



Nortel Multimedia Conferencing

## Solution Integration Guide for NMC/CS 1000 and NMC/Converged Office

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## How to get help

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This chapter explains how to get help for Nortel products and services.

### Finding the latest updates on the Nortel Web site

The content of this documentation is current at the time of product release. To check for updates to the latest documentation and software, go to the Nortel Technical Support Web site:

[www.nortel.com/support](http://www.nortel.com/support)

### Getting help from the Nortel Web site

The best way to get technical support for Nortel products is from the Nortel Technical Support Web site:

[www.nortel.com/support](http://www.nortel.com/support)

This site provides quick access to software, documentation, bulletins, and tools to address issues with Nortel products. From this site, you can:

- download software, documentation, and product bulletins
- search the Technical Support Web site and the Nortel Knowledge Base for answers to technical issues
- sign up for automatic notification of new software and documentation for Nortel equipment
- open and manage technical support cases

### Getting help over the phone from a Nortel Solutions Center

If you do not find the information you require on the Nortel Technical Support Web site, and you have a Nortel support contract, you can also get help over the phone from a Nortel Solutions Center.

In North America, call 1-800-4NORTEL (1-800-466-7835).

Outside North America, go to the following Web site to obtain the phone number for your region:

[www.nortel.com/callus](http://www.nortel.com/callus)

### **Getting help from a specialist by using an Express Routing Code**

To access some Nortel Technical Solutions Centers, you can use an Express Routing Code (ERC) to quickly route your call to a specialist in your Nortel product or service. To locate the ERC for your product or service, go to:

[www.nortel.com/erc](http://www.nortel.com/erc)

### **Getting help through a Nortel distributor or reseller**

If you purchase a service contract for your Nortel product from a distributor or authorized reseller, you can contact the technical support staff for that distributor or reseller.

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## About this document

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This document describes the planning, configuration, and troubleshooting of the integration of Communication Server 1000 (CS 1000), with Nortel Multimedia Conferencing (NMC) and, optionally, Office Communications Server (OCS) 2007 systems. Integrate the CS 1000 with NMC and OCS after all systems are installed and a baseline of operation is achieved and tested.

The following systems and software releases are covered in this guide:

- CS 1000 Release 5.0, 5.5 and 6.0
- OCS 2007 R1
- NMC 6.0 on Media Application Server (MAS) Release 6.1

**Note:** References to Element Manager in this document refer to the CS 1000 Element Manager.

This document is intended to be a stand-alone guide, covering the prerequisites to and implementation of a successful CS 1000/NMC/Converged Office integration. A minimum skill set and level of understanding is assumed. References to other technical documents, engineering guides, or troubleshooting guides are made for informational purposes.

### Audience

The intended audience for this document includes network planners, installers, and maintenance personnel.

### Related information

The following technical documents are referenced in this guide:

- *CS 1000 Converged Office Fundamentals* (NN43001-525)
- *IP Peer Networking Installation and Commissioning* (NN43001-313)
- *Nortel Media Application Server and Interactive Communications Portal Commissioning* (NN44471-301)
- *Nortel Multimedia Conferencing Fundamentals* (NN44460-100)

## 8 About this document

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- *Solution Integration Guide for Communication Server 1000 Release 5.0/Microsoft Office Communications Server 2007 (NN49000-309)*



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# Introduction

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Use this document to configure NMC 6.0 on the Media Application Server (MAS) platform for deployment with Communication Server (CS) 1000 Release 5.0 , 5.5 or 6.0 and CS 1000 Release 5.0 , 5.5 or 6.0 Converged Office Solution with Office Communications Server (OCS) 2007.

If you are configuring NMC for deployment with CS 1000, you must complete the procedures listed for CS 1000/NMC integration. If you are configuring NMC in a Converged Office Solution, you must first complete the procedures for CS 1000/NMC integration and then complete the procedures for CS 1000 Converged Office Solution with OCS 2007.

This document outlines examples and selections of a Coordinated Dial Plan (CDP). NMC supports configurations for both CDP and Uniform Dial Plan (UDP). Base your selections on your dialing plan. In a Converged Desktop scenario, it is not recommended to have OCS with UDP numbers and NMC with CDP numbers. Configure NMC to be consistent with the existing CS1000/Converged Office dial plan (either CDP or UDP).

## Navigation

- ["Network deployment" \(page 11\)](#)
- ["NMC/CS 1000 configuration" \(page 17\)](#)
- ["NMC/Converged Office configuration for OCS 2007" \(page 61\)](#)



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## Network deployment

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NMC can be installed in a CS 1000 network or in a Converged Office solution with Office Communications Server (OCS) 2007.

The following figures are examples only. For more information about advanced configurations, see *Nortel Media Application Server and Interactive Communications Portal Commissioning* (NN44471-301) and *Nortel Multimedia Conferencing Fundamentals* (NN44460-100).

In a CS 1000 deployment solution, the NMC servers are configured as gateway endpoints at the CS 1000 Network Routing Service (NRS). [Figure 1 "NMC/CS 1000 configuration" \(page 12\)](#) shows an example of single-node NMC in a CS 1000 configuration.

**Figure 1**  
**NMC/CS 1000 configuration**

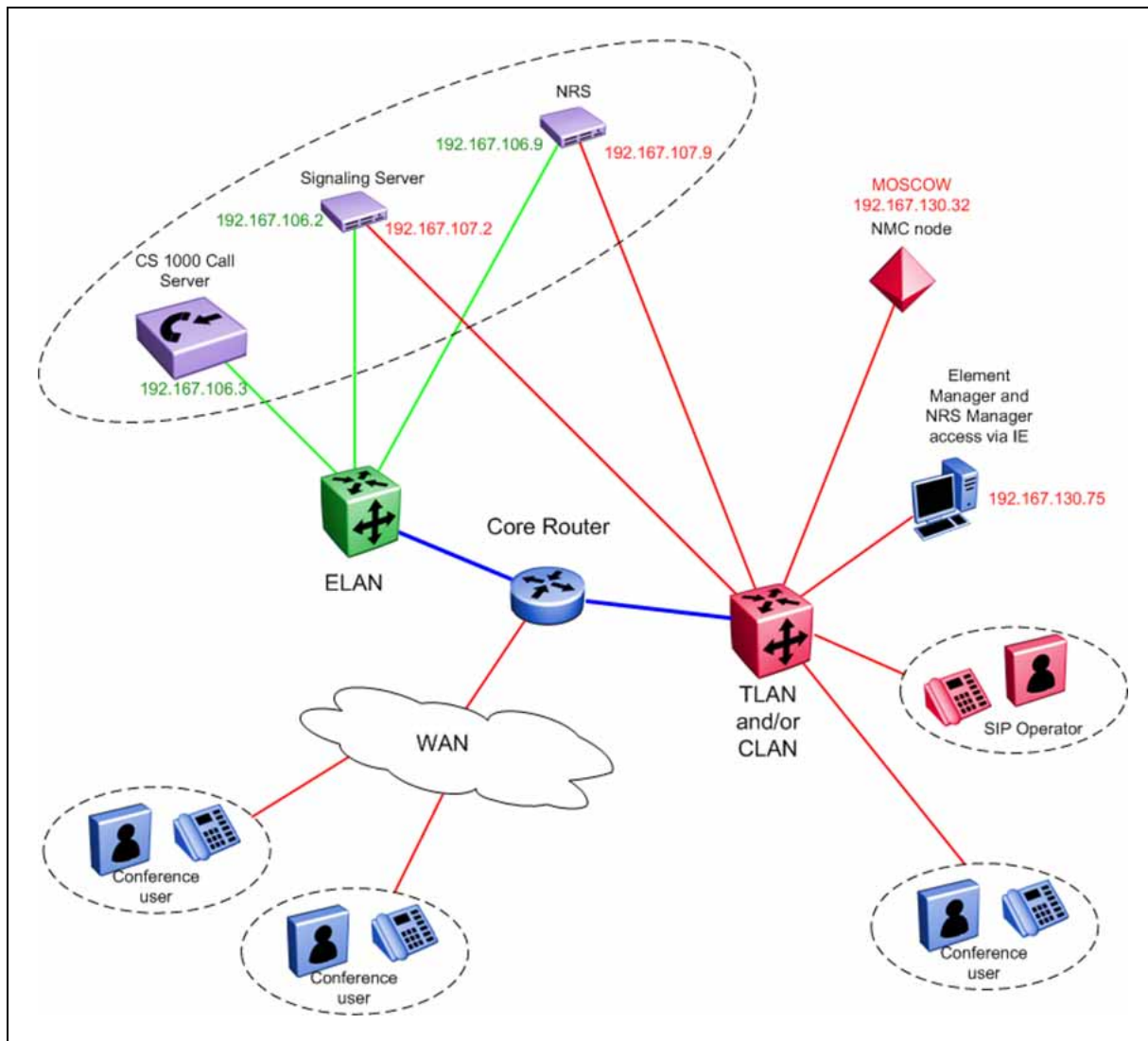


Figure 2 "NMC Converged Office configuration for OCS 2007" (page 13) shows an example of an NMC node in a Converged Office configuration with OCS 2007.

In a cluster configuration, the Audio Conferencing Provider (ACP) server is installed on only one node in the NMC cluster.

**Figure 2**  
**NMC Converged Office configuration for OCS 2007**

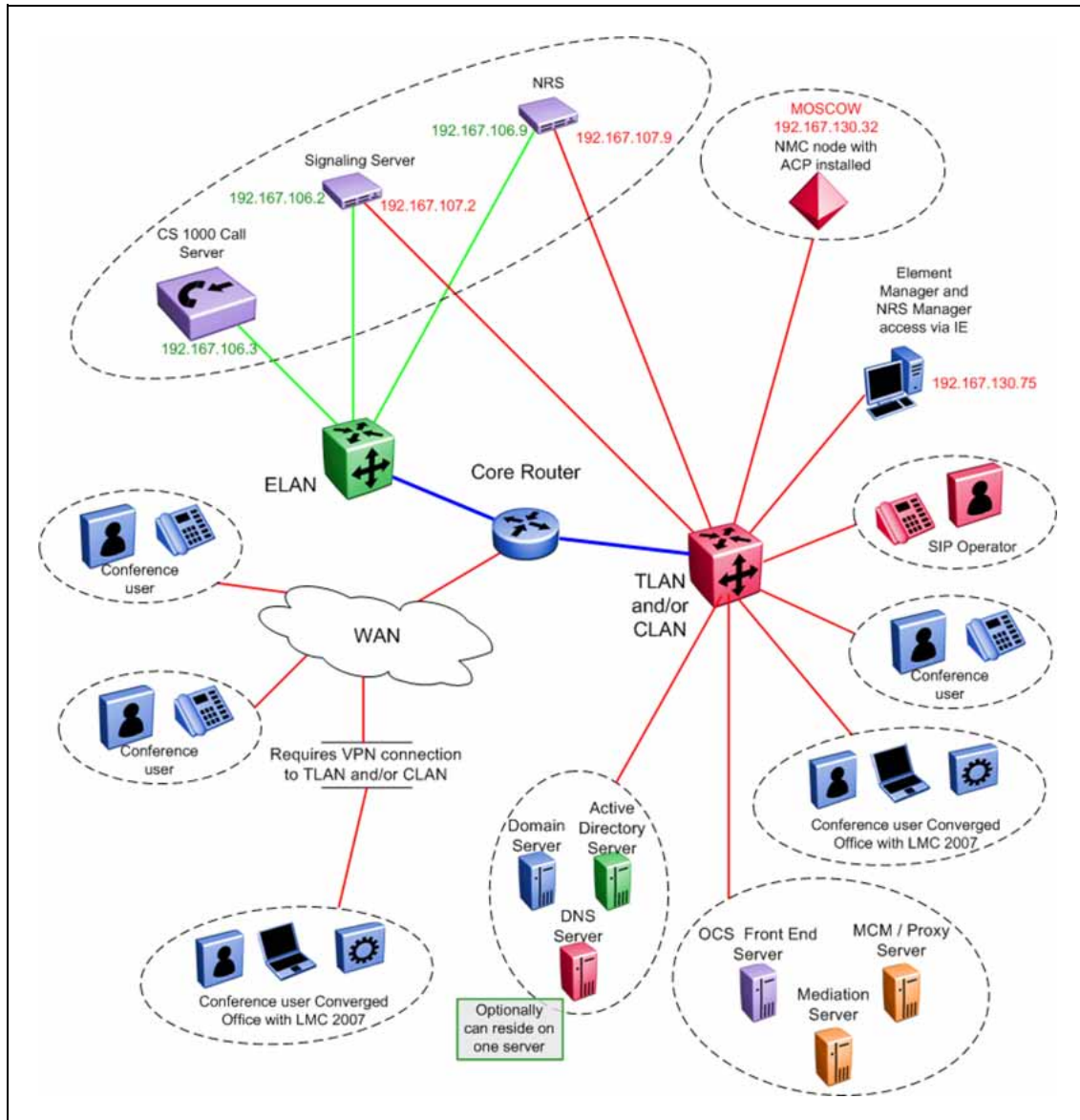
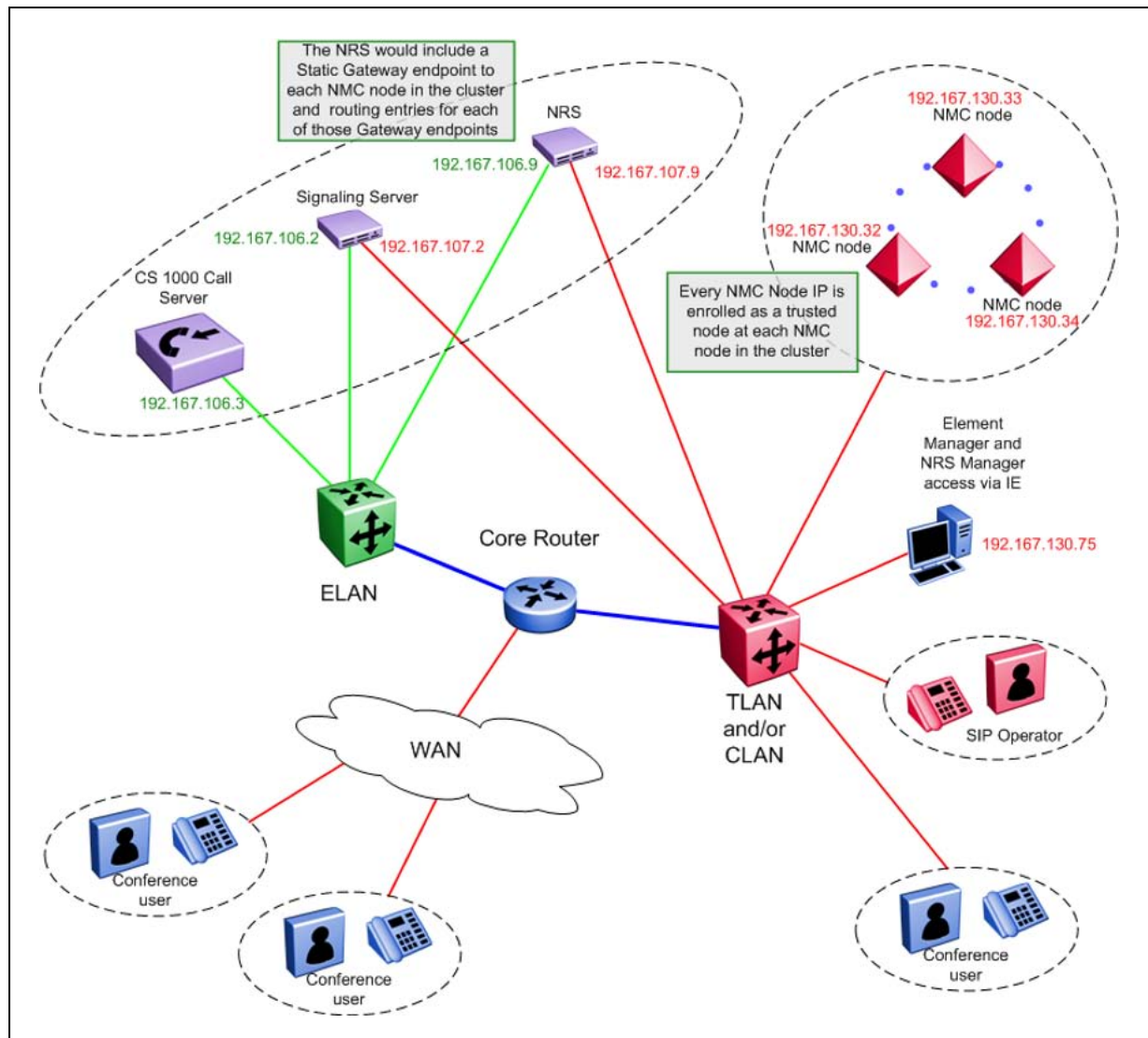


