



Enabling Live Communications at the Edge of IP Networks

Configuration Notes 278

Mediatrix 1204 (FXO) with Nortel MCS 5100/5200v3

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Proprietary

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Introduction

These Configuration Notes are distributed as an aid to configure the Mediatrix 1204 with the MCS 5100/5200v3.

Application Scenario

Several companies have selected the Nortel SIP server (MCS 5100/5200) in order to deploy a VoIP solution. These configuration notes provide information on how to configure a Mediatrix 1204 unit within this environment.

MCS 5100/5200 Release 3.0

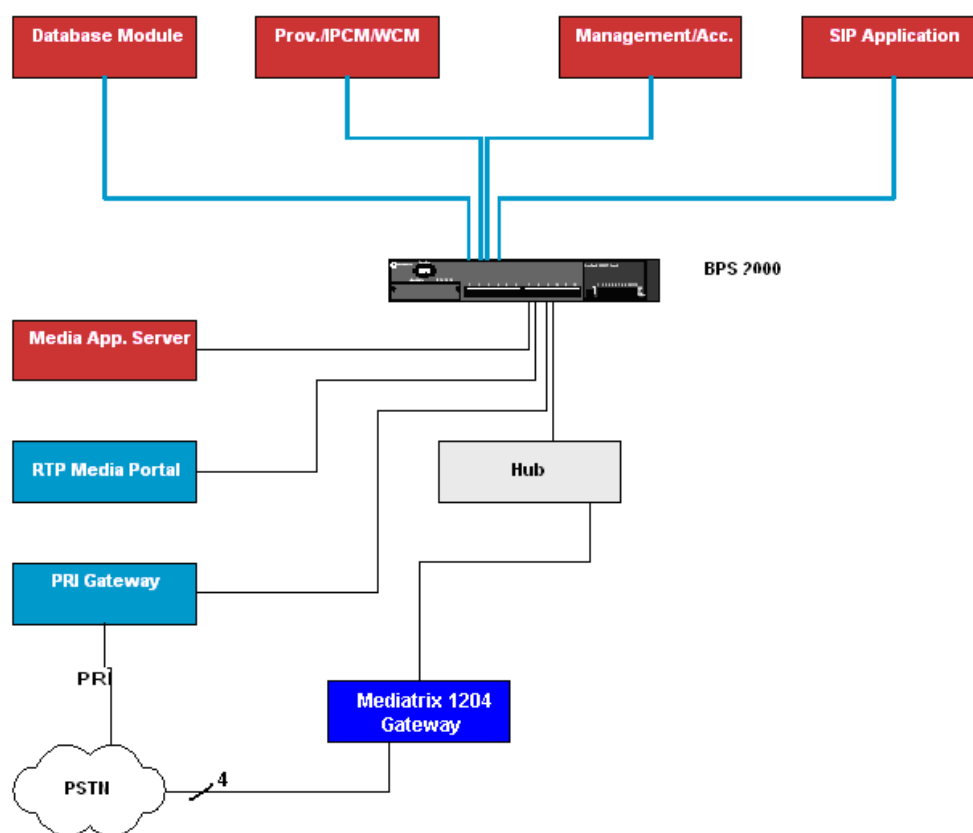


Figure 1. Network Diagram

The following configuration notes are not a substitute for the Mediatrix analog products Administration Documentation. Please have the following manuals available for reference:

- Mediatrix 1204 SIP Administration Manual
- Mediatrix Unit Manager Network Administration Manual

Configuration Notes

Running the Unit Manager Network (UMN) Software

The Unit Manager Network (UMN) software provides administrators with a configuration and management tool for Mediatrix devices. It is provided on the Documentation CD included with the unit. It has a default 3-unit limit upon installation. This will suffice for most configurations.

Before starting the configuration, it is recommended that the administrator uses the UMN to configure the Mediatrix devices.

