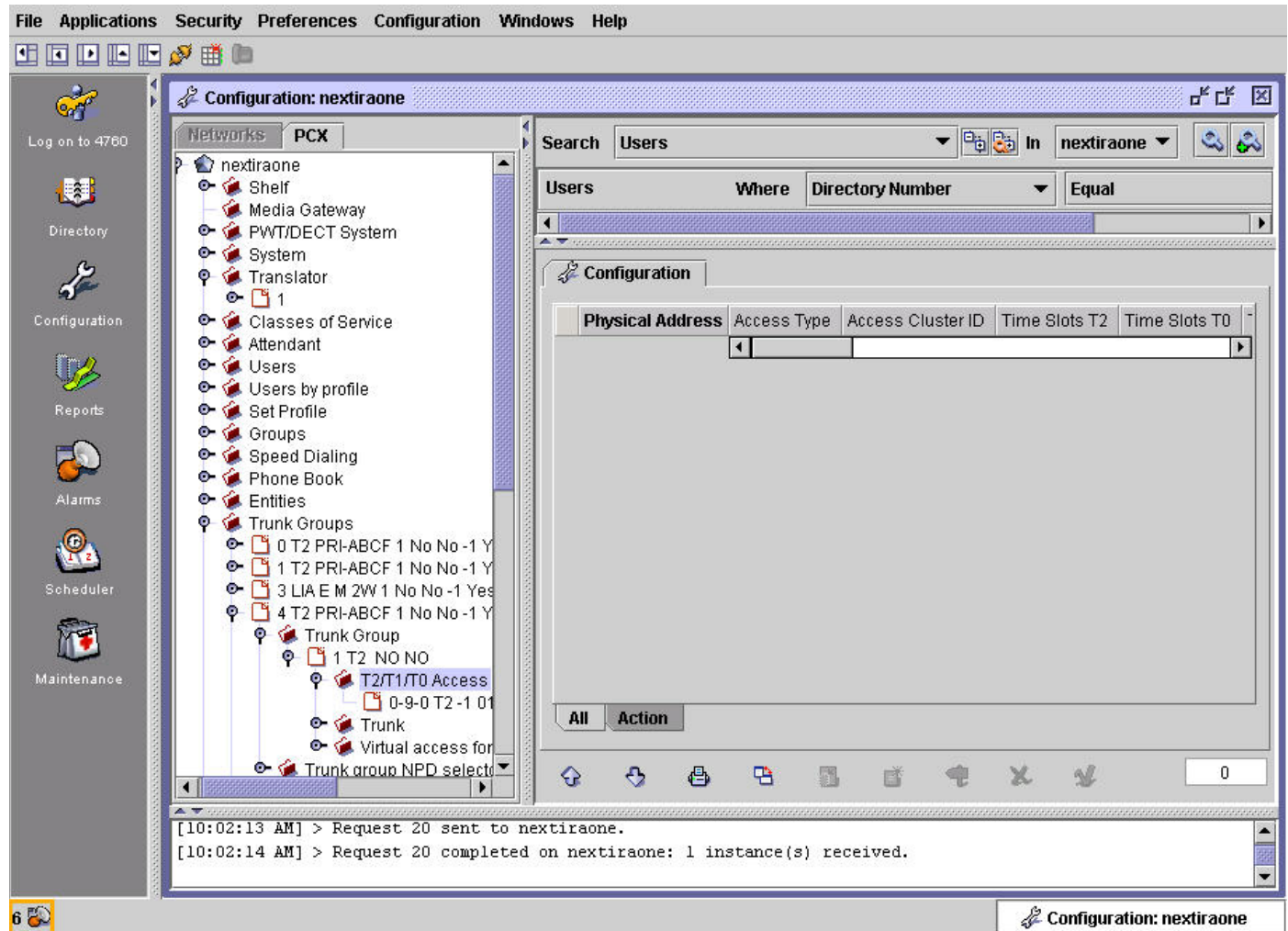




Figure 15. PRI ABC_F Trunk configuration – 7 of 7.

File Applications Security Preferences Configuration Windows Help

Log on to 4760

Directory

Configuration

Reports

Alarms

Scheduler

Maintenance

Configuration: nextiraone

Search Users In nextiraone

Users Where Directory Number Equal

Configuration

nextiraone:4:1	
Physical Address	0-9-0
Access Type	T2
Access Cluster ID	-1
Time Slots T2	01111111111111111011111111111111

All Action

[10:02:13 AM] > Request 20 sent to nextiraone.
[10:02:14 AM] > Request 20 completed on nextiraone: 1 instance(s) received.

6 Configuration: nextiraone



PSTN Trunk Group

Figure 16. PSTN Trunk configuration – 1 of 7.

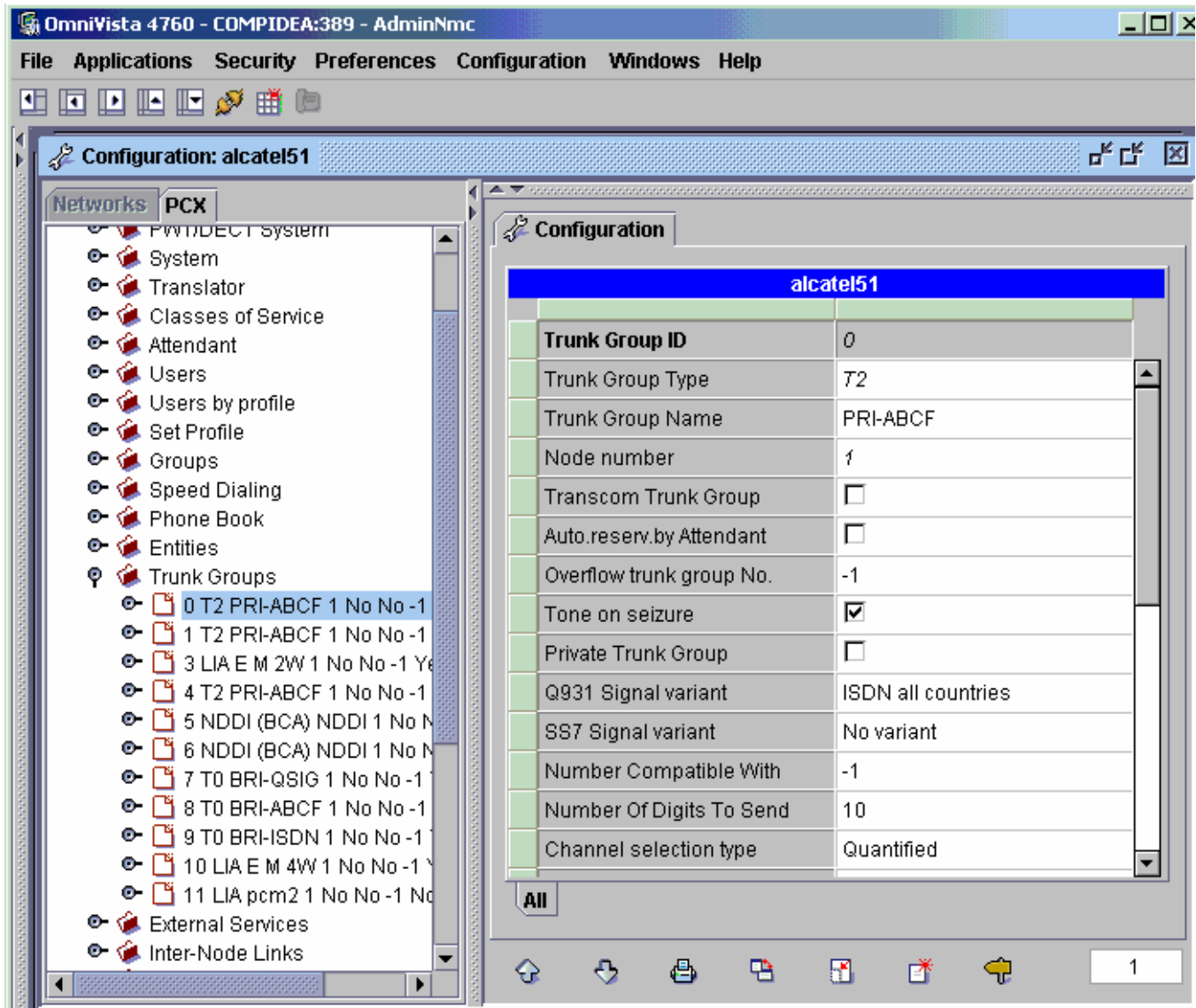




Figure 17. PSTN Trunk configuration – 2 of 7.

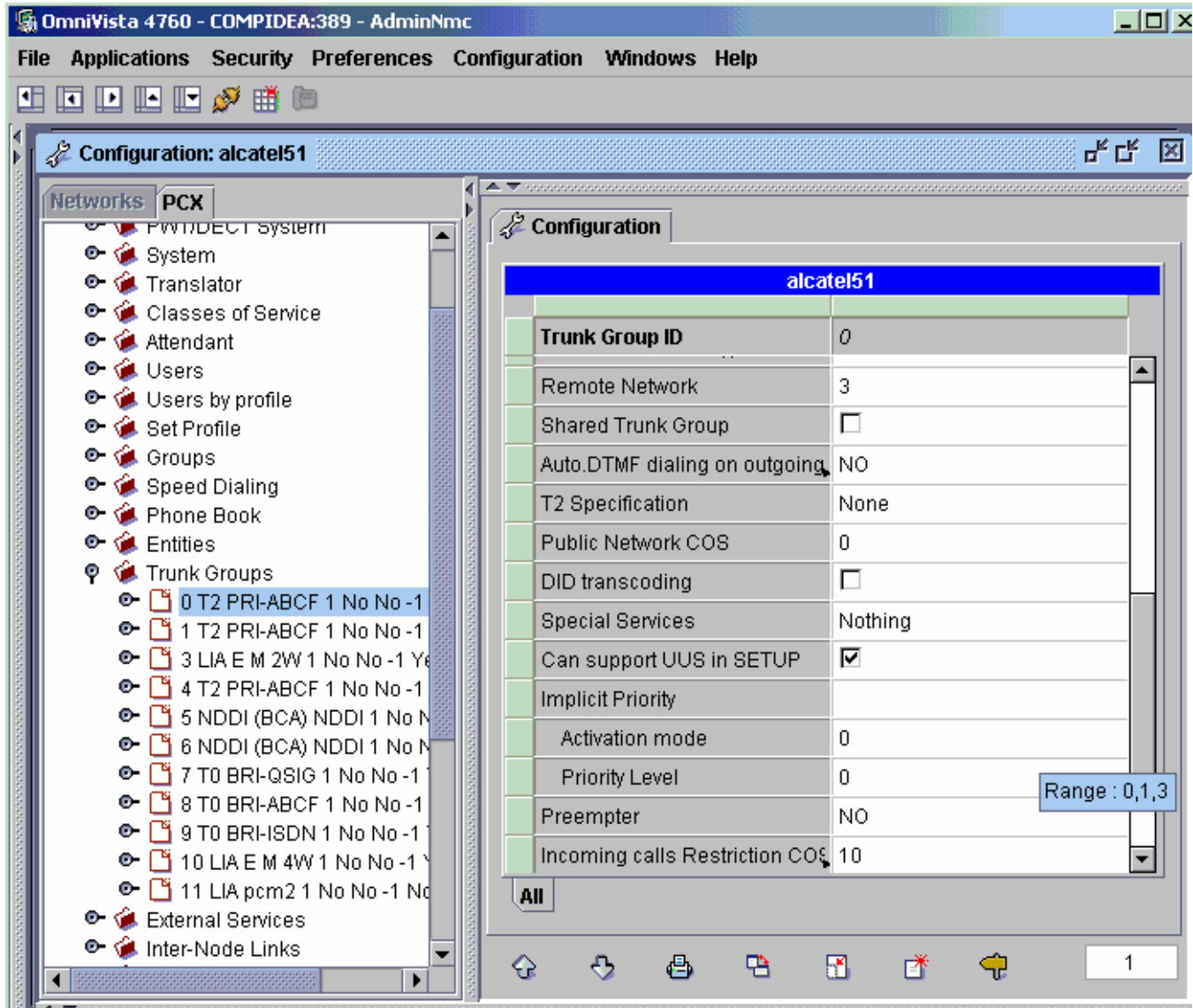




Figure 18. PSTN Trunk configuration – 3 of 7.

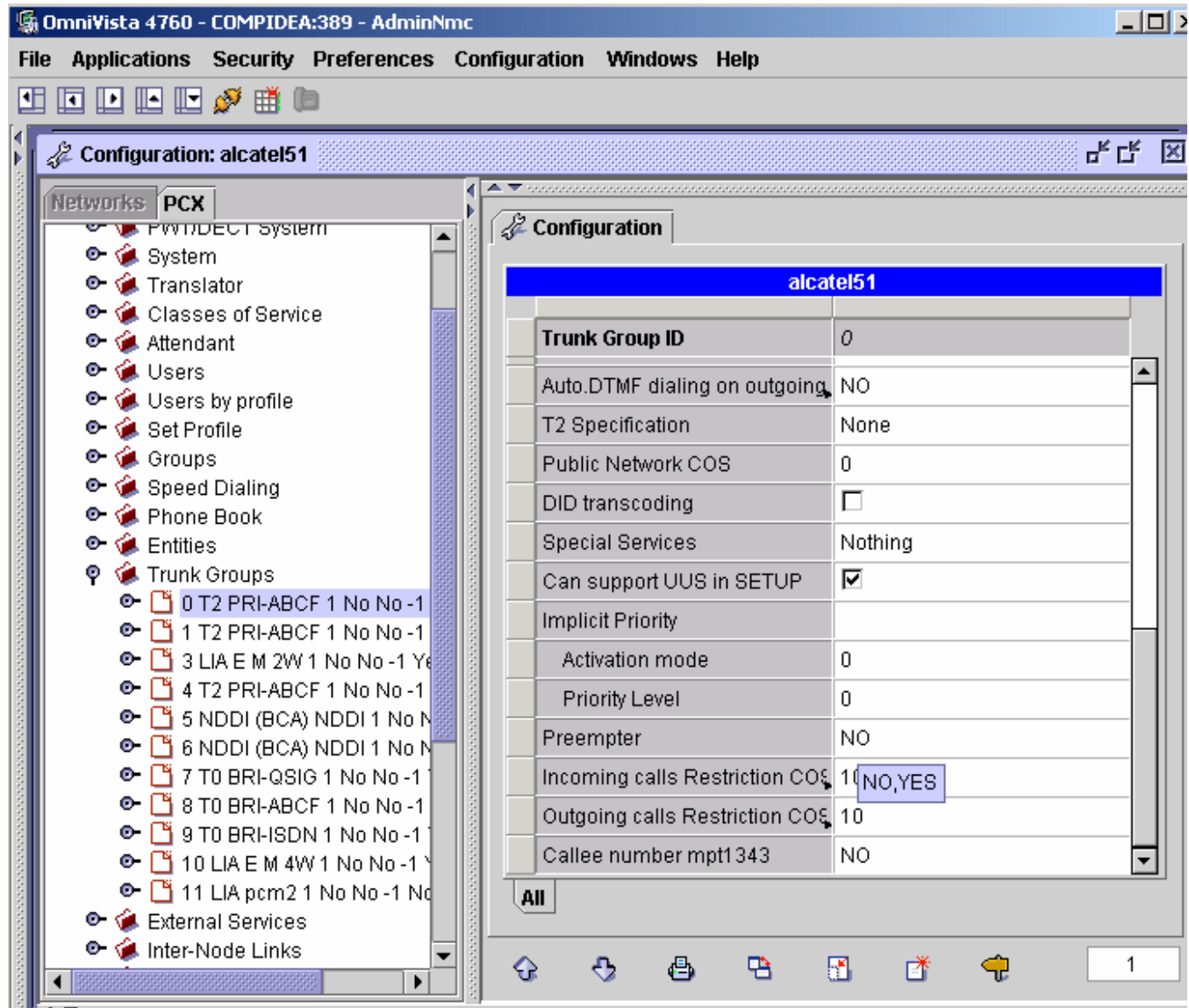




Figure 19. PSTN Trunk configuration – 4 of 7.

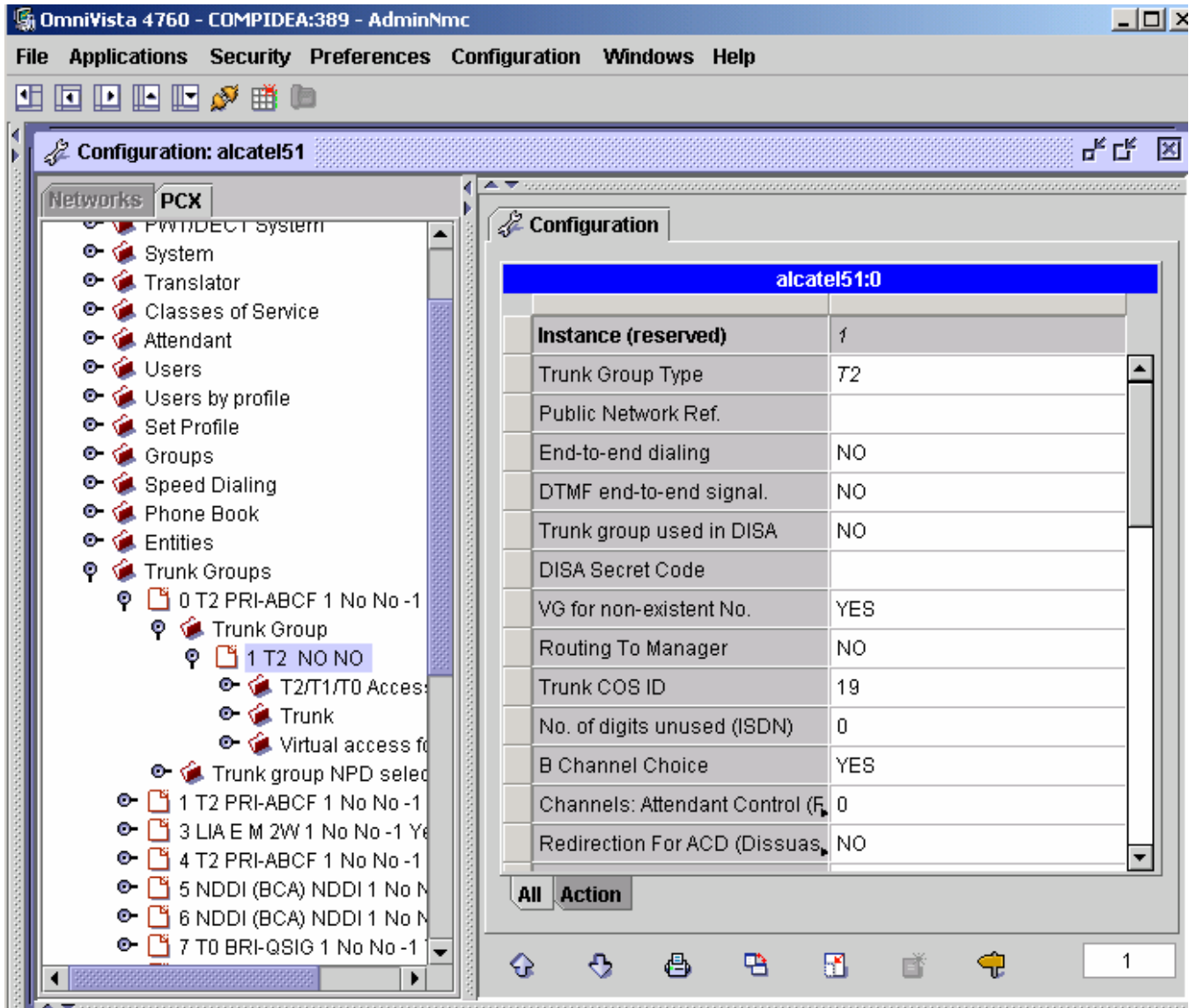




Figure 20. PSTN Trunk configuration – 5 of 7.

