

# **Setup Reference guide** **for KX-NS1000 to E1 PRI/R2 Gateway interconnection**

**Panasonic PBX (KX-NS1000 series),  
Media5 Digital Gateway 3631(Mediatrix 3000 series)**

Revision 0.2(PSNJ) October.14, 2012

Attention: The content of this document is made up by verification result. It is no guarantee.

Models Used during verification:

Panasonic PBX KX-NS1000 (Ver.001.02040)

Media5 Digital Gateway Mediatrix 3631(E1 PRI/R2 or E-&M) (Firmware DGW 2.0.20.301 / Mediatrix 3000 series)

Panasonic UT and NT series telephones

Panasonic System Networks Co.,Ltd

## Change history

[illegible]

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## 1. Introduction

### Objective:

A Digital Gateway is required to supplement existing PBX functionality.

It will provide the means of establishing a simple E1 PRI/R2 interface connection

This Setup Reference Guide describes the configuration to interconnect between the Panasonic PBX (KX-NS1000 series), the Digital Gateway (E1 PRI/R2 Gateway), and Carrier Land line (E1 PRI/R2). The items above are interconnected using SIP protocol between the PBX and Digital Gateway.

### Results (confirmed operation):

#### 1-1 Receiving and making a Call

Calls between test environment are possible.

The Caller ID displayed on the LCD screen of Panasonic terminal and UT(SIP) Extension.

Incoming calls from PBX trunk lines also display the Caller ID (according to system settings).

#### 1-2 Conversation with G.711 and G.729

Use of the above codec is possible, providing PBX settings allow this.

(e.g. KX-NS1000 (V-UTEXT32,V-IPEXT32,V-SIPEXT32) settings)

#### 1-3 Placing a call on-hold and retrieving a Call that is on-hold

These features are confirmed by KX-NS1000 control.

#### 1-4 Transferring Call

The transferring of a Call to another destination is confirmed by KX-NS1000 control.

#### 1-5 Call Forwarding

This feature is confirmed by KX-NS1000 control.

**Attention:** *The content of this document is made up by verification results. It is no guarantee.*

## **2. Approach to Interconnection**

- (1) For the Panasonic IP-PBX, the Virtual SIP Trunk (V-SIPGW32) is used to interconnect the IP-PBX to a land line phone via the Mediatrix Digital gateway. The Mediatrix Digital Gateway is placed at the head office. For this setting of the Digital Gateway, only the ETH1 interface is used.

All SIP traffic between the IP-PBX and the Mediatrix Digital Gateway.

- (2) The Mediatrix Digital Gateway operates to ensure correct interconnection between the IP-PBX V-SIPGW32 virtual circuit card and the E1 PRI/R2 interface of each countries.

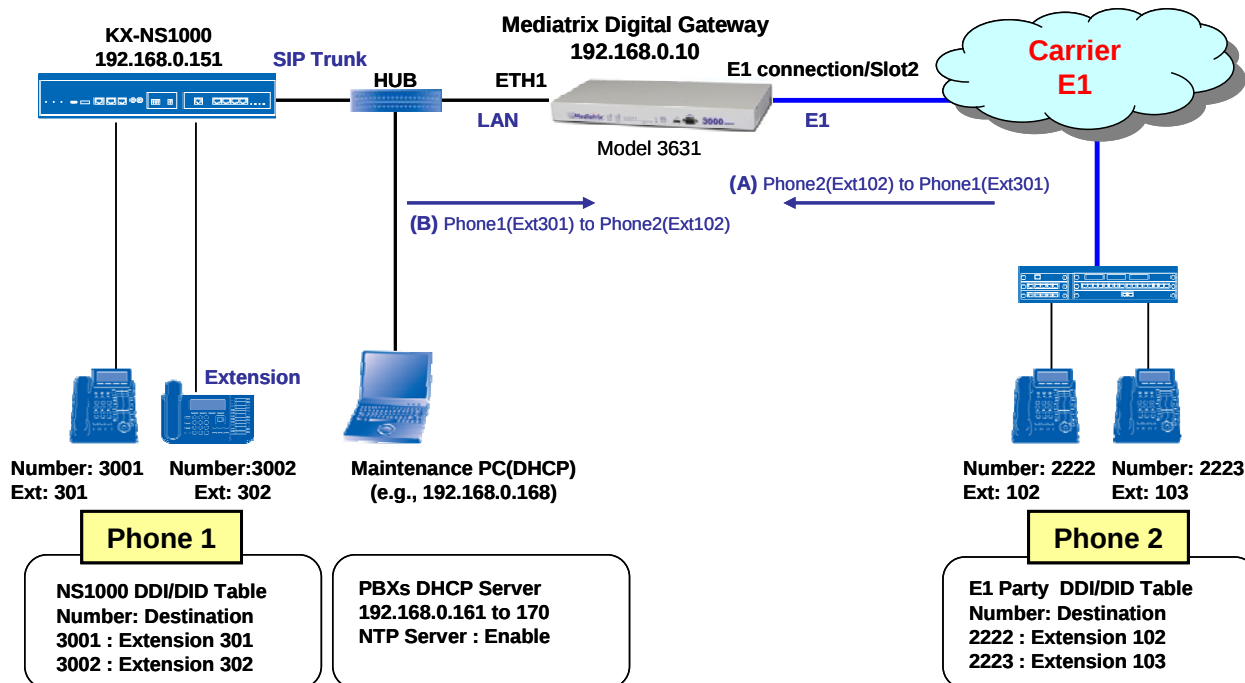
The Mediatrix Digital gateway provides the following functions:

- The IP-PBX is connected to E1 PRI/R2 land line via the Mediatrix Digital Gateway.
- The PBX settings are the SIP Trunk setting only.

### 3. System configuration example

#### 3.1 Diagram of system configuration example

The NS1000 SIP Trunk and the Mediatrix GW not have to register to each units as for SIP registration.