Step 1:

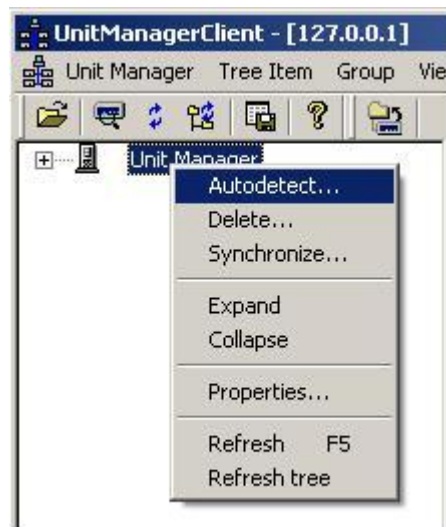
Select *Start Menu > Programs > Unit Manager Network 3.2 > Administrator*.

Step 2:

In the *Administrator* login window (*Connect to Unit Manager*), the IP address 127.0.0.1 is a loopback address that refers to the local PC to which the UMN is connecting. A User Name and Password are not required. Click **OK** to proceed.

Step 3:

Right-click the **Unit Manager** level, then select **Autodetect**.



Step 4:

Set the **IP Address Range** to minimize the time it takes to auto-detect the unit. When the unit is detected, the *Result* section lists the unit. Select the unit and click **OK**.

If you are performing the initial configuration of units that require a static IP address and you do not use DHCP, then connect one unit at a time because they will each use the same IP address 192.168.0.1 when using the "recovery mode". Please see the Mediatrix 1204 SIP Administration Manual for more details on initial setup. When the Mediatrix unit has finished its provisioning sequence, perform the changes, and then turn it off.

Turn it on again. At this time, note that the Mediatrix unit will not be in Recovery mode and will use the IP addresses configuration set forth in the MIBs.

Unit Detection

IP Address Range

From: 192 . 168 . 0 . 4

To: 192 . 168 . 0 . 4

Start

SNMP preferences

☒ Use the default values of SNMP preferences

☒ With specific Timeout/Retry Timeout (ms) 100 Retry 2

☐ Use specific SNMP preferences

SNMP Settings...