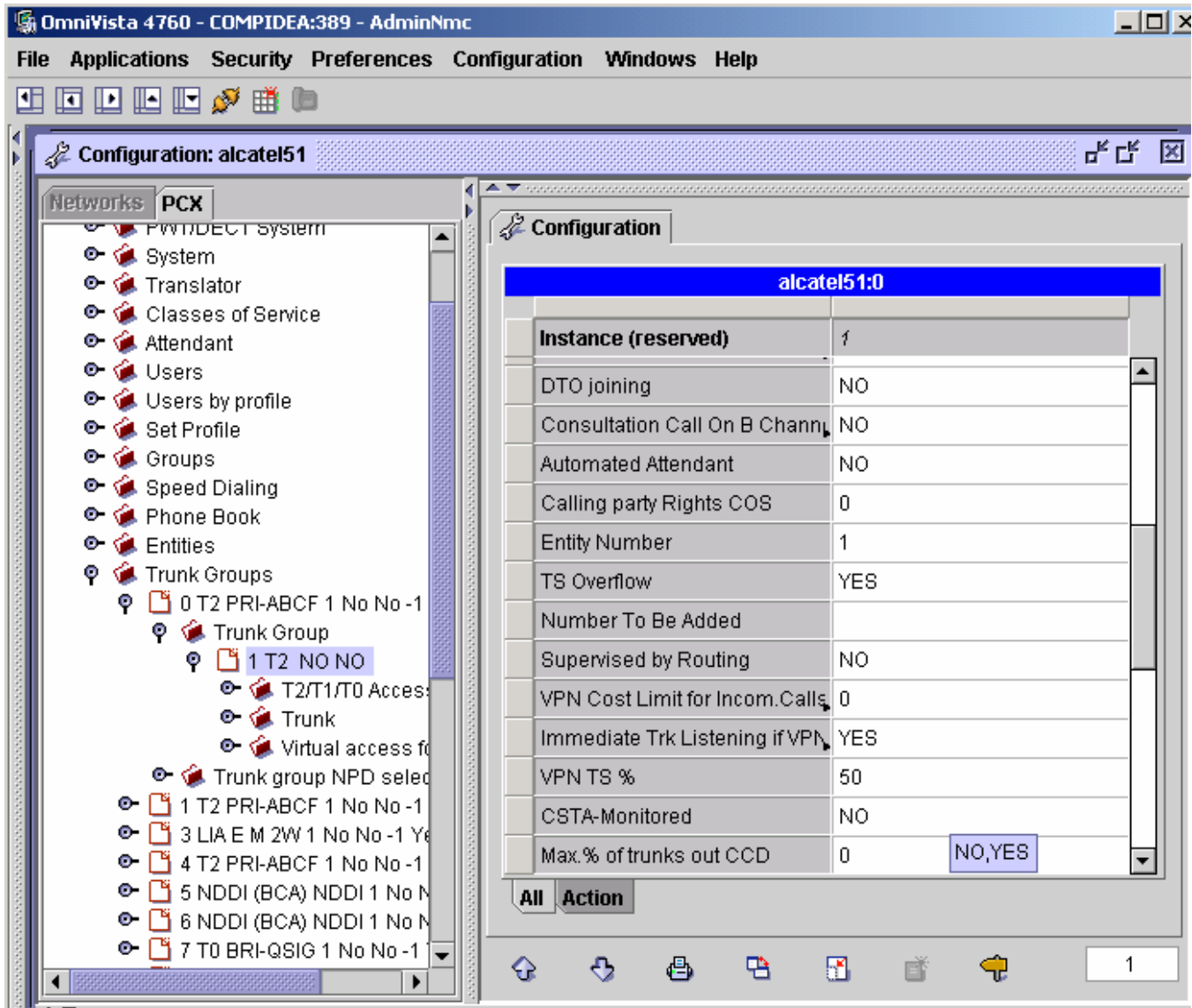




Figure 21. PSTN Trunk configuration – 6 of 7.

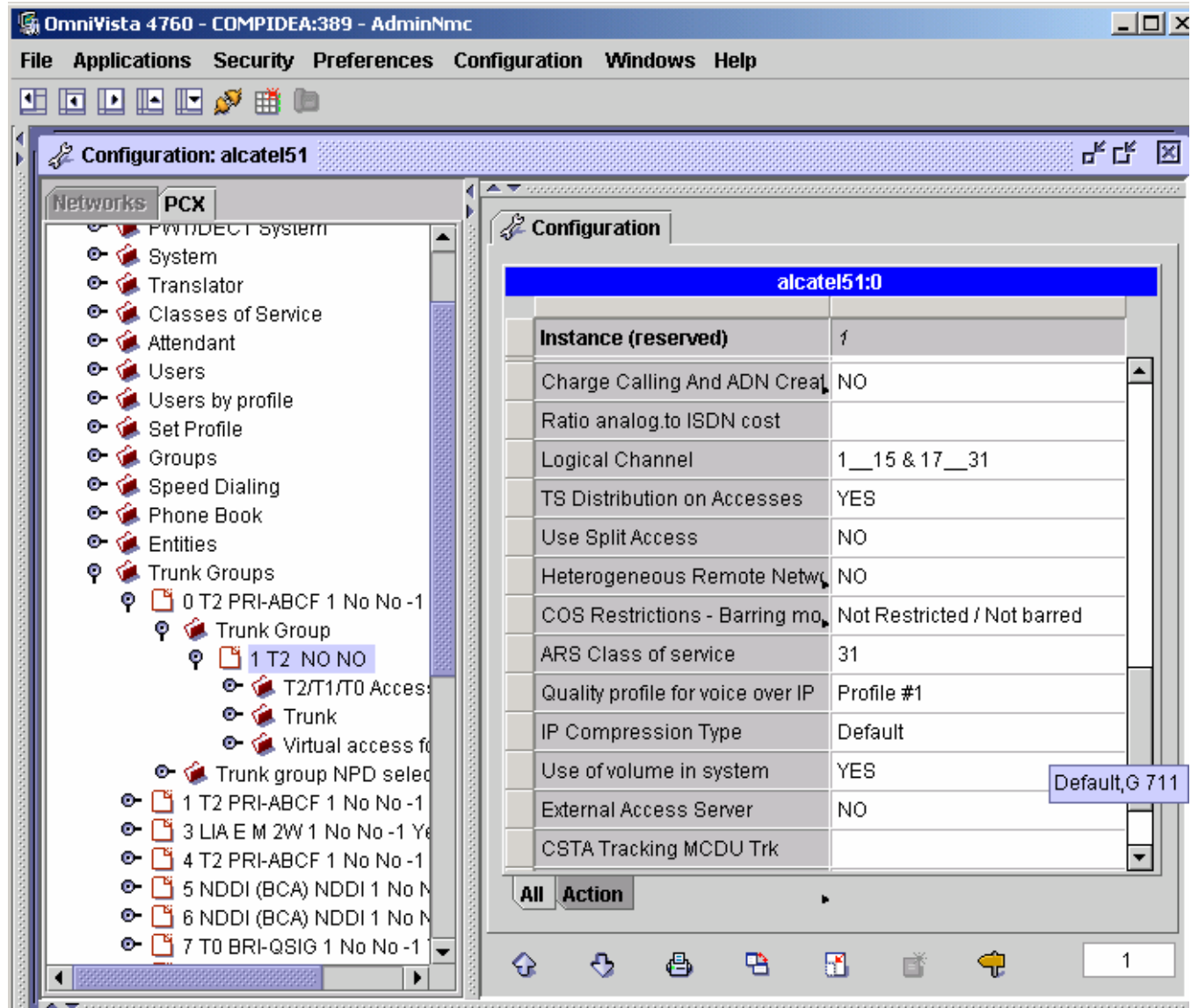
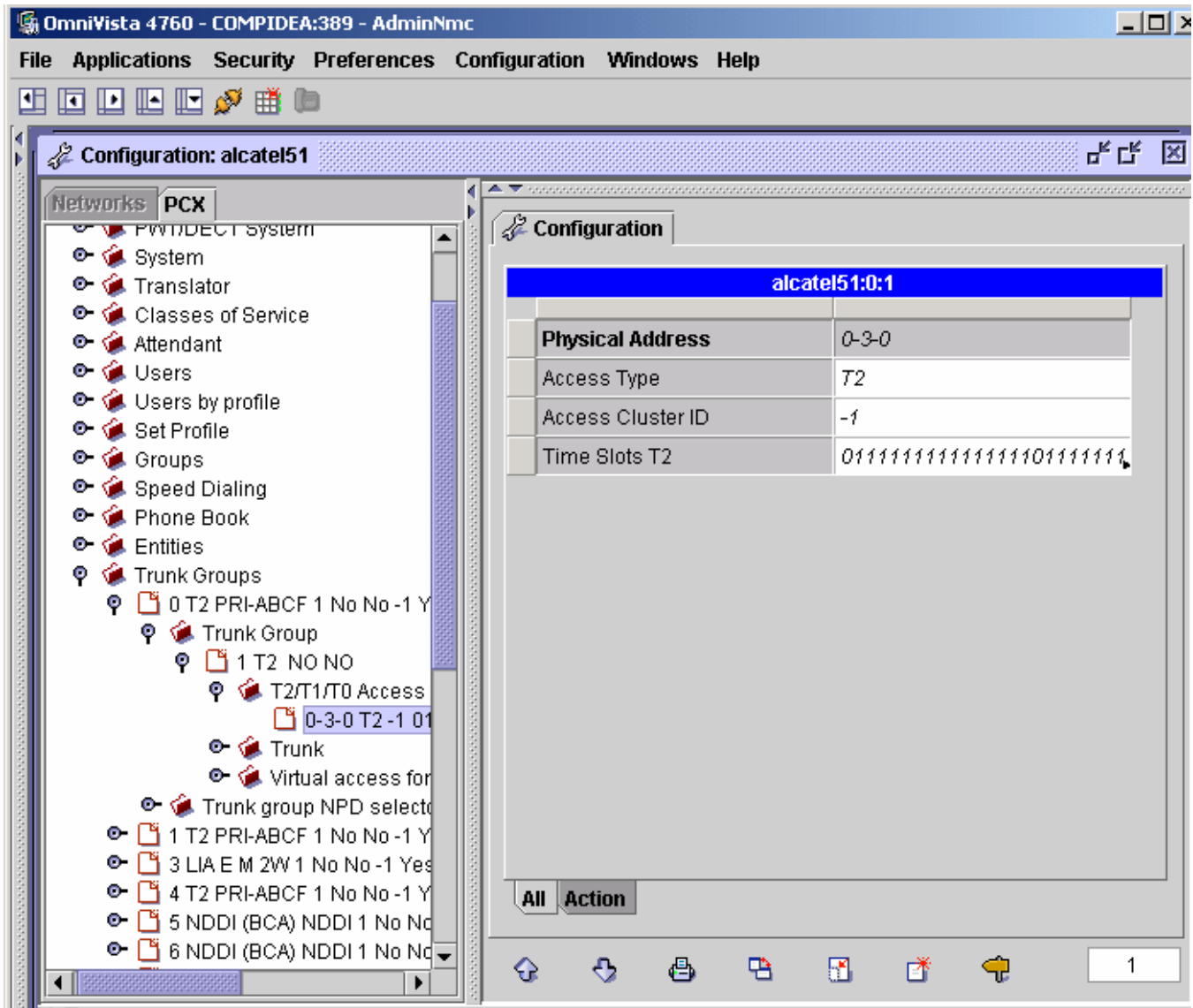




Figure 22. PSTN Trunk configuration – 7 of 7.





Network Routing

Figure 23. Network routing configuration – 1 of 1.

File Applications Security Preferences Configuration Windows Help

Log on to 4760

Directory

Configuration

Reports

Alarms

Scheduler

Maintenance

Configuration: nextiraone

Networks PCX

nextiraone

- Shelf
- Media Gateway
- PWT/DECT System
- System
- Translator
- 1
 - Prefix Plan
 - Suffix Plan
 - Numbering Plan
 - PIN (Personal Ident.No)
 - Private Call Profile
 - External Numbering Plan
 - Network Routing Table
 - 0 1 QSIG-GF 11 0 -
 - 1 1 QSIG-GF 11 0 -
 - 2 1 QSIG-GF 11 0 -
 - 3 1 QSIG-GF 11 0 -
 - 4 1 Dependant on T
 - 5 1 ABC_F 11 0 -1
 - 6 1 Dependant on T
 - 7 1 ABC_F 11 0 -1
 - 8 1 ABC_F 11 0 -1
 - 9 1 ABC_F 11 0 -1
 - 10 1 ABC_F 11 0 -1
 - 11 1 QSIG-GF 11 0
 - 12 1 QSIG-GF 11 0
 - 13 1 Dependant on
 - 14 1 ABC_F 11 0 -1
 - 15 1 ABC_F 11 0 -1
 - Automatic Route Select

Search Users

Where Directory Number Equal

Configuration

nextiraone:1

Network Number	
Rank of First Digit to be Sent	2
Incoming identification prefix	1
Protocol Type	QSIG-GF
Numbering Plan Descriptor ID	11
ARS Route list	0
Schedule number	-1
ATM Address ID	-1
Network call prefix	
City/Town Name	
Send City/Town Name	<input type="checkbox"/>
Associated Ext SIP gateway	-1

All

1

[11:05:27 AM] > Request 25 sent to nextiraone.
[11:05:28 AM] > Request 25 completed on nextiraone: 16 instance(s) received.

Configuration: nextiraone



Network Routing Own Node

Figure 24. Network Routing Node configuration – 1 of 1.

The screenshot displays the Cisco Configuration Manager (CCM) interface for configuring a Network Routing Node. The main window is titled "Configuration: nextiraone". On the left, a tree view shows the configuration hierarchy under "Networks" and "PCX". The "PCX" folder is expanded, showing a list of routing numbers and their associated features. The "Configuration" pane on the right shows the configuration for "nextiraone:1".

nextiraone:1	
Number	3100
Prefix Meaning	Local Features
Local Features	PCX address in DPNSS

The bottom status bar shows the following messages:

```
[11:06:35 AM] > Request 26 sent to nextiraone.  
[11:06:37 AM] > Request 26 completed on nextiraone: 101 instance(s) received.
```



Routing Prefix

Figure 25. Routing prefix configuration – 1 of 1.

File Applications Security Preferences Configuration Windows Help

Log on to 4760

Directory

Configuration

Reports

Alarms

Scheduler

Maintenance

Configuration: nextiraone

Networks PCX

- 3100 Local Feature
- 3123 Direct Speed
- 4 Routing No. 0 4 4
- 51 Routing No. 3 8 4
- 52 Routing No. 3 9 4
- 53 Routing No. 3 0 4
- 55 Routing No. 4 3 4
- 56 Routing No. 4 6 4
- 57 Routing No. 4 5 4
- 58 Routing No. 4 11
- 59 Routing No. 4 10
- 6 Routing No. 0 1 4
- 612 Routing No. 6 1
- 8 Routing No. 12 12
- 9 ARS Prof.Trig Grp
- Suffix Plan
- Numbering Plan
- PIN (Personal Ident.No.)
- Private Call Profile
- External Numbering Plan
- Network Routing Table
- Automatic Route Select
- Filtered Called Number
- ATM Address List
- Classes of Service
- Attendant
- Users
- Users by profile
- Set Profile
- Groups
- Speed Dialing

Search Users

Where Directory Number

Equal

Configuration

nextiraone:1	
Number	4
Prefix Meaning	Routing No.
Network Number	0
Node Number/ABC-F Trunk Group	4
Number of Digits	4
Number With Subaddress (ISDN)	NO
Default X25 ID.pref.	NO

All

[11:06:35 AM] > Request 26 sent to nextiraone.
[11:06:37 AM] > Request 26 completed on nextiraone: 101 instance(s) received.

6

Configuration: nextiraone



Digital Station

Figure 26. Digital station configuration – 1 of 13.

File Applications Security Preferences Configuration Windows Help

Log on to 4760

Directory

Configuration

Reports

Alarms

Scheduler

Maintenance

Configuration: nextiraone

Search Users In nextiraone

Users Where Directory Number Equal

Configuration

nextiraone	
Directory Number	3004
Directory name	Big Doe
Directory First Name	
Location Node	1
Shelf Address	0
Board Address	2
Equipment Address	4
Set Type	4035T
Entity Number	1
Set Function	Default
Domain Identifier	0
Language ID	1
Secret Code	****

General Characteristics PIN Assoc.Sets Rights Profile VoiceMail Facilities

Set Characteristics Hotel SIP_Attributes Miscellaneous All Action

[11:08:13 AM] > Request 27 sent to nextiraone.

[11:08:13 AM] > Request 27 completed on nextiraone: 14 instance(s) received.

6

Configuration: nextiraone



Figure 27. Digital station configuration – 2 of 13.

File Applications Security Preferences Configuration Windows Help

Log on to 4760

Directory

Configuration

Reports

Alarms

Scheduler

Maintenance

Configuration: nextiraone

Search Users In nextiraone

Users Where Directory Number Equal

Configuration

nextiraone	
Directory Number	3004
Board Address	2
Equipment Address	4
Set Type	4035T
Entity Number	1
Set Function	Default
Domain Identifier	0
Language ID	1
Secret Code	****
Can be Called/Dialed By Name	YES
Phone book Name (Dial by name)	Big Doe
Phone book First Name	
Displayed Name	Big Doe

General Characteristics PIN Assoc.Sets Rights Profile VoiceMail Facilities

Set Characteristics Hotel SIP_Attributes Miscellaneous All Action

[11:08:13 AM] > Request 27 sent to nextiraone.
[11:08:13 AM] > Request 27 completed on nextiraone: 14 instance(s) received.

6 Configuration: nextiraone



Figure 28. Digital station configuration – 3 of 13.

File Applications Security Preferences Configuration Windows Help

Log on to 4760

Directory

Configuration

Reports

Alarms

Scheduler

Maintenance

Configuration: nextiraone

Search Users In nextiraone

Users Where Directory Number Equal

Configuration

nextiraone	
Directory Number	3004
Hunt Group Dir No.	
ACD Group Directory No.	
Pickup Group Name	
Paging Trunk Group	255
Paging Beeper	
ISDN User	
External	<input checked="" type="checkbox"/>
Internal	<input checked="" type="checkbox"/>
Display ext. calling number	<input checked="" type="checkbox"/>
ISDN Teleservice	Phone
Dial by name and text msg.	NO
Multi-Line Properties	

General Characteristics PIN Assoc.Sets Rights Profile VoiceMail Facilities

Set Characteristics Hotel SIP_Attributes Miscellaneous All Action

[11:08:13 AM] > Request 27 sent to nextiraone.
[11:08:13 AM] > Request 27 completed on nextiraone: 14 instance(s) received.

6 Configuration: nextiraone



Figure 29. Digital station configuration – 4 of 13.

File Applications Security Preferences Configuration Windows Help

Log on to 4760

Directory

Configuration

Reports

Alarms

Scheduler

Maintenance

Configuration: nextiraone

Search Users In nextiraone

Users Where Directory Number Equal

Configuration

nextiraone	
Directory Number	3004
Directory name	Big Doe
Directory First Name	
Location Node	1
Shelf Address	0
Board Address	2
Equipment Address	4
Set Type	4035T
Entity Number	1
Set Function	Default
Profile Name	
Key Profiles	None
Domain Identifier	0

General Characteristics PIN Assoc.Sets Rights Profile VoiceMail Facilities

Set Characteristics Hotel SIP_Attributes Miscellaneous All Action

[11:08:13 AM] > Request 27 sent to nextiraone.
[11:08:13 AM] > Request 27 completed on nextiraone: 14 instance(s) received.

6 Configuration: nextiraone



Figure 30. Digital station configuration – 5 of 13.

File Applications Security Preferences Configuration Windows Help

Log on to 4760

Directory

Configuration

Reports

Alarms

Scheduler

Maintenance

Configuration: nextiraone

Search Users In nextiraone

Users Where Directory Number Equal

Configuration

nextiraone	
Directory Number	3004
Add On Module 1	None
Add On Module 2	None
Add On Module 3	None
External Alphanumeric Keyboard	None
Internal Alphanumeric Keyboard	English
V24 Extension	<input type="checkbox"/>
S0 Extension	<input type="checkbox"/>
MAC/PC	NO
Z Adapter	<input type="checkbox"/>
Language ID	1
Secret Code	****
Associated Set No.	3004

General Characteristics PIN Assoc.Sets Rights Profile VoiceMail Facilities

Set Characteristics Hotel SIP_Attributes Miscellaneous All Action

[11:08:13 AM] > Request 27 sent to nextiraone.
[11:08:13 AM] > Request 27 completed on nextiraone: 14 instance(s) received.

6 Configuration: nextiraone



Figure 31. Digital station configuration – 6 of 13.

File Applications Security Preferences Configuration Windows Help

Log on to 4760

Directory

Configuration

Reports

Alarms

Scheduler

Maintenance

Configuration: nextiraone

Search Users In nextiraone

Users Where Directory Number Equal

Configuration

nextiraone	
Directory Number	3004
Add On Module 1	None
Add On Module 2	None
Add On Module 3	None
External Alphanumeric Keyboard	None
Internal Alphanum.Keyboard	English
V24 Extension	<input type="checkbox"/>
S0 Extension	<input type="checkbox"/>
MAC/PC	NO
Z Adapter	<input type="checkbox"/>
Language ID	1
Secret Code	****
Associated Set No.	3004

General Characteristics PIN Assoc.Sets Rights Profile VoiceMail Facilities

Set Characteristics Hotel SIP_Attributes Miscellaneous All Action

[11:08:13 AM] > Request 27 sent to nextiraone.
[11:08:13 AM] > Request 27 completed on nextiraone: 14 instance(s) received.