#### 3.2 E1 PRI/R2 Gateway Configuration example

##### 3.2.1 Digital E1 PRI/R2 Gateway Contents of main network settings (example)

| Item                      | Configuration example | Description                        |
|---------------------------|-----------------------|------------------------------------|
| LAN interface: IP address | 192.168.0.10          | Mediatrix LAN (ETH1) IP address    |
| LAN interface: Net mask   | 255.255.255.0         | Mediatrix LAN (ETH1) Subnet mask   |
| Default Gateway           | 192.168.0.1           | If required                        |
| Receiving SIP port        | 5060                  | SIP port used                      |
| Used RTP port             | 5004 - (Default)      | Base port<br>RTP:5004<br>T.38:6004 |
| DNS Configuration         |                       | If required                        |

##### 3.2.2 Digital E1 PRI/R2 Gateway Contents of main SIP Server (example)

| Item              | Configuration example | Description                        |
|-------------------|-----------------------|------------------------------------|
| Registration Host | None                  | Unnecessary setting                |
| Proxy Host        | 192.168.0.151:35060   | PBXs IP address and SIP Trunk port |

### 3.3 PBX Configuration example

#### 3.3.1 PBX - Contents of main Network Settings

| Item                     | Configuration example | Description         |
|--------------------------|-----------------------|---------------------|
| PBX MPR IP address       | 192.168.0.151         |                     |
| Subnet Mask              | 255.255.255.0         |                     |
| PBX DSP IP address       | 192.168.1.102 - 105   |                     |
| Default Gateway          |                       | If required         |
| Preferred DNS IP Address |                       | If required         |
| DHCP (Range)             | 192.168.0.161-170     | If required         |
| SNTP Server              | Enable                | Synchronize Gateway |

#### 3.3.2 PBX – Contents of V-SIPGW16 Settings

| Item                      | Configuration example                    | Description                    |
|---------------------------|------------------------------------------|--------------------------------|
| SIP Trunk Port Number     | 35060                                    | PBXs Default (Shelf Property)  |
| Number of using SIP Trunk | 1 Basic Channel<br>29 Additional Channel | A total of 30 SIP Trunk        |
| Provider Name             | E1_Gateway                               | Example                        |
| SIP Server Name           |                                          | Please do not enter            |
| SIP Server IP Address     | 192.168.0.10                             | Digital Gateway IP address     |
| SIP Server Port Number    | 5060                                     | Digital Gateway Port (Default) |
| User Name                 | 1234567890                               | Dummy                          |
| Authentication ID         | 1234567890                               | Dummy                          |
| Authentication Password   | 1234                                     | Dummy                          |
| Register Ability          | Disable                                  | No Registration for Gateway    |

#### 3.3.3 PBX - Contents of main Extension settings

| Item                                | Configuration example | Description           |
|-------------------------------------|-----------------------|-----------------------|
| SIP Extension port                  | 5060                  | UT,SIP Extension Only |
| IP-PT Extension Number              | 301                   | Example               |
| UT Extension Number                 | 302                   | Example               |
| SLT Extension Number                | 201                   | Example PBX Operator  |
| (1) DDI / DID Number<br>Destination | 3001<br>301           |                       |
| (2) DDI / DID Number<br>Destination | 3002<br>302           |                       |
| (*) DDI / DID Number<br>Destination | Match none<br>201     | PBX Operator Call     |

## 4. Initial set-up of the NS-1000

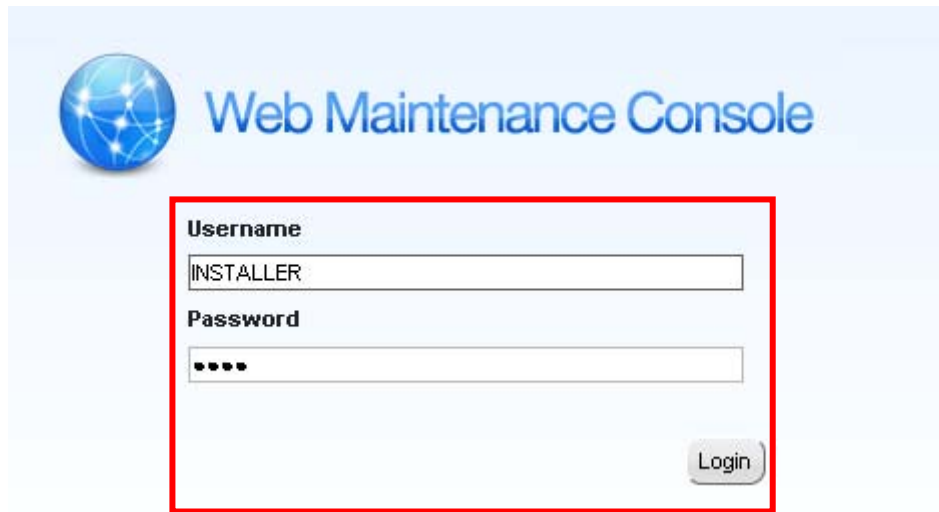
### 4.1 Web Interface Access

4.1-1 Start up software of web browser. (Mozilla Firefox 6 or later, Internet Explorer Version 7 or later)

4.1-2 Access the KX-NS1000 Web Maintenance Console page (using previously read IP address).