Figure 3 "NMC/CS 1000 cluster configuration" (page 14) shows an example of an NMC cluster in a CS 1000 configuration. For more information about configuring clusters and redundant licensing, see *Nortel Media Application Server and Interactive Communications Portal Commissioning* (NN44471-301).

**Figure 3**  
**NMC/CS 1000 cluster configuration**



## Network Routing Service

The Network Routing Service (NRS) can use either SIP Proxy Server (SPS) or SIP Redirect Server (SRS).

The SPS

- is a SIP proxy server
- is a Linux-based server
- requires the use of Enterprise Common Manager (ECM). This guide does not cover procedures for ECM, although ECM is similar to NRS Manager.

### The SRS

- is a SIP redirect proxy server that handles negotiations between the Signaling Server and the NRS
- is VxWorks-based
- can optionally use ECM, but typically uses Element Manager and NRS Manager





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## NMC/CS 1000 configuration

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This section describes the configuration of Nortel Multimedia Conferencing (NMC) 6.0 on the Media Application Server (MAS) Release 6.1 platform and Communication Server 1000 (CS 1000).

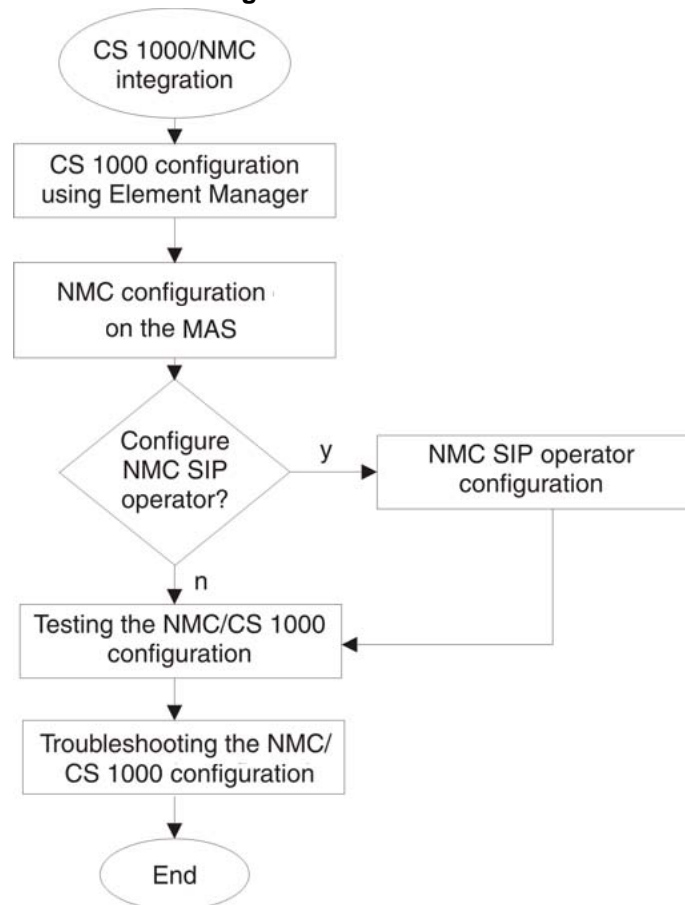
### Prerequisites for NMC/CS 1000 configuration

- You have basic programming and provisioning skills for the CS 1000 system. Nortel recommends that you complete product-specific training before you begin the systems integration. A complete list of courses is available at [www.nortel.com](http://www.nortel.com).
- The CS 1000 system is Release 5.0 or later with all patches as required by the Distributor Technical Reference (DTR).
- The CS 1000 Call Server is configured.
- The CS 1000 dialing plan is configured and working.
- A CS 1000 D-channel is configured and working.
- A CS 1000 Signaling Server node is installed and working.
- Network Routing Service (NRS) is enabled. NRS can be either SIP Proxy Server (SPS) or SIP Redirect Server (SRS).
- MAS 6.1 and NMC 6.0 are installed and configured with proper licensing enabled.
- You have Element Manager and MAS server logon access with administrator privileges.

### CS 1000/NMC integration

The following task flow shows the sequence of tasks you perform to integrate the CS 1000 and NMC systems. To link to any task, go to "Navigation" (page 18).

**Figure 4**  
**CS 1000/NMC integration task flow**



## Navigation

- ["CS 1000 configuration using Element Manager and NRS Manager"](#) (page 19)
  - ["Configuring routes and trunks"](#) (page 19)
  - ["Configuring RLI \(RLB\)"](#) (page 23)
  - ["Configuring a Distant Steering Code"](#) (page 25)
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  - ["Configuring Signaling Server properties for SIP"](#) (page 33)
  - ["Creating the Service Domain in NRS"](#) (page 35)
  - ["Creating the L1 \(UDP\) domain in NRS"](#) (page 37)
  - ["Creating the L0 \(CDP\) domain in NRS"](#) (page 40)

- "Configuring Gateway endpoints on the NRS" (page 43)
- "Configuring routing entries on the NRS" (page 47)
- "Cutting over and committing changes on the NRS Database" (page 50)
- "NMC configuration on the MAS 6.1 platform" (page 51)
  - "Configuring translations" (page 51)
  - "Adding the NRS IP address as a trusted node" (page 51)
  - "Configuring the SIP route to the NRS server" (page 52)
  - "Configuring NMC settings" (page 53)
- "NMC SIP operator configuration" (page 54)
  - "Configuring the SIP operator in NMC" (page 54)
- "Testing the NMC/CS 1000 configuration" (page 54)
  - "Calling NMC DN and logging on the chairperson" (page 55)
  - "Logging onto a conference" (page 55)
  - "Viewing active sessions" (page 56)
- "Troubleshooting the NMC/CS 1000 configuration" (page 56)
  - "SIP can not route from the NRS" (page 57)
  - "SIP call sent but not accepted by the NMC" (page 57)

## CS 1000 configuration using Element Manager and NRS Manager

Use the procedures in this section to configure the CS 1000 Release 5.0 using the Element Manager.

### Configuring routes and trunks

Step	Action
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*Perform the following procedure to configure a new route and trunks for your NMC. The number of trunks to configure equals the number of available ports. The number of available ports is limited to the type of license purchased.*

*If you use an existing route and trunks, use this procedure to verify the data.*

- 1 In Element Manager, expand the **Routes and Trunks** heading.
- 2 Select **Routes and Trunks**.
- 3 Select **Add route** for the customer number you want to use.

The Route Property Configuration page appears. See Figure 5 "Route Property Configuration" (page 20).

**Figure 5**  
**Route Property Configuration**

Managing: **192.167.100.3**

Routes and Trunks > Routes and Trunks > Customer 0, Route 5 Property Configuration

### Customer 0, Route 5 Property Configuration

- Basic Configuration

Input Description	Input Value
Route Data Block (RDB) (TYPE)	RDB
Customer number (CUST)	00
Route Number (ROUT)	5
Designator field for trunk (DES)	NMC Route
Trunk Type (TKTP)	TIE
Incoming and Outgoing trunk (ICOG)	Incoming and Outgoing (IAO)
Access Code for the trunk route (ACOD)	1117
Trunk type M911P (M911P)	<input type="checkbox"/>
The route is for a virtual trunk route (VTRK)	<input checked="" type="checkbox"/>
- Zone for codec selection and bandwidth management (ZONE)	002 <span style="color: green;">Range: 0 - 255</span>
- Node ID of signaling server of this route (NODE)	5 <span style="color: green;">Range: 0 - 9999</span>
- Protocol ID for the route (PCID)	SIP (SIP)
- Print Correlation ID in CDR for the route (CRID)	<input type="checkbox"/>
Integrated Services Digital Network option (ISDN)	<input checked="" type="checkbox"/>
- Mode of operation (MODE)	Route uses ISDN Signaling Link (ISLD)
- D channel number (DCH)	5 <span style="color: green;">Range: 0 - 254</span>
- Interface type for route (IFC)	Meridian M1 (SL1)
- Private Network Identifier (PNI)	00000 <span style="color: green;">Range: 0 - 32700</span>
- Network Calling Name Allowed (NCNA)	<input checked="" type="checkbox"/>
- Network Call Redirection (NCRD)	<input checked="" type="checkbox"/>
- Trunk Route Optimization (TRO)	<input checked="" type="checkbox"/>
- Recognition of DT12 ABCD FALT signal for ISL (FALT)	<input type="checkbox"/>
- Channel Type (CHTY)	B-channel (BCH)
- Call Type for outgoing direct dialed TIE route (CTYP)	Coordinated Dialing Plan (CDP)
- Insert ESN Access Code (INAC)	<input type="checkbox"/>
- Integrated Service Access Route (ISAR)	<input type="checkbox"/>
- Display of Access Prefix on CLID (DAPC)	<input checked="" type="checkbox"/>
- Prefix table number to be associated with this route (TBL)	0

+ Basic Route Options  
+ Network Options  
+ General Options  
+ Advanced Configurations

Submit Refresh Delete Cancel

- 4 Configure the parameters for the route. See the following table for the parameters required for NMC. Parameters not listed here do not affect NMC functionality and can be left as is.

**Table 1**  
**Route configuration parameters**

Parameter	Value
Route Number (ROUT)	Type the next available route number. Example: 5
Designator field for trunk (DES)	Type a relevant description. Example: NMC
Trunk Type (TKTP)	TIE
Incoming and Outgoing trunk (ICOG)	Incoming and outgoing (IOA)
Access Code for the trunk route (ACOD)	Type a relevant access code for your system. Example: 1117
The route is for a virtual trunk route (VTRK)	Enable.
Zone for codec selection and bandwidth management (ZONE)	Type a relevant zone for your system. Example: 2
Node ID of signaling server of this route (NODE)	Type the node number for your system. Example: 5
Protocol ID for the route (PCID)	SIP
Integrated Services Digital Network option (ISDN)	Enable.
Mode of operation (MODE)	Select <b>Route uses ISDN Signaling Link (ISLD)</b> .
D channel number (DCH)	Type the channel configured for your system. Example: 1
Interface type for route (IFC)	Select <b>Meridian 1 SL1</b> .
Private Network Identifier (PNI)	Type the identifier for your system.
Network Calling Name Allowed (NCNA)	Enable.
Network Call Redirection (NCRD)	Enable.
Trunk Route Optimization (TRO)	Enable.
Channel Type (CHTY)	Select <b>B-Channel (BCH)</b> .
Call Type for outgoing direct dialed TIE route (CTYP)	Select <b>Coordinated Dialing Plan (CDP)</b> . Selection is based on the type of dialing plan for your engineered system. In this example, CDP was chosen.

- 5 Click **Submit**.
- 6 On the newly created route, click **Add trunk**.

The Trunk Property Configuration page appears. See [Figure 6 "Trunk Property configuration"](#) (page 22).