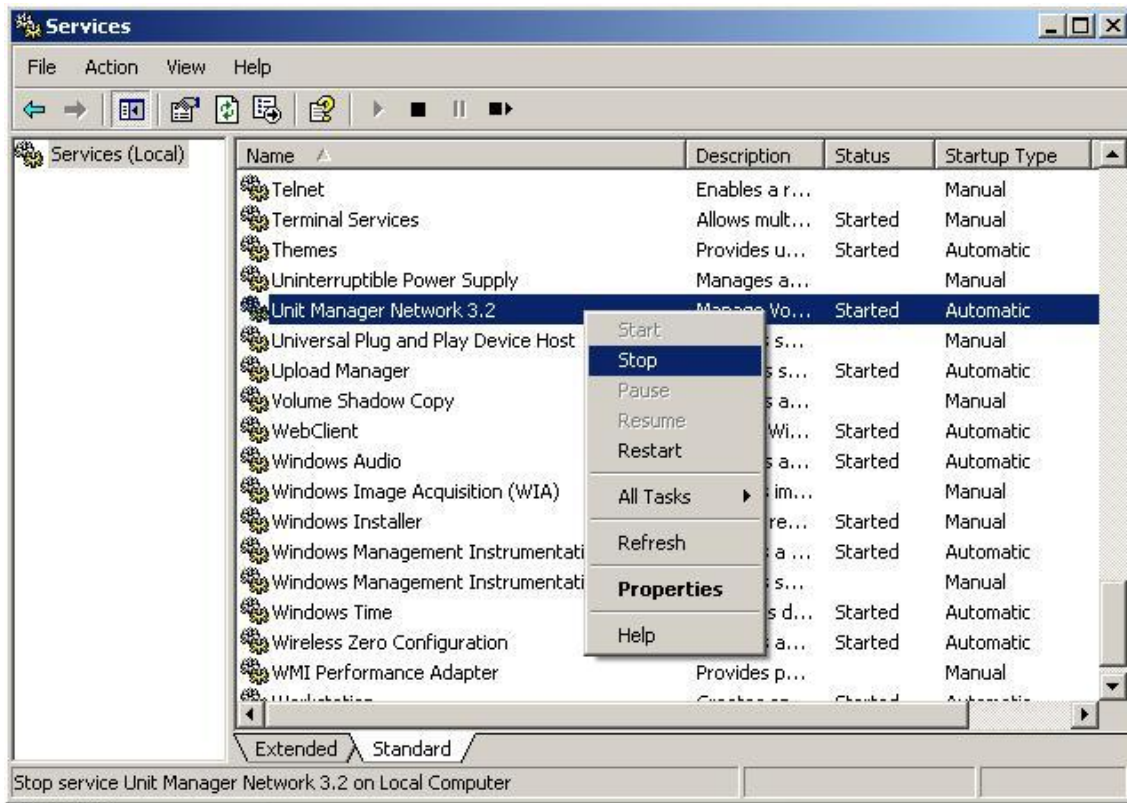
Result

IP Address	MAC Address	Type
☒ 192.168.0.4	0090F800477C	Mediatrix 1204

OK Cancel

Note: The UMN runs in the Windows background. It is mandatory that the administrator stops and restarts the UMN service when the IP address of the PC is changed.

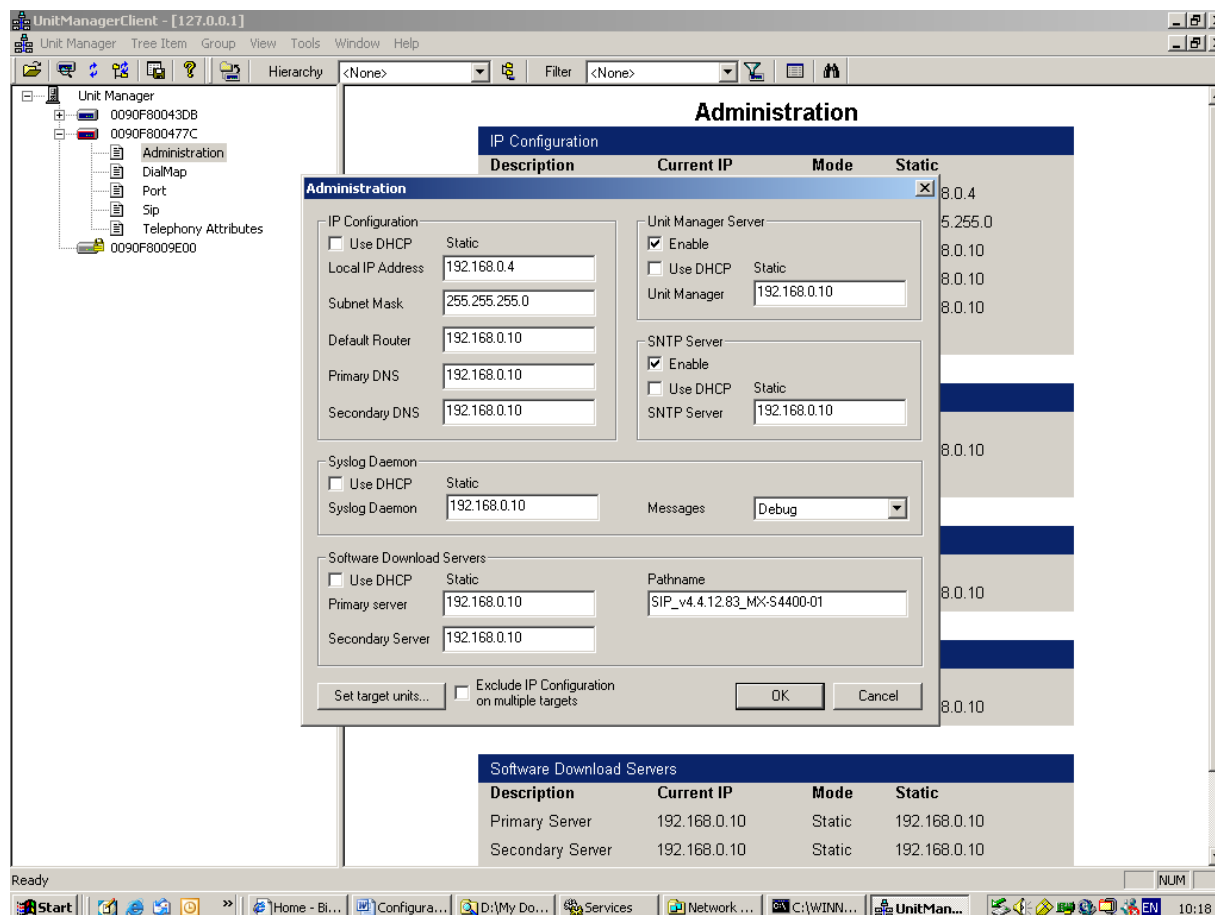
- Go to Start Menu > Settings > Control Panel > Administrative Tools > Services.
- Stop and restart the Unit Manager Network 3.2 service.