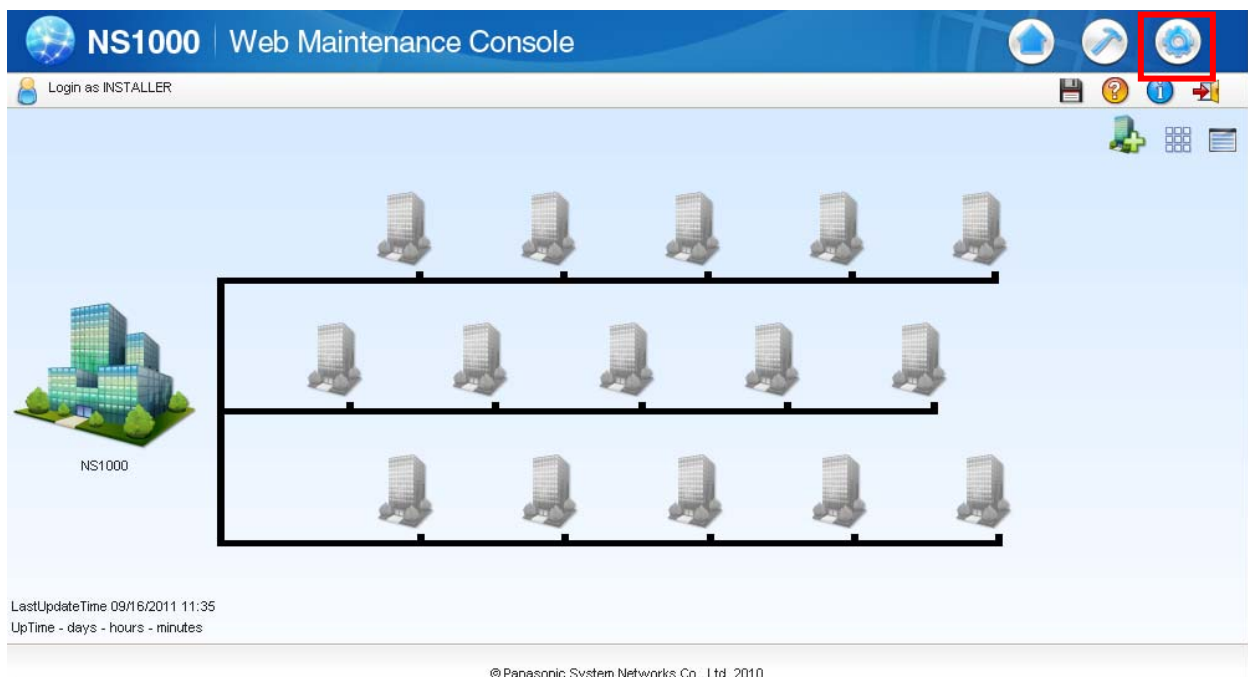
e.g. <http://192.168.0.151/>

4.1-3 Enter Username: INSTALLER, Password:1234 ---> Next, click the [Login] button



The image shows the 'Web Maintenance Console' login page. It features a blue header with a globe icon and the text 'Web Maintenance Console'. Below the header, there is a red rectangular box containing the login fields. The 'Username' field is labeled 'Username' and contains the text 'INSTALLER'. The 'Password' field is labeled 'Password' and contains four dots. To the right of the password field is a 'Login' button.

4.1-4 Access to initial web page (HOME) --> Click on [Setup]



## 4.2 Confirmation of Activation Key

4.2-1 Click on [PBX Configuration] --> [1.Configuration] --> [1.Slot] --> [Activation Key] button.

--> Next, confirm "IP Trunk (ch)" line for Activation Key (in this case, "16" )

\*Note: Need a total of 30 IP-Trunk for E1 PRI/R2 connection as for PBX SIP Trunk.

Virtual →

Refresh Close Summary **Activation Key** IP Phone Registration

System Property Site Property UM Card Property UM Port Property

NS1000 Web Maintenance Console

Login as INSTALLER NS1000

Users

**PBX Configuration**

1.Configuration

**1.Slot**

2.Portable Station

3.Option

4.Clock Priority

5.DSP Resources

2.System

3.Group

4.Extension

5.Optional Device

6.Feature

7.TRS

8.ARS

9.Private Network

10.CO & Incoming Call

11.Maintenance

UM Configuration

Network Service

**Activation Key Status**

**Activation Key Installation** →

MPR-ID : 41010806F0C60C70 Number of activated IP-GW : 0 / 16

Number of activated IP-Softphone : 10 / 10

Activate Pre-installed Activation keys

| Activated feature                  | Pre-installed | Activation key | Features in total | System total |
|------------------------------------|---------------|----------------|-------------------|--------------|
| IP Phone Capacity (ch)             | 30            | 0              | 30                | -            |
| <b>IP Trunk (ch)</b>               | 0             | 16             | 16                | 16           |
| IP Proprietary Telephone/Softphone | 10            | 0              | 10                | 10           |
| IP Proprietary Telephone (ch)      | 8             | 0              | 8                 | 8            |
| SIP Extension (ch)                 | 0             | 20             | 20                | 20           |
| One-look Network                   | 1             | 0              | 1                 | -            |

Note: If you want to use 30 channel of E1 line, you have to purchase an activation key more than 30 of IP-Trunk for NS-1000..

OK Cancel Apply

4.2-2 Confirmation after the install. (if required)

**Activation Key Status**

**Activation Key Installation** →

MPR-ID : 41010806F0C60C70 Number of activated IP-GW : 0 / 32

Number of activated IP-Softphone : 10 / 10

Activate Pre-installed Activation keys

| Activated feature                  | Pre-installed | Activation key | Features in total | System total |
|------------------------------------|---------------|----------------|-------------------|--------------|
| IP Phone Capacity (ch)             | 30            | 0              | 30                | -            |
| <b>IP Trunk (ch)</b>               | 0             | 32             | 32                | 32           |
| IP Proprietary Telephone/Softphone | 10            | 0              | 10                | 10           |
| IP Proprietary Telephone (ch)      | 8             | 0              | 8                 | 8            |
| SIP Extension (ch)                 | 0             | 20             | 20                | 20           |
| One-look Network                   | 1             | 0              | 1                 | -            |
| QSIG Network                       | 0             | 0              | 0                 | -            |

Install the IP Trunk Activation key if required.