**Figure 6**  
Trunk Property configuration

Customer 0, Route 5, Trunk 1 Property Configuration

- Basic Configuration

Input Description	Input Value
Trunk data block (TYPE)	IPTI
Terminal Number (TN)	100 0 01 21
Designator field for trunk (DES)	NMCTRN
Extended Trunk (XTRK)	VTRK
Route number, Member number (RTMB)	5 1
Level 3 Signaling (SIGL)	
Card Density (CDEN)	8D
Start arrangement Incoming (STR)	Wink or Fast Flash (WNIK)
Start arrangement Outgoing (STRO)	Wink or Fast Flash (WNIK)
Trunk Group Access Restriction (TGAR)	1
Channel ID for this trunk. (CHID)	2222
Increase or decrease the member numbers (INC)	Increase channel and member number (YES)
Class of Service (CLS)	Edit

+ Advanced Trunk Configurations

Save Delete Cancel

- 7 Configure the parameters for the trunk.  
See the following table for the parameters required for NMC.  
Parameters not listed here do not affect NMC functionality and can be left as is if desired.

**Table 2**  
Trunk configuration parameters

Parameter	Value
Multiple trunk input number (MTINPUT)	Select the number of trunks to add.  This creates a number of TN trunks. Ensure that you have enough unused TNs in a span to cover this number of trunks.
Trunk data block (TYPE)	Select <b>IPTI</b> .
Terminal Number (TN)	Enter a valid TN, in format (L)oop (S)helf (C)ard (U)nit.  This is the starting TN for multiple trunk input.  Example: 100 0 1 20
Designator field for trunk (DES)	Type a relevant description for the TNs.

Parameter	Value
Route number, Member number (RTMB)	Type the route number and trunk start. The route number is the one in which you are creating the TN. The member number is the trunk you are creating. Example: 5 1
Card Density (CDEN)	Select the card density type. Example: 8D
Start arrangement Incoming (STRI)	Select <b>Wink or Fast Flah (WNK)</b> .
Start arrangement Outgoing (STRO)	Select <b>Wink or Fast Flah (WNK)</b> .
Trunk Group Access Restriction (TGAR)	Type the number for your system. Example: 1
Channel ID for this trunk (CHID)	Type a relevant ID for the trunk. Example: 2222
Increase or decrease the member numbers (INC)	If you select <b>Increase Channel and Member number (yes)</b> , several TNs are created depending on the values of the MTINPUT and TN parameters.

8 Click **Save**.

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—End—

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## Configuring RLI (RLB)

### Step Action

*Perform the following procedure to configure a new RLI for your NMC. This coordinates with the route just configured.*

*If you use an existing RLI, use this procedure to verify the data.*

- 1 In Element Manager, expand the **Dialing and number plans** heading.
- 2 Select **Electronic Switched Network**.
- 3 From the Electronic Switched Network menu, expand **Network Control and Services**.
- 4 Select **Route List Block**.  
RLI is the unit within a route list block.

- 5 In the **Please enter route list index** box, enter a new, valid RLB number (for example, 3).
- 6 Click outside the **Please enter route list index** box to activate the **Add** button, and then click the **Add** button.
- 7 For **ROUT**, select the route created in the procedure "Configuring routes and trunks" (page 19) (for example, 5).
- 8 Click **Submit**.

**Figure 7**  
**RLB configuration**

Input Description	Input Value
Route List Index (RLI):	3
Entry Number for the Route List (ENTR):	0 (0 - 6)
Local Termination entry (LTER):	<input type="checkbox"/>
Route Number (ROUT):	5
Skip Conventional Signaling (SCNV):	<input type="checkbox"/>
Display Originator's Information (DORG):	<input type="checkbox"/>
Use Tone Detector (TDET):	<input type="checkbox"/>
Time of Day Schedule (TOD):	0
Entry is a VNS Route (VNS):	<input type="checkbox"/>
Conversion to LDN (CNV):	<input type="checkbox"/>
Expensive Route (EXP):	<input type="checkbox"/>
Facility Restriction Level (FRL):	0 (0 - 7)
Digit Manipulation Index (DMI):	0
ISL D-Channel Down Digit Manipulation Index (ISDM):	0 (0 - 999)
Free Calling Area Screening Index (FCI):	0
Free Special Number Screening Index (FSNI):	0
Business Network Extension Route (BNE):	<input type="checkbox"/>
Strategy on Congestion (SBOC):	No Reroute (NRR)
- QSIG Alternate Routing Causes (COPT):	QSIG Alternate Routing Cause 1
ISDN Drop Back Busy (IDBB):	Drop Back Disabled (DBD)
ISDN Off-Hook Queuing Option (IOHQ):	<input type="checkbox"/>
Off-Hook Queuing Allowed (OHQ):	<input type="checkbox"/>
Call Back Queuing Allowed (CBQ):	<input type="checkbox"/>
Number of Alternate Routing Attempts (NAL):	5 (1 - 10)
Initial Set (ISET):	0 (0 - 64)
Set Minimum Facility Restriction Level (MFRL):	
Overlap Length (OVLL):	0 (0 - 24)

Submit Cancel

—End—



## Configuring a Distant Steering Code

Step	Action
------	--------

*Perform the following procedure to configure a new Distant Steering Code (DSC) for NMC. The DSC coordinates with the RLI configured previously. The DSC is the DN to dial for conferencing on the NMC. If you are using existing routes, trunks, and RLI, ensure that they are mapped with this DSC.*

- 1 In Element Manager, select **Dialing and number plans > Electronic Switched Network**.
- 2 Select **Coordinated Dialing Plan (CDP) > Distant Steering Code (DSC)**.  
Selection is based on the type of dialing plan for your engineered system. In this example, CDP was chosen.
- 3 Select **Add** to add a new DSC.
- 4 In the **Please enter a distant steering code** box, type a new DSC (for example, 5505), and then click the **to Add** button.
- 5 Configure the parameters for the DSC as shown in the following table.

**Table 3**  
**Distant Steering Code parameters**

Parameter	Value
Flexible Length number of digits (FLEN)	This is the number of digits the system expects to receive before accessing a trunk and outpulsing these digits. Type a value between 0 and 10.
Display (DSP)	Select <b>Directory Number to be use for CLID (DN)</b> .
Route List to be accessed for trunk steering code (RLI)	Select the RLI number created in the procedure "Configuring RLI (RLB)" (page 23). Example: 3

- 6 Click **Submit**.

**Figure 8**  
**DSC configuration**

**Distant Steering Code**

Input Description	Input Value
Distant Steering Code (DSC):	5505
Flexible Length number of digits (FLEN):	4 (0 - 10)
Display (DSP):	Directory Number to be used for CLID (DN)
Remote Radio Paging Access (RRPA):	<input type="checkbox"/>
Route List to be accessed for trunk steering code (RLI):	3
Collect Call Blocking (CCBA):	<input type="checkbox"/>
maximum 7 digit NPA code allowed (NPA):	
maximum 7 digit NXX code allowed (NXX):	

Submit Refresh Delete Cancel

—End—

## Configuring SIP Gateway Settings

### Step Action

*For CS 1000 Releases 5.0 and 5.5, perform the following procedure to configure your SIP Gateway settings. For more information, see IP Peer Networking Installation and Commissioning (NN43001-313). If previously configured, use this procedure to verify the data*

- 1 In Element Manager, select **System > IP Network**.
- 2 Select **Nodes: Servers, Media Cards**.
- 3 In the Node configuration area, click **Edit** and select the name of the node you wish to modify.
- 4 Expand the **SIP GW Settings** heading.
- 5 Configure the SIP Gateway parameters as shown in the following table. Complete the TLS Security options as required for your site. Configuration of TLS Security features is not required for NMC.

**Table 4**  
**SIP Gateway parameters**

Parameter	Value
Primary Proxy or Redirect (TLAN) IP address	Type the IP address of your NRS or SIP proxy/redirect server.

Parameter	Value
Port	Type the SIP port number (usually 5060 by default).
Supports Registration	Enable.
Primary Proxy or Redirect server flag	Enable.
Transport Protocol	Select <b>TCP</b> .

6 Configure the SIP Gateway settings for your secondary proxy or redirect server if applicable.

7 Click **Save and Transfer**.

**Note:** If you are going directly to the next procedure, "[Configuring SIP URI Map](#)" (page 29), you can skip this last step.

8 Click **OK**.

---

—End—

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### Step Action

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*For CS 1000 Release 6.0, perform the following procedure to configure your SIP Gateway settings. For more information, see [IP Peer Networking Installation and Commissioning \(NN43001-313\)](#). If previously configured, use this procedure to verify the data.*

1 In Element Manager, select **System > IP Network**.

2 Select **Nodes: Servers, Media Cards**.

3 In the Node configuration area, click on the name of the node you wish to modify.

4 Select **Gateway (SIPGw and H.323 Gw)**.

5 Select the **SIP Gateway Settings** heading.

6 Configure the SIP Gateway parameters as shown in the following table. Complete the TLS Security options as required for your site. Configuration of TLS Security features is not required for NMC.

**Table 5**  
**SIP Gateway parameters**

Parameter	Value
Primary Proxy or Redirect (TLAN) IP address proxy or redirect server	Type the IP address of your NRS or SIP.

Parameter	Value
Port	Type the SIP port number (usually 5060 by default).
Supports Registration	Enable.
Primary Proxy or Redirect server flag	Enable.
Transport Protocol	Select <b>TCP</b> .

- 7 Configure the SIP Gateway settings for your secondary proxy or redirect server if applicable.

**Note:** If you are going directly to the next procedure, "[Configuring SIP URI Map](#)" (page 29), you can skip the remaining steps in this procedure.

- 8 Click **Save**.
- 9 Click **Save**.
- 10 Click **Transfer Now ...**
- 11 Select the nodes to synchronize the configuration files.
- 12 Click **Start Sync**.

**Figure 9**  
**SIP Gateway Settings**

—End—

## Configuring SIP URI Map

### Step Action

*For CS 1000 Releases 5.0 and 5.5, perform the following procedure to verify or configure the SIP URI MAP. For more information, see IP Peer Networking Installation and Commissioning (NN43001-313). If previously configured, use this procedure to verify the data.*

- 1 In Element Manager, select **System > IP Network**.
- 2 Select **Nodes: Server, Media Cards**.
- 3 In the Node configuration area, click **Edit** and select the name of the node you wish to modify.
- 4 Expand the **SIP URI Map** heading.
- 5 Select the **SIP Gateway Settings** heading and scroll down to the **SIP URI Map** sub-heading.
- 6 Configure the SIP URI MAP parameters as shown in the following table.

**Table 6**  
**SIP URI MAP parameters**

Parameter	Value
Public E.164 /National domain name	Type the public E.164/National domain for your system. Example: +1
Public E.164 /Subscriber domain Name	Type the Public E.164/Subscriber domain name for your system. Example: +1506
Public E.164 /Unknown domain name	Enter the Public E.164/Unknown domain name for your system. Example: PublicUnknown This parameter is optional.
Public E.164 /Special Number domain name	Type the Public E 164/Special Number domain name for your system. Example: PublicSpecial This parameter is optional.
Private/UDP domain name	Type the Private/UDP domain name for your system. Ensure this parameter matches the configuration on the NRS. Example: udp

Parameter	Value
Private/CDP domain name	Type the Private/CDP domain name for your system, including the UDP domain name. Ensure this parameter matches the configuration on the NRS. Example: cdp.udp
Private/Special Number domain name	Type the Private/Special Number domain name for your system. Example: PrivateSpecial This parameter is optional.
Private/Unknown (vacant number routing) domain name	Type the Private/Unknown domain name for your system. Example: PrivateUnknown This parameter is optional.
Unknown/Unknown domain name	Type the Unknown/Unknown domain name for your system. Example: UnkwnownUnkown This parameter is optional.

7 Configure the SIP URI MAP settings for your secondary proxy or redirect server if applicable.

8 Click **Save and Transfer**.

9 Click **OK**.

**Note:** If you are going directly to the next procedure, "[Configuring Signaling Server properties for SIP](#)" (page 33), you can skip the remaining steps of this procedure.

10 Click **Save**.

11 Click **Transfer Now...**

12 Select the nodes to synchronize the configuration files.

13 Click **Start Sync**.

---

—End—

---

Step	Action
------	--------

For CS 1000 Release 6.0, perform the following procedure to verify or configure the SIP URI MAP. For more information, see *IP Peer Networking Installation and Commissioning (NN43001-313)*. If previously configured, use this procedure to verify the data.

- 1 In Element Manager, select **System > IP Network**.
- 2 Select **Nodes: Server, Media Cards**.
- 3 In the Node configuration area, click on the name of the node you wish to modify.
- 4 Select **Gateway (SIPGw and H.323)**.
- 5 Select the **SIP Gateway Settings** heading and scroll down to the **SIP URI Map** sub-heading.

**Figure 10**  
**SIP URI Map**

General | SIP Gateway Settings | SIP Gateway Services | H.323 Gateway Settings

Subscriber (SN): 0 <CCC><Area code><SN>  
National (NN): 0 <CCC><NN>  
International: 0 <International number>

**SIP URI Map:**

<b>Public E.164 Domain Names</b>	<b>Private Domain Names</b>
National: National	UDP: udp
Subscriber: Subscriber	CDP: cdp.udp
Special number: PublicSpecial	Special number: PrivateSpecial
Unknown: PublicUnknown	Vacant number: PrivateUnknown
	Unknown: UnknownUnknown

**SIP Gateway Services**

**SIP Converged Desktop:**  Enable CD service

Service DN: \_\_\_\_\_ Used for making VTRK call from agent.

Converged telephony call forward DN: \_\_\_\_\_

\* Required Value. Note: Changes made on this page will NOT be transmitted until the Node is also saved.

Save Cancel

- 6 Configure the SIP URI Map parameters as shown in the following table.