6 Configuration: nextiraone



Figure 32. Digital station configuration – 7 of 13.

File Applications Security Preferences Configuration Windows Help

Log on to 4760

Directory

Configuration

Reports

Alarms

Scheduler

Maintenance

Configuration: nextiraone

Search Users In nextiraone

Users Where Directory Number Equal

Configuration

nextiraone	
Directory Number	3004
Paging Trunk Group	255
Paging Beeper	
Called Associated DECT set	
Tele-Marketing Agent	<input type="checkbox"/>
ISDN User	
External	<input checked="" type="checkbox"/>
Internal	<input checked="" type="checkbox"/>
Display ext. calling number	<input checked="" type="checkbox"/>
ISDN Teleservice	Phone
Hotel-Set Operation	Administrative
Use Type Of Dir. No.	Normal
Number Of Set Users	1

General Characteristics PIN Assoc.Sets Rights Profile VoiceMail Facilities

Set Characteristics Hotel SIP_Attributes Miscellaneous All Action

[11:08:13 AM] > Request 27 sent to nextiraone.
[11:08:13 AM] > Request 27 completed on nextiraone: 14 instance(s) received.

6 Configuration: nextiraone



Figure 33. Digital station configuration – 8 of 13.

File Applications Security Preferences Configuration Windows Help

Log on to 4760

Directory

Configuration

Reports

Alarms

Scheduler

Maintenance

Configuration: nextiraone

Search Users In nextiraone

Users Where Directory Number Equal

Configuration

nextiraone	
Directory Number	3004
Paging Trunk Group	255
Paging Beeper	
Called Associated DECT set	
Tele-Marketing Agent	<input type="checkbox"/>
ISDN User	
External	<input checked="" type="checkbox"/>
Internal	<input checked="" type="checkbox"/>
Display ext. calling number	<input checked="" type="checkbox"/>
ISDN Teleservice	Phone
Hotel-Set Operation	Administrative
Use Type Of Dir. No.	Normal
Number Of Set Users	1

General Characteristics PIN Assoc.Sets Rights Profile VoiceMail Facilities

Set Characteristics Hotel SIP_Attributes Miscellaneous All Action

[11:08:13 AM] > Request 27 sent to nextiraone.
[11:08:13 AM] > Request 27 completed on nextiraone: 14 instance(s) received.

6 Configuration: nextiraone



Figure 34. Digital station configuration – 9 of 13.

File Applications Security Preferences Configuration Windows Help

Log on to 4760

Directory

Configuration

Reports

Alarms

Scheduler

Maintenance

Configuration: nextiraone

Search Users In nextiraone

Users Where Directory Number Equal

Configuration

nextiraone	
Directory Number	3004
Routing Table	0
Associated Videophone	<input type="checkbox"/>
VIP (Very Important Pers.)	<input type="checkbox"/>
Assistant Directory Number	3004
Calls Priority	0
PCBT Associated	NO
Urgent Call	NO
PIN (Personal Ident.No.)	
PIN No.	
PIN With Secret Code	<input checked="" type="checkbox"/>
Type of control	By COS
PIN group number	1

General Characteristics PIN Assoc.Sets Rights Profile VoiceMail Facilities

Set Characteristics Hotel SIP_Attributes Miscellaneous All Action

[11:08:13 AM] > Request 27 sent to nextiraone.
[11:08:13 AM] > Request 27 completed on nextiraone: 14 instance(s) received.

6 Configuration: nextiraone



Figure 35. Digital station configuration – 10 of 13.

File Applications Security Preferences Configuration Windows Help

Log on to 4760

Directory

Configuration

Reports

Alarms

Scheduler

Maintenance

Configuration: nextiraone

Search Users In nextiraone

Users Where Directory Number Equal

Configuration

nextiraone	
Directory Number	3004
Can be Called/Dialed By Name	YES
Phone book Name (Dial by name)	Big Doe
Phone book First Name	
Displayed Name	Big Doe
Remote UA	<input type="checkbox"/>
Errors on Secret Code Counter	0
ACD station	NO
NS Right (Notification server)	NO
Incidents Teleservice	NO
CSTA routing	<input type="checkbox"/>
Voice Guide listening Class	7
Caller COS	4

General Characteristics PIN Assoc.Sets Rights Profile VoiceMail Facilities

Set Characteristics Hotel SIP_Attributes Miscellaneous All Action

[11:08:13 AM] > Request 27 sent to nextiraone.
[11:08:13 AM] > Request 27 completed on nextiraone: 14 instance(s) received.

6 Configuration: nextiraone



Figure 36. Digital station configuration – 11 of 13.

File Applications Security Preferences Configuration Windows Help

Log on to 4760

Directory

Configuration

Reports

Alarms

Scheduler

Maintenance

Configuration: nextiraone

Search Users In nextiraone

Users Where Directory Number Equal

Configuration

nextiraone	
Directory Number	3004
4035 Features	UA 3G
Navigator	UA 3G
Group PIN control	No group
CCA Operations	<input type="checkbox"/>
A4980	No 4980
Z IVR	<input type="checkbox"/>
NOMADIC	<input type="checkbox"/>
TAPI premium server	NO
Conference group	-1
Announcement group	-1
Call Restriction COS	0
Applicable Restriction COS	0

General Characteristics PIN Assoc.Sets Rights Profile VoiceMail Facilities

Set Characteristics Hotel SIP_Attributes Miscellaneous All Action

[11:08:13 AM] > Request 27 sent to nextiraone.
[11:08:13 AM] > Request 27 completed on nextiraone: 14 instance(s) received.

6 Configuration: nextiraone



Figure 37. Digital station configuration – 12 of 13.

File Applications Security Preferences Configuration Windows Help

Log on to 4760

Directory

Configuration

Reports

Alarms

Scheduler

Maintenance

Configuration: nextiraone

Search Users In nextiraone

Users Where Directory Number Equal

Configuration

nextiraone	
Directory Number	3004
NOMADIC	<input type="checkbox"/>
TAPI premium server	NO
Conference group	-1
Announcement group	-1
Call Restriction COS	0
Applicable Restriction COS	0
Implicit Priority	
Activation mode	0
Priority Level	0
Explicit Priority	
Activation mode	0
Priority Level	0

General Characteristics PIN Assoc.Sets Rights Profile VoiceMail Facilities

Set Characteristics Hotel SIP_Attributes Miscellaneous All Action

[11:08:13 AM] > Request 27 sent to nextiraone.
[11:08:13 AM] > Request 27 completed on nextiraone: 14 instance(s) received.

6 Configuration: nextiraone



Figure 38. Digital station configuration – 13 of 13.

File Applications Security Preferences Configuration Windows Help

Log on to 4760

Directory

Configuration

Reports

Alarms

Scheduler

Maintenance

Configuration: nextiraone

Search Users In nextiraone

Users Where Directory Number Equal

Configuration

nextiraone	
Directory Number	3004
Pre-emptable Primary Inc. Line	NO
Pre-emptable Secondary Inc. Line	NO
Priority Presentation	NO
lth Service type	Not Valid
CUG List Number	-1
Preferential CUG	-1
CUG Outgoing Access	<input type="checkbox"/>
CUG Incoming Access	<input type="checkbox"/>
Automatic reconfiguration	CTQ Forbidden - Connection TO
URL UserName	
URL Domain	
Advanced configuration	<input type="checkbox"/>

General Characteristics PIN Assoc.Sets Rights Profile VoiceMail Facilities

Set Characteristics Hotel SIP_Attributes Miscellaneous All Action

[11:08:13 AM] > Request 27 sent to nextiraone.
[11:08:13 AM] > Request 27 completed on nextiraone: 14 instance(s) received.

6 Configuration: nextiraone



Digital Station Phone Facilities

Figure 39. Digital station facilities configuration – 1 of 17.

The screenshot shows the Cisco OmniVista 4760 configuration interface. The title bar reads "OmniVista 4760 - COMPIDEA:389 - AdminNmc". The menu bar includes "File", "Applications", "Security", "Preferences", "Configuration", "Windows", and "Help". The left pane shows a tree view under "Configuration: alcatel51" with the following structure:

- Networks
 - PCX
 - Shelf
 - Media Gateway
 - PWT/DECT System
 - System
 - Translator
 - Classes of Service
 - 1
 - Access COS
 - Connection COS
 - Transfer COS
 - Private Calls Connect.
 - Phone Features Class
 - 0 00001000001100
 - 1 00001100000000
 - 2 00001100000000
 - 3 00000000000000
 - 4 00000000000000
 - 5 00000000000000
 - 6 00000000000000
 - 7 00000000000000
 - 8 00000000000000
 - 9 00000000000000
 - 10 0000100001111
 - 11 0000100001111
 - 12 0110010111111
 - 13 0000100001111

The right pane shows the "Configuration" tab for "alcatel51:1". It displays a table of features and their values:

alcatel51:1	
Tel. Features COS ID	0
Rights Prot.against dir.call pick	0
Rights Protected against all ba	0
Rights Protected against set b	0
Rights Outgoing calls only	0
Rights Forward to external No.	1
Rights Prot.against multi-l ring	0
Rights Protected against forwa	0
Rights Protected (against barg	0
Rights Prot.against call annou	0
Rights Remote calls un/annou	0

The bottom of the interface shows a toolbar with icons for navigation and a status bar indicating "1".



Figure 40. Digital station facilities configuration – 2 of 17.

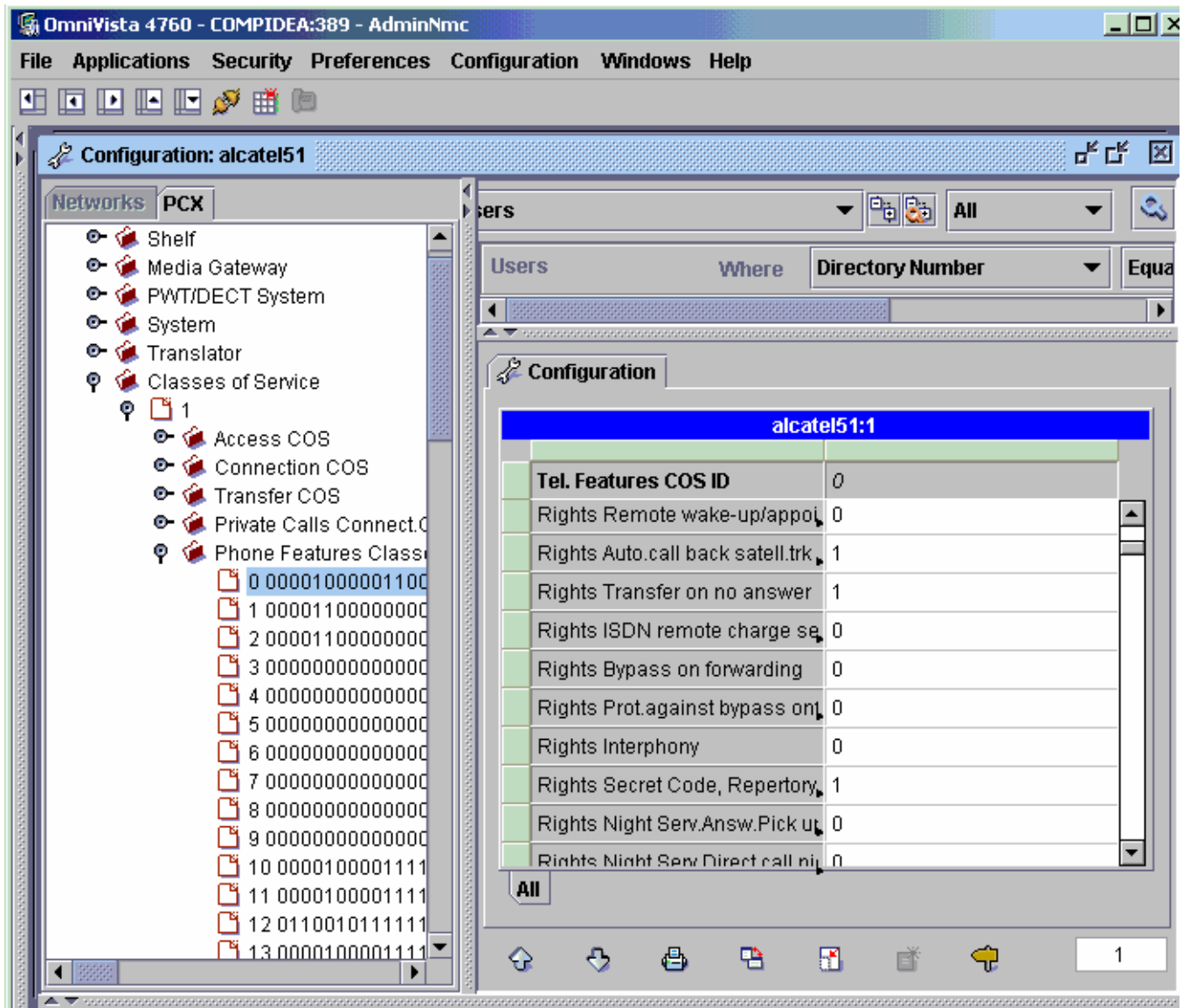




Figure 41. Digital station facilities configuration – 3 of 17.

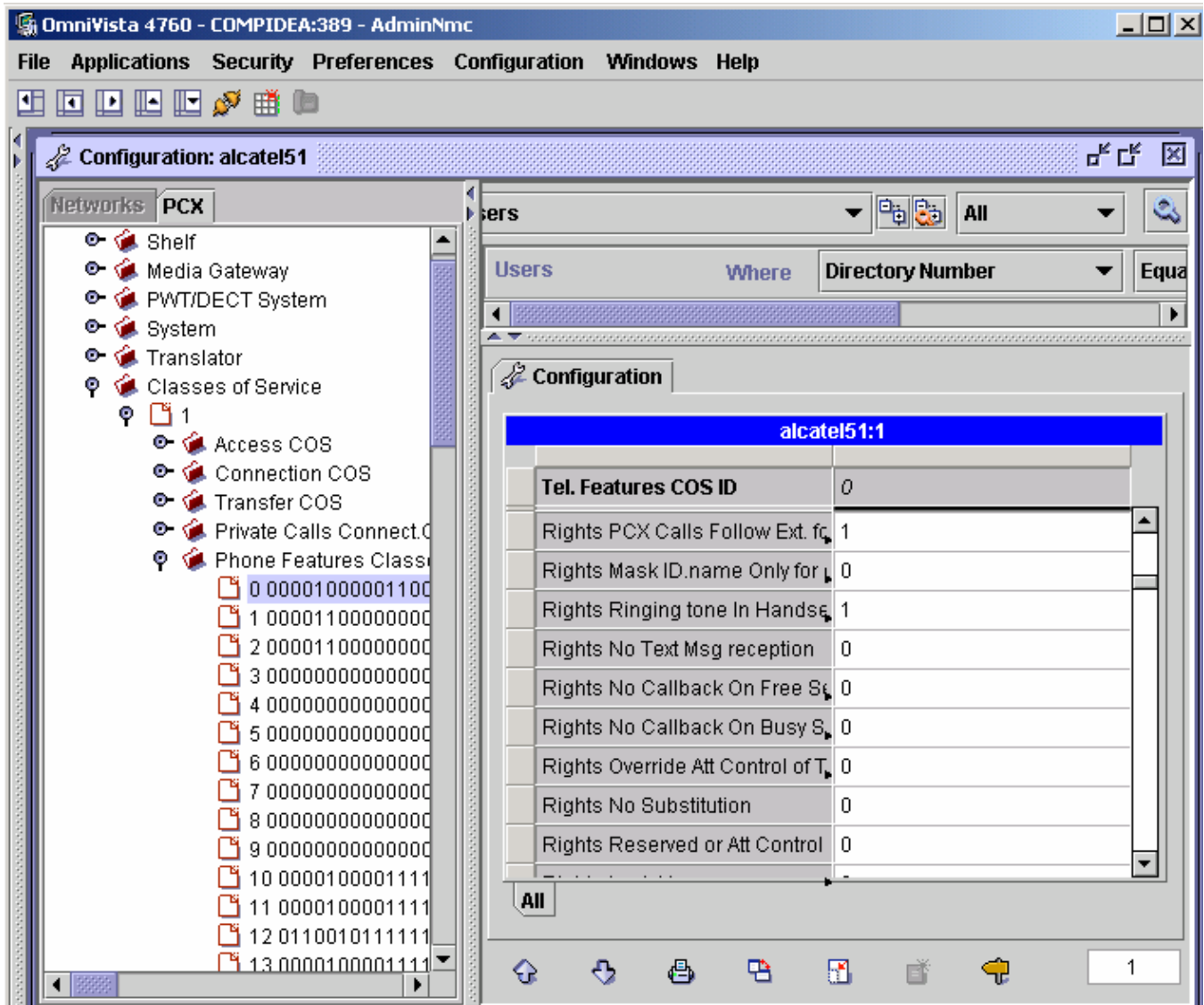




Figure 42. Digital station facilities configuration – 4 of 17.

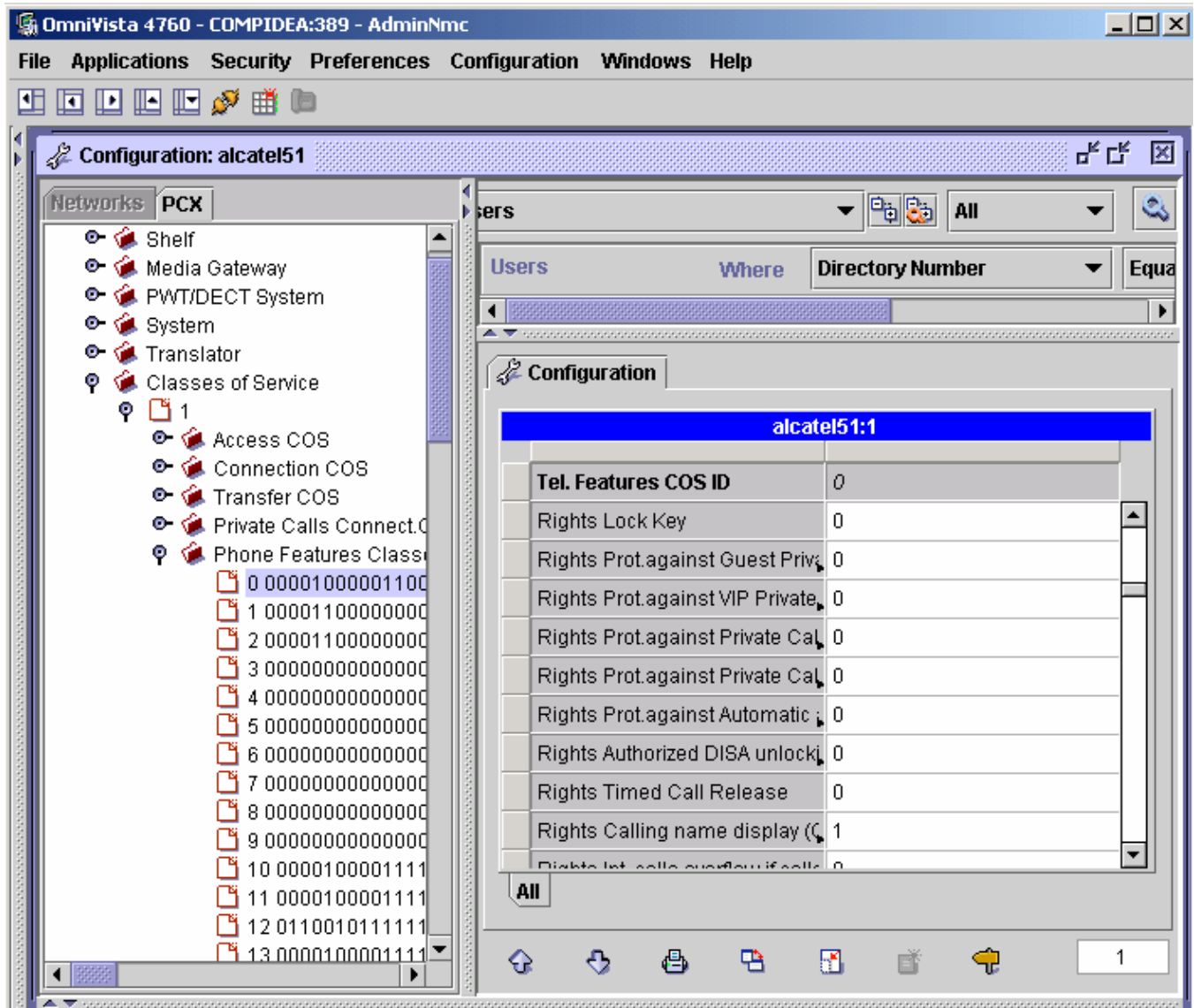




Figure 43. Digital station facilities configuration – 5 of 17.