Configuring a 1204 Unit

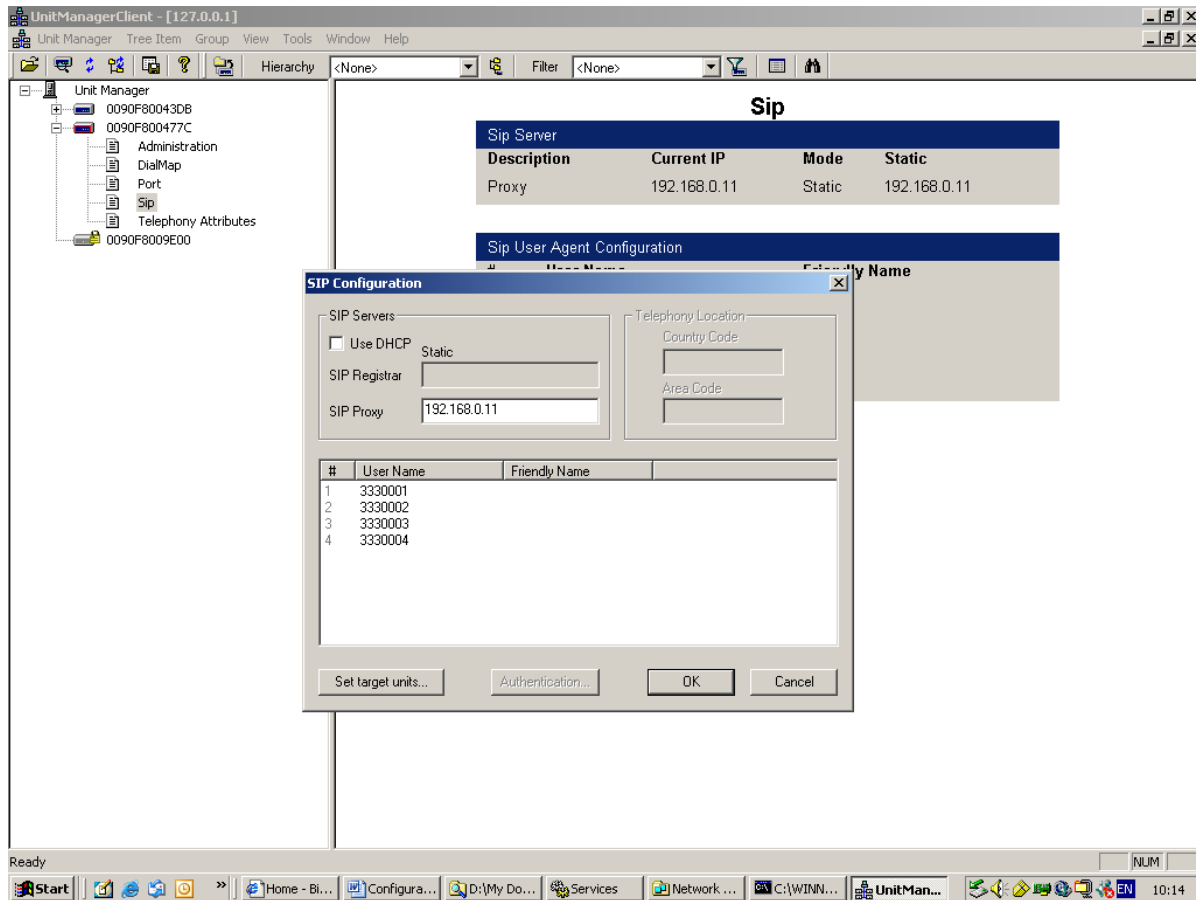
Step 1:

Double-click the **Administration** level and configure the IP addresses parameters for the unit. Uncheck **Use DHCP** if you are not using a DHCP server to assign IP addresses.



Step 2:

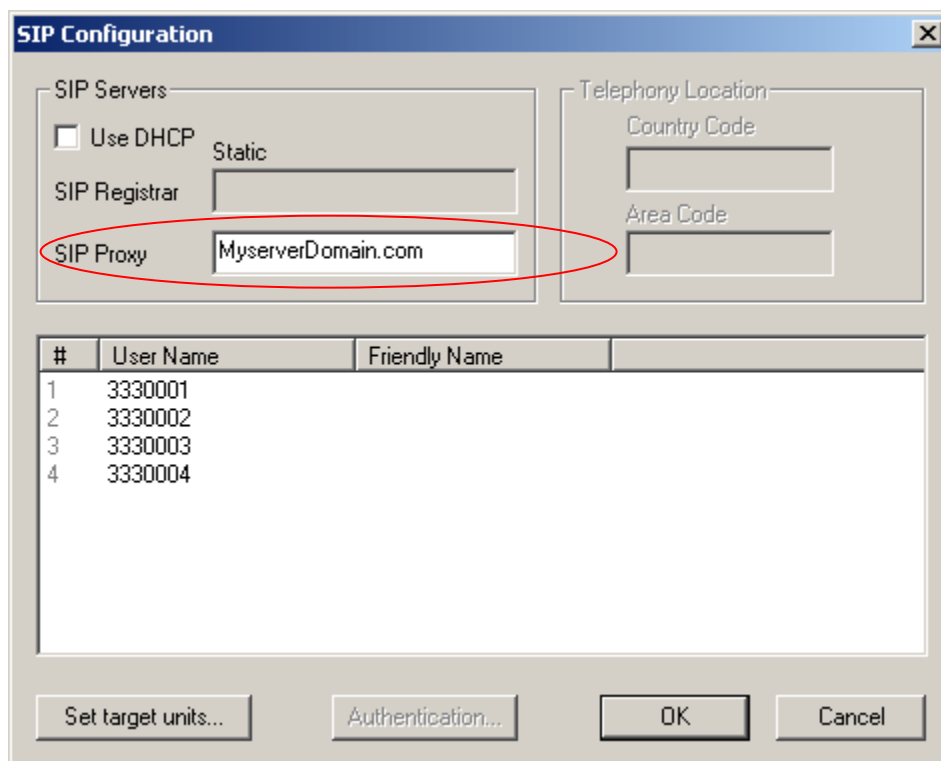
Double-click the **Sip** level.



Step 3:

Set the following:

- Uncheck **Use DHCP**.
- Set the **SIP Proxy** field to the domain name (not the IP address) of the MCS 5100/5200 Proxy (usually, same as the SIP Registrar domain).
- Click **OK**.