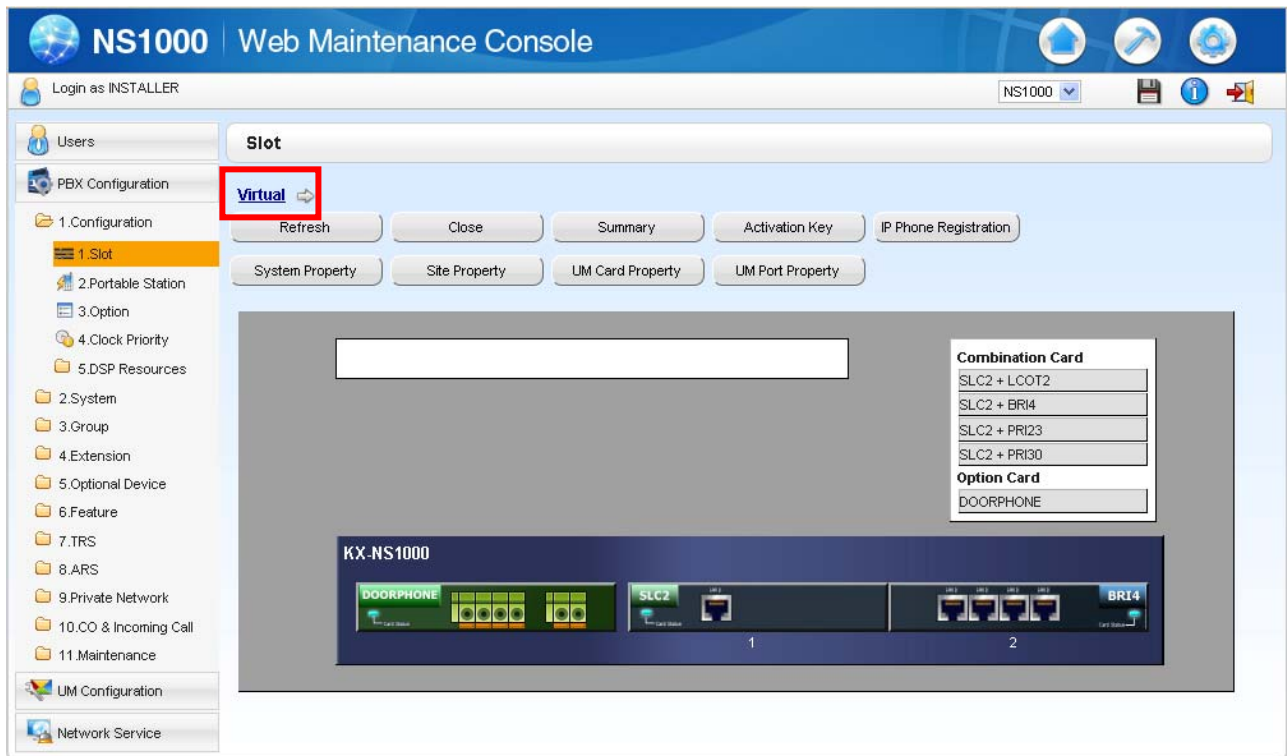
Confirm then click [OK] to close page. In this case 32(ch) = 16(ch) x 2 AK