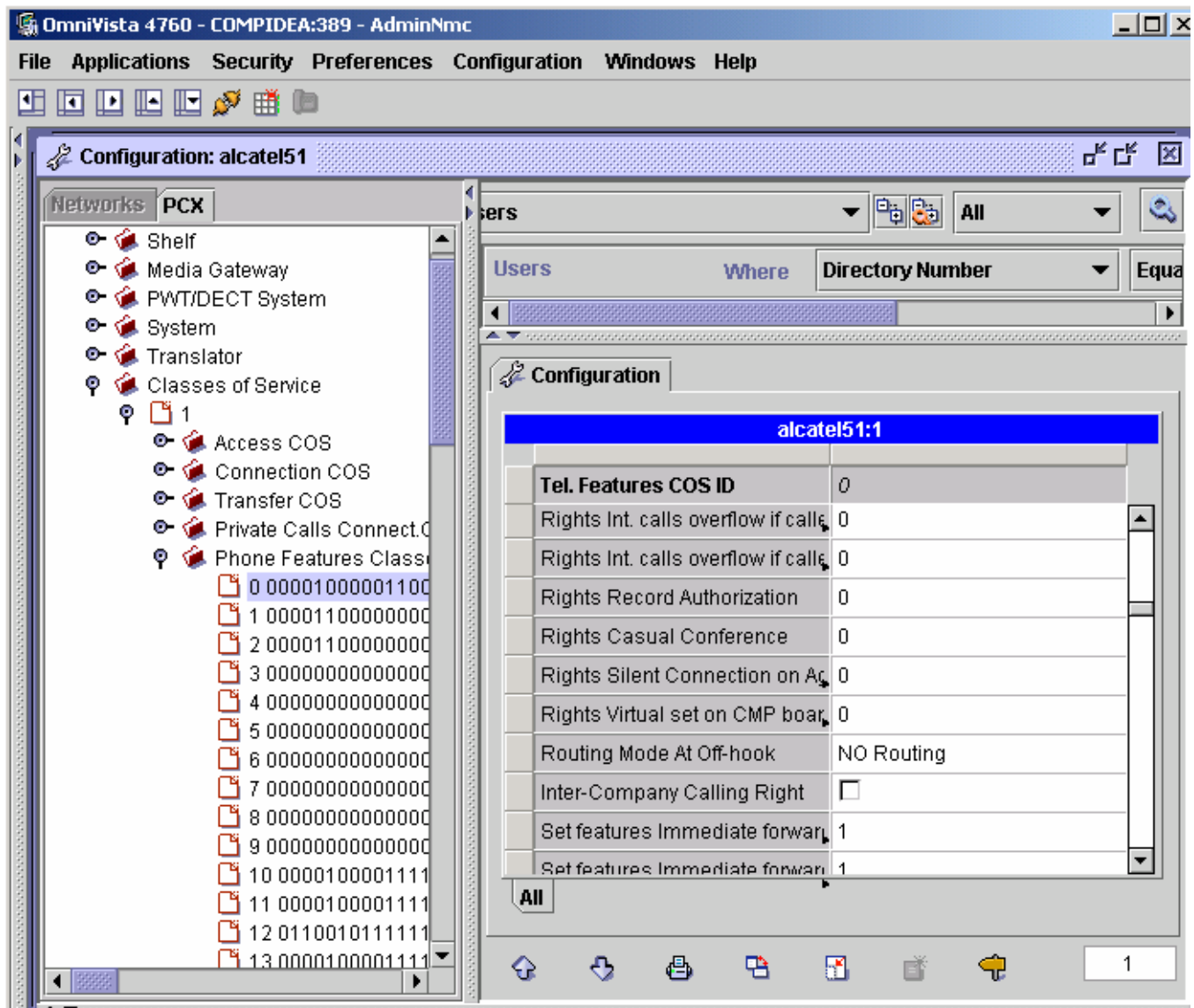




Figure 44. Digital station facilities configuration – 6 of 17.

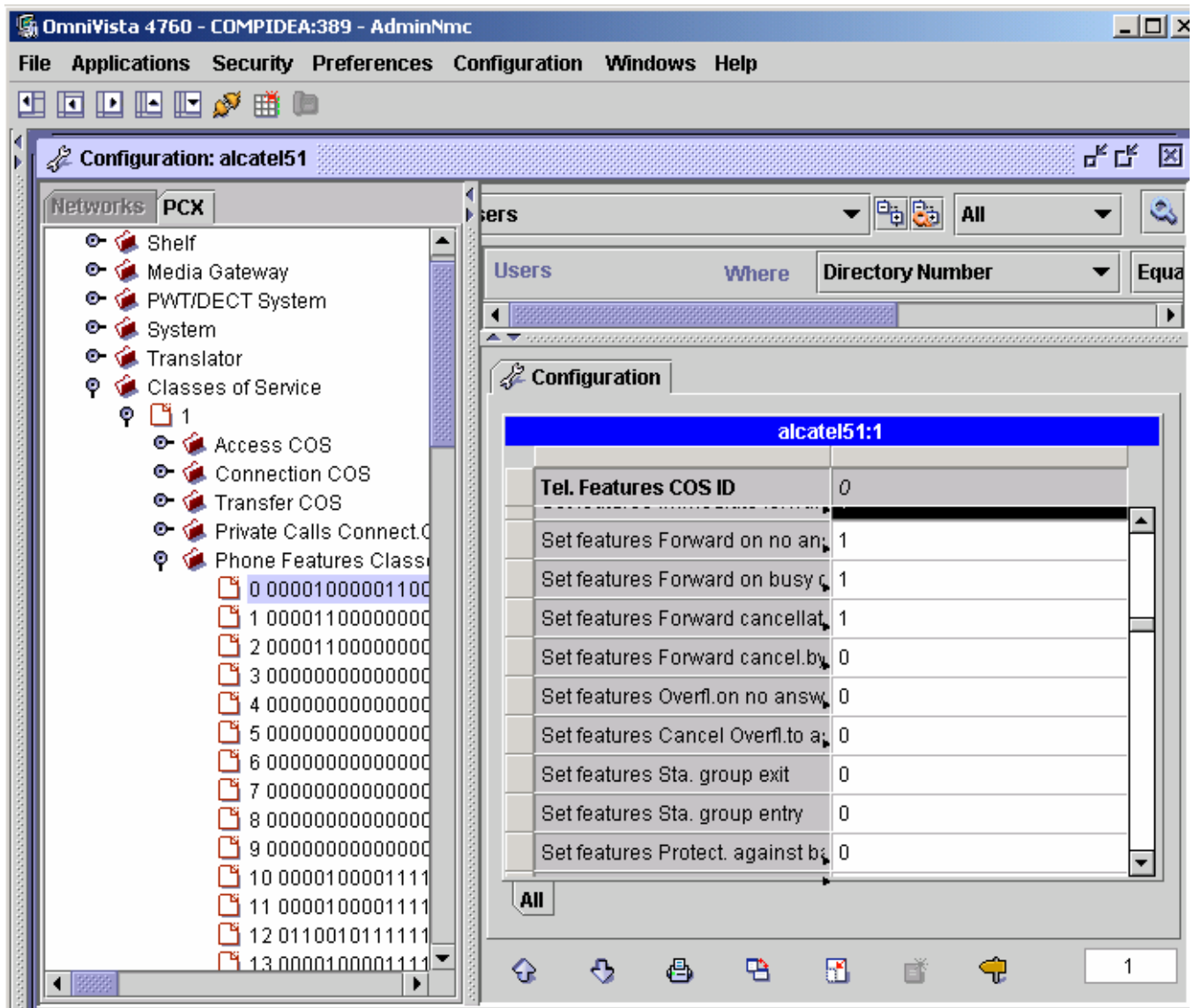




Figure 45. Digital station facilities configuration – 7 of 17.

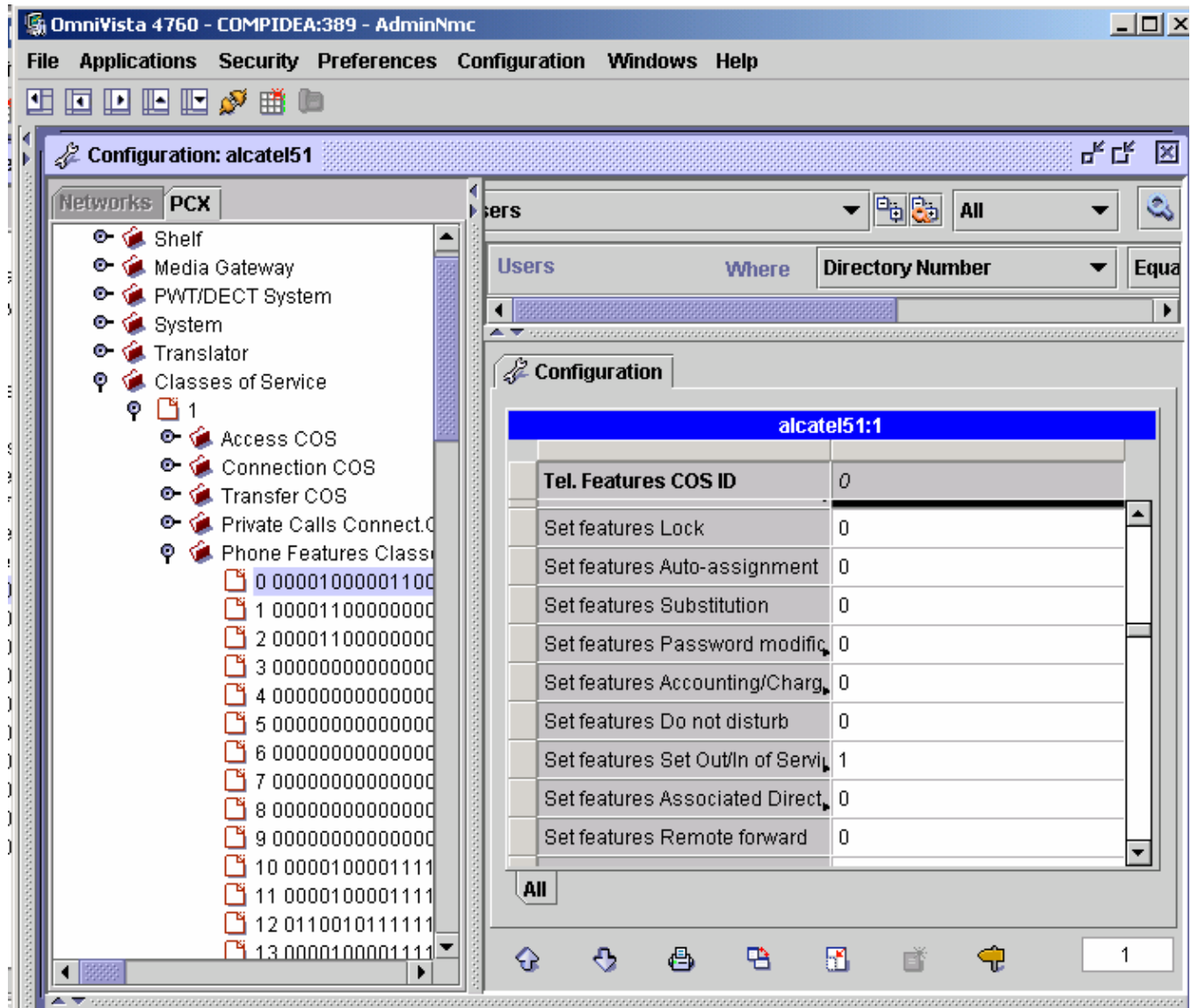




Figure 46. Digital station facilities configuration – 8 of 17.

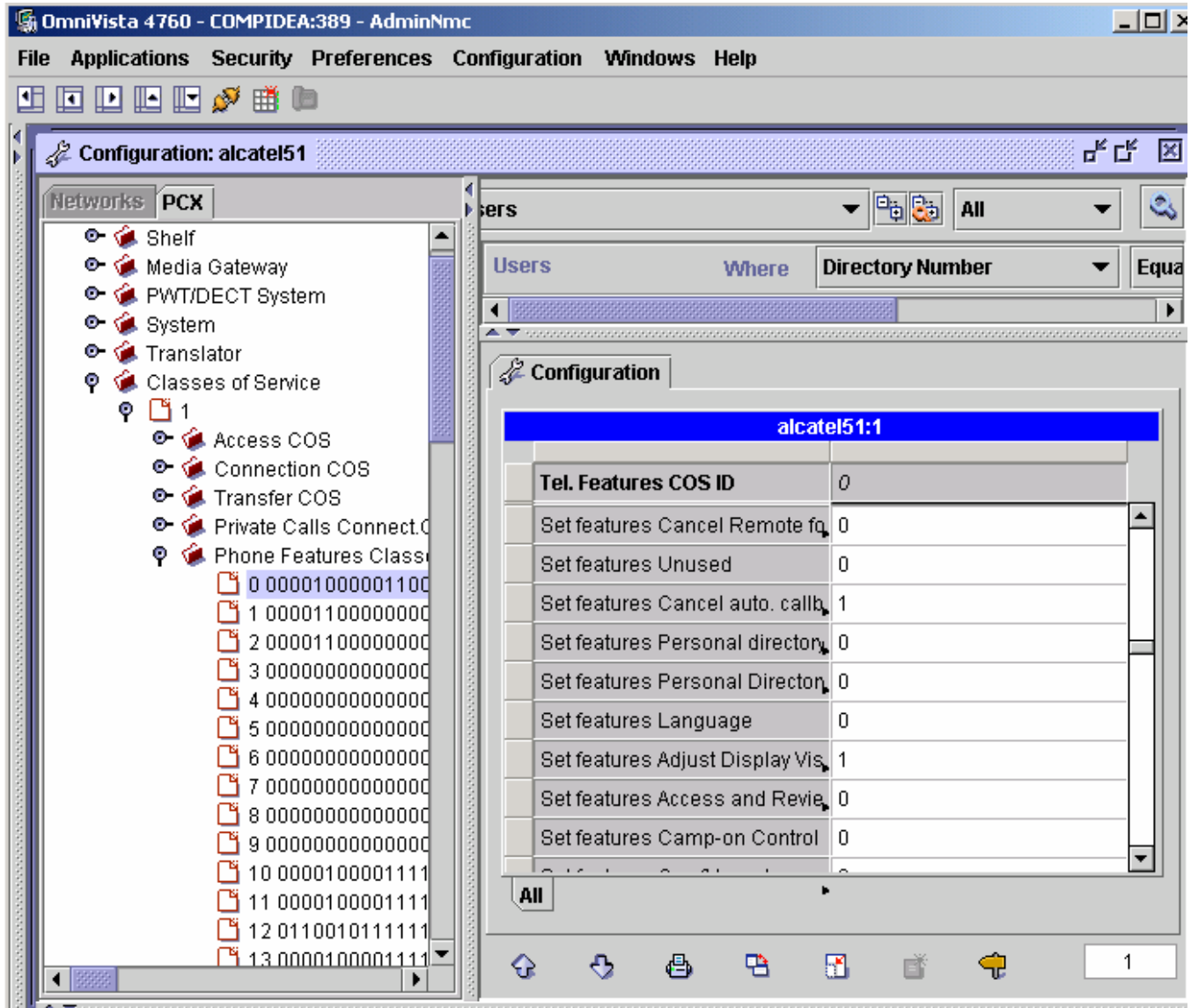




Figure 47. Digital station facilities configuration – 9 of 17.

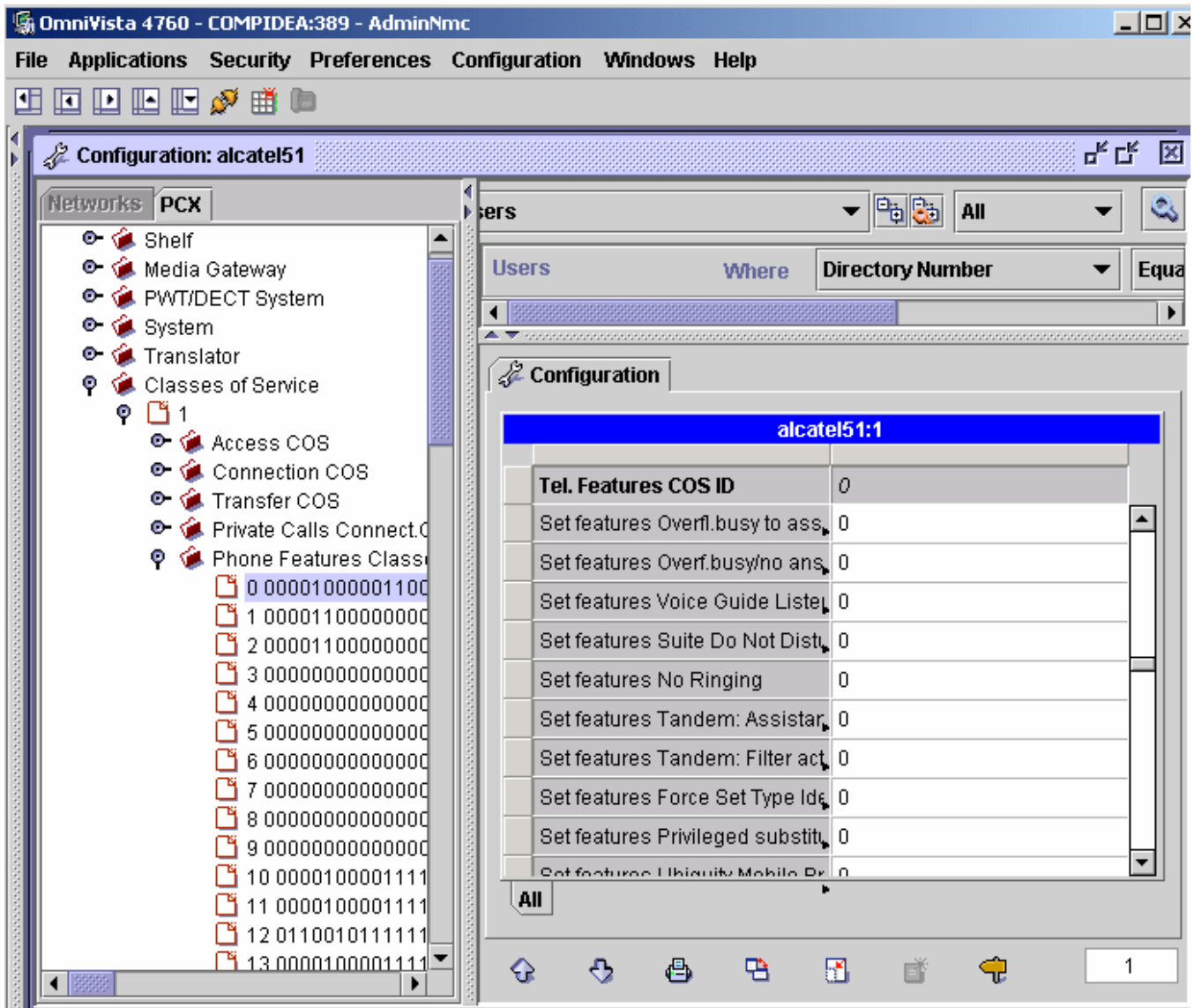




Figure 48. Digital station facilities configuration – 10 of 17.