**Table 7**  
**SIP URI MAP parameters**

Parameter	Value
Public E.164 Domain Names/National	Type the public E.164/National domain for your system. Example: +1
Public E.164 Domain Names/Subscriber	Type the Public E.164/Subscriber domain name for your system. Example: +1506
Public E.164 Domain Names/Special Number	Enter the Public E.164/Special Number domain name for your system. Example: PublicSpecial This parameter is optional.
Public E.164 Domain Names Unknown	Type the Public E 164/Unknown domain name for your system. Example: PublicUnknown This parameter is optional.
Private Domain Names/UDP	Type the Private/UDP domain name for your system. Example: udp
Private Domain Names/CDP	Type the Private/CDP domain name for your system, including the UDP domain name. Example: cdp.udp
Private Domain Names/Special Number	Type the Private/Special Number domain name for your system. Example: PrivateSpecial This parameter is optional.
Private Domain Names/Vacant number	Type the Private/Vacant domain name for your system. Example: PrivateUnknown This parameter is optional.
Private Domain Names/Unknown	Type the Private/Unknown domain name for your system. Example: UnkwnownUnkown This parameter is optional.

**7** Configure the SIP URI MAP settings for your secondary proxy or redirect server if applicable.



**Note:** If you are going directly to the next procedure, "Configuring Signaling Server properties for SIP" (page 33), you can skip the remaining steps of this procedure.

- 8 Click **Save**.
- 9 Click **Save**.
- 10 Click **Transfer Now ...**
- 11 Select the nodes to synchronize the configuration files.
- 12 Click **Start Sync**.

---

—End—

---

### Configuring Signaling Server properties for SIP

Step	Action
------	--------

*For CS 1000 Releases 5.0 and 5.5, perform the following procedure to verify or configure the Signaling Server properties for SIP. For more information, see IP Peer Networking Installation and Commissioning (NN43001-313). If previously configured, use this procedure to verify the data.*

- 1 In Element Manager, select **System > IP Network**.
- 2 Select **Nodes: Server, Media Cards**.
- 3 In the Node configuration area, click **Edit** and select the name of the node you wish to modify.
- 4 Expand the **Signaling Servers > Signaling Server [your Signaling Server IP] Properties** heading.
- 5 Configure or verify the Signaling Server properties as shown in the following table.

**Table 8**  
Signaling Server SIP parameters

Parameter	Value
Virtual Trunk Gateway Application	Select <b>H.323 and SIP</b> .  Selecting both H.323 and SIP allows for a dual network and takes H.323 into consideration, if you use devices requiring that protocol as well.
Enable SIP proxy / Redirect Server	Enable only if using co-resident NRS.

Parameter	Value
SIP Domain name	Type the SIP domain name to be used throughout the system configuration. Example: mynmc.com
Local SIP TCP/UDP port to listen to	Type the default SIP port number (usually 5060). Ensure that this value coordinates with your end devices.
SIP Gateway endpoint name	Type the Gateway endpoint name to be registered in the NRS.
SIP Gateway Authentication password	If you enable security and use authentication in the NRS when creating endpoints, the password entered here is used for the authentication. This parameter is not applicable to NMC configuration.
Enable Gatekeeper	Enable
Network Service Role	Issue only if using co-resident NRS. options are Primary, Alternate, and Failsafe.

6 Click **Save and Transfer**.

7 Click **OK**.

---

—End—

---



---

### Step Action

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*For CS 1000 Release 6.0, perform the following procedure to verify or configure the Signaling Server properties for SIP. For more information, see IP Peer Networking Installation and Commissioning (NN43001-313). If previously configured, use this procedure to verify the data.*

- 1 In Element Manager, select **System > IP Network**.
- 2 Select **Nodes: Server, Media Cards**.
- 3 In the Node configuration area, click **Edit** and select the name of the node you wish to modify.
- 4 Select **Gateway (SIPGw and H.323GW)**.
- 5 Select the **Generall** heading.
- 6 Configure or verify the Signaling properties as shown in the following table. Parameters not listed here do not affect NMC functionality and can be left as is.

Parameter	Value
Virtual Trunk Gateway Application	Select <b>SIP Gateway (SIPGw) or SIPGw and H.323</b> . Selecting both H.323 and SIP allows for a dual network and takes H.323 into consideration if you use devices requiring that protocol as well.
SIP Domain name	Type the SIP domain name to be used throughout the system configuration. Example: mynmc.com
Local SIP TCP/UDP port to listen to	Type the default SIP port number (usually 5060). Ensure that this value coordinates with your end devices.
Gateway endpoint name	Type the Gateway endpoint name to be registered in the NRS.
Gateway password	If you enable security and use authentication in the NRS when creating endpoints the password entered here is used for the authentication. This parameter is not applicable to NMC configuration.

- 7 Click **Save**.
- 8 Click **Save**.
- 9 Click **Transfer Now ...**
- 10 Select the nodes to synchronize the configuration files.
- 11 Click **Start Sync**.

---

—End—

---

## Creating the Service Domain in NRS

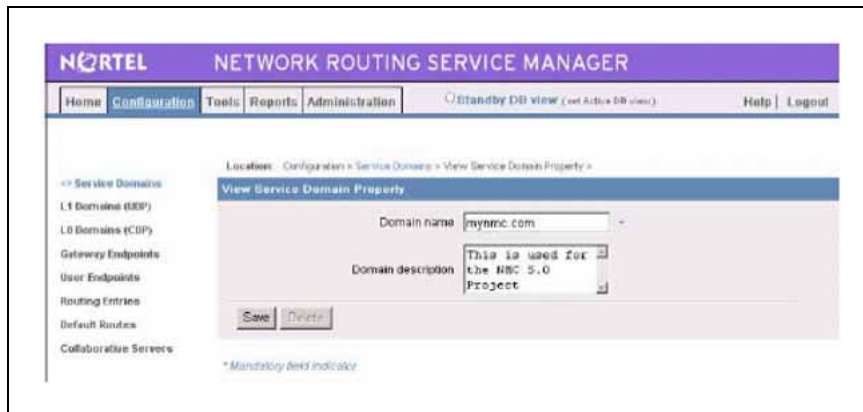
Step	Action
------	--------

*For CS 1000 Releases 5.0 and 5.5, perform the following procedure to create a SIP service Domain if one is not already created. On redundant NRS systems, perform all configuration on the primary NRS.*

- 1 Open NRS Manager by doing one of the following:  
In Element Manager, select **Dialing and Numbering Plans > Network Routing Services**.  
In Internet Explorer, enter the IP address of the NRS into the address bar.
- 2 Select the **Configuration** tab.

- 3 Click **set Standby DB view** to switch from active to standby database view.
- 4 Click **Service Domains**.
- 5 Click **Add**.  
The View Service Domain Property page appears.

**Figure 11**  
**View Service Domain Property**



- 6 For **Domain name**, enter the SIP domain name previously configured in the procedure "[Configuring Signaling Server properties for SIP](#)" (page 33) (for example, mynmc.com).
- 7 For **Domain description**, enter a relevant description for the domain being used.
- 8 Click **Save**.

---

—End—

---



---

### Step Action

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*For CS 1000 Release 6.0, perform the following steps to create a SIP service Domain if one is not already created. On redundant NRS systems, perform all configuration on the primary NRS*

- 1 Open NRS Manager by doing one of the following:  
In Element Manager, select **UCM Network Services**, then select the NRS from the **Elements** list displayed.  
In Internet Explorer, enter the IP address of the NRS into the address bar.
- 2 Select **Numbering Plans > Domains**.

- 3 Under **Managing** select **Standby Database** to switch from active to standby database view.
- 4 Click **Add**.  
The Add Service Domain page appears.

**Figure 12**  
**Add Service Domain**

The screenshot shows the 'Add Service Domain' page in the Nortel Network Routing Service Manager. The page has a purple header with the Nortel logo and the title 'NETWORK ROUTING SERVICE MANAGER'. On the left is a navigation tree with categories: UCM Network Services, System (NRS Server, Database, System Wide Settings), Numbering Plans (Domains, Endpoints, Routes, Network Post-Translation, Collaborative Servers), and Tools (SIP Phone Context, Routing Tests). The main content area shows the 'Managing' section with 'Active database' selected and 'Standby database' selected. Below this is the 'Add Service Domain' form. The 'Domain name' field contains 'myntmc.com'. The 'Domain description' dropdown menu is open, showing options: 'For Nortel', 'Multimedia', and 'Conferencing'. There are 'Save' and 'Cancel' buttons at the bottom right of the form. A note at the bottom left of the form says '\* Required value.'.

- 5 For **Domain name**, enter the SIP domain name previously configured in the procedure "[Configuring Signaling Server properties for SIP](#)" (page 33) (for example, myntmc.com).
- 6 For **Domain description**, enter a relevant description for the domain being used.
- 7 Click **Save**.

—End—

## Creating the L1 (UDP) domain in NRS

### Step Action

*For CS 1000 Releases 5.0 and 5.5, perform the following procedure to create an L1 (UDP) service domain if one is not already created. On redundant NRS systems, perform all configuration on the primary NRS.*

- 1 Open NRS Manager by doing one of the following:  
In Element Manager, select **Dialing and Numbering Plans > Network Routing Service**.  
In Internet Explorer, enter the IP address of the NRS into the address bar.
- 2 Select the **Configuration** tab.

- 3 Click **Standby DB view** to switch from active to standby database view.
- 4 Click **L1 Domains (UDP)**.
- 5 Click **Add**.  
The View L1 Domain Property page appears.

**Figure 13**  
**View L1 Domain Property**

Location: Configuration > L1 Domains (UDP) > View L1 Domain Property >

View L1 Domain Property (mynmc.com)

Domain name: udp

Domain description: L1 Domain for NMC system

Endpoint authentication enabled: Authentication off

Authentication password:

E.164 country code: 1

E.164 area code: 506

E.164 international dialing access code:

E.164 national dialing access code:

E.164 local (subscriber) dialing access code:

Private L1 domain (UDP location) dialing access code:

Special number:

Emergency service access prefix:

Special number label: PrivateSpecial

Save Delete

- 6 For **Domain name**, type a relevant domain name.  
For example, udp.
- 7 For **Domain description**, enter a relevant description for the domain being used.
- 8 For **E.164 country code**, enter the E.164 country code for your system.
- 9 For **E.164 area code**, enter the E.164 area code for your system.
- 10 Configure other optional parameters as required for your system.
- 11 Click **Save**.

---

—End—

---



---

### Step Action

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*For CS 1000 Release 6.0, perform the following procedure to create an L1 (UDP) service domain if one is not already created. On redundant NRS systems, perform all configuration on the primary NRS.*

- 1 Open NRS Manager by doing one of the following:  
In the Element Manager, select **UCM Network Services**, then select the NRS from the **Elements** list displayed.  
In Internet Explorer, enter the IP address of the NRS into the address bar.
- 2 Select **Numbering Plans > Domains**.
- 3 Under **Managing**: select **Standby Database** to switch from active to standby database view.
- 4 Click **L1 Domains (UDP)**.
- 5 In the **Filter by Domain** list, select the service domain configured in the previous procedure.
- 6 Click **Add**.  
The Add L1 Domain page appears.

**Figure 14**  
**Add L1 Domain**

- 7 For **Domain name**, type a relevant domain name.
- 8 For **Domain description**, enter a relevant description for the domain being used.
- 9 For **E.164 country code**, enter the E.164 country code for your system.
- 10 For **E.164 area code**, enter the E.164 area code for your system.
- 11 Configure other optional parameters as required for your system.
- 12 Click **Save**.

---

—End—

---

### Creating the L0 (CDP) domain in NRS

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Step	Action
------	--------

---

*For CS 1000 Releases 5.0 and 5.5, perform the following procedure to create an L0 (CDP) service domain if one is not already created. On redundant NRS systems, perform all configuration on the primary NRS.*

- 1 Open NRS Manager by doing one of the following:  
In Element Manager, select **Dialing and Numbering Plans > Network Routing Service**.  
In Internet Explorer, enter the IP address of the NRS into the address bar.
- 2 Select the **Configuration** tab.
- 3 Click **set Standby DB view** to switch from active to standby database view.
- 4 Click **L0 Domains (CDP)**.
- 5 Click **Add**.  
The View L0 Domain Property page appears.



**Figure 15**  
**View L0 Domain Property**

Location: Configuration > L0 Domains (CDP) > View L0 Domain Property >

View L0 Domain Property (mynmc.com / udp)

Domain name: cdp

Domain description: L0 Domain for NMC systems

Endpoint authentication enabled: Not configured

Authentication password: [ ]

E.164 country code: 1

E.164 area code: 506

Private unqualified number label: PrivateUnknown

E.164 international dialing access code: [ ]

E.164 national dialing access code: [ ]

E.164 local (subscriber) dialing access code: [ ]

Private L1 domain (UDP location) dialing access code: [ ]

Special number: [ ]

Emergency service access prefix: [ ]

Save Delete

- 6 For **Domain name**, type a relevant domain name.  
For example, cdp.
- 7 For **Domain description**, enter a relevant description for the domain being used.
- 8 For **E.164 country code**, enter the E.164 country code for your system.
- 9 For **E.164 area code**, enter the E.164 area code for your system.
- 10 Configure other optional parameters as required for your system.
- 11 Click **Save**.

---

—End—

---

Step	Action
------	--------

*For CS 1000 Release 6.0, perform the following procedure to create an L0 (CDP) service domain if one is not already created. On redundant NRS systems, perform all configuration on the primary NRS.*

- 1 Open NRS Manager by doing one of the following:  
In Element Manager, select **UCM Network Services**, then select the NRS from the **Elements** list displayed.
- 2 Select **Numbering Plans > Domains**.
- 3 Under **Managing**: select **Standby Database** to switch from active to standby database view.
- 4 Click **L0 Domains (CDP)**.
- 5 In the **Filter by Domain** list, select the service domain and L1 domain configured in the previous two procedures respectively.
- 6 Click **Add**.  
The Add L0 Domain page appears.

**Figure 16**  
**Add L0 Domain**

- 7 For **Domain name**, type a relevant domain name.

- 8 For **Domain description**, enter a relevant description for the domain being used.
- 9 For **E.164 country code**, enter the E.164 country code for your system.
- 10 For **E.164 area code**, enter the E.164 area code for your system.
- 11 Click **Save**.