SIP Configuration

SIP Servers

☐ Use DHCP Static

SIP Registrar:

SIP Proxy: (This field is circled in red in the original image)

Telephony Location

Country Code:

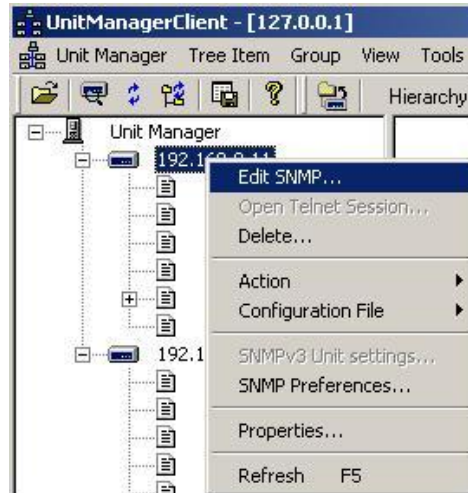
Area Code:

#	User Name	Friendly Name
1	3330001	
2	3330002	
3	3330003	
4	3330004	

Buttons: Set target units... Authentication... OK Cancel

Step 4:

Right-click the MAC address or IP address of the unit and select **Edit SNMP**.



Step 5:

Go to *mediatrix > mediatrixConfig > ipAddressConfig > ipAddressConfigSipServer > ipAddressConfigSipServerStatic > sipOutboundProxyStaticHost* and set the IP address of the MCS 5100/5200 SIP server.

The screenshot shows the 'Edit SNMP' window for a remote unit with ID 0090F800477C. The left pane displays a hierarchical tree of SNMP objects. The right pane shows the details for the selected object, *sipOutboundProxyStaticHost*.

Tree Structure:

- iso
 - org
 - dod
 - internet
 - directory
 - mgmt
 - experimental
 - private
 - enterprises
 - mediatrix
 - mediatrixProducts
 - mediatrixAdmin
 - mediatrixMgmt
 - mediatrixConfig
 - ipAddressConfig
 - ipAddressConfigLocalHost
 - ipAddressConfigImage
 - ipAddressConfigMts
 - ipAddressConfigSyslog
 - ipAddressConfigSipServer
 - sipServerSelectConfigSource
 - ipAddressConfigSipServerStatic
 - sipHomeDomainProxyStaticHost
 - sipOutboundProxyStaticHost** (highlighted with a red circle)
 - sipRegistrarStaticHost
 - ipAddressConfigSipServerDhcp
 - ipAddressConfigSnmp
 - sysConfigMIB
 - imageMIB
 - msMIB

Details for sipOutboundProxyStaticHost:

 - Type: Octet string
 - Range: (0..255)
 - Status: Current
 - Default value: "0.0.0.0"
 - Access: Read write
 - OID: .1.3.6.1.4.1.4935.15.1.70.10.15
 - Description: SIP outbound proxy server IP address or domain name.
To disable the outbound proxy, set it to '0.0.0.0'.
From RFC3261:
A proxy that receives requests from a client, even though it may not be the

Log Output:

```
Get table request result: SUCCESS
voiceIfCodecTable (.1.3.6.1.4.1.4935.15.30.1.20)

Get request result: SUCCESS
sipOutboundProxyStaticHost (.1.3.6.1.4.1.4935.15.1.70.10.15.0) = 0.0.0.0
```

The status bar at the bottom indicates 'Ready' and 'Connected to 0090F800477C'.

Step 6:

Go to *mediatrix > mediatrixExperimental > sipInteropMIB > sipInteropMIBObjects > sipInteropReplacesConfig* and set this parameter to **doNotUseReplaces**.

The screenshot shows the 'Edit SNMP' window for a remote unit with IP 0090F800477C. The left pane displays a tree of MIB objects. Under 'sipInteropMIB' > 'sipInteropMIBObjects', the 'sipInteropReplacesConfig' object is selected and circled in red. The right pane shows the configuration for 'sipInteropReplacesConfig', with the value 'doNotUseReplaces' selected from the Enum dropdown. The Details section shows the object is an Integer, Current, with a Default value of 'useReplacesWithRequire', Read/Write access, and OID .1.3.6.1.4.1.4935.99.20.1.5. The Description text box contains: 'Configures usage of the Replaces header mechanism used in a transfer. When supported by the target of the transfer, Replaces ensures a more seamless transfer by permitting the initiating party to effectively replace a current call by another instead of disconnecting the call to be replaced and creating a second call.'