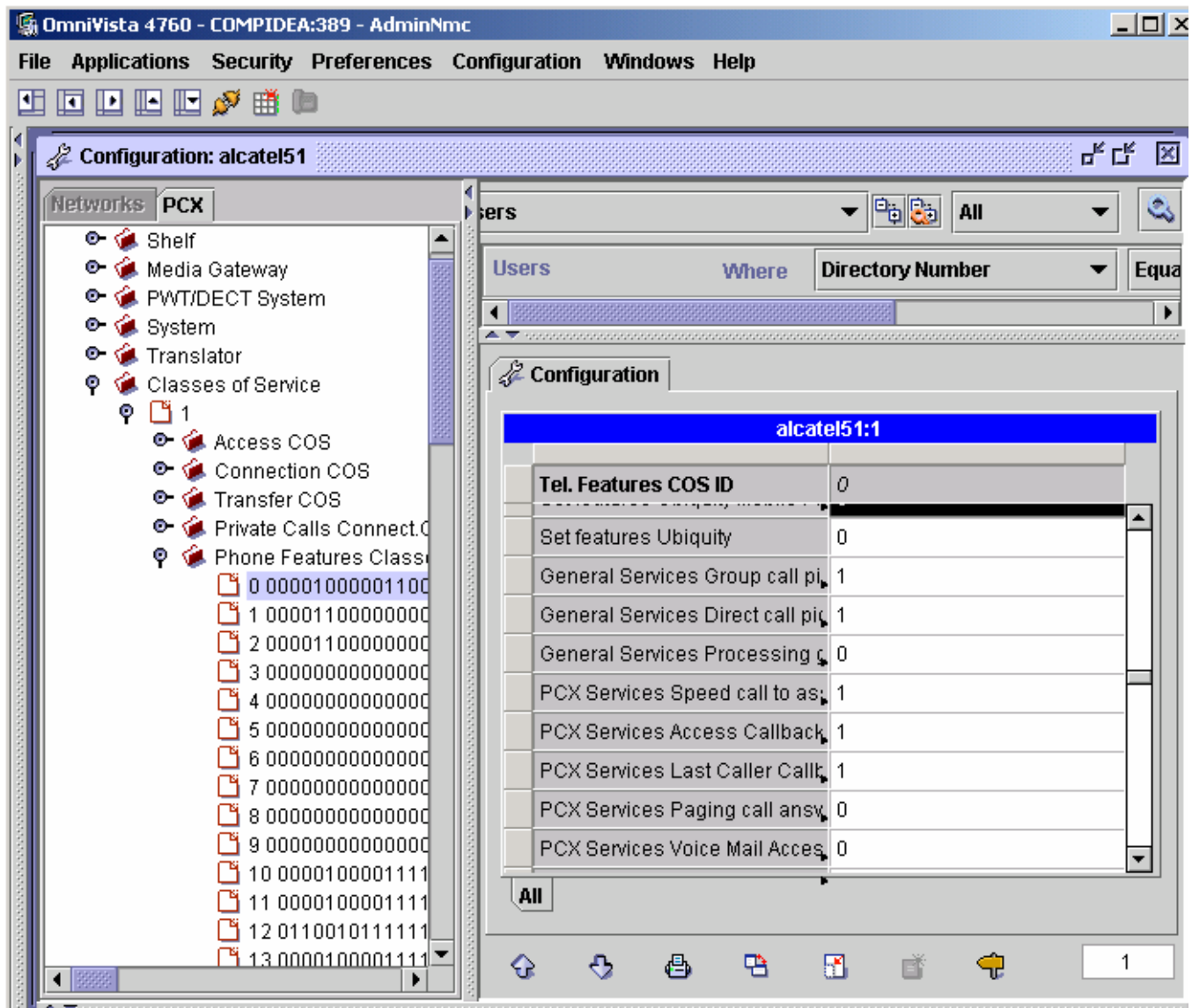




Figure 49. Digital station facilities configuration – 11 of 17.

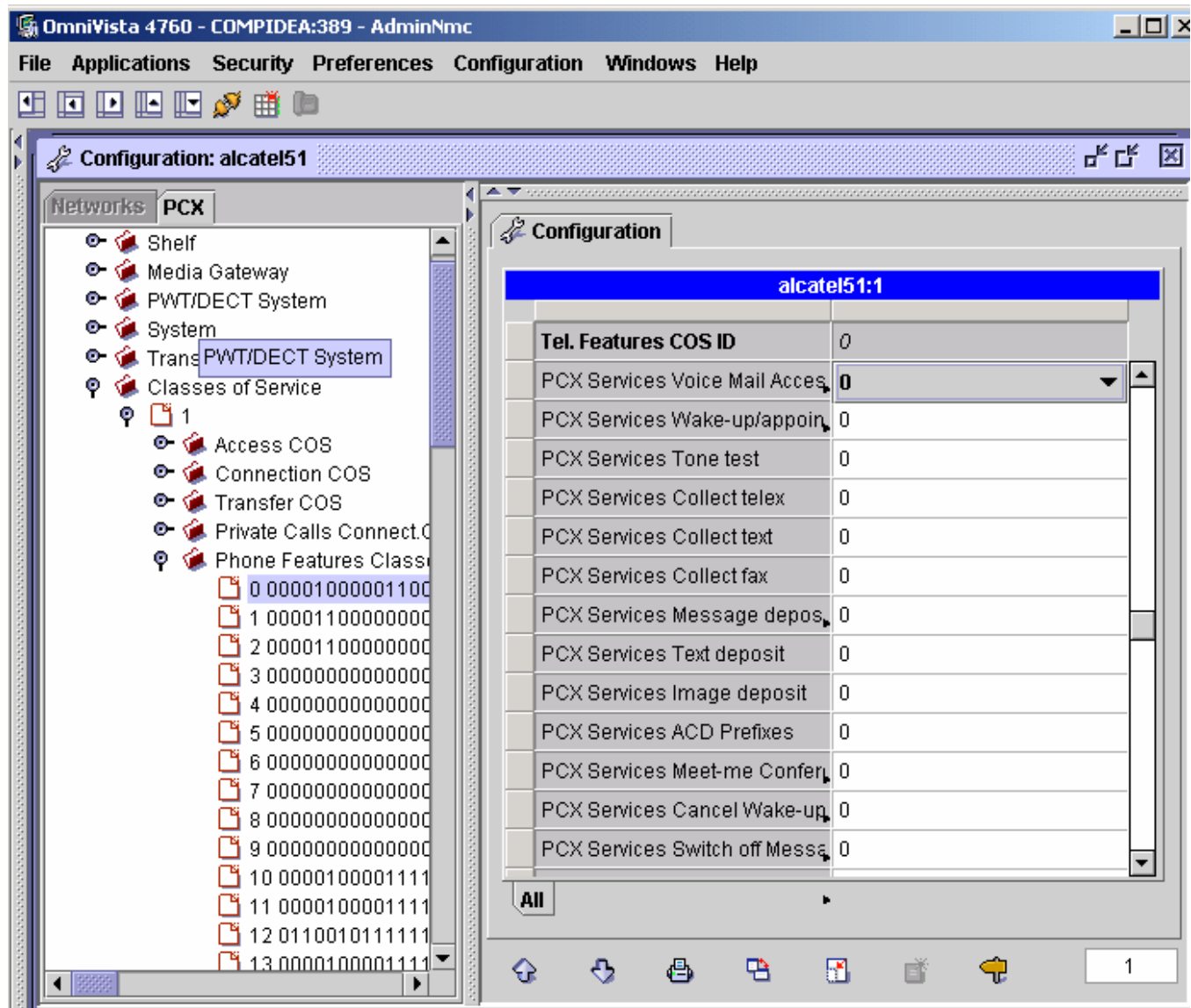




Figure 50. Digital station facilities configuration – 12 of 17.

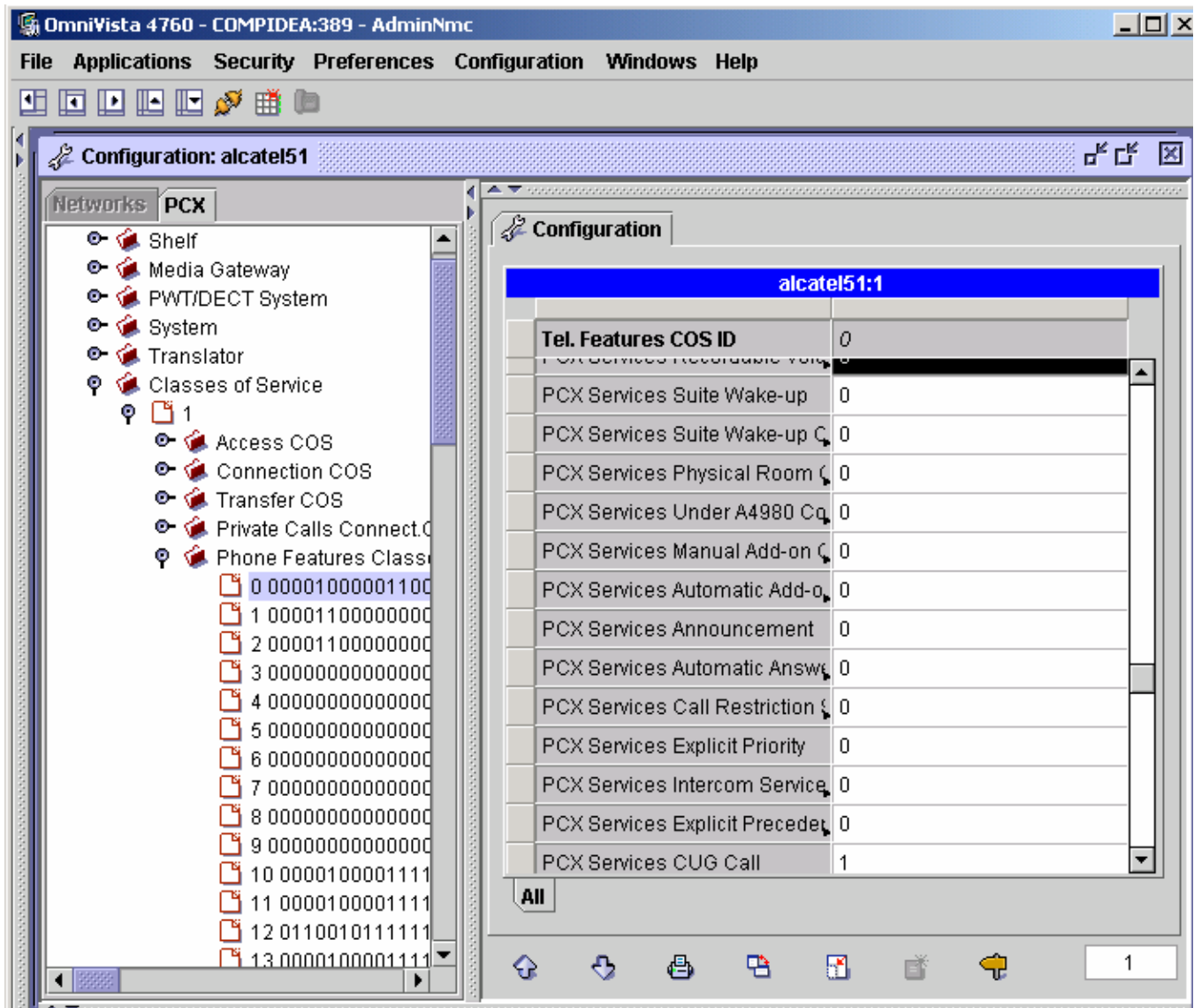




Figure 51. Digital station facilities configuration – 13 of 17.

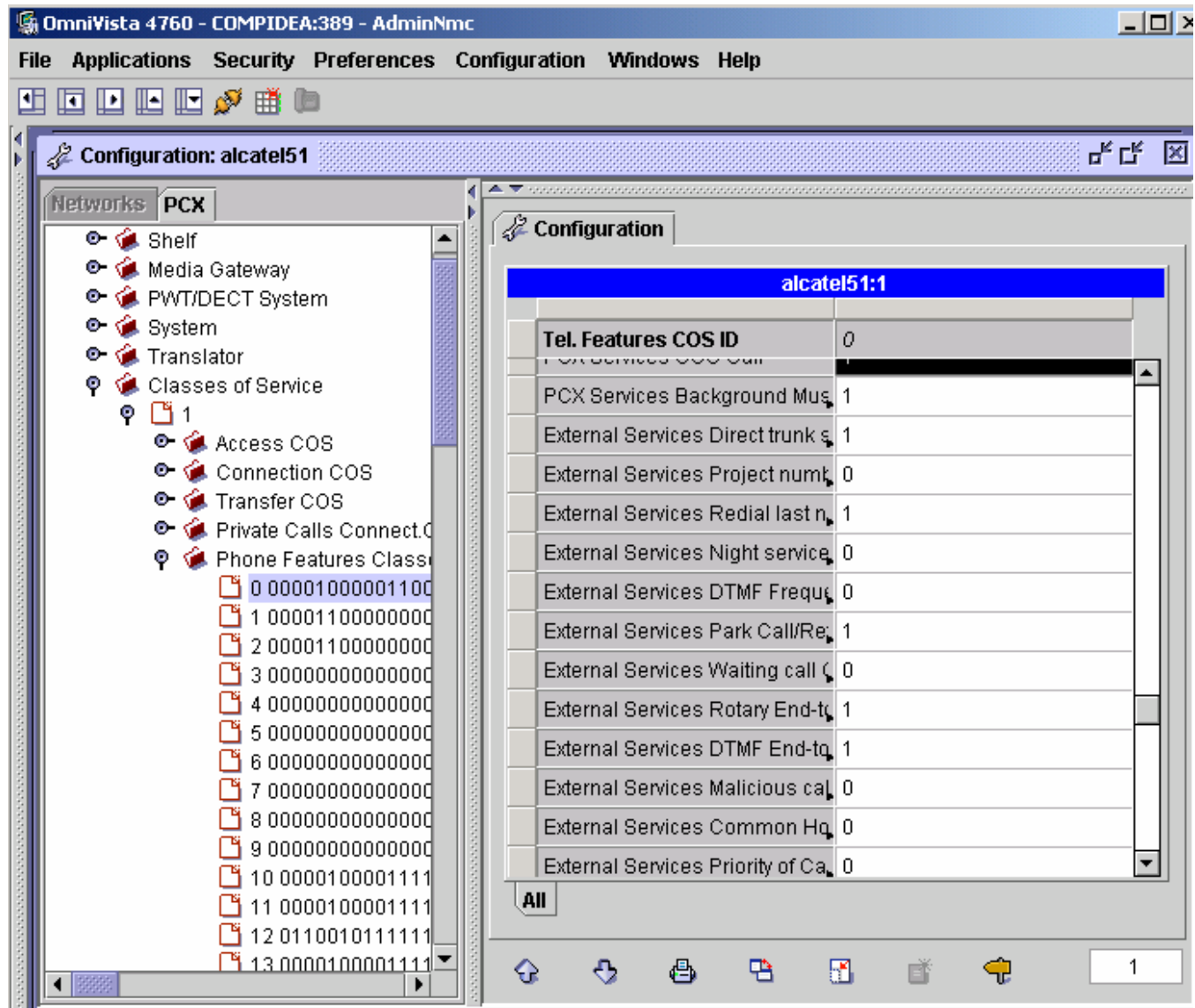




Figure 52. Digital station facilities configuration – 14 of 17.

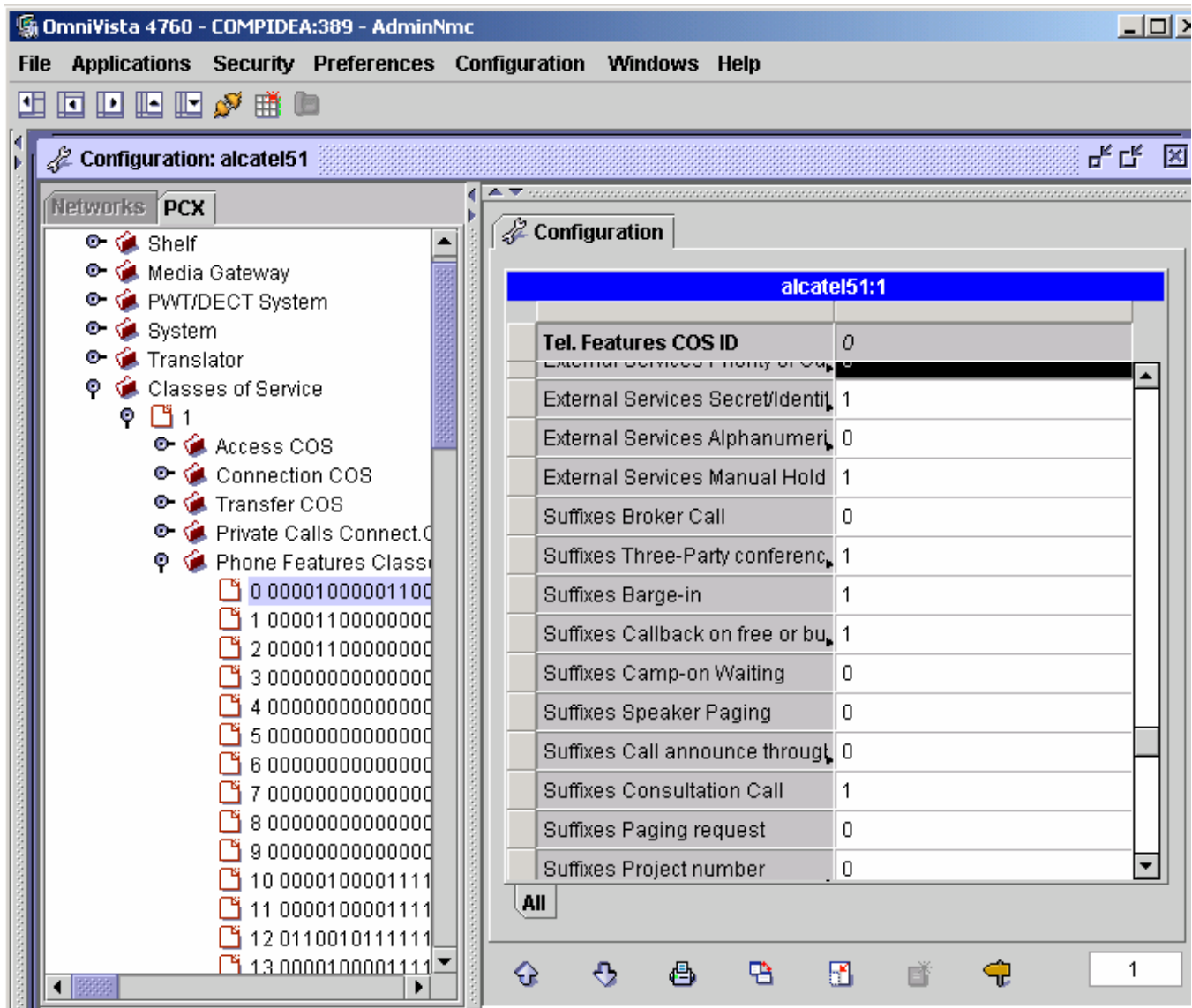




Figure 53. Digital station facilities configuration – 15 of 17.

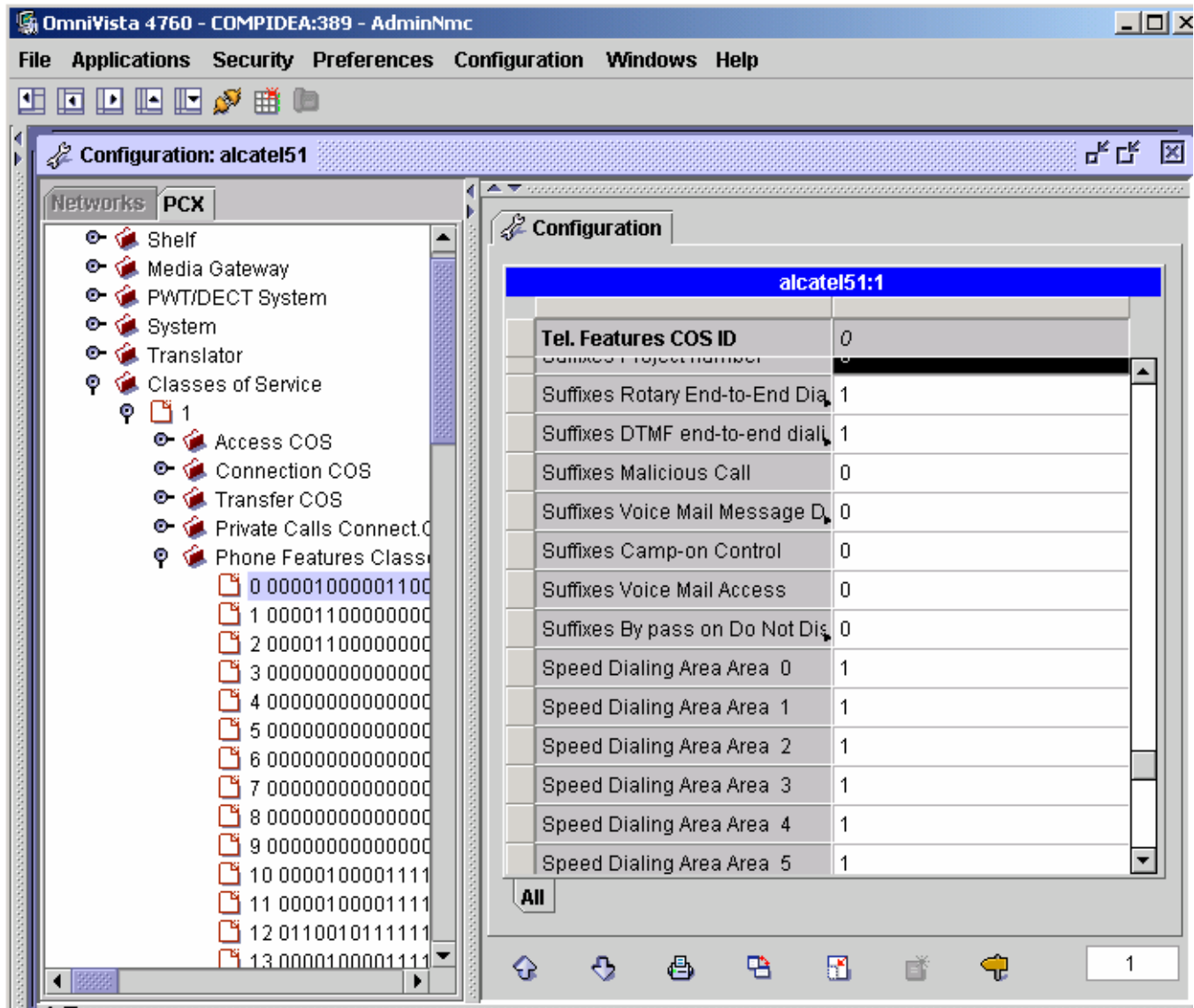




Figure 54. Digital station facilities configuration – 16 of 17.