OK Cancel Apply

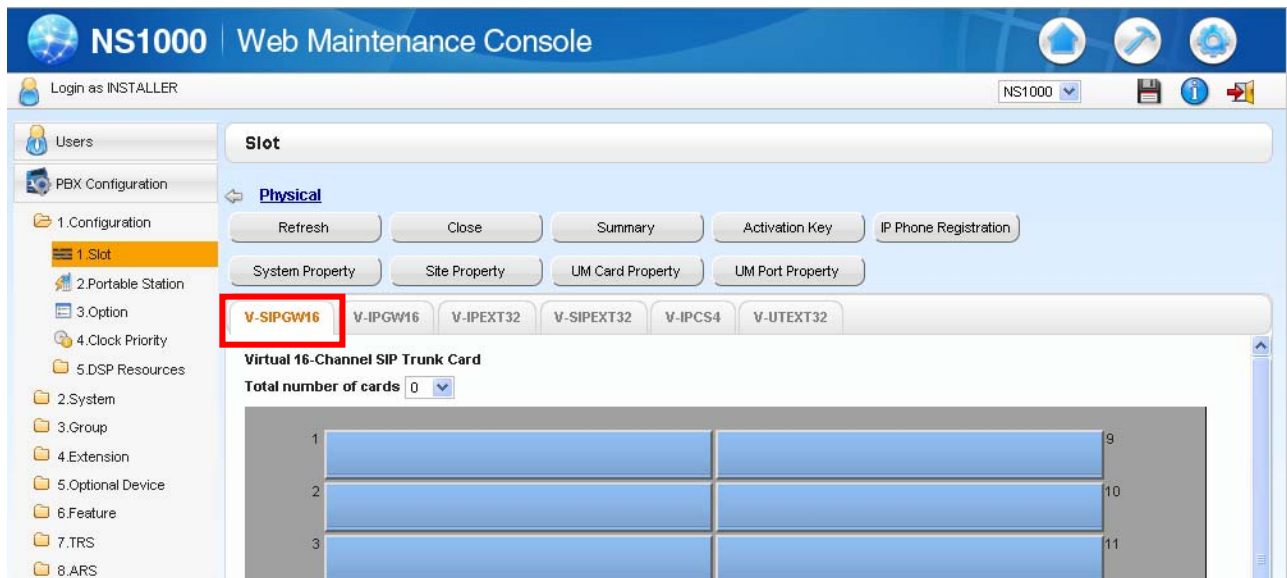
## 4.3 PBX SIP Trunk Installation

### 4.3-1 PBXs SIP-GW Configuration

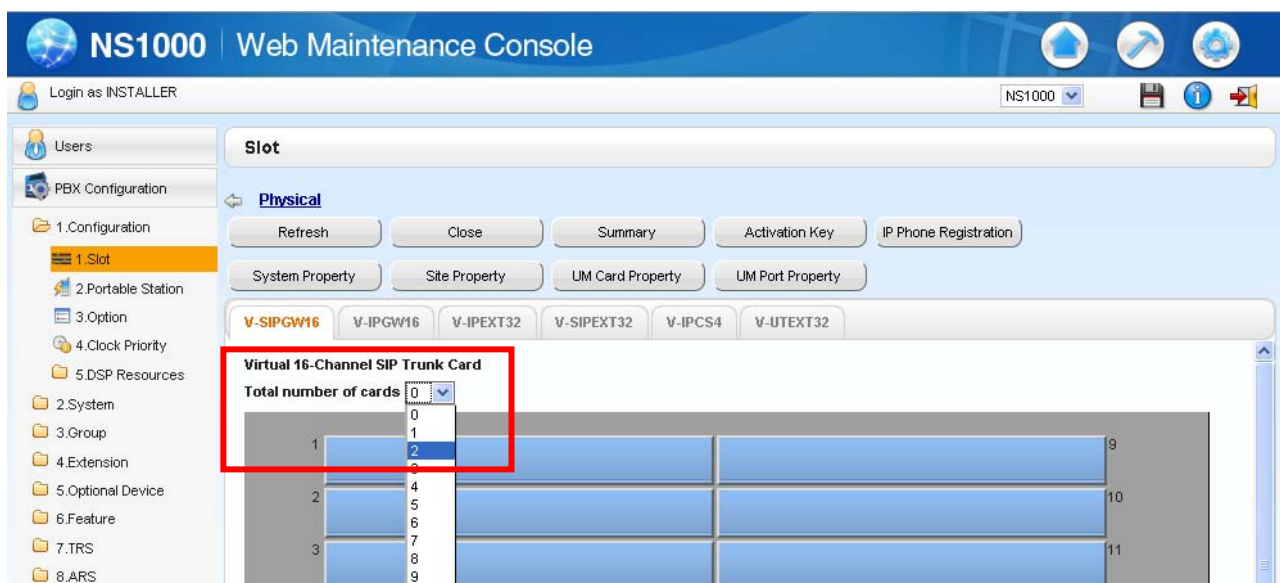
Click on [PBX Configuration] --> [1.Configuration] --> [1.Slot] --> Then click the [Virtual]



### 4.3-2 Click on [V-SIPGW16]

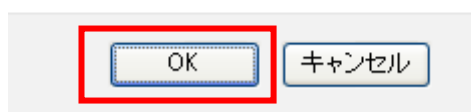


4.3-3 Click on [Virtual 16-Chanel SIP Trunk Card] --> Select "[2]" of [Total number of cards]

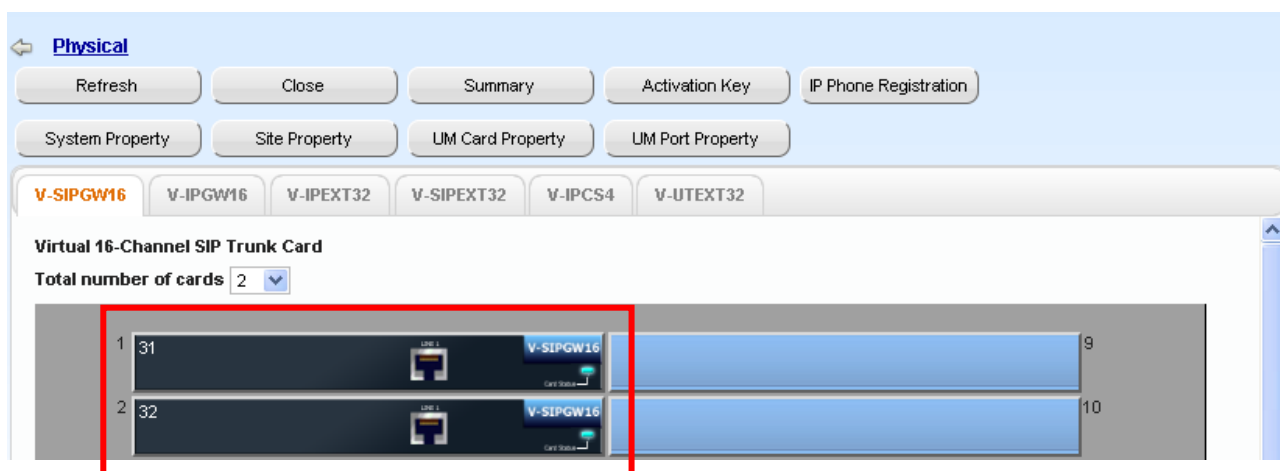


4.3-4 Click on [OK]

Are you sure you want to add 2 card?