Get table request result: **SUCCESS**
voiceIfCodecTable (.1.3.6.1.4.1.4935.15.30.1.20)

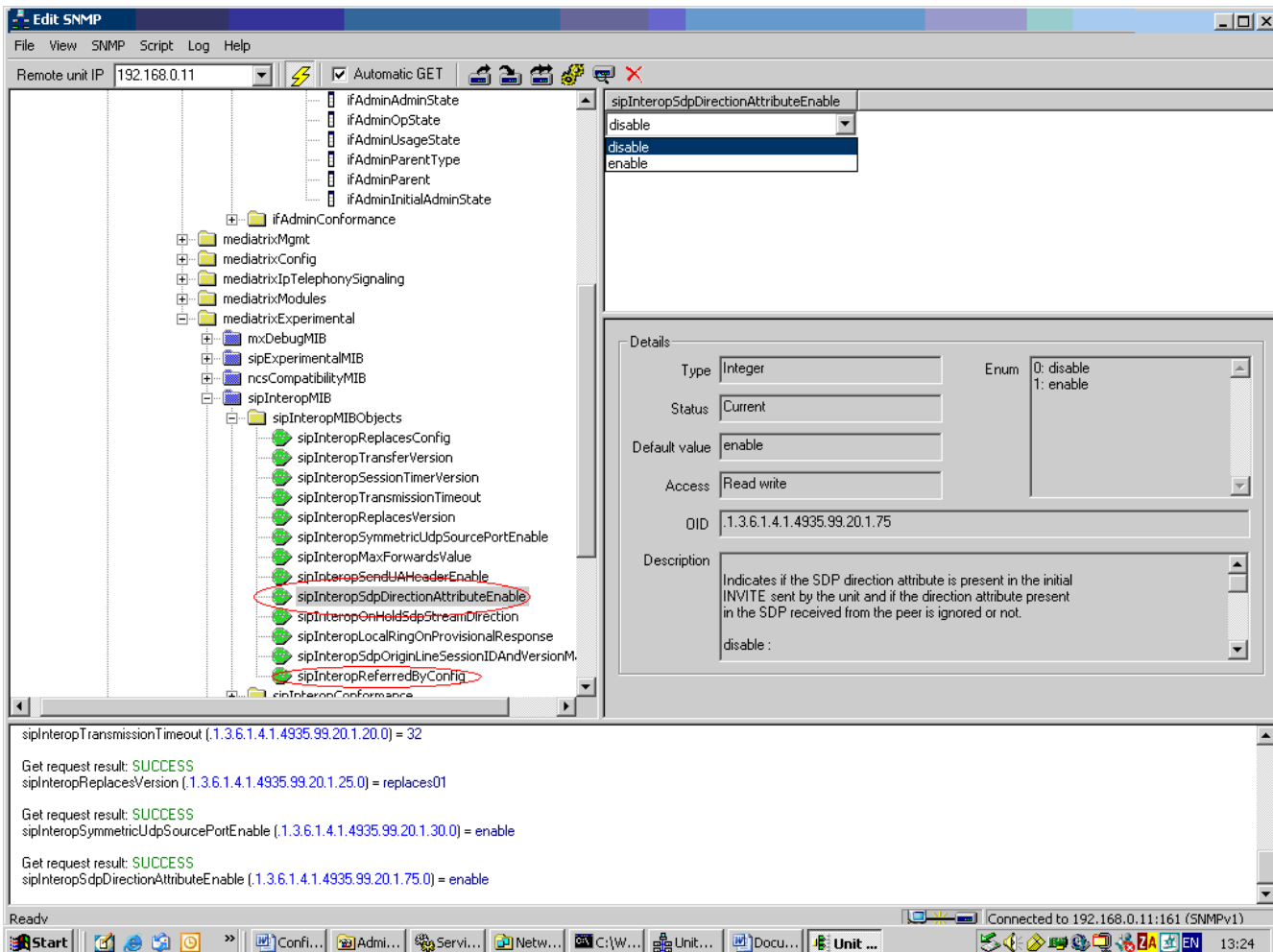
Get request result: **SUCCESS**
sipOutboundProxyStaticHost (.1.3.6.1.4.1.4935.15.1.70.10.15.0) = 0.0.0.0

Get request result: **SUCCESS**
sipInteropReplacesConfig (.1.3.6.1.4.1.4935.99.20.1.5.0) = useReplacesWithRequire

Ready Connected to 0090F800477C

Step 7:

Go to *mediatrix > mediatrixExperimental > sipInteropMIB > sipInteropMIBObjects > sipInteropSdpDirectionAttributeEnable* and disable it.