OmniVista 4760 - COMPIDEA:389 - AdminNmc

File Applications Security Preferences Configuration Windows Help

Configuration: alcatel51

Networks PCX

- Shelf
- Media Gateway
- PWT/DECT System
- System
- Translator
- Classes of Service
 - 1
 - Access COS
 - Connection COS
 - Transfer COS
 - Private Calls Connect.C
 - Phone Features Class
 - 0 00001000001100
 - 1 00001100000000
 - 2 00001100000000
 - 3 00000000000000
 - 4 00000000000000
 - 5 00000000000000
 - 6 00000000000000
 - 7 00000000000000
 - 8 00000000000000
 - 9 00000000000000
 - 10 0000100001111
 - 11 0000100001111
 - 12 0110010111111
 - 13 0000100001111

Configuration

alcatel51:1	
Tel. Features COS ID	
Speed Dialing Area Area 6	1
Speed Dialing Area Area 7	1
Speed Dialing Area Area 8	1
Speed Dialing Area Area 9	1
Speed Dialing Area Area 10	1
Speed Dialing Area Area 11	1
Speed Dialing Area Area 12	1
Speed Dialing Area Area 13	1
Speed Dialing Area Area 14	1
Speed Dialing Area Area 15	1
Speed Dialing Area Area 16	1
Speed Dialing Area Area 17	1
Speed Dialing Area Area 18	1

All

1



Figure 55. Digital station facilities configuration – 17 of 17.

OmniVista 4760 - COMPIDEA:389 - AdminNmc

File Applications Security Preferences Configuration Windows Help

Configuration: alcatel51

Networks PCX

- Shelf
- Media Gateway
- PWT/DECT System
- System
- Translator
- Classes of Service
 - 1
 - Access COS
 - Connection COS
 - Transfer COS
 - Private Calls Connect.C
 - Phone Features Classi
 - 0 00001000001100
 - 1 00001100000000
 - 2 00001100000000
 - 3 00000000000000
 - 4 00000000000000
 - 5 00000000000000
 - 6 00000000000000
 - 7 00000000000000
 - 8 00000000000000
 - 9 00000000000000
 - 10 0000100001111
 - 11 0000100001111
 - 12 0110010111111
 - 13 0000100001111

Configuration

alcatel51:1

Tel. Features COS ID	
Speed Dialing Area Area 23	1
Speed Dialing Area Area 24	1
Speed Dialing Area Area 25	1
Speed Dialing Area Area 26	1
Speed Dialing Area Area 27	1
Speed Dialing Area Area 28	1
Speed Dialing Area Area 29	1
Speed Dialing Area Area 30	1
Speed Dialing Area Area 31	1
Voice Mail Forwarding	Ring Final Set Mail
Default Overflow Type	No forward
Default Overflow Addressee	Nothing
Quality profile for voice over IP	Profile #2

All

1



Configuring Cisco Unified CallManager 5.0

Cisco Unified CallManager 5.0 Version

Figure 56. Cisco Unified CallManager 5.0 Version – 1 of 1.





Protocol Service Parameters

Figure 57. Protocol Service Parameters for ISO QSIG – 1 of 1.

Clusterwide Parameters (Device - PRI and MGCP Gateway)		
ASN.1 ROSE OID Encoding *	<input type="text" value="Use Local Value"/>	Use Local Value
QSIG Variant *	<input type="text" value="ISO (Protocol Profile 0x9F)"/>	ISO (Protocol Profile 0x9F)
Caller ID	<input type="text"/>	
Calling Name Not Available Timeout *	<input type="text" value="2000"/>	2000



Configuring the Cisco 3745 Voice Gateway

Figure 58. All gateways – 1 of 1.

The screenshot shows the Cisco Unified CallManager Administration interface. The top navigation bar includes 'Cisco Unified CallManager Administration' and 'For Cisco IP Telecommunication Solutions'. The user is logged in as 'CCMAdministrator'. The main menu includes 'System', 'Call Routing', 'Media Resources', 'Voice Mail', 'Device', 'Application', 'User Management', 'Bulk Administration', and 'Help'. The 'Find and List Gateway' section is active, showing a search bar with a plus icon, a minus icon, and a search icon. Below the search bar, the status indicates '2 records found'. The search options section includes a dropdown for 'Find Gateways where' set to 'Name', a dropdown for 'begins with', a text input field, a 'Hide' button, and a 'Find' button. There is also a checkbox for 'Search Within Results' and a dropdown for 'Select item or enter search text'. The search results section displays a table with the following columns: Device Name, Description, Device Pool, Calling Search Space, Ext., Partition, Route Group, Priority, Port, Device Type, Status, and IP Address. The table contains two rows: one for '3745B4 E1' (MGCP 3745 E1) and one for '3825B4 E1' (3825 To Vindaloo). Both rows are marked as 'Cisco 3745' and 'Cisco 3825' respectively. Below the table, there are buttons for 'Add New', 'Select All', 'Clear All', 'Delete Selected', and 'Reset Selected'. The 'Rows per Page' is set to 50.

Device Name	Description	Device Pool	Calling Search Space	Ext.	Partition	Route Group	Priority	Port	Device Type	Status	IP Address
3745B4 E1	MGCP 3745 E1								Cisco 3745	See Endpoints	
3825B4 E1	3825 To Vindaloo								Cisco 3825	See Endpoints	







Figure 59. Cisco 3745 Voice Gateway configuration – 1 of 2.


NavigationCisco Unified CallManager AdministrationGo

Cisco Unified CallManager AdministrationFor Cisco IP Telecommunication SolutionsLogged in as: CCMAdministrator

SystemCall RoutingMedia ResourcesVoice MailDeviceApplicationUser ManagementRisk AdministrationHelpLog Off

Gateway ConfigurationRelated Links: Back To Find/ListGo





Status
 Status: Ready

Gateway Details

Product	Cisco 3745
Gateway	3745B4_E1
Protocol	MGCP
Domain Name *	<input type="text" value="3745B4_E1"/>
Description	<input type="text" value="MGCP 3745 E1"/>
Cisco Unified CallManager Group*	<input type="text" value="Default"/>

Configured Slots, VICs and Endpoints

Mainboard Slot	<input type="text" value=" < None >"/>			
Module in Slot 1	<input type="text" value=" NM-HDV"/>			
Subunit 0	<input type="text" value=" VWIC-2MFT-E1"/>	1/ 0		1/ 1
Module in Slot 2	<input type="text" value=" NM-HDV"/>			
Subunit 0	<input type="text" value=" VWIC-2MFT-E1"/>	2/ 0		2/ 1
Module in Slot 3	<input type="text" value=" < None >"/>			
Module in Slot 4	<input type="text" value=" < None >"/>			





Product Specific Configuration

?



Figure 60. Cisco 3745 Voice Gateway configuration – 2 of 2.

Gateway Details	
Product	Cisco 3745
Gateway	3745B4_E1
Protocol	MGCP
Domain Name *	3745B4_E1
Description	MGCP 3745 E1
Cisco Unified CallManager Group *	Default

Configured Slots, VICs and Endpoints	
Mainboard Slot	< None >
Module in Slot 1	NM-HDV
Subunit 0	VVIC-2MFT-E1 1/ 0  1/ 1 
Module in Slot 2	NM-HDV
Subunit 0	VVIC-2MFT-E1 2/ 0  2/ 1 
Module in Slot 3	< None >
Module in Slot 4	< None >

Product Specific Configuration	
Global ISDN Switch Type	EURO
Switchback Timing *	Graceful
Switchback uptime-delay (min)	10
Switchback schedule (hh:mm)	12:00


 *- indicates required item.



Figure 61. Cisco 3745 trunk 2/0 configuration – 1 of 4.

Navigation Cisco Unified CallManager Administration Go

Cisco Unified CallManager Administration For Cisco IP Telecommunication Solutions Logged in as: CCMAAdministrator

System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help Log Off

Gateway Configuration Related Links: Back to MGCP Configuration Go

Status

Status: Ready

Device Information

Product

Cisco MGCP E1 Port

Gateway

3745B4_E1

Device Protocol

Digital Access PRI

Registration

Registered with Cisco Unified CallManager CM-Vindaloo

IP Address

172.20.221.200

End-Point Name *

S2/DS1-0@3745B4_E1

Description

S2/DS1-0@3745B4_E1

Device Pool*

Default

Call Classification*

Use System Default

NetworkLocale

< None >

Packet Capture Mode*

None

Packet Capture Duration

60

Media Resource Group List

< None >

Location*

Hub_None

AAR Group

< None >

Load Information

☐ Transmit UTF-8 for Calling Party Name

☐ V150 (subset)



Figure 62. Cisco 3745 trunk 2/0 configuration – 2 of 4.

Multilevel Precedence and Preemption (MLPP) Information	
MLPP Domain	< None >
MLPP Indication Not available on this device	
MLPP Preemption Not available on this device	
Interface Information	
PRI Protocol Type*	PRI ISO QSIG E1
Protocol Side*	Network
Channel Selection Order*	Top Down
Channel IE Type*	Timeslot Number
PCM Type*	A-law
Delay for first restart (1/8 sec ticks)*	32
Delay between restarts (1/8 sec ticks)*	4
<input checked="" type="checkbox"/> Inhibit restarts at PRI initialization	
<input type="checkbox"/> Enable status poll	
<input type="checkbox"/> Unattended Port	
Call Routing Information - Inbound Calls	
Significant Digits*	All
Calling Search Space	Incoming Trunk
AAR Calling Search Space	< None >
Prefix DN	
Call Routing Information - Outbound Calls	
Calling Party Presentation*	Default
Calling Party Selection*	Originator
Called party IE number type unknown*	Unknown
Calling party IE number type unknown*	Unknown



Figure 63. Cisco 3745 trunk 2/0 configuration – 3 of 4.

Called Numbering Plan*	Unknown
Calling Numbering Plan*	Unknown
Number of digits to strip*	0
Caller ID DN	
SMDI Base Port*	0

PRI Protocol Type Specific Information	
<input type="checkbox"/> Display IE Delivery	
<input checked="" type="checkbox"/> Redirecting Number IE Delivery - Outbound	
<input type="checkbox"/> Redirecting Number IE Delivery - Inbound	
<input type="checkbox"/> Send Extra Leading Character in Display IE***	
<input type="checkbox"/> Setup non-ISDN Progress Indicator IE Enable****	
<input type="checkbox"/> MCDN Channel Number Extension Bit Set to Zero**	
<input type="checkbox"/> Send Calling Name In Facility IE	
<input type="checkbox"/> Interface Identifier Present**	
Interface Identifier Value**	0
Connected Line ID Presentation (QSIG Inbound Call)*	Default

UUIE Configuration	
<input type="checkbox"/> Passing Precedence Level Through UUIE	
Security Access Level*	2

Product Specific Configuration	
Line Coding *	HDB3
Framing *	CRC4
Clock *	External



Figure 64. Cisco 3745 trunk 2/0 configuration – 4 of 4.

Redirecting Number IE Delivery - Inbound

☐ Send Extra Leading Character in Display IE ***

☐ Setup non-ISDN Progress Indicator IE Enable ****

☐ MCDN Channel Number Extension Bit Set to Zero **

☐ Send Calling Name In Facility IE

☐ Interface Identifier Present **

Interface Identifier Value **

Connected Line ID Presentation (QSIG Inbound Call) *

Default

UUIE Configuration

☐ Passing Precedence Level Through UUIE

Security Access Level *

Product Specific Configuration

Line Coding *

Framing *

Clock *

HDB3

CRC4

External

Save

Delete

Reset

i

*- indicates required item.

i

** - applies to DMS-100 protocol only.

i

*** - applies to DMS-100 protocol and DMS-250 protocol only.

i

**** - may be required to force ringback from some PBXs.

i

***** - Device reset is not required for changes to Packet Capture Mode and Packet Capture Duration.



Figure 65. Cisco 3745 trunk 2/1 configuration – 1 of 4.

NavigationCisco Unified CallManager AdministrationGo

Cisco Unified CallManager AdministrationFor Cisco IP Telecommunication SolutionsLogged in as: CCMAAdministrator

SystemCall RoutingMedia ResourcesVoice MailDeviceApplicationUser ManagementRisk AdministrationHelpLog Off

Gateway ConfigurationRelated Links: Back to MGCP ConfigurationGo

Status

Status: Ready

Device Information

ProductCisco MGCP E1 Port

Gateway3745B4_E1

Device ProtocolDigital Access PRI

RegistrationRegistered with Cisco Unified CallManager CM-Vindaloo

IP Address172.20.221.200

End-Point Name *S2/DS1-1@3745B4_E1

DescriptionS2/DS1-1@3745B4_E1

Device Pool*Default

Call Classification*Use System Default

NetworkLocale< None >

Packet Capture Mode*None

Packet Capture Duration60

Media Resource Group List< None >

Location*Hub_None

AAR Group< None >

Load Information

☐ Transmit UTF-8 for Calling Party Name

☐ V150 (subset)



Figure 66. Cisco 3745 trunk 2/1 configuration – 2 of 4.

Multilevel Precedence and Preemption (MLPP) Information	
MLPP Domain	< None >
MLPP Indication Not available on this device	
MLPP Preemption Not available on this device	

Interface Information	
PRI Protocol Type*	PRI ISO QSIG E1
Protocol Side*	Network
Channel Selection Order*	Top Down
Channel IE Type*	Timeslot Number
PCM Type*	A-law
Delay for first restart (1/8 sec ticks)*	32
Delay between restarts (1/8 sec ticks)*	4
<input checked="" type="checkbox"/> Inhibit restarts at PRI initialization	
<input type="checkbox"/> Enable status poll	
<input type="checkbox"/> Unattended Port	

Call Routing Information - Inbound Calls	
Significant Digits*	All
Calling Search Space	Incoming Trunk
AAR Calling Search Space	< None >
Prefix DN	

Call Routing Information - Outbound Calls	
Calling Party Presentation*	Default
Calling Party Selection*	Originator
Called party IE number type unknown*	National
Calling party IE number type unknown*	National



Figure 67. Cisco 3745 trunk 2/1 configuration – 3 of 4.

Called Numbering Plan *	Private
Calling Numbering Plan *	Private
Number of digits to strip *	0
Caller ID DN	
SMDI Base Port *	0

PRI Protocol Type Specific Information	
<input type="checkbox"/> Display IE Delivery	
<input checked="" type="checkbox"/> Redirecting Number IE Delivery - Outbound	
<input type="checkbox"/> Redirecting Number IE Delivery - Inbound	
<input type="checkbox"/> Send Extra Leading Character in Display IE ***	
<input type="checkbox"/> Setup non-ISDN Progress Indicator IE Enable ****	
<input type="checkbox"/> MCDN Channel Number Extension Bit Set to Zero **	
<input type="checkbox"/> Send Calling Name In Facility IE	
<input type="checkbox"/> Interface Identifier Present **	
Interface Identifier Value **	0
Connected Line ID Presentation (QSIG Inbound Call) *	Default

UUIE Configuration	
<input type="checkbox"/> Passing Precedence Level Through UUIE	
Security Access Level *	2

Product Specific Configuration	
?	
Line Coding *	HDB3
Framing *	CRC4
Clock *	External



Figure 68. Cisco 3745 trunk 2/1 configuration – 4 of 4.

Redirecting Number IE Delivery - Inbound

☐ Send Extra Leading Character in Display IE ***

☐ Setup non-ISDN Progress Indicator IE Enable ****

☐ MCDN Channel Number Extension Bit Set to Zero **

☐ Send Calling Name In Facility IE

☐ Interface Identifier Present **

Interface Identifier Value **

Connected Line ID Presentation (QSIG Inbound Call) *

0

Default

UUIE Configuration

☐ Passing Precedence Level Through UUIE

Security Access Level *

2

Product Specific Configuration

Line Coding *

Framing *

Clock *

HDB3

CRC4

External

Save

Delete

Reset

i

*- indicates required item.

i

** - applies to DMS-100 protocol only.

i

*** - applies to DMS-100 protocol and DMS-250 protocol only.

i

**** - may be required to force ringback from some PBXs.

i

***** - Device reset is not required for changes to Packet Capture Mode and Packet Capture Duration.



Partitions

Figure 69. Partitions configuration – 1 of 3.

Navigation Cisco Unified CallManager Administration Go

Cisco Unified CallManager Administration For Cisco IP Telecommunication Solutions Logged in as: CCMAdministrator

System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help Log Off

Find and List Partitions

Status

2 records found

Search Options

Find partition where Partition Name begins with Find Search Within Results (name begins with any)

Search Results

	Partition Name	Description
<input type="checkbox"/>	Incoming Trunk	Incoming Trunk
<input type="checkbox"/>	Phones	Phones

Add New

Select All

Clear All

Delete Selected

Rows per Page 50



Figure 70. Partitions configuration – 2 of 3.

Navigation Cisco Unified CallManager Administration Go

Cisco Unified CallManager Administration For Cisco IP Telecommunication Solutions Logged in as: CCMAAdministrator

System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help Log Off

Partition Configuration Related Links: Back To Find/List Go

Status
Status: Ready

Partition Name* Incoming Trunk

Description Incoming Trunk

Time Schedule < None >

Time Zone ☒ Originating Device ☐ Specific Time Zone Greenwich Standard Time

Save Delete Reset Add New

*- indicates required item.



Figure 71. Partitions configuration – 3 of 3.

Navigation Cisco Unified CallManager Administration Go

Cisco Unified CallManager Administration For Cisco IP Telecommunication Solutions Logged in as: CCMAdministrator

System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help Log Off

Partition Configuration Related Links: Back To Find/List Go

Status
 Status: Ready

Partition Name* Phones

Description Phones

Time Schedule < None >

Time Zone ☒ Originating Device ☐ Specific Time Zone Greenwich Standard Time

Save Delete Reset Add New

*- indicates required item.

Calling Search Space

Figure 72. Calling Search Space – 1 of 4.

Navigation

Cisco Unified CallManager Administration

Go

Cisco Unified CallManager Administration

For Cisco IP Telecommunication Solutions

Logged In as:CCMAAdministrator

System
Call Routing
Media Resources
Voice Mail
Device
Application
User Management
Bulk Administration
Help
Log Off

Find and List Calling Search Spaces

+

Status

3 records found

Search Options

Find where
Name
begins with
Find
Search Within Results

Search Results

	CSS Name	Description	Copy
<input type="checkbox"/>	Incoming Trunk	3745 E1	
<input type="checkbox"/>	Path ReplacementCCS	Path ReplacementCCS	
<input type="checkbox"/>	Phones	7960 and 7940	

Add New
Select All
Clear All
Delete Selected

Rows per Page
50







Figure 73. Calling Search Space – 2 of 4.

Navigation Cisco Unified CallManager Administration Go


Cisco Unified CallManager Administration For Cisco IP Telecommunication Solutions Logged in as: CCMAAdministrator

System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help Log Off

Calling Search Space Configuration Related Links: Back To Find/List Go



Status

 Status: Ready

Calling Search Space Information

Name* Incoming Trunk

Description 3745 E1

Route Partitions for this Calling Search Space

Available Partitions

Phones


Selected Partitions (Ordered by highest priority)

Incoming Trunk

▼ ▲

▼ ▲

Save Delete Copy Add New

 *

Indicates required item.







Figure 74. Calling Search Space – 3 of 4.

Navigation Cisco Unified CallManager Administration Go


Cisco Unified CallManager Administration For Cisco IP Telecommunication Solutions Logged in as: CCMAAdministrator

System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help Log Off

Calling Search Space Configuration Related Links: Back To Find/List Go



Status

 Status: Ready

Calling Search Space Information

Name* Path ReplacementCCS

Description Path ReplacementCCS

Route Partitions for this Calling Search Space

Available Partitions

Selected Partitions (Ordered by highest priority)

Incoming Trunk Phones

Save Delete Copy Add New


 *- Indicates required item.