---

—End—

---

## Configuring Gateway endpoints on the NRS

---

Step	Action
------	--------

---

*For CS 1000 Releases 5.0 and 5.5, perform the following procedure to configure the MAS gateway endpoints on the Network Routing Service (NRS). You must perform this procedure for each NMC node on the system. On NRS redundant systems, perform all configuration on the primary NRS.*

- 1 Open NRS Manager by doing one of the following:  
In Element Manager, select **Dialing and Numbering Plans > Network Routing Service**.  
In Internet Explorer, enter the IP address of the NRS into the address bar.
- 2 Select the **Configuration**.
- 3 Click **set Standby DB view** to switch from active to standby database view.
- 4 Click **Gateway Endpoints**.
- 5 Ensure that the correct service domain, L1 domain, and L0 domain are selected and click **Add**.  
The View Gateway Endpoint Property page appears.

**Figure 17**  
**View Gateway Endpoint Property**

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

View Gateway Endpoint Property (mymc.com / udp / edp)

Endpoint name

Endpoint description

Tandem gateway endpoint name  [Look up](#)

Endpoint authentication enabled

Authentication password

E.164 country code

E.164 area code

E.164 international dialing access code

E.164 national dialing access code

E.164 local (subscriber) dialing access code

Private L1 domain (UDP location) dialing access code

Private special number 1

Private special number 2

Static endpoint address type

Static endpoint address

H.323 Support

SIP support

SIP transport

SIP port

Network Connection Server enabled

- 6 For **Endpoint name**, type a relevant endpoint name. The endpoint name must contain the prefix **nmc\_** (for example, **nmc\_moscow**).
- 7 For **Endpoint description**, type a relevant endpoint description.
- 8 For **Static endpoint address type**, select **IP version 4**.
- 9 For **Static endpoint address**, enter the IP address of the NMC server.
- 10 For **SIP support**, select **Static SIP endpoint**.

- 11 For **SIP transport**, select the transport protocol type (usually **TCP**).
- 12 Type a value for the **SIP port** or leave the default value of 5060.
- 13 Click **Save**.

---

—End—

---

---

**Step Action**

---

*For CS 1000 Release 6.0, perform the following procedure to configure the MAS gateway endpoints on the Network Routing Service (NRS). You must perform this procedure for each NMC node on the system. On NRS redundant systems, perform all configuration on the primary NRS.*

- 1 Open NRS Manager by doing one of the following:  
In Element Manager, select **UCM Network Services**, then select the NRS from the **Elements** list displayed.  
In Internet Explorer, enter the IP address of the NRS into the address bar.
- 2 Select **Numbering Plans > Endpoints**.
- 3 Under **Managing**: select **Standby Database** to switch from active to standby database view.
- 4 Click **Gateway Endpoints**.
- 5 In the **Limit results to Domain** list, ensure that the correct service domain L1 domain, and L0 domain are selected and click **Add**.  
The Add Gateway Endpoint page appears.

**Figure 18**  
**Add Gateway Endpoint**

**NORTEL NETWORK ROUTING SERVICE MANAGER** Help | Logout

Managing:  Active database 47.166.263.41  
 Standby database Numbers Portal > Endpoints > Gateway Endpoints

**Add Gateway Endpoint (mynmc.com / udp / cdp)**

Endpoint name:

Description:

Trust hidden:

Tandem gateway endpoint name:

Endpoint authentication enabled:  Authentication off

Authentication password:

E.164 country code:

E.164 area code:

E.164 international dialing access code:

E.164 international dialing code length:

E.164 national dialing access code:

E.164 national dialing code length:

E.164 local (subscriber dialing access code):

E.164 local (subscriber dialing code length):

Private L1 domain (UCP location) dialing access code:

Private L1 domain (UCP location) dialing code length:

Private Special number 1:

Private Special number 1 dialing code length:

Private Special number 2:

Private Special number 2 dialing code length:

Static endpoint address type:

Static endpoint address:

H.323 support:

SIP support:

SIP Mode:  Proxy Mode  Redirect Mode

SIP TCP transport enabled:

SIP TCP port:

SIP UDP transport enabled:

SIP UDP port:

SIP TLS transport enabled:

SIP TLS port:

Persistent TCP support enabled:

End-to-end security support:

Network Connection Server enabled:

Redundancy enabled:

Main endpoint name:

Redundant endpoint name:

\* Required value

Save Cancel

- 6 For **Endpoint name**, type a relevant endpoint name. The endpoint name must contain the prefix **nmc\_** (for example **nmc\_gateway**).
- 7 For **Endpoint description**, type a relevant endpoint description.

- 8 For **E.164 country code**, enter the E.164 country code for your system.
- 9 For **E.164 area code**, enter E.164 area code for your system.
- 10 For **Static endpoint address type**, select **IP version 4**.
- 11 For **Static endpoint address**, enter the IP address of the NMC server.
- 12 For **SIP support**, select **Static SIP endpoint**.
- 13 For **SIP Mode**, select **Proxy Mode**.
- 14 Select the desired **SIP <protocol> transport** options (usually **TCP** is used for NMC).
- 15 Type a value for the **SIP <protocol> port** for each protocol transport chosen, or leave the default values.
- 16 Click **Save**.

---

—End—

---

## Configuring routing entries on the NRS

Step	Action
------	--------

*For CS 1000 Releases 5.0 and 5.5, perform the following procedure to add a routing entry for each NMC gateway endpoint. On NRS redundant systems, perform all configuration on the primary NRS.*

- |   |  |
|---|--|
| 1 | Open NRS Manager by doing one of the following:<br>In Element Manager, select <b>Dialing and Numbering Plans &gt; Network Routing Service</b> .<br>In Internet Explorer, enter the IP address of the NRS into the address bar. |
| 2 | Select the <b>Configuration</b> .  |
| 3 | Click <b>set Standby DB view</b> to switch from active to standby database view.   |
| 4 | Select <b>Routing Entries</b> .<br>The Routing Entries page appears.   |
| 5 | Ensure that the correct service domain, L1 domain, and L0 domain are selected, and enter the <b>Gateway Endpoint</b> for which you want to add a route.  |

- 6 For **With DN Type**, select **ALL DN Types**.
- 7 Click **Show**.
- 8 Click **Add**.  
The View Routing Entry Property page appears.

**Figure 19**  
**View Routing Entry Property**

- 9 Select the **DN Type**.  
Selection is based on the type of dialing plan for your engineered system. In this example, CDP was chosen.
- 10 Type the **DN prefix**. The DN prefix is the DSC created in ["Configuring a Distant Steering Code" \(page 25\)](#).  
The DN prefix can be up to 30 characters in length, and can include the characters 0-9, #, -, ?. The first character of the DN prefix must be numeric (for example, 5505). Use the same DN prefix for each end point.
- 11 Enter the **Route cost**.  
Enter 1 for the first NMC endpoint, 2 for the second NMC endpoint, and so forth.
- 12 Click **Save**.

---

—End—

---



---

**Step Action**

---

*For CS 1000 Release 6.0, perform the following procedure to add a routing entry for each NMC gateway endpoint. On NRS redundant systems, perform all configuration on the primary NRS.*

- 1 Open NRS Manager by doing one of the following:



In Element Manager, select **UCM Network Services**, then, select the NRS from the **Elements** list displayed.

In Internet Explorer, enter the IP address of the NRS into the address bar.

- 2 Select the **Numbering Plans > Endpoints**.
- 3 Under **Managing**: select **Standby Database** to switch from active to standby view.
- 4 Click **Routing Entries**.
- 5 For **DN Type**, select **All DN Types**.
- 6 In the **Limit results to Domain** list, ensure that the correct service domain, L1 domain, and L0 domain are selected.
- 7 Select the **Gateway Endpoints** for which you wish to add a route.
- 8 Click **Add**.  
The Add Routing Entry page appears.

**Figure 20**  
**Add Routing Entry**

- 9 Select the **DN Type**.  
Selection is based on the type of dialing plan for your engineered system. In this example, CDP was chosen.
- 10 Type the **DN prefix**. The DN prefix is the DSC created in ["Configuring a Distant Steering Code" \(page 25\)](#).  
The DN prefix can be up to 30 characters in length, and can include the characters 0-9, #, -, ?. The first character of the DN prefix must be numeric (for example, 5505). Use the same DN prefix for each end point.

- 11 Enter the **Route cost**.  
Enter 1 for the first NMC endpoint, 2 for the second NMC endpoint and so forth.
- 12 Click **Save**.

---

—End—

---

## Cutting over and committing changes on the NRS Database

### Step Action

*For CS 1000 Releases 5.0 and 5.5, perform the following procedure to switch between the active and standby database access pointers. This swaps the primary and standby databases so that configuration changes take effect.*

- 1 On the NRS Manager tool bar, click **Tools**.
- 2 Click **Database Actions**.
- 3 For **Select Database action**, select **Cut over and Commit**.  
Nortel recommends that you cut over, test the configuration changes, and then commit the changes. If you find issues in testing before you commit the changes, you can revert to the previous configuration.
- 4 Click **Submit**.

---

—End—

---

### Step Action

*For CS 1000 Release 6.0, perform the following procedure to switch between the active and standby database access pointers. This swaps the primary and standby databases so that configuration changes take effect.*

- 1 On the NRS Manager navigation tree, click **Database**.
- 2 Click **Cut over**. The **Database status** becomes **Switched over**.  
Nortel recommends that you cut over, test the configuration changes, and then commit the changes. If you find issues in testing before you commit the changes, you can revert to the previous configuration.
- 3 Click **Commit**.

---

—End—

---

## NMC configuration on the MAS 6.1 platform

Use the procedures in this section to configure NMC 6.0 on the MAS 6.1 platform.

### Configuring translations

Step	Action
------	--------

*In a cluster configuration, perform this procedure on each node in the cluster.*

- 1 In the Element Manager navigation, click **System Configuration > Translations**.
- 2 On the **Application Translations** window, click **Add**.
- 3 On the **New Application Translation** window, configure the translation parameters as shown in the following table.

Parameter	Value
Application Name	Select <b>Nortel Multimedia Conferencing</b> .
Mode	Select <b>SIP Request URI</b> .
Algorithm	Select <b>Substring Match</b> .
Pattern	Type the number created in the procedure " <a href="#">Configuring routing entries on the NRS</a> " (page 47). Example: 5505
Rank	Type <b>1</b> .

- 4 Click **Save**.

—End—

### Adding the NRS IP address as a trusted node

Step	Action
------	--------

*Perform the following procedure to add the NRS TLAN IP as a trusted node. In a cluster configuration, perform this procedure on each node in the cluster.*

**ATTENTION**

If you are using an SRS NRS, you must also add the CS 1000 NODE IP.

- 1 In the Element Manager navigation, click **System Configuration > Signaling > SIP > Nodes and Routes**.

- 2 On the **SIP Nodes and Routes** page, in the **Trusted Nodes** section, click **Add**.
- 3 On the **Add SIP Trusted Node** page, in the **Host or Server Address** box, type the IP address of the NRS server.
- 4 Click **Save**.

---

—End—

---

### Configuring the SIP route to the NRS server

Step	Action
------	--------

*Perform the following procedure to configure a SIP route to the NRS server. In a cluster configuration, perform this procedure on each node in the cluster. The MAS server needs a SIP route to make outgoing calls on behalf of NMC. The SIP route defines the domain a call is placed to, the address of the server where the call request is sent, the transport type, and the port to use. In the case of a redundant CS 1000 installation, create multiple routes that point to all servers involved.*

- 1 In the Element Manager navigation, click **System Configuration > Signaling > SIP > Nodes and Routes**.
- 2 On the **SIP Nodes and Routes** page, in the **Routes** section, click **Add**.
- 3 On the **Add SIP Route** page, configure the parameters as listed in the following table.

Parameter	Value
Domain	Select the wildcard SIP domain (*).
Trusted Node	Select the IP address created in the procedure Adding the NRS IP address as a trusted node.
Transport	Select <b>TCP</b> . Or, you can select <b>UDP</b> if the CS 1000 system is accepted to receive UDP.
Remote Port	Leave at the default of <b>5060</b> unless system ports across the entire system have been changed.
Priority	Select <b>0</b> .
Weight	Select <b>2</b> .
Proxy	Select <b>Proxy</b> .

- 4 Click **Save**.

- 5 On the **SIP Nodes and Routes** page, in the **Routes** section, select the route you just added.
- 6 Click **Edit**.
- 7 On the **Edit SIP Route** page, in the **Properties** section, in the **Server Keepalive** list, select **Disabled**.
- 8 In the **SIP Route Type** list, make a selection based on the CS 1000 NRS type. For SPS, select **CS1K SPS Home**. For SRS, select **CS1K SRS**.
- 9 Click **Save**.

---

—End—

---

## Configuring NMC settings

### Step Action

*Perform the following procedure to configure the NMC settings on the MAS. In a cluster configuration, perform this procedure on the primary node.*

- 1 In the Element Manager navigation pane, click **Products and Applications > Multimedia Conferencing > Conferencing Configuration**.
- 2 On the **Multimedia Conferencing Configuration** window, configure the parameters as shown in the following table.

Parameter	Value
Default SIP Domain	Type the service domain name created in the procedure " <a href="#">Creating the Service Domain in NRS</a> " (page 35).
Key for Load Reporting	Type the name of the Gateway endpoint created in the procedure " <a href="#">Configuring Gateway endpoints on the NRS</a> " (page 43). <b>Note:</b> You must configure the Key for Load Reporting option on every node in a cluster.
SIP Operator	See NMC SIP operator configuration.
Softswitch Type	Select CS 1000.

- 3 Click **Save**.

---

—End—

---

## NMC SIP operator configuration

Use the procedure in this section to configure the SIP operator option on NMC. In a conference, when a conference participant dials option 00, a request is sent to an operator.

This configuration is optional.