Step 8:

Go to *mediatrix > mediatrixExperimental > sipInteropMIB > sipInteropMIBObjects > sipInteropReferredByConfig* and set it to **useLocalUri**.

Step 9:

Go to *mediatrix > mediatrixConfig > telephonyMIB > telephonyMIBObjects > telephonyCountrySelection* and choose the appropriate country.

Note that the country selection permits the selection of predefined country settings for the tone profiles, the ring patterns and other parameters such as input and output gains and also the impedance of the line.

The screenshot shows the 'Edit SNMP' window for a remote unit '0090F800477C'. The left pane displays a tree view of the MIB hierarchy, with 'telephonyCountrySelection' selected under 'telephonyMIBObjects'. The right pane shows the configuration details for this object:

- Object:** telephonyCountrySelection
- Value:** northAmerica1
- Type:** Integer
- Status:** Current
- Default value:** northAmerica1
- Access:** Read write
- OID:** 1.3.6.1.4.1.4935.15.25.1.6
- Enum:**
 - 1: northAmerica1
 - 2: northAmerica2
 - 3: austria
 - 4: france
 - 5: germany1
 - 6: germany2
 - 7: uk
 - 8: italy
- Description:**

The country selection permits the selection of predefined country settings for the tone profiles, the ring patterns and other parameters such as input and output gains.

For some countries, the caller ID standard can be selected with this variable.

The bottom status bar shows 'Ready' and 'Connected to 0090F800477C'. The command history at the bottom shows three successful GET requests for the telephonyCountrySelection object.

Step 10:

Go to *mediatrix > mediatrixConfig > fxoMIB > fxoMIBObjects > fxoLinePropertiesCustomization > fxoDialtoneDetectionMode* and ensure that the OID is set to **countryTone** if the dial tone provided by the SCN or PBX matches the dial tone specified by the *Country Specific Parameters* section from the 1204 SIP Administration Manual.

If the PBX or dial tone that you have don't match, set this OID to **disable**.

It is very important to have the right setting here in order to perform a call to the SCN through the 1204. The unit will try to detect the tone specified for this purpose in the current country's tone specification.

When dial tone detection is enabled, the unit waits for a dial tone on the SCN before initiating the dialing sequence. If no dial tone is detected, the line is considered as busy with an incoming SCN call.

The screenshot shows the 'Edit SNMP' window for a remote unit '0090F800477C'. The left pane displays a tree view of MIB objects, with 'fxoDialtoneDetectionMode' selected under 'fxoMIBObjects > fxoLinePropertiesCustomization'. The right pane shows the configuration for 'fxoDialtoneDetectionMode' with the value 'countryTone'. Below this, a 'Details' panel provides further information:

| | | | |
|---------------|---|------|------------------------------|
| Type | Integer | Enum | 0: disable
1: countryTone |
| Status | Current | | |
| Default value | countryTone | | |
| Access | Read write | | |
| OID | .1.3.6.1.4.1.4935.15.45.1.5.5 | | |
| Description | Enable the dial tone detection.
When dial tone detection is enabled, the unit waits for a dial tone on the SCN before initiating the dialing sequence. If no dial tone is detected, the line is considered as busy with an incoming SCN call. This mechanism helps avoid collisions between incoming and outgoing SCN calls. | | |

At the bottom of the window, a log shows successful GET requests for 'telephonyCountrySelection', 'fxoDialtoneDetectionTimeout', and 'fxoDialtoneDetectionMode'.

Step 11:

Exit the *Edit SNMP* window and restart the unit for the changes to take effect.