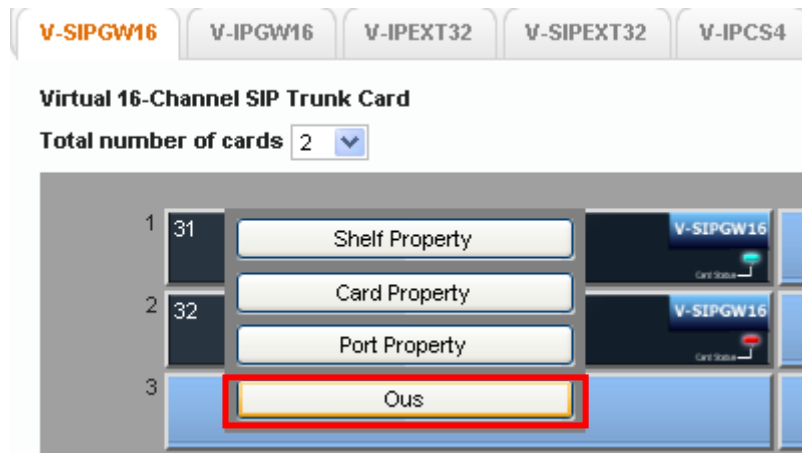


4.3-5 Confirmation of the installed 2 slots V-SIPGW16

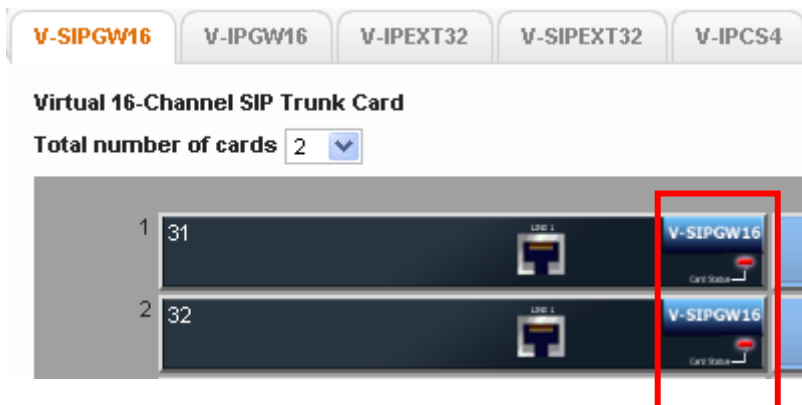


## 4.4 PBX SIP Trunk Configuration

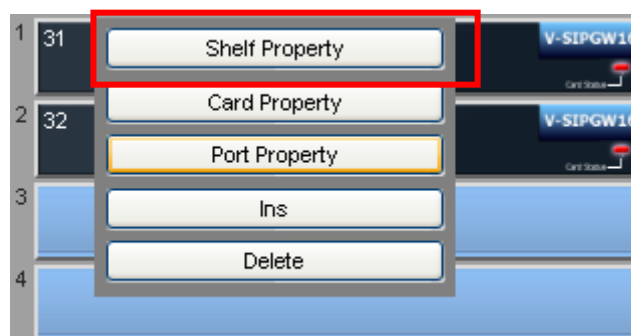
### 4.4-1 Change the 2 V-SIPGW16 cards status to "OUS"



### 4.4-2 Check the Cards status "RED".



### 4.4-3 Select the [Shelf Property]



4.4-4 Check the Shelf SIP Client Port Number --> Click on [OK] after checking Port Number

In this case 35060 (\*Default)

(It means PBXs receiving port of SIP message from Digital Gateway.)

Note:\* Can not use same extension's port number of 5060.(UT-Extension and SIP-Extension)

Next, Click on [Cancel] --> Back to the V-SIPGW16 of Slot

**Shelf Property - Virtual SIP Gateway**

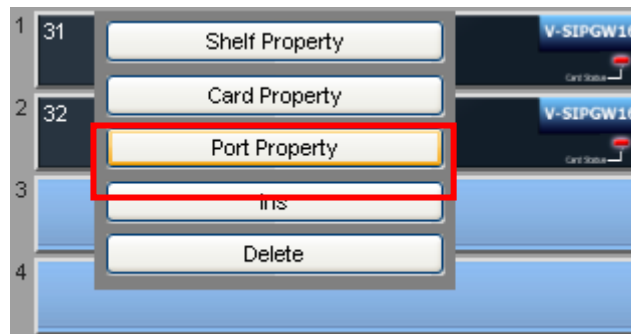
**Main** | Timer

**SIP Client Port Number** : 35060

**NAT Traversal** : Off

**NAT - Voice (RTP) UDP Port No.** : 16000

4.4-5 Select the Port Property



4.4-6 Confirm the current SIP Configuration of SIPGW16 (It's not installed example)

**Port Property - Virtual SIP Gateway**

Select Provider | Add Provider

« **Main** | Account | Register | NAT | Option | Calling Party | Called Party | Voice/FAX | RTP/RTCP | T.38 »

| No. | Shelf   | Slot | Port | Connection | Channel Attribute | Provider Name<br>(20 characters) | SIP Server Name<br>(100 characters) | SIP Server<br>IP Address | SIP Server<br>Port Number | SIP Service<br>(100 characters) |
|-----|---------|------|------|------------|-------------------|----------------------------------|-------------------------------------|--------------------------|---------------------------|---------------------------------|
| 1   | Virtual | 31   | 1    | ALL        | ALL               |                                  |                                     |                          | 5060                      |                                 |
| 2   | Virtual | 31   | 2    | OUS        | Not Used          |                                  |                                     |                          | 5060                      |                                 |
| 3   | Virtual | 31   | 3    | OUS        | Not Used          |                                  |                                     |                          | 5060                      |                                 |
| 4   | Virtual | 31   | 4    | OUS        | Not Used          |                                  |                                     |                          | 5060                      |                                 |
| 5   | Virtual | 31   | 5    | OUS        | Not Used          |                                  |                                     |                          | 5060                      |                                 |
| 6   | Virtual | 31   | 6    | OUS        | Not Used          |                                  |                                     |                          | 5060                      |                                 |

#### 4.4-7 Configure the [Main] SIP Settings example

- Channel Attribute: Select the [Basic channel]
- Provider Name: E1\_Gateway (For confirmation with an installer)
- SIP Server Name: Please do not write in this space
- SIP Server IP Address: 192.168.0.10 (The IP address is Digital Gateway Unit of Mediatrix.)
- SIP Server Port Number: 5060 (Default)

| No. | Shelf   | Slot | Port | Connection | Channel Attribute | Provider Name (20 characters) | SIP Server Name (100 characters) | SIP Server IP Address | SIP Server Port Number |
|-----|---------|------|------|------------|-------------------|-------------------------------|----------------------------------|-----------------------|------------------------|
| 1   | Virtual | 31   | 1    | OUS        | Basic channel     | E1_Gateway                    |                                  | 192.168.0.10          | 5060                   |
| 2   | Virtual | 31   | 2    | OUS        | Not Used          |                               |                                  |                       | 5060                   |
| 3   | Virtual | 31   | 3    | OUS        | Not Used          |                               |                                  |                       | 5060                   |

#### 4.4-8 Configure the [Account] SIP Setting example

- Username: 1234567890
- Authentication ID: 1234567890
- Authentication Password: 1234