### SIP operator configuration prerequisites

- A valid telephone is configured on the CS 1000 for the SIP operator. A SIP telephone is not required.
- A single network dialing plan for SIP, H.323, and mixed SIP/H.323 networks has been established in the NRS.

### Configuring the SIP operator in NMC

---

Step	Action
------	--------

---

*Perform the following procedure to configure the conference SIP operator in NMC.*

- 1 In the Element Manager navigation pane, click **Products and Applications > Multimedia Conferencing > Conferencing Configuration**.
- 2 On the **Multimedia Conferencing Configuration** window, locate the **SIP Operator** box.
- 3 Type the **SIP Operator** value in the following format:  
<DN>@<service\_domain>  
where <DN>= configured DN assigned to SIP operator  
Example:  
sip:4777@mynmc.com
- 4 Click **Save**.

---

—End—

---

## Testing the NMC/CS 1000 configuration

Use these procedures to test your system.

If these procedures are unsuccessful, proceed to "[Troubleshooting the NMC/CS 1000 configuration](#)" (page 56).

## Testing prerequisites

- Two supported telephones are configured on the CS 1000. For information about configuring telephones, see [Appendix "Provisioning telephones \(L11\)" \(page 81\)](#).
- A user is configured in the NMC Console. For information about configuring users for NMC, see [Appendix "Creating an NMC subscriber" \(page 83\)](#).

## Calling NMC DN and logging on the chairperson

Perform the following procedure to call the NMC DN and logon the chairperson.

Step	Action
1	From a configured telephone, call the Distant Steering Code configured in the procedure <a href="#">"Configuring a Distant Steering Code" (page 25)</a> (for example, 5505).
2	When prompted, dial the conference access code followed by the pound (#) key. This is the Access Code assigned to the user.
3	Press the star (*) key.
4	Dial the chairperson PIN and press the pound (#) key.
5	Dial 1 to enter the conference.
6	Proceed to the next procedure, <a href="#">"Logging onto a conference" (page 55)</a> .

—End—

## Logging onto a conference

Perform the following procedure to connect to a conference.

Step	Action
1	From the second telephone configured, call the NMC DN.
2	When prompted, dial the conference access code followed by the pound (#) key. Result: You are entered into conference with the chairperson.
3	Perform a test voice chat with the chairperson.

- 
- 4 Leave both calls active before proceeding to the next procedure, "Viewing active sessions" (page 56).
- 

—End—

---

### Viewing active sessions

Perform the following procedure to view NMC active sessions.

---

Step	Action
1	In the Element Manager navigation pane, click <b>Products and Applications Multimedia &gt; Conferencing &gt; NMC Dashboard</b> .
2	In the <b>Session Count</b> section will show all active sessions in the cluster.
3	The active sessions are listed on the Active Sessions window. Check that there are two active sessions for the telephones that are dialed in.

**Note:** You can customize how the columns are displayed. Click and drag the columns to arrange them, or click a column to sort by that column in ascending or descending order.

---

—End—

---

Perform the following procedure to view active sessions using NMC Dashboard

---

Step	Action
1	From the Element Manager navigation pane, click Products and Applications <a href="https://localhost:8443/em/">https://localhost:8443/em/</a> > Multimedia Conferencing > NMC Dashboard.
2	The Session Count section will show all active sessions in the cluster.

---

—End—

---

## Troubleshooting the NMC/CS 1000 configuration

Use the suggested troubleshooting procedures in this module to resolve issues with the NMC/CS 1000 integration.



For more information, refer to the MAS documentation, or contact Nortel for support.

### SIP can not route from the NRS

---

Step	Action
------	--------

---

*Perform the following procedure to troubleshoot your SIP calls to the NMC.*

- |   |   |
|---|---|
| 1 | Log onto the NRS.   |
| 2 | Click the <b>Tools</b> tab.   |
| 3 | Select <b>SIP Routing Test</b> .  |
| 4 | For <b>Originating endpoint IP address</b> , enter the IP address for the TLAN.<br>Or, use the look up feature to select the SIP endpoint IP address from the CS 1000.  |
| 5 | For <b>DN to query</b> , type the NMC-assigned Distant Steering Code DN.  |
| 6 | For <b>DN type to query</b> , select the DN type that matches the dial plan.<br>This value could be CDP or UDP.   |
| 7 | Click <b>Submit</b> .   |
| 8 | Verify that the <b>Route Found</b> shows the NMC IP address as the terminating endpoint address.<br>If this is not the result, verify all your provisioning information on the NRS and retry.<br>If this is the result but NMC still does not work, proceed to " <a href="#">SIP call sent but not accepted by the NMC</a> " (page 57). |

---

—End—

---

### SIP call sent but not accepted by the NMC

---

Step	Action
------	--------

---

*Perform the following procedure to troubleshoot your incoming SIP calls to the NMC.*

**ATTENTION**

Errors that may indicate this issue are as follows:

- GW and/or the SPS/SRS are not trusted by the MAS—call is coming but the MAS returns 403 Forbidden.
- Translation is wrong—call is coming but the MAS returns 404 Temporarily Unavailable.
- The MAS or NMC is locked—call is coming but MAS returns 404 Temporarily Unavailable.

- 1 In the Element Manager navigation, select **System Configuration > Logging**.
- 2 On the **Logging** page, in the **Debug Logging** list, select **Enabled**.
- 3 Click **Save**.
- 4 Select **System Configuration > Advanced Settings > Debug > Signaling**.
- 5 On the Debug for Signaling page, in the Network Trace Direction list, select **Incoming and Outgoing Trace Enabled**.
- 6 Make a call to the NMC.
- 7 From Windows Explorer, browse to **D:\Program Files\Nortel\Multimedia\_Applications\MAS\common\log** to view the log.
- 8 Open the log file **sipmcDebug**.
- 9 Review the log file for SIP incoming requests from the DN used.
- 10 If there is no SIP incoming request, do the following:
  - Verify the IP configuration and ensure that MAS is configured properly.
  - Verify that you can ping the Call Server, NRS, and SIG server ELAN and TLAN IP addresses.
  - Verify that the NMC domain entry is correct.
  - Check the trusted nodes and ensure that all required IP addresses are enrolled.

---

—End—

---

---

**You receive a 503 error—Service temporarily unavailable**

---

**Step Action**

---

*This type of error typically occurs because there is a licensing issue and the service is not running.*

- 1** In the Element Manager navigation, select **Licensing > Licensing Configuration**.
- 2** On the **Licensing Configuration** page, ensure **Use License Server** is selected.
- 3** Click **Save**.
- 4** Select **System Status > Alarms**.
- 5** On the **Alarms** page, resolve any Alarms related to licensing.
- 6** Select **Licensing > License Server Status**.
- 7** On the **License Server Status** page, ensure the License Server is started.

---

—End—

---



---

## NMC/Converged Office configuration for OCS 2007

---

This section describes the configuration of NMC 6.0 on the Media Application Server (MAS) 6.1 platform, Communication Server 1000 (CS 1000), and Office Communications Server (OCS) 2007.

### Prerequisites for NMC/Converged Office configuration for OCS 2007

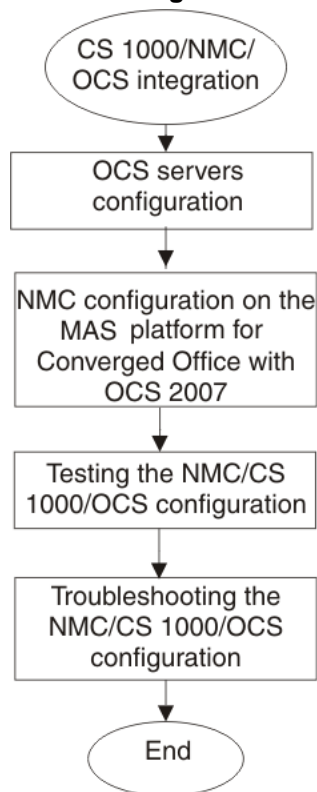
- "Prerequisites for NMC/CS 1000 configuration" (page 17) are met.
- You completed the procedures for "NMC configuration on the MAS 6.1 platform" (page 51).
- The DNS server is installed and configured.
- All servers in the configuration, including the CS 1000 NRS, ECM, and NMC servers, are enrolled on the DNS server.
- Office Communications Server (OCS) 2007 Standard or Enterprise Edition is installed with patches as required in *Solution Integration Guide for Communication Server 1000 Release 5.0/Microsoft Office Communications Server 2007* (NN49000-309).
- Multimedia Convergence Manager (MCM) version 3.0 is installed and configured.
- You obtained a Windows service account for NMC Active Directory lookups.
- NMC is installed using custom install with Converged mode selected. See *Nortel Multimedia Conferencing Fundamentals* (NN44460-100).
- Converged Office for OCS 2007 is configured and working. See *Solution Integration Guide for Communication Server 1000 Release 5.0/Microsoft Office Communications Server 2007* (NN49000-309).
- Live Meeting Console (LMC) 2007 is installed and working on client computers.
- TCP port 3998 is enabled on all MAS servers if using the redundant licensing option. For more information, see *Nortel Media Application*

*Server and Interactive Communications Portal Commissioning*  
(NN44471-301).

## NMC Converged Office integration for OCS 2007

The following task flow shows the sequence of tasks you perform to integrate the CS 1000, NMC, and OCS systems.

**Figure 21**  
**NMC/Converged Office integration for OCS 2007 task flow**



## Navigation

- "OCS 2007 front end server configuration" (page 63)
  - "Enabling conferencing on the front end servers" (page 63)
  - "Configuring host authorization on the front end servers" (page 66)
  - "Configuring a static route on the OCS 2007 Front End server for NMC" (page 67)
- "NMC configuration on the MAS for Converged Office with OCS 2007" (page 69)

- "Adding the OCS, application proxy, and Mediation servers as trusted nodes" (page 69)
- "Opening the port for the ACP server" (page 70)
- "Configuring the ACP server" (page 71)
- Configuring trust for the ACP server SOAP client
- "Testing the NMC/Converged Office configuration for OCS 2007" (page 73)
  - "Configuring Live Meeting Console 2007" (page 73)
  - "Starting a conference with LMC 2007" (page 77)
- "Troubleshooting the NMC/Converged Office configuration for OCS 2007" (page 78)

## OCS 2007 front end server configuration

Perform the procedures in this module to configure the front end OCS servers to allow for NMC interaction.

### Enabling conferencing on the front end servers

Step	Action
------	--------

*Perform the following procedure to enable conferencing on the front end servers.*

- 1 From the OCS 2007 console snap-in, right-click the forest level domain and select **Properties > Global Properties**.

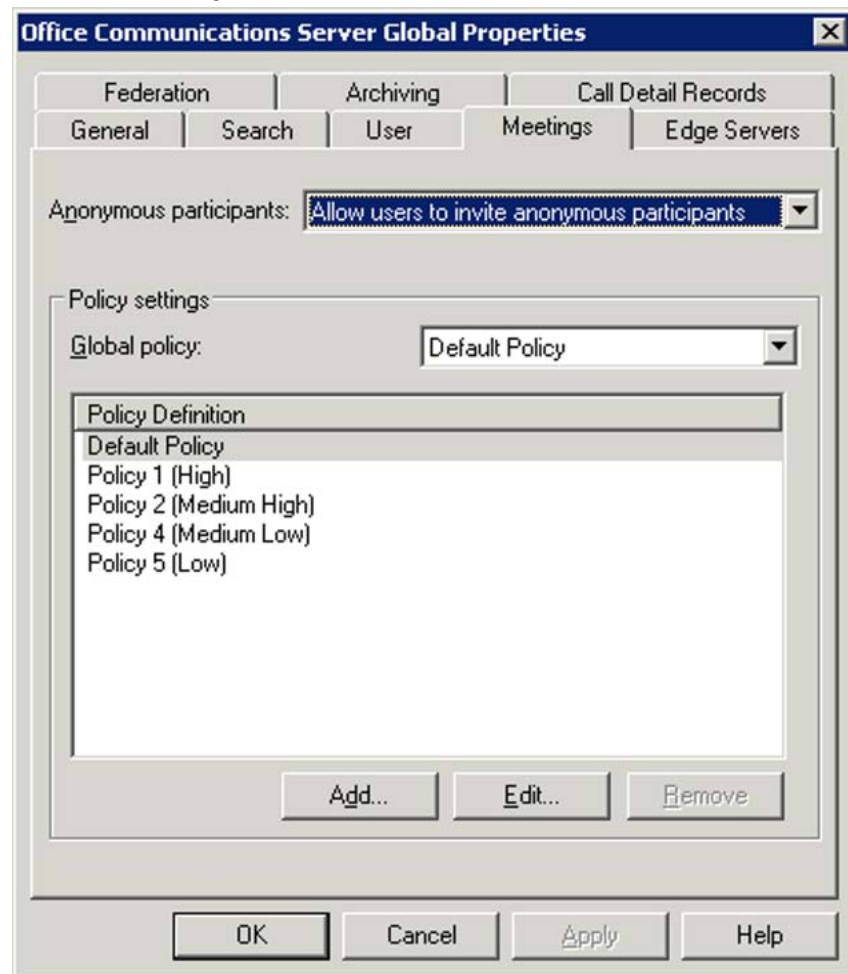
**Figure 22**  
**OCS 2007 console**



- 2 On the **Office Communications Server Global Properties** dialog box, click the **Meetings** tab.

- 3 From the **Anonymous participants list**, select **Allow users to invite anonymous participants**.