Figure 75. Calling Search Space – 4 of 4.

Navigation Cisco Unified CallManager Administration Go

Cisco Unified CallManager Administration For Cisco IP Telecommunication Solutions Logged in as: CCMAAdministrator

System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help Log Off

Calling Search Space Configuration Related Links: Back To Find/List Go

Status
Status: Ready

Calling Search Space Information
Name* Phones
Description 7960 and 7940

Route Partitions for this Calling Search Space
Available Partitions Incoming Trunk
Selected Partitions (Ordered by highest priority) Phones

Save Delete Copy Add New

*- Indicates required item.

Route Patterns

Figure 76. Route Patterns – 1 of 1.

Navigation Cisco Unified CallManager Administration Go

Cisco Unified CallManager Administration For Cisco IP Telecommunication Solutions Logged in as: CCMAdministrator

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾ Log Off

Find and List Route Patterns

+ [Grid Icon] - [Delete Icon]

Status

6 records found

Search Options

Find Route Patterns where Pattern ▾ begins with ▾ || Find ☐ Search Within Results

(numplan.dnorpattern begins with any)

Search Results

Pattern	Description	Partition	Route Filter	Associated Device	Copy
<input type="checkbox"/> 3100	CCM-Vindaloo to NextiraOne			S2/DS1-1@3745B4 E1	[Icon]
<input type="checkbox"/> 3XXX	CCM-Vindaloo to NextiraOne			S2/DS1-1@3745B4 E1	[Icon]
<input type="checkbox"/> 6100	CCM-Vindaloo to Compidea			S2/DS1-0@3745B4 E1	[Icon]
<input type="checkbox"/> 6XXX	CCM-Vindaloo to Compidea			S2/DS1-0@3745B4 E1	[Icon]
<input type="checkbox"/> 9.3	CCM-Vindaloo to NextiraOne			S2/DS1-1@3745B4 E1	[Icon]
<input type="checkbox"/> 9.6	CCM-Vindaloo to Compidea			S2/DS1-0@3745B4 E1	[Icon]

Add New Select All Clear All Delete Selected Rows per Page 50 ▾



Figure 77. 3XXX Route Pattern – 1 of 2.

Navigation Cisco Unified CallManager Administration Go

Cisco Unified CallManager Administration For Cisco IP Telecommunication Solutions Logged in as: CCMAdministrator

System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help Log Off

Route Pattern Configuration Related Links: Back To Find/List Go

Status

Status: Ready

Pattern Definition

Route Pattern* 3XXX

Route Partition < None >

Description CCM-Vindaloo to NextiraOne

Numbering Plan -- Not Selected --

Route Filter < None >

MLPP Precedence* Default

Gateway/Route List* S2/DS1-1@3745B4_E1 (Edit) Find

Route Option

☒ Route this pattern

☐ Block this pattern No Error

Call Classification* OffNet

☐ Allow Device Override ☒ Provide Outside Dial Tone ☐ Allow Overlap Sending ☐ Urgent Priority

☐ Require Forced Authorization Code

Authorization Level* 0

☐ Require Client Matter Code

Calling Party Transformations



Figure 78. 3XXX Route Pattern – 2 of 2.

☐ Require Client Matter Code

Calling Party Transformations

☐ Use Calling Party's External Phone Number Mask

Calling Party Transform Mask

Prefix Digits (Outgoing Calls)

Calling Line ID Presentation*Default

Calling Name Presentation*Default

Connected Party Transformations

Connected Line ID Presentation*Default

Connected Name Presentation*Default

Called Party Transformations

Discard Digits<None>

Called Party Transform Mask

Prefix Digits (Outgoing Calls)

ISDN Network-Specific Facilities Information Element

Network Service Protocol-- Not Selected --

Carrier Identification Code

Network Service	Service Parameter Name	Service Parameter Value
-- Not Selected --	< Not Exist >	

SaveDeleteCopyAdd New

i

* - indicates required item.



Figure 79. 3XXX Route Pattern configured for Calling Name and Number Restriction (compare with Figure 78.) – 1 of 1.

☐ Require Client Matter Code

Calling Party Transformations

☐ Use Calling Party's External Phone Number Mask

Calling Party Transform Mask

Prefix Digits (Outgoing Calls)

Calling Line ID Presentation*

Restricted

Calling Name Presentation*

Restricted

Connected Party Transformations

Connected Line ID Presentation*

Default

Connected Name Presentation*

Default

Called Party Transformations

Discard Digits

< None >

Called Party Transform Mask

Prefix Digits (Outgoing Calls)

ISDN Network-Specific Facilities Information Element

Network Service Protocol

-- Not Selected --

Carrier Identification Code

Network Service	Service Parameter Name	Service Parameter Value
<div>-- Not Selected --</div>	<div>< Not Exist ></div>	

Save

Delete

Copy

Add New

*- indicates required item.



Figure 80. 6XXX Route Pattern – 1 of 2.

Navigation Cisco Unified CallManager Administration Go

Cisco Unified CallManager Administration For Cisco IP Telecommunication Solutions Logged in as: CCMAdministrator

System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help Log Off

Route Pattern Configuration Related Links: Back To Find/List Go

Status

Status: Ready

Pattern Definition

Route Pattern* 6XXX

Route Partition < None >

Description CCM-Vindaloo to Compidea

Numbering Plan -- Not Selected --

Route Filter < None >

MLPP Precedence* Default

Gateway/Route List* S2/DS1-0@3745B4_E1 (Edit) Find

Route Option

Route this pattern

Block this pattern No Error

Call Classification* OffNet

Allow Device Override

Provide Outside Dial Tone

Allow Overlap Sending

Urgent Priority

Require Forced Authorization Code

Authorization Level* 0

Require Client Matter Code

Calling Party Transformations

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Figure 81. 6XXX Route Pattern – 2 of 2.

☐ Require Client Matter Code

Calling Party Transformations

☐ Use Calling Party's External Phone Number Mask

Calling Party Transform Mask

Prefix Digits (Outgoing Calls)

Calling Line ID Presentation* Default

Calling Name Presentation* Default

Connected Party Transformations

Connected Line ID Presentation* Default

Connected Name Presentation* Default

Called Party Transformations

Discard Digits < None >

Called Party Transform Mask

Prefix Digits (Outgoing Calls)

ISDN Network-Specific Facilities Information Element

Network Service Protocol -- Not Selected --

Carrier Identification Code

Network Service	Service Parameter Name	Service Parameter Value
-- Not Selected --	< Not Exist >	

SaveDeleteCopyAdd New

i

* - indicates required item.



Figure 82. 9.3 Route Pattern – 1 of 2.

Navigation

Cisco Unified CallManager Administration

Go

Cisco Unified CallManager Administration For Cisco IP Telecommunication Solutions

Logged in as: CCMAdministrator

System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help Log Off

Route Pattern Configuration

Related Links: Back To Find/List Go

Status

Status: Ready

Pattern Definition

Route Pattern* 3

Route Partition < None >

Description CCM-Vindaloo to NextiraOne

Numbering Plan -- Not Selected --

Route Filter < None >

MLPP Precedence* Default

Gateway/Route List* S2/DS1-1@3745B4_E1 (Edit) Find

Route Option

☒ Route this pattern

☐ Block this pattern No Error

Call Classification* OffNet

☐ Allow Device Override ☒ Provide Outside Dial Tone ☒ Allow Overlap Sending ☐ Urgent Priority

☐ Require Forced Authorization Code

Authorization Level* 0

☐ Require Client Matter Code

Calling Party Transformations



Figure 83. 9.3 Route Pattern – 2 of 2.

☐ Require Client Matter Code

Calling Party Transformations

☐ Use Calling Party's External Phone Number Mask

Calling Party Transform Mask

Prefix Digits (Outgoing Calls)

Calling Line ID Presentation*Default

Calling Name Presentation*Default

Connected Party Transformations

Connected Line ID Presentation*Default

Connected Name Presentation*Default

Called Party Transformations

Discard DigitsPreDot

Called Party Transform Mask

Prefix Digits (Outgoing Calls)

ISDN Network-Specific Facilities Information Element

Network Service Protocol-- Not Selected --

Carrier Identification Code

Network Service	Service Parameter Name	Service Parameter Value
-- Not Selected --	< Not Exist >	

SaveDeleteCopyAdd New

i

* - indicates required item.

Translation Pattern for Incoming Calls

Figure 84. Translation Patterns – 1 of 1.

Cisco Unified CallManager Administration For Cisco IP Telecommunication Solutions
 Logged In as: CCMAAdministrator

System ▾ | Call Routing ▾ | Media Resources ▾ | Voice Mail ▾ | Device ▾ | Application ▾ | User Management ▾ | Bulk Administration ▾ | Help ▾ | Log Off

Find and List Translation Patterns

+ [Grid Icon] - [Delete Icon]

Status
i 1 records found

Search Options

Find Translation patterns where Pattern ▾ begins with ▾ Find ☐ Search Within Results
 (numplan.dnorpattern begins with any)

Search Results

Translation Pattern	Partition	Description	Route Filter	Copy
<input type="checkbox"/> 4XXX	Incoming Trunk			

Add New Select All Clear All Delete Selected Rows per page 50 ▾



Figure 85. 4XXX Translation Pattern – 1 of 2.

Navigation Cisco Unified CallManager Administration Go

Cisco Unified CallManager Administration For Cisco IP Telecommunication Solutions Logged in as: CCMAdministrator

System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help Log Off

Translation Pattern Configuration Related Links: Back To Find/List Go

Status
Status: Ready

Pattern Definition

Translation Pattern 4XXX

Partition Incoming Trunk

Description

Numbering Plan < None >

Route Filter < None >

MLPP Precedence* Default

Calling Search Space Phones

Route Option
☒ Route this pattern
☐ Block this pattern No Error

☒ Provide Outside Dial Tone ☒ Urgent Priority

Calling Party Transformations

☐ Use Calling Party's External Phone Number Mask

Calling Party Transform Mask

Prefix Digits (Outgoing Calls)

Calling Line ID Presentation* Default



Figure 86. 4XXX Translation Pattern – 2 of 2.

Route Filter	< None >
MLPP Precedence*	Default
Calling Search Space	Phones
Route Option	<input checked="" type="radio"/> Route this pattern <input type="radio"/> Block this pattern No Error
<input checked="" type="checkbox"/> Provide Outside Dial Tone <input checked="" type="checkbox"/> Urgent Priority	
Calling Party Transformations	
<input type="checkbox"/> Use Calling Party's External Phone Number Mask	
Calling Party Transform Mask	
Prefix Digits (Outgoing Calls)	
Calling Line ID Presentation*	Default
Calling Name Presentation*	Default
Connected Party Transformations	
Connected Line ID Presentation*	Default
Connected Name Presentation*	Default
Called Party Transformations	
Discard Digits	< None >
Called Party Transform Mask	
Prefix Digits (Outgoing Calls)	
Save Delete Copy Add New	
*- indicates required item.	



Figure 87. 4XXX Translation Pattern configured for Connected Name and Number Restriction (compare with Figure 86.) – 1 of 1.

Route Filter	< None >
MLPP Precedence*	Default
Calling Search Space	Phones
Route Option	<input checked="" type="radio"/> Route this pattern <input type="radio"/> Block this pattern No Error
<input checked="" type="checkbox"/> Provide Outside Dial Tone <input checked="" type="checkbox"/> Urgent Priority	
Calling Party Transformations	
<input type="checkbox"/> Use Calling Party's External Phone Number Mask	
Calling Party Transform Mask	
Prefix Digits (Outgoing Calls)	
Calling Line ID Presentation*	Default
Calling Name Presentation*	Default
Connected Party Transformations	
Connected Line ID Presentation*	Restricted
Connected Name Presentation*	Restricted
Called Party Transformations	
Discard Digits	< None >
Called Party Transform Mask	
Prefix Digits (Outgoing Calls)	
Save Delete Copy Add New	
*- indicates required item.	



Call Back Softkey

Figure 88. Softkey layout – 1 of 2.

The screenshot shows the Cisco Unified CallManager Administration interface. The top navigation bar includes the Cisco logo, the text "Cisco Unified CallManager Administration", and a "Go" button. Below this, a secondary navigation bar shows "Cisco Unified CallManager Administration For Cisco IP Telecommunication Solutions" and "Logged in as: CCMAdministrator". A menu bar contains various options: System, Call Routing, Media Resources, Voice Mail, Device, Application, User Management, Bulk Administration, and Help. A "Log Off" button is also present.

The main content area is titled "Softkey Template Configuration". It includes a "Related Links" section with a dropdown menu set to "Softkey Template Configuration" and a "Go" button. Below this, a "Status" section shows "Status: Ready".

The "Softkey Layout Configuration" section is the primary focus. It shows a dropdown menu for "Softkey Template: Standard Feature-CB" and a "Select a call state to configure" dropdown set to "On Hook".

There are two main lists of softkeys:

- Unselected Softkeys:** A list of softkeys that are not currently selected. The list includes: Conference List (ConfList), Direct Transfer (DirTrfr), Group Pick Up (GPickUp), Immediate Divert (iDiver), Join (Join), Meet Me (MeetMe), Other Pickup (oPickup), Pick Up (PickUp), Quality Report Tool (QRT), Remove Last Conference Party (RmLstC), Select (Select), Undefined (Undefined), and Video Mode Command (VidMode).
- Selected Softkeys (ordered by position)**:** A list of softkeys that are currently selected. The list includes: Redial (Redial), **NewCall (NewCall), Forward All (CfwdAll), and Call Back (CallBack).

Arrows between the two lists indicate that softkeys can be moved from the unselected list to the selected list and vice versa. At the bottom of the page, there are "Save" and "Reset" buttons.



Figure 89. Softkey layout – 2 of 2.

Navigation Cisco Unified CallManager Administration Go

Cisco Unified CallManager Administration For Cisco IP Telecommunication Solutions Logged in as: CCMAAdministrator

System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help Log Off

Softkey Template Configuration Related Links: Softkey Template Configuration Go

Status
Status: Ready

Softkey Layout Configuration
Softkey Template: Standard Feature-CB
Select a call state to configure Ring Out

Unselected Softkeys
Undefined (Undefined)

Selected Softkeys (ordered by position)**
**End Call (EndCall)
Direct Transfer (DirTrfr)
Call Back (CallBack)

Save Reset



Figure 90. Call Back Softkey – 1 of 1.

Navigation Cisco Unified CallManager Administration Go

Cisco Unified CallManager Administration For Cisco IP Telecommunication Solutions Logged in as: CCMAdministrator

System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help Log Off

Softkey Template Configuration Related Links: Configure Softkey Layout Go

Status

Status: Ready

Softkey Template Information

Name* Standard Feature-CB

Description Standard Softkey Template for CM Combined Feature

Applications* Cisco CallManager

Add Application

Remove Application

Save Delete Copy Add New Reset

*- indicates required item.



Service Parameters

Figure 91. Feature - Forward Service Parameters (showing Reroute enabled) – 1 of 1.

Clusterwide Parameters (Feature - Forward)		
Forward Maximum Hop Count *	<input type="text" value="12"/>	12
Forward No Answer Timer *	<input type="text" value="12"/>	12
Max Forward Hops to DN *	<input type="text" value="12"/>	12
Retain Forward Information *	<input type="text" value="True"/>	False
Forward By Reroute Enabled *	<input type="text" value="True"/>	False
Transform Forward by Reroute Destination *	<input type="text" value="True"/>	True
Always Forward Switch Voice Mail Calls *	<input type="text" value="True"/>	True
Forward By Reroute T1 Timer *	<input type="text" value="10"/>	10
Include Original Called Info for Q.SIG Call Diversions *	<input type="text" value="Only after the first diversion"/>	Only after the first diversion

There are hidden parameters in this group. Click on Advanced button to see hidden parameters.

Figure 92. Path Replacement Service Parameters (showing Path Replacement enabled) – 1 of 1.

Clusterwide Parameters (Feature - Path Replacement)		
Path Replacement Enabled *	<input type="text" value="True"/>	False
Path Replacement on Tromboned Calls *	<input type="text" value="True"/>	True
Start Path Replacement Minimum Delay Time *	<input type="text" value="2"/>	0
Start Path Replacement Maximum Delay Time *	<input type="text" value="10"/>	0
Path Replacement T1 Timer *	<input type="text" value="30"/>	30
Path Replacement T2 Timer *	<input type="text" value="15"/>	15
Path Replacement PINK ID	<input type="text" value="4100"/>	
Path Replacement Calling Search Space	<input type="text" value=" < None >"/>	

Figure 93. Call Back Service Parameters – 1 of 1.

Clusterwide Parameters (Feature - Call Back)		
Call Back Enabled Flag *	<input type="text" value="True"/>	True
Call Back Notification Audio File Name *	<input type="text" value="CallBack.raw"/>	CallBack.raw
Connection Proposal Type *	<input type="text" value="Connection Retention"/>	Connection Retention
Connection Response Type *	<input type="text" value="Default to Connection Retention"/>	Default to Connection Retention
Call Back Request Protection T1 Timer *	<input type="text" value="10"/>	10
Call Back Recall T3 Timer *	<input type="text" value="20"/>	20
Call Back Calling Search Space	<input type="text" value=" < None >"/>	
No Path Reservation *	<input type="text" value="True"/>	True
Set Private Numbering Plan for Call Back *	<input type="text" value="False"/>	False



IP phones

Figure 94. IP phones – 1 of 1.

Navigation Cisco Unified CallManager Administration Go

Cisco Unified CallManager Administration For Cisco IP Telecommunication Solutions Logged in as: CCMAAdministrator

System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help Log Off

Find and List Phones Related Links: CAPF Report in File Go

Status

4 records found

Search Options

Find Phone where Device Name begins with Find Search Within Results

Select item or enter search text

(device.name begins with any)

Search Results

	Device Name(Line)	Description	Device Pool	Device Protocol	Status	IP Address	Copy	Copy w/Lines
<input type="checkbox"/>	7960 SEP000248CCE045	Auto 4001	Default	SCCP	Registered with CM-Vindaloo	172.20.221.100		
<input type="checkbox"/>	7940 SEP000427D3FFF7	Auto 4000	Default	SCCP	Registered with CM-Vindaloo	172.20.221.101		
<input type="checkbox"/>	7961 SEP00170EEE2F9E	Auto 4002	Default	SIP	Registered with CM-Vindaloo	172.20.221.103		
<input type="checkbox"/>	7961 SEP00170EEE2FA0	Auto 4003	Default	SIP	Registered with CM-Vindaloo	172.20.221.102		

Add New Select All Clear All Delete Selected Reset Selected Rows per Page 50



Figure 95. IP extension 4000 – 1 of 7.

Navigation Cisco Unified CallManager Administration Go

Cisco Unified CallManager Administration For Cisco IP Telecommunication Solutions Logged in as: CCMAAdministrator

System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help Log Off

Phone Configuration Related Links: Back To Find/List Go

Status
Status: Ready

Association Information
Modify Button Items

- Line [1] - 4000 in Phones
- Add a new SD
- Unassigned Associated Items -----
- Line [2] - Add a new DN
- Add a new SD
- Add a new SURF
- Add a new BLF SD
- Privacy
- None

Phone Type
Product Type: Cisco 7940
Device Protocol: SCCP

Device Information

Registration	Registered with Cisco Unified CallManager CM-Vindaloo
IP Address	172.20.221.101
MAC Address *	000427D3FFF7
Description	Auto 4000
Device Pool *	Default
Phone Button Template *	Standard 7940 SCCP
Softkey Template	Standard Feature-CB
Common Phone Profile *	Standard Common Phone Profile
Calling Search Space	< None >
AAR Calling Search Space	< None >
Media Resource Group List	< None >
User Hold Audio Source	< None >
Network Hold Audio Source	< None >
Location *	



Figure 96. IP extension 4000 – 2 of 7.

Location *	Hub_None
User Locale	English United States
Network Locale	< None >
Built In Bridge *	Default
Privacy *	Default
Owner User ID	< None >
Phone Load Name	
<input checked="" type="checkbox"/> Retry Video Call as Audio	
<input type="checkbox"/> Ignore Presentation Indicators (internal calls only)	
<input checked="" type="checkbox"/> Allow Control of Device from CTI	
Protocol Specific Information	
Packet Capture Mode *	None
Packet Capture Duration	0
Presence Group *	Standard Presence group
SCCP Phone Security Profile *	Standard SCCP Profile for Auto Registration
SUBSCRIBE Calling Search Space	< None >
<input type="checkbox"/> Unattended Port	
<input type="checkbox"/> Require DTMF Reception	
<input type="checkbox"/> RFC2833 Disabled	
External Data Locations Information (Leave blank to use default)	
Information	
Directory	
Messages	
Services	



Figure 97. IP extension 4000 – 3 of 7.