Note:\* These are the dummy settings, but the PBX is required settings even if using no SIP registration.  
It's Caller ID calling to E1 PRI/R2 from PBX, you may need to set the necessary number if required.

| No. | Shelf   | Slot | Port | Connection | User Name (64 characters) | Authentication ID (64 characters) | Authentication Password (32 characters) |
|-----|---------|------|------|------------|---------------------------|-----------------------------------|-----------------------------------------|
| 1   | Virtual | 31   | 1    | OUS        | 1234567890                | 1234567890                        | 1234                                    |
| 2   | Virtual | 31   | 2    | OUS        |                           |                                   |                                         |

#### 4.4-9 Configure the [Register] SIP Settings

- Register Ability: Disable

| No. | Shelf   | Slot | Port | Connection | Register Ability | Register Sending Interval (s) | Un-Register Ability when port INS |
|-----|---------|------|------|------------|------------------|-------------------------------|-----------------------------------|
| 1   | Virtual | 31   | 1    | OUS        | Disable          | 3600                          | Enable                            |

#### 4-4-10 Click on the [ Apply]

OK Cancel **Apply**

#### 4.4-11 Configure the [Channel Attribute] Setting

- Select the [Additional channel for Slot 31 Ch1] all other virtual channels (2 to 30)

« **Main** Account Register NAT Option Calling Party Called Party Voice/FAX RTP/RTCP T.38 »

| No. | Shelf   | Slot | Port | Connection | Channel Attribute                    | Provider Name<br>(20 characters) | SIP Server Name<br>(100 characters) | SIP Server<br>IP Address | SIP<br>Port |
|-----|---------|------|------|------------|--------------------------------------|----------------------------------|-------------------------------------|--------------------------|-------------|
| 1   | Virtual | 31   | 1    | OUS        | Basic channel                        | E1_Gateway                       |                                     | 192.168.0.10             | 5060        |
| 2   | Virtual | 31   | 2    | OUS        | Additional channel for Slot 31 Ch 1  |                                  |                                     |                          | 5060        |
| 3   | Virtual | 31   | 3    | OUS        | Basic channel                        |                                  |                                     |                          | 5060        |
| 4   | Virtual | 31   | 4    | OUS        | Additional channel for Slot 31 Ch 2  |                                  |                                     |                          | 5060        |
| 5   | Virtual | 31   | 5    | OUS        | Additional channel for Slot 31 Ch 3  |                                  |                                     |                          | 5060        |
| 6   | Virtual | 31   | 6    | OUS        | Additional channel for Slot 31 Ch 4  |                                  |                                     |                          | 5060        |
| 7   | Virtual | 31   | 7    | OUS        | Additional channel for Slot 31 Ch 5  |                                  |                                     |                          | 5060        |
| 8   | Virtual | 31   | 8    | OUS        | Additional channel for Slot 31 Ch 6  |                                  |                                     |                          | 5060        |
| 9   | Virtual | 31   | 9    | OUS        | Additional channel for Slot 31 Ch 7  |                                  |                                     |                          | 5060        |
| 10  | Virtual | 31   | 10   | OUS        | Additional channel for Slot 31 Ch 8  |                                  |                                     |                          | 5060        |
| 11  | Virtual | 31   | 11   | OUS        | Additional channel for Slot 31 Ch 9  |                                  |                                     |                          | 5060        |
| 12  | Virtual | 31   | 12   | OUS        | Additional channel for Slot 31 Ch 10 |                                  |                                     |                          | 5060        |
| 13  | Virtual | 31   | 13   | OUS        | Additional channel for Slot 31 Ch 11 |                                  |                                     |                          | 5060        |
|     |         |      |      |            | Additional channel for Slot 31 Ch 12 |                                  |                                     |                          | 5060        |
|     |         |      |      |            | Additional channel for Slot 31 Ch 13 |                                  |                                     |                          | 5060        |
|     |         |      |      |            | Additional channel for Slot 31 Ch 14 |                                  |                                     |                          | 5060        |
|     |         |      |      |            | Additional channel for Slot 31 Ch 15 |                                  |                                     |                          | 5060        |
|     |         |      |      |            | Additional channel for Slot 31 Ch 16 |                                  |                                     |                          | 5060        |
|     |         |      |      |            | Additional channel for Slot 32 Ch 1  |                                  |                                     |                          | 5060        |
|     |         |      |      |            | Additional channel for Slot 32 Ch 2  |                                  |                                     |                          | 5060        |
|     |         |      |      |            | Additional channel for Slot 32 Ch 3  |                                  |                                     |                          | 5060        |

View 1 - 20

#### 4.4-12 Configure the [Channel Attribute] Setting

- Select the Additional channel from 2 to 30. --> Then Click [Apply]

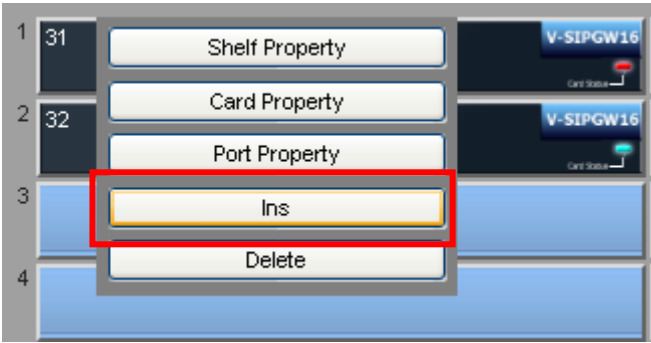
« **Main** Account Register NAT Option Calling Party Called Party Voice/FAX RTP/RTCP T.38 »