**Figure 23**  
**OCS Global Properties**

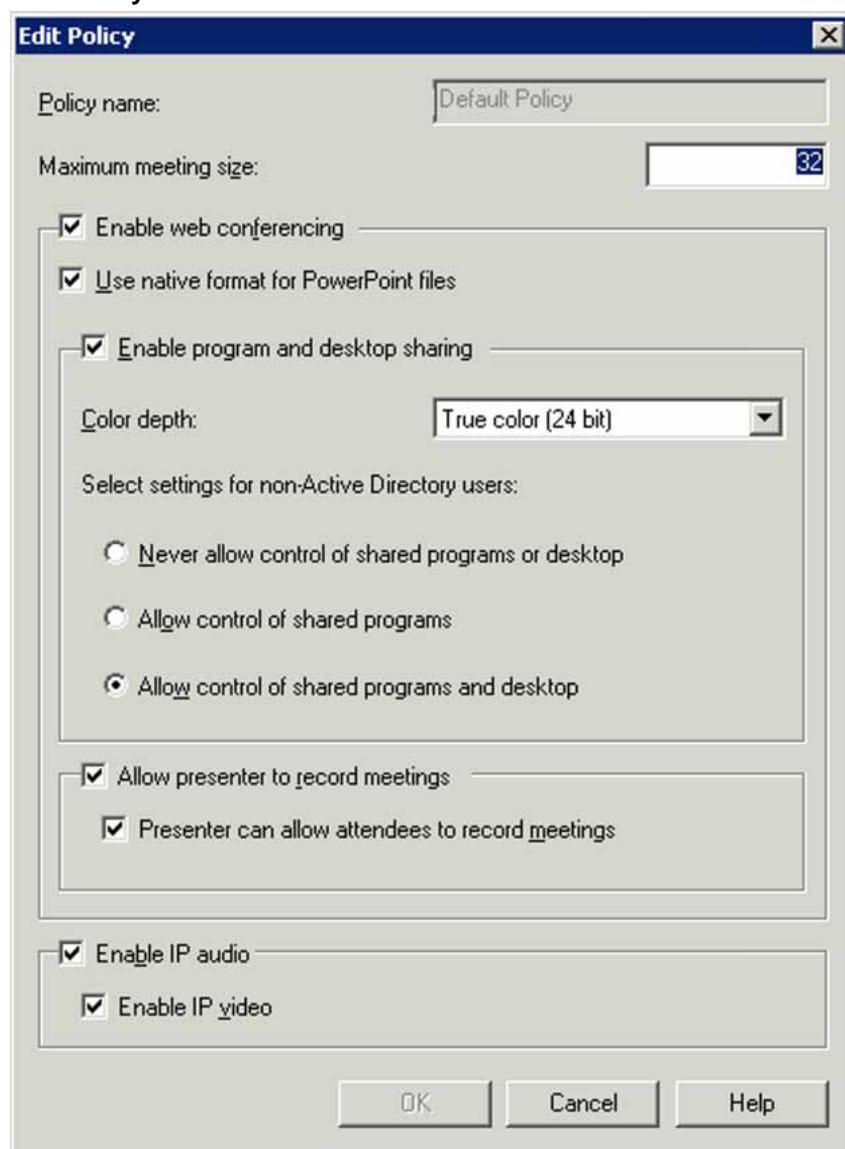


- 4 Under **Global Policy**, select the policy you want to modify (this example uses Default Policy).
- 5 Click **Edit**.
- 6 On the **Edit Policy** dialog box, change the value for **Maximum meeting size** from the default value (32) to a value that is equal to or greater than the value configured for the maximum number of participants in an NMC conference.
- 7 Select the **Enable web conferencing**, **Enable IP audio**, and **Enable IP video** check boxes.



Other settings on the Edit Policy dialog box are optional.

**Figure 24**  
**Edit Policy**



- 8 Click **OK**.
- 9 On the **Office Communications Server Global Properties** dialog box, click **OK**.

—End—

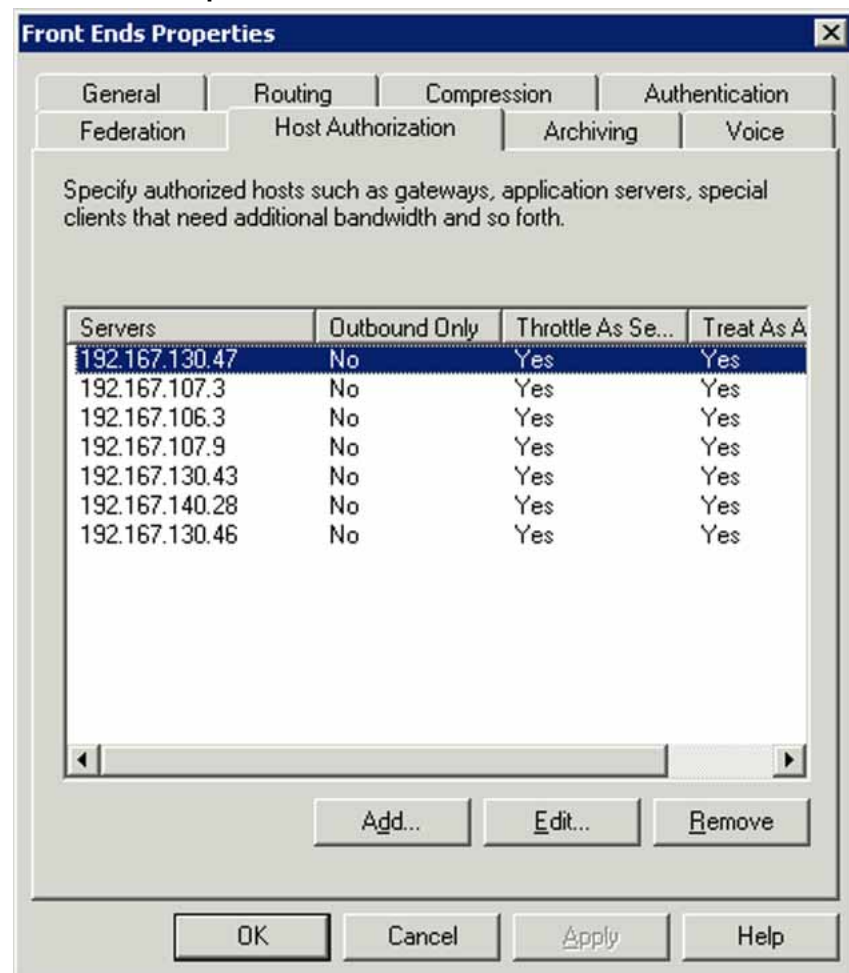
## Configuring host authorization on the front end servers

### Step Action

Perform the following procedure to authorize the NMC server that runs the ACP server component to communicate with the front end OCS servers. The following procedure is based on an OCS 2007 Enterprise configuration.

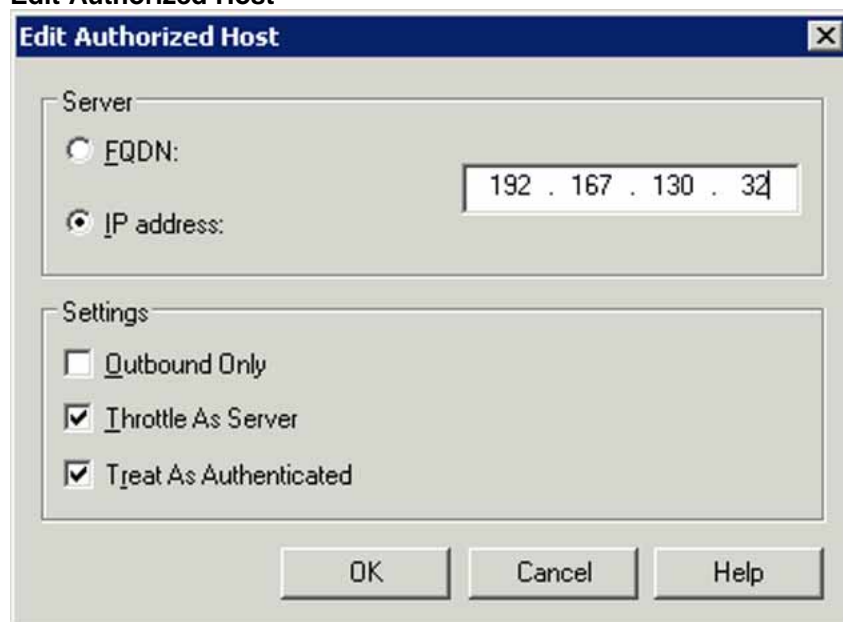
- 1 Open the Microsoft Office Communications Server 2007 console snap-in.
- 2 Expand the tree and right-click the front end folder.
- 3 Select **Properties**.
- 4 On the **Front Ends Properties** dialog box, click the **Host Authorization** tab.

**Figure 25**  
**Front Ends Properties**



- 5 Click **Add**.  
The Add Authorized Host dialog box appears.
- 6 On the **Add Authorized Host** dialog box, under **Server**, select **IP address** and type the IP address of the NMC server.
- 7 Under **Settings**, select **Throttle as a server** and **Treat as authenticated**.

**Figure 26**  
**Edit Authorized Host**



- 8 Click **OK**.
- 9 Repeat [step 5](#) to [step 8](#) for each NMC server in the cluster.
- 10 On the **Front End Properties** dialog box, click **OK**.

---

—End—

---

## Configuring a static route on the OCS 2007 Front End server for NMC

Step	Action
------	--------

*Perform the following procedure to configure routing for the ACP server. The following procedure is based on an OCS 2007 Enterprise configuration.*

- 1 Open the Microsoft Office Communications Server 2007 snap-in.

- 2 Expand the tree and right-click the front end folder.
- 3 Select **Properties**.
- 4 On the **Front End Properties** dialog box, click the **Routing** tab.
- 5 Click **Add**.  
The Add Static Route dialog box appears.
- 6 On the **Add Static Route** dialog box, under **Matching URI**, in the **Domain** box, type the fully qualified domain name of the MAS where ACP resides.  
  
If the MAS is not in the OCS domain, type a fictitious name for ACP, followed by a period (.), and then the OCS domain name (for example, moscow.innlab.nortel.com).
- 7 In the **Next hop** section, select **IP address** and type the IP address of the MAS that contains the ACP server.
- 8 From the **Transport** list, select TCP.
- 9 In the **Port** box, type **5040**.

**Figure 27**  
**Edit Static Route**

- 10 On the **Add Static Route** dialog box, click **OK**.
- 11 On the **Front End Properties** dialog box, click **OK**.

---

—End—

---

## NMC configuration on the MAS for Converged Office with OCS 2007

Perform the procedures in this module to configure NMC on the MAS platform.

### Adding the OCS, application proxy, and Mediation servers as trusted nodes

Step	Action
------	--------

	<i>Perform the following procedure to configure trusted nodes. In a cluster configuration, perform this procedure on the primary node.</i>
--	--

- 1 In the Element Manager navigation, select **System Configuration > Signaling > SIP > Nodes and Routes**.
- 2 On the **SIP Nodes and Routes** page, in the **Trusted Nodes** section, click **Add**.
- 3 For a Standard Edition configuration, type the IP address or host name of the OCS 2007 front end server.  
OR  
For an Enterprise Edition configuration, add each OCS front end server in the pool.
- 4 Click **Save**.
- 5 Repeat these steps to add the application proxy and Mediation servers IP addresses.

---

—End—

---

### Opening the port for the ACP server

Step	Action
------	--------

*Perform the following procedure on the MAS where ACP is installed to open port 5040. Port 5040 is the port the ACP server listens to.*

*If the system is in service, Nortel recommends that you complete a pending lock first as this procedure requires a reboot.*

- |   |  |
|---|--|
| 1 | On the MAS, select <b>Start &gt; Control Panel &gt; Network Connections &gt; MASTeam</b> .                           |
| 2 | On the <b>MASTeam Status</b> dialog box, click <b>Properties</b> .   |
| 3 | Under <b>This connection uses the following items</b> , select <b>Internet Protocol (TCP/IP)</b> .                   |
| 4 | Click <b>Properties</b> .  |
| 5 | On the <b>Internet Protocol (TCP/IP) Properties</b> dialog box, click <b>Advanced</b> .                              |
| 6 | On the <b>Advanced TCP/IP Settings</b> dialog box, click the <b>Options</b> tab.<br>TCP/IP filtering is highlighted. |
| 7 | Click <b>Properties</b> .  |
| 8 | On the <b>TCP/IP Filtering</b> dialog box, under the <b>TCP Ports</b> column, click <b>Add</b> .                     |

- 9 On the **Add Filter** dialog box, in the **TCP/IP Port** box, type **5040**.
- 10 Click **OK**.
- 11 On the **TCP/IP Filtering** dialog box, click **OK**.
- 12 On the **Advanced TCP/IP Settings** dialog box, click **OK**.
- 13 On the **Internet Protocol (TCP/IP) Properties** dialog box, click **OK**.
- 14 On the **MASTeam Properties** dialog box, click **Close**.  
A message box appears to inform you that you must restart your computer before the new settings can take effect.
- 15 Restart the MAS server.

---

—End—

---

## Configuring the ACP server

---

### Step Action

---

*Perform the following procedure to configure the Audio Conferencing Provider (ACP) server. In a cluster configuration, perform this procedure only on the node where you installed the ACP server.*

- 1 In the Element Manager navigation, click **Products and Applications > Multimedia Conferencing > ACP Server Configuration**.
- 2 Configure the parameters as shown in the following table. Parameters not listed in the following table are optional and can be left as is.

Parameter	Value
ACP Domain	Provider domain configured on OCS to route requests to ACP. This is the route entered into the OCS front end to point at the ACP server (usually the fully qualified domain name (FQDN) of the MAS).  Example: moscow.innlab.nortel.com
Phone Context	Used in OCS 2007 Converged Office configuration with CS 1000. Defines the phone context applied to the From party on any outbound call from the NMC that is triggered by LMC.