Authentication Server	<input type="text"/>
Proxy Server	<input type="text"/>
Idle	<input type="text"/>
Idle Timer (seconds)	<input type="text"/>

Extension Information	
<input type="checkbox"/>	Enable Extension Mobility
Log Out Profile	-- Not Selected --
Login in User ID	< None >
Log in Time	< None >
Log out Time	< None >

Certification Authority Proxy Function (CAPF) Information	
Certificate Operation*	No Pending Operation
Authentication String	<input type="text"/>
<input type="button" value="Generate String"/>	
Operation Completes By	2006 : 7 : 7 : 12 (YYYY:MM:DD:HH)
Certificate Operation Status: None	

MLPP Information	
MLPP Domain	< None >
MLPP Indication*	Default
MLPP Preemption*	Default

Secure Shell Information	
Secure Shell User	<input type="text"/>
Secure Shell Password	<input type="text"/>

Product Specific Configuration Layout	
--	--



Figure 98. IP extension 4000 – 4 of 7.

MLPP Information	
MLPP Domain	< None >
MLPP Indication*	Default
MLPP Preemption*	Default

Secure Shell Information	
Secure Shell User	
Secure Shell Password	

Product Specific Configuration Layout	
<input type="checkbox"/> Disable Speakerphone	
<input type="checkbox"/> Disable Speakerphone and Headset	
PC Port *	Enabled
Settings Access*	Enabled
Gratuitous ARP*	Enabled
PC Voice VLAN Access*	Enabled
Video Capabilities*	Disabled
Auto Line Select*	Disabled
Web Access*	Enabled

Save Delete Copy Reset Add New

i *- indicates required item.

i **- Device reset is not required for changes to Packet Capture Mode and Packet Capture Duration.



Figure 99. IP extension 4000 – 5 of 7.

Navigation Cisco Unified CallManager Administration Go

Cisco Unified CallManager Administration For Cisco IP Telecommunication Solutions Logged in as:CCMAdministrator

System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help Log Off

Directory Number Configuration Related Links: Back To Find/List Go

Status
Status: Ready

Note: Changes to Line or Directory Number settings require restart.

Directory Number Information

Directory Number* 4000

Route Partition Phones

Description

Alerting Name V-00(Alert)

ASCII Alerting Name V-00(Alert)

☒ Allow Control of Device from CTI

Associated Devices

SEP000427D3FFF7

▼ ▲

Dissociate Devices

Edit Device

Edit Line Appearance



Figure 100. IP extension 4000 – 6 of 7.

Directory Number Settings	
Voice Mail Profile	< None > (Choose <None> to use system default)
Calling Search Space	Phones
Presence Group*	Standard Presence group
AAR Group	< None >
User Hold Audio Source	< None >
Network Hold Audio Source	< None >
Auto Answer*	Auto Answer Off

Call Forward and Call Pickup Settings	
Forward All	<input type="checkbox"/> or <input type="text"/> Calling Search Space: Phones
Secondary Calling Search Space for Forward All	< None > Find
Forward Busy Internal	<input type="checkbox"/> or <input type="text"/> Phones
Forward Busy External	<input type="checkbox"/> or <input type="text"/> Phones
Forward No Answer Internal	<input type="checkbox"/> or <input type="text"/> Phones
Forward No Answer External	<input type="checkbox"/> or <input type="text"/> Phones
Forward No Coverage Internal	<input type="checkbox"/> or <input type="text"/> < None >
Forward No Coverage External	<input type="checkbox"/> or <input type="text"/> < None >
Forward on CTI Failure	<input type="checkbox"/> or <input type="text"/> < None >
No Answer Ring Duration (seconds)	5
Call Pickup Group	< None >

MLPP Alternate Party Settings	
Target (Destination)	<input type="text"/>
MLPP Calling Search Space	Phones



Figure 101. IP extension 4000 – 7 of 7.

MLPP No Answer Ring Duration (seconds)		
Line 1 on Device SEP000427D3FFF7		
Display (Internal Caller ID)	V-00	Display text for a line appearance is intended for displaying text such as a name instead of a directory number for internal calls. If you specify a number, the person receiving a call may not see the proper identity of the caller.
ASCII Display (Internal Caller ID)	V-00	
Line Text Label	V-00	
ASCII Line Text Label	V-00	
External Phone Number Mask		
Message Waiting Lamp Policy*	Use System Policy	
Ring Setting (Phone Idle)*	Ring	
Ring Setting (Phone Active)	Use System Default	Applies to this line when any line on the phone has a call in progress.
Multiple Call/Call Waiting Settings on Device SEP000427D3FFF7		
Note: The range to select the Max Number of calls is: 1-200		
Maximum Number of Calls*	4	
Busy Trigger*	2	(Less than or equal to Max. Calls)
Forwarded Call Information Display on Device SEP000427D3FFF7		
<input checked="" type="checkbox"/> Caller Name		
<input checked="" type="checkbox"/> Caller Number		
<input checked="" type="checkbox"/> Redirected Number		
<input checked="" type="checkbox"/> Dialed Number		
Save Delete Copy Reset Add New		
*- indicates required item.		



Figure 102. IP extension 4000 configured for call forwarding (CFB and CFNR) to PBX extension 3004 (Compare to Figure 100).

Voice Mail Profile	< None >	(Choose <None> to use system default)
Calling Search Space	Phones	
Presence Group*	Standard Presence group	
AAR Group	< None >	
User Hold Audio Source	< None >	
Network Hold Audio Source	< None >	
Auto Answer*	Auto Answer Off	

Call Forward and Call Pickup Settings		
	Voice Mail Destination	Calling Search Space
Forward All	<input type="checkbox"/> or	Phones
Secondary Calling Search Space for Forward All		< None >
Forward Busy Internal	<input type="checkbox"/> or	Phones
Forward Busy External	<input type="checkbox"/> or	Phones
Forward No Answer Internal	<input type="checkbox"/> or	Phones
Forward No Answer External	<input checked="" type="checkbox"/> or	Phones
Forward No Coverage Internal	<input type="checkbox"/> or	< None >
Forward No Coverage External	<input type="checkbox"/> or	< None >
Forward on CTI Failure	<input type="checkbox"/> or	< None >
No Answer Ring Duration (seconds)	5	
Call Pickup Group	< None >	

MLPP Alternate Party Settings	
Target (Destination)	
MLPP Calling Search Space	Phones
MLPP No Answer Ring Duration (seconds)	



Figure 103. IP extension 4002 – 1 of 7.

NavigationCisco Unified CallManager AdministrationGo

Cisco Unified CallManager AdministrationFor Cisco IP Telecommunication SolutionsLogged in as: CCMAAdministrator

SystemCall RoutingMedia ResourcesVoice MailDeviceApplicationUser ManagementBulk AdministrationHelpLog Off

Phone ConfigurationRelated Links: Back To Find/ListGo

StatusStatus: Ready

Association Information

Modify Button Items

1796 Line [1] - 4002 in Phones

2796 Line [2] - Add a new DN

3Add a new SD

4Add a new SD

5Add a new SD

6Add a new SD

Unassigned Associated Items

7Add a new SD

8Add a new SURF

9Add a new BLF SD

10 Privacy

11 None

Phone Type

Product Type: Cisco 7961

Device Protocol: SIP

Device Information

Registration

Registered with Cisco Unified CallManager CM-Vindaloo

IP Address

172.20.221.103

MAC Address*

00170EEE2F9E

Description

Auto 4002

Device Pool*

Default

Phone Button Template*

Standard 7961 SIP

Softkey Template

Standard Feature-CB

Common Phone Profile*

Standard Common Phone Profile

Calling Search Space

< None >

AAR Calling Search Space

< None >

Media Resource Group List

< None >

User Hold Audio Source

< None >

Network Hold Audio Source

< None >

Location*



Figure 104. IP extension 4002 – 2 of 7.

Location*	Hub_None
User Locale	< None >
Network Locale	< None >
Built In Bridge*	Default
Privacy*	Default
Owner User ID	< None >
Phone Load Name	
<input type="checkbox"/> Ignore Presentation Indicators (internal calls only)	
<input checked="" type="checkbox"/> Allow Control of Device from CTI	
Protocol Specific Information	
Packet Capture Mode*	None
Packet Capture Duration	0
Presence Group*	Standard Presence group
SIP Dial Rules	< None >
MTP Preferred Originating Codec*	711ulaw
SIP Phone Security Profile*	Standard SIP Profile for Auto Registration
Rerouting Calling Search Space	< None >
SUBSCRIBE Calling Search Space	< None >
SIP Profile*	Standard SIP Profile
Digest User	< None >
<input type="checkbox"/> Media Termination Point Required	
<input type="checkbox"/> Unattended Port	
<input type="checkbox"/> Require DTMF Reception	
External Data Locations Information (Leave blank to use default)	



Figure 105. IP extension 4002 – 3 of 7.

External Data Locations Information (Leave blank to use default)	
Information	<input type="text"/>
Directory	<input type="text"/>
Messages	<input type="text"/>
Services	<input type="text"/>
Authentication Server	<input type="text"/>
Proxy Server	<input type="text"/>
Idle	<input type="text"/>
Idle Timer (seconds)	<input type="text"/>

Extension Information	
<input type="checkbox"/>	Enable Extension Mobility
Log Out Profile	-- Not Selected --
Login in User ID	< None >
Log in Time	< None >
Log out Time	< None >

Certification Authority Proxy Function (CAPF) Information	
Certificate Operation *	No Pending Operation
Authentication String	<input type="text"/>
<input type="button" value="Generate String"/>	
Operation Completes By	2006 : 7 : 7 : 12 (YYYY:MM:DD:HH)
Certificate Operation Status: None	

MLPP Information	
MLPP Domain	< None >

Secure Shell Information	
Secure Shell User	<input type="text"/>



Figure 106. IP extension 4002 – 4 of 7.

MLPP Domain < None >	
Secure Shell Information	
Secure Shell User	<input type="text"/>
Secure Shell Password	<input type="password"/>
Product Specific Configuration Layout	
<input type="checkbox"/> Disable Speakerphone	
<input type="checkbox"/> Disable Speakerphone and Headset	
PC Port *	Enabled
Settings Access*	Enabled
Gratuitous ARP*	Enabled
PC Voice VLAN Access*	Enabled
Video Capabilities*	Disabled
Auto Line Select*	Disabled
Web Access*	Enabled
Span to PC Port*	Disabled
Logging Display*	PC Controlled
Load Server	<input type="text"/>

*- indicates required item.

**- Device reset is not required for changes to Packet Capture Mode and Packet Capture Duration.



Figure 107. IP extension 4002 – 5 of 7.

Navigation Cisco Unified CallManager Administration Go

Cisco Unified CallManager Administration For Cisco IP Telecommunication Solutions Logged in as:CCMAdministrator

System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help Log Off

Directory Number Configuration Related Links: Back To Find/List Go

Status
Status: Ready

Note: Changes to Line or Directory Number settings require restart.

Directory Number Information

Directory Number*4002

Route PartitionPhones

DescriptionSIP

Alerting NameV-SIP-02(Alert)

ASCII Alerting NameV-SIP-02(Alert)

☒ Allow Control of Device from CTI

Associated Devices

SEP00170EEE2F9E

▼ ▲

Dissociate Devices

Edit Device

Edit Line Appearance



Figure 108. IP extension 4002 – 6 of 7.

Directory Number Settings	
Voice Mail Profile	< None > (Choose <None> to use system default)
Calling Search Space	Phones
Presence Group*	Standard Presence group
AAR Group	< None >
User Hold Audio Source	< None >
Network Hold Audio Source	< None >
Auto Answer*	Auto Answer Off

Call Forward and Call Pickup Settings	
Forward All	<input type="checkbox"/> or <input type="text"/> Calling Search Space: Phones
Secondary Calling Search Space for Forward All	< None > Find
Forward Busy Internal	<input type="checkbox"/> or <input type="text"/> Phones
Forward Busy External	<input type="checkbox"/> or <input type="text"/> Phones
Forward No Answer Internal	<input type="checkbox"/> or <input type="text"/> Phones
Forward No Answer External	<input type="checkbox"/> or <input type="text"/> Phones
Forward No Coverage Internal	<input type="checkbox"/> or <input type="text"/> < None >
Forward No Coverage External	<input type="checkbox"/> or <input type="text"/> < None >
Forward on CTI Failure	<input type="checkbox"/> or <input type="text"/> < None >
No Answer Ring Duration (seconds)	7
Call Pickup Group	< None >

MLPP Alternate Party Settings	
Target (Destination)	<input type="text"/>
MLPP Calling Search Space	< None >



Figure 109. IP extension 4002 – 7 of 7.

MLPP No Answer Ring Duration (seconds)		
Line 1 on Device SEP00170EEE2F9E		
Display (Internal Caller ID)	V-SIP-02	Display text for a line appearance is intended for displaying text such as a name instead of a directory number for internal calls. If you specify a number, the person receiving a call may not see the proper identity of the caller.
ASCII Display (Internal Caller ID)	V-SIP-02	
Line Text Label	V-SIP-02	
ASCII Line Text Label	V-SIP-02	
External Phone Number Mask		
Message Waiting Lamp Policy*	Use System Policy	
Ring Setting (Phone Idle)*	Ring	
Ring Setting (Phone Active)	Use System Default	Applies to this line when any line on the phone has a call in progress.
Multiple Call/Call Waiting Settings on Device SEP00170EEE2F9E		
Note: The range to select the Max Number of calls is: 1-200		
Maximum Number of Calls*	4	
Busy Trigger*	2	(Less than or equal to Max. Calls)
Forwarded Call Information Display on Device SEP00170EEE2F9E		
<input checked="" type="checkbox"/> Caller Name		
<input checked="" type="checkbox"/> Caller Number		
<input checked="" type="checkbox"/> Redirected Number		
<input checked="" type="checkbox"/> Dialed Number		
Save Delete Copy Reset Add New		
*- indicates required item.		



Configuring the Cisco 3745

3745B4_E1#sho ver

Cisco IOS Software, 3700 Software (C3745-IPVOICE-M), Version 12.4(3), RELEASE SOFTWARE (fc2)

Technical Support: <http://www.cisco.com/techsupport>

Copyright (c) 1986-2005 by Cisco Systems, Inc.

Compiled Fri 22-Jul-05 03:09 by hqluong

ROM: System Bootstrap, Version 12.2(8r)T2, RELEASE SOFTWARE (fc1)

3745B4_E1 uptime is 4 weeks, 2 days, 30 minutes

System returned to ROM by power-on

System image file is "flash:c3745-ipvoice-mz.124-3.bin"

Cisco 3745 (R7000) processor (revision 2.0) with 241664K/20480K bytes of memory.

Processor board ID JMX0715L08P

R7000 CPU at 350MHz, Implementation 39, Rev 3.3, 256KB L2,

2 FastEthernet interfaces

124 Serial interfaces

4 Channelized E1/PRI ports

2 Voice FXS interfaces

DRAM configuration is 64 bits wide with parity disabled.

151K bytes of NVRAM.

125184K bytes of ATA System CompactFlash (Read/Write)

62592K bytes of ATA Slot0 CompactFlash (Read/Write)

Configuration register is 0x2102



3745B4_E1#

3745B4_E1#sho run

Building configuration...

Current configuration : 3787 bytes

!

version 12.4

service timestamps debug datetime msec

service timestamps log datetime msec

no service password-enc

!

hostname 3745B4_E1

!

boot-start-marker

boot system flash:c3745-ipvoice-mz.124-3.bin

boot-end-marker

!

logging buffered 1000000 debugging

!

no aaa new-model

!

resource policy

!

no network-clock-participate slot 1

no network-clock-participate slot 2

voice-card 1

dspfarm

!



```
voice-card 2

dspfarm

!

ip subnet-zero

ip cef

ip tcp synwait-time 13

!

!

no ip dhcp use vrf connected

ip dhcp excluded-address 192.168.10.0 192.168.10.60

ip dhcp excluded-address 192.168.11.0 192.168.11.10

!

ip dhcp pool hq-pool-phones

    network 192.168.10.0 255.255.255.0

    option 150 ip 192.168.10.50

    default-router 192.168.10.1

!

ip dhcp pool hq-pool-data

    network 192.168.11.0 255.255.255.0

    default-router 192.168.11.1

!

!

no ip domain lookup

ip host whiz 171.69.1.162

ip host dirt 171.69.1.129

ip host danube 171.69.17.14

ip host CM-VINDALOO 172.20.221.254

ip name-server 172.20.221.254

ip dhcp-server 192.168.10.1
```



```
isdn switch-type primary-net5
!
!
voice call carrier capacity active
!
!
!
controller E1 1/0
pri-group timeslots 1-3
!
controller E1 1/1
pri-group timeslots 1-31 service mgcp
!
controller E1 2/0
pri-group timeslots 1-31 service mgcp
!
controller E1 2/1
pri-group timeslots 1-31 service mgcp
!
!
interface FastEthernet0/0
ip address 172.20.221.200 255.255.255.0
duplex auto
speed auto
!
interface FastEthernet0/0.10
encapsulation dot1Q 10
no snmp trap link-status
!
```



```
interface FastEthernet0/0.11
encapsulation dot1Q 11
ip address 192.168.11.1 255.255.255.0
no snmp trap link-status
!
interface FastEthernet0/1
no ip address
shutdown
duplex auto
speed auto
!
interface Serial1/0:15
no ip address
isdn switch-type primary-net5
isdn incoming-voice voice
isdn bind-l3 ccm-manager
no cdp enable
!
interface Serial1/1:15
no ip address
isdn switch-type primary-net5
isdn protocol-emulate network
isdn incoming-voice voice
isdn bind-l3 ccm-manager
no cdp enable
!
interface Serial2/0:15
no ip address
isdn switch-type primary-qsig
```




```
isdn protocol-emulate network

isdn incoming-voice voice

isdn T310 120000

isdn bind-l3 ccm-manager

no cdp enable

!

interface Serial2/1:15

no ip address

isdn switch-type primary-qsig

isdn protocol-emulate network

isdn incoming-voice voice

isdn T310 120000

isdn bind-l3 ccm-manager

no cdp enable

!

ip classless

ip route 0.0.0.0 0.0.0.0 FastEthernet0/0

ip route 0.0.0.0 0.0.0.0 172.20.221.1

!

ip http server

!

dialer-list 1 protocol ip permit

!

!

!

control-plane

!

!

!
```



```
voice-port 1/0:15
!
voice-port 1/1:15
!
voice-port 2/0:15
!
voice-port 2/1:15
!
voice-port 3/0/0
!
voice-port 3/0/1
!
ccm-manager mgcp
ccm-manager music-on-hold
ccm-manager config server CM-VINDALOO
ccm-manager config
!
mgcp
mgcp call-agent CM-Vindaloo 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
no mgcp package-capability res-package
mgcp package-capability sst-package
no mgcp package-capability fxr-package
mgcp package-capability pre-package
no mgcp timer receive-rtcp
mgcp sdp simple
```



```
mgcp fax t38 inhibit
mgcp rtp payload-type g726r16 static
!
mgcp profile default
!
!
dial-peer cor custom
!
!
!
dial-peer voice 1 pots
service mgcpapp
port 2/0:15
!
dial-peer voice 2 pots
service mgcpapp
port 2/1:15
!
dial-peer voice 3 pots
service mgcpapp
port 3/0/0
!
dial-peer voice 4 pots
service mgcpapp
port 3/0/1
!
dial-peer voice 999300 pots
service mgcpapp
port 3/0/0
```



```
!  
dial-peer voice 999301 pots  
  
service mgcpapp  
  
port 3/0/1  
  
!  
  
dial-peer voice 5 pots  
  
service mgcpapp  
  
!  
  
!  
  
line con 0  
  
line aux 0  
  
line vty 0 4  
  
login  
  
!  
  
!  
  
end
```

3745B4_E1#



Acronyms

Acronym	Definitions
BRI	Basic Rate ISDN
CAMA	Centralized Automatic Message Accounting
CAS	Channel Associated Signaling
CFB	Call Forward when Busy
CFNR	Call Forward when No Reply
CFU	Call Forward Unconditional
CO	Central Office
FGD	Feature Group "D"
FXO	Foreign Exchange – Office
FXS	Foreign Exchange – Station
IOS	Internetworking Operating System
MCID	Malicious Caller ID
MGCP	Media Gateway Control Protocol
MoH	Music on Hold
MWI	Message Waiting Indication
PBX	Private Branch Exchange
PRI	Primary Rate ISDN
PSAP	Public Service Access Point
SIP	Session Initiation Protocol
ToH	Tone on Hold



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