Parameter	Value
Server Security Issuer Name	Type the Security Certificate Issuer Name. This option is required only if using TLS instead of TCP for communication with the OCS front end.
Server Security Certificate Serial Number	Type the Security Certificate Serial Number. This option is required only if using TLS instead of TCP for communication with the OCS front end.
Server TCP Port	5040
Server TLS Port	5041
Cache Sync Time	Select the time of day when the Active Directory cache synchronization takes place.
Password	Type the password for the service account to log on to the Active Directory.
Phone Field	Not used in OCS 2007 configuration with MCM 3.0.
Phone Format	Not used in OCS 2007 configuration with MCM 3.0.
Port Number	Microsoft Active Directory port number. Leave this parameter empty unless the standard Active Directory port has been changed.
Query Configuration	Select one of the following values from the list: <ul style="list-style-type: none"> <li>• 1–Use AD Cache</li> <li>• 2–Use AD Cache Then AD Server</li> <li>• 3–Query AD Server</li> </ul>
Server Address	Type the Microsoft Active Directory Server IP address.
User Name	Type the name of the service account used to log on to the Active Directory (format: WINDOWS_DOMAIN\user_name). Example: INNLAB\administrator
Microsoft Communication Server	OCS
Network Dialing Plan	Select either CDP or UDP, depending on the engineering of your system dialing plan.
UDP Access Code	The access code used to prefix the UDP number.

### 3 Restart the MAS service.



**ATTENTION**

Changes to any of the parameters in the ACP Server window require that you restart the MAS. You need not restart after each change. You can make all required changes and restart the MAS once.

---

—End—

---

## Testing the NMC/Converged Office configuration for OCS 2007

Use the procedures in this module to test the NMC/Converged Office integration for OCS 2007

### Configuring Live Meeting Console 2007

Step	Action
------	--------

*To have full conference controls, Live Meeting Console (LMC) 2007 must be used in conjunction with NMC. Perform the following procedure to configure LMC 2007.*

- 1 Open the LMC 2007 console.
- 2 Click the Selections menu in the top left corner.
- 3 Select **Open User Accounts**.

**Figure 28**  
**LMC 2007 console**



- 4 On the **User Accounts** dialog box, in the **Sign-in name** box, type the OCS user account sign-in name (for example, blavigne@innlab.nortel.com).

**Figure 29**  
**User Accounts**

**User Accounts**

Meet. Share. Work. - No matter where you are.  
Enter your account information and start a Live Meeting today.  
[Which account do I have?](#)

Office Communications Server

Sign-in name:

Live Meeting Service

URL:

I enter a user name and password to access my account  
Note: If you have entered a portal URL, do not check the box.

User name:   
Password:

**5** Click **Test Connection**.

The test is conducted to the OCS server. Wait for the test results. If the test results are OK, proceed to [step 6](#). If the test fails, refer to the Microsoft guides for OCS 2007 and LMC 2007.

**6** Click **OK**.

**7** Click **Advanced**.

**Figure 30**  
**Advanced Connection Settings**

**Advanced Connection Settings**

Use these servers

Internal Server name or IP address:   
External Server name or IP address:

Connect using:  TCP  TLS

Use the following user name and password

User name:   
Password:

- 8 On the **Advanced Connection Settings** dialog box, select the **Use these servers** check box.
- 9 In the **Internal Server name or IP address** and **External Server name or IP address** boxes, type the front end server host name or the pool name.
- 10 In the **Connect using** field, select either **TCP** or **TLS** button, depending on the connection type your system is using
- 11 Select the **Use the following user name and password** check box.
- 12 In the **User name** box, type your OCS user name.
- 13 In the **Password** box, type your OCS password.
- 14 Click **OK**.
- 15 On the **User Accounts** dialog box, click **OK**.

**Note:** When changes are made on the OC client, the advanced connection changes are also updated.

---

—End—

---

## Configuring conference settings on LMC 2007 to enable NMC ACP connection

---

### Step Action

---

*Perform the following procedure to allow for a connection to an ACP and to provide conference dial-in information to users when a Join Conference request is sent out.*

- 1 Open the LMC 2007 console.
- 2 On the LMC 2007 Welcome window, click **Meet Now Options**.

**Figure 31**  
**Live Meeting Audio Options**

- 3 On the **Live Meeting Audio Options** dialog box, select **Dial in to the meeting using a telephone conference service**.
- 4 Enter the following information into the boxes provided.

Parameter	Value
Provider	Type the FQDN of the NMC server. This parameter is the same information entered in the ACP Domain and the route created on the front end servers for the NMC server.  Example: moscow.innlab.nortel.com
Toll-free Number	Type a toll-free number that the requested users of the conference can dial into.  This parameter is optional.
Toll Number	Type a toll number that the requested users of the conference can dial into.
Participant Code	Type the access code as provisioned on the NMC Console that the requested users of the conference use to log on.
Leader Code	Type the chairperson PIN as provisioned on the NMC Console that the chairperson uses to log on.  If you use the telephony controls to change the chairperson PIN, you must update the Leader Code in the Audio Options. If you do not update the Leader Code, LMC 2007 cannot start an NMC conference.

- 5 Click **OK**.

—End—

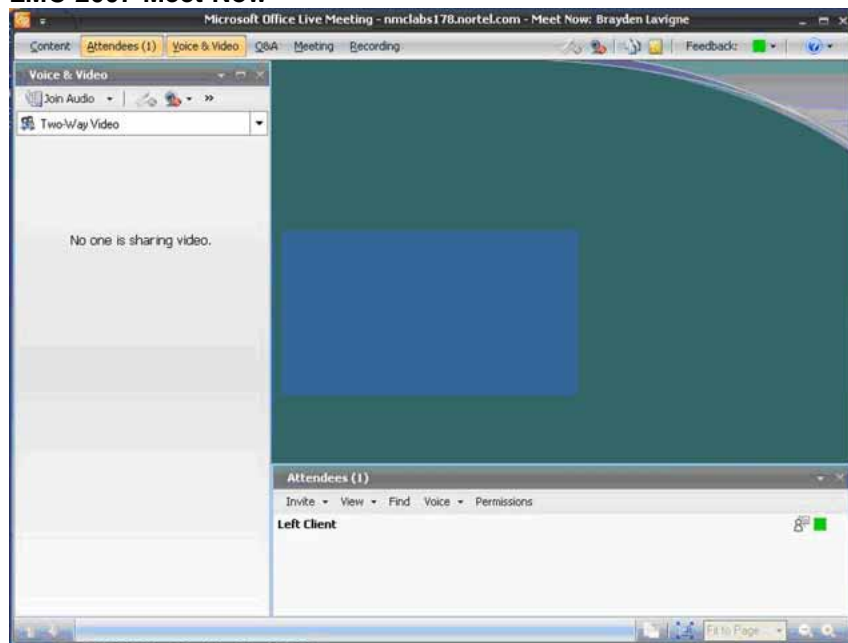
## Starting a conference with LMC 2007

Step	Action
------	--------

*Perform the following procedure to start a conference with LMC 2007.*

- 1 Open the LMC 2007 console.
- 2 On the Live Meeting 2007 Welcome window, click **Meet Now**.  
You are logged on to the LMC 2007 Meet Now conference.
- 3 On the **Meet Now** window, on the **Voice & Video** pane, click **Join Audio**.

**Figure 32**  
**LMC 2007 Meet Now**



- 4 If you are a first-time user, on the **Join Conference Call** dialog box, click **Enter a Different Number**.

**Figure 33**  
**Join Conference Call**



- 5 From the **Country/Region** list, select your country or region.
- 6 In the **City/Area** code box and the **Number** box, type the phone details where you want the conferencing service to call you.  
If you want to enter a private dialing plan number (UDP or CDP), select **+1** from the **Country/Region** list, leave the **City/Area** code box empty, and enter the number in the **Number** box.
- 7 Click **Join Conference**.  
You enter the meeting using the audio of the NMC ACP.  
After the first time you complete this procedure, you can click Call Me at: *<phone number>*. If you want to be called at a different number, you can click Enter a Different Number and enter new phone details.

---

—End—

---

## Troubleshooting the NMC/Converged Office configuration for OCS 2007

Use the suggested troubleshooting procedures in this module to resolve issues with the NMC/CS 1000/OCS 2007 integration.

For more information, refer to the MAS documentation or contact Nortel for support.

## You receive an error when you send a meeting request by e-mail in Live Meeting 2007

**Symptom**—When you create a new meeting by using Schedule a Live Meeting in Microsoft Outlook 2007, you select the option to send the meeting request by e-mail. However, you receive an error that states that all e-mail messages could not be sent or that some e-mail messages could not be sent.

**Possible cause**—This issue occurs because McAfee Access Protection blocks TCP port 25 to prevent the mass mailing of worms.

### Disabling the mass mailing worms from sending mail option in McAfee Access Protection

Step	Action
------	--------

**ATTENTION**

These steps may increase your security risk. These steps may also make the computer or the network more vulnerable to attack by malicious users or by malicious software such as viruses. We recommend the process that this article describes to enable programs to operate as they are designed to or to implement specific program capabilities. Before you make these changes, evaluate the risks that are associated with implementing this process in your particular environment. If you decide to implement this process, take any appropriate additional steps to help protect the system. Use this process only if you really require this process.

- |   |   |
|---|---|
| 1 | Start the McAfee Virus Scan Console.  |
| 2 | Right-click <b>Access Protection</b> and then click <b>Properties</b> .                                   |
| 3 | On the <b>Port Blocking</b> tab, clear the <b>Prevent mass mailing worms from sending mail</b> check box. |
| 4 | Click <b>OK</b> .   |
| 5 | Exit the McAfee Virus Scan Console.   |

—End—





## Appendix A

# Provisioning telephones (L11)

In the examples for this procedure, an i2004 Model NTDU92 is used. For information about configuring other models, see *IP Phones: Description, Installation, and Operation* (553-3001-368) and *Telephones and Consoles: Description, Installation, and Operation* (553-3001-367).

Step	Action
1	Log on to the call server using a serial connection.
2	Enter <b>LD 11</b> .
3	Enter the appropriate values as described in the following table. For prompts not listed in the following table, press <b>Enter</b> to accept the default value.

Prompt	Response	Description
REQ	New	Creates a new phone entry.
TYPE	2004p2	You can also configure 2004p1 (if using that model).
TN	aaa.bbb.ccc.ddd	Terminal Number, where a=loop, b=shelf, c=card slot, d=card channel (0-31)  Example: 66 0 0 10  IP Phones require a VGMC card. The TNs you configure for IP Phones are virtual circuits. Digital and analog telephones require a digital or analog card.  The TN must be an available TN.
DES	NMCTST	Description of the phone entry.

Prompt	Response	Description
CUST	XX	Where X represents the customer number. Example: 0
Zone	XX	Where X represents the zone number. Example: 1
KEY	0 SCR XXXX	The line number of the phone created, where XXXX is the phone number. Requires an available unused number in the system. Example: 4700

- 4 Repeat [step 3](#) for each telephone you need to configure. Configure at least two telephones for testing purposes.
- 5 Connect the two telephones to a proper network connection, depending on the telephone type (for more information, see the user guide for your telephone type).
- 6 To exit the overlay, enter \*\*\*.
- 7 Ensure that you have a dial tone on both telephones and check that you can dial one phone from the other.

---

—End—

---

## Appendix B

# Creating an NMC subscriber

Perform the steps in the following procedure to create a new NMC subscriber.

- | Step | Action  |
|------|---|
| 1    | In the Element Manager navigation pane, click <b>Products and Applications &gt; Multimedia Conferencing &gt; Subscriber Management</b> .  |
| 2    | On the <b>Nortel Multimedia Conferencing Subscriber Management</b> window, click <b>New Subscriber</b> .                                  |
| 3    | On the <b>Subscriber Profile</b> dialog box, type the required fields as described in the following table (values are test entries only). |

Parameter	Value	Description
First Name	Test	The first name of the chairperson
Last Name	Subscriber	The last name of the chairperson
Subscriber ID	1001	This parameter is optional but is useful for troubleshooting or tracking calls.
Access Code	1002	The code to access the conference. This code is given to conference users.
Chair PIN Number	1003	The number used (by the chairperson) to identify the chairperson and allow for additional functionality of NMC to control the meeting
Confirm Chair PIN	1003	Confirms the Chair PIN number
SIP User ID	tsub@mynmc.com	The SIP user ID used by the chairperson, in the format userid@SIPDomain

- 4 Click **Ok**.

---

—End—

---

## Appendix C

# Scheduling a conference using Microsoft Outlook 2007

Perform the steps in the following procedure to schedule a conference using Microsoft Outlook 2007.

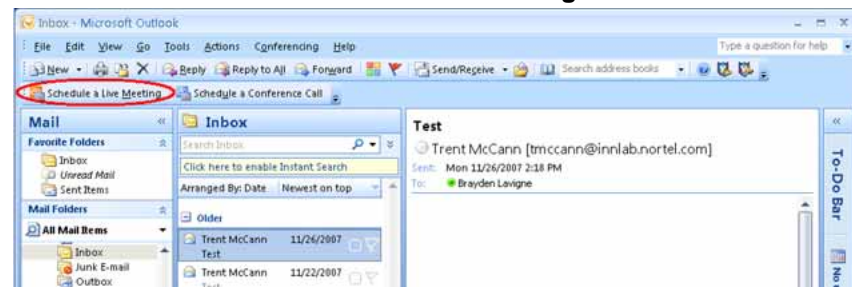
### Prerequisites

- The Live Meeting Console (LMC) 2007 client for Microsoft Outlook is installed.

Step	Action
------	--------

- |   |  |
|---|--|
| 1 | On the Microsoft Outlook client, click <b>Schedule a Live Meeting</b> .<br>A Microsoft Office conference e-mail request appears. The e-mail request is prepopulated with the conference details. |
|---|--|

**Figure 34**  
**Microsoft Outlook—Schedule a Live Meeting**



- |   |  |
|---|--|
| 2 | On the Microsoft Office conference e-mail request, type the e-mail addresses of the requested conference attendees and a subject, time, and date for the conference. |
| 3 | Click <b>Send</b> .<br>An e-mail invitation is sent to everyone on the To list.  |

**ATTENTION**

Schedule a Conference Call is not applicable to NMC.

---

**—End—**

---



Nortel Multimedia Conferencing

## Solution Integration Guide for NMC/CS 1000 and NMC/Converged Office

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