| Port | Connection | Channel Attribute                   | Provider Name<br>(20 characters) | SIP Se<br>(100 c |
|------|------------|-------------------------------------|----------------------------------|------------------|
| 5    | OUS        | Additional channel for Slot 31 Ch 1 |                                  |                  |
| 6    | OUS        | Additional channel for Slot 31 Ch 1 |                                  |                  |
| 7    | OUS        | Additional channel for Slot 31 Ch 1 |                                  |                  |
| 8    | OUS        | Additional channel for Slot 31 Ch 1 |                                  |                  |
| 9    | OUS        | Additional channel for Slot 31 Ch 1 |                                  |                  |
| 10   | OUS        | Additional channel for Slot 31 Ch 1 |                                  |                  |
| 11   | OUS        | Additional channel for Slot 31 Ch 1 |                                  |                  |
| 12   | OUS        | Additional channel for Slot 31 Ch 1 |                                  |                  |
| 13   | OUS        | Additional channel for Slot 31 Ch 1 |                                  |                  |
| 14   | OUS        | Additional channel for Slot 31 Ch 1 |                                  |                  |
| 15   | OUS        | Not Used                            |                                  |                  |
| 16   | OUS        | Not Used                            |                                  |                  |

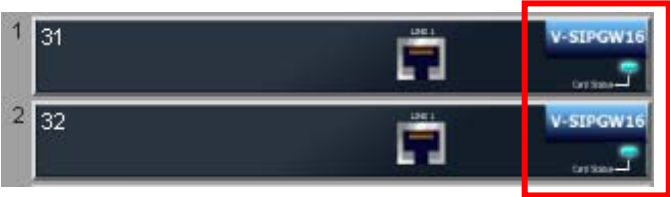
Page 2 of 2 20 View 21 - 32 of 32

OK Cancel **Apply**

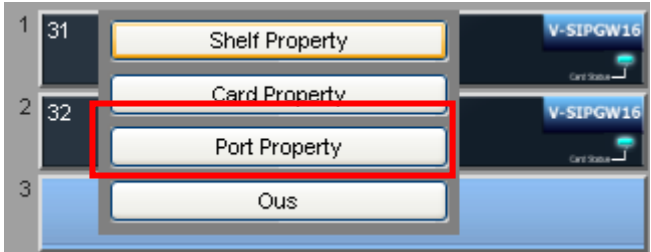
4.4-13 Change the V-SIPGW cards status to INS



Confirmation of 2 Slot V-SIPGW16 status “Blue”



4.4-14 Select the Port Property again



4.4-15 Confirmation of the Connection INS status from 1ch to 30ch. --> Click on [OK]

Back to the Slot Configuration page

| No. | Shelf   | Slot | Port | Connection | Channel Attribute                   | Provider Name<br>(20 characters) | SIP Server Name<br>(100 characters) |
|-----|---------|------|------|------------|-------------------------------------|----------------------------------|-------------------------------------|
| 21  | Virtual | 32   | 5    | INS        | Additional channel for Slot 31 Ch 1 |                                  |                                     |
| 22  | Virtual | 32   | 6    | INS        | Additional channel for Slot 31 Ch 1 |                                  |                                     |
| 23  | Virtual | 32   | 7    | INS        | Additional channel for Slot 31 Ch 1 |                                  |                                     |
| 24  | Virtual | 32   | 8    | INS        | Additional channel for Slot 31 Ch 1 |                                  |                                     |
| 25  | Virtual | 32   | 9    | INS        | Additional channel for Slot 31 Ch 1 |                                  |                                     |
| 26  | Virtual | 32   | 10   | INS        | Additional channel for Slot 31 Ch 1 |                                  |                                     |
| 27  | Virtual | 32   | 11   | INS        | Additional channel for Slot 31 Ch 1 |                                  |                                     |
| 28  | Virtual | 32   | 12   | INS        | Additional channel for Slot 31 Ch 1 |                                  |                                     |
| 29  | Virtual | 32   | 13   | INS        | Additional channel for Slot 31 Ch 1 |                                  |                                     |
| 30  | Virtual | 32   | 14   | INS        | Additional channel for Slot 31 Ch 1 |                                  |                                     |
| 31  | Virtual | 32   | 15   | Fault      | Not Used                            |                                  |                                     |
| 32  | Virtual | 32   | 16   | Fault      | Not Used                            |                                  |                                     |

## 4.5 PBX Configuration DDI/DID and CO

### 4.5-1 Configure or Check the DDI/DID Table example

Click on [10.CO & Incoming Call] --> [3.DDI/DID Table]

- DDI/DID Number: 3001 --> Destination:301

- DDI/DID Number: 3002 --> Destination:302

Click on [Apply]

DDI / DID Table

Automatic Registration Name Generate Destination Setting

| ID | DDI / DID Number<br>(32 digits) | DDI / DID Name<br>(20 characters) | DDI / DID Destination -<br>Day | DDI / DID Destination -<br>Lunch |
|----|---------------------------------|-----------------------------------|--------------------------------|----------------------------------|
| 1  | 3001                            |                                   | 301                            |                                  |
| 2  | 3002                            |                                   | 302                            |                                  |
| 3  |                                 |                                   |                                |                                  |
| 4  |                                 |                                   |                                |                                  |
| 5  |                                 |                                   |                                |                                  |
| 6  |                                 |                                   |                                |                                  |
| 7  |                                 |                                   |                                |                                  |
| 8  |                                 |                                   |                                |                                  |
| 9  |                                 |                                   |                                |                                  |
| 10 |                                 |                                   |                                |                                  |
| 11 |                                 |                                   |                                |                                  |
| 12 |                                 |                                   |                                |                                  |
| 13 |                                 |                                   |                                |                                  |
| 14 |                                 |                                   |                                |                                  |
| 15 |                                 |                                   |                                |                                  |

Page 1 of 50 View 1 - 20 of 1 000

OK Cancel Apply

#### 4.5-2 Configure or Check the Trunk Group Number (To change if required)

Note:\* Example, in this case Trunk Group Number is “1”.

The screenshot shows the NS1000 Web Maintenance Console interface. The left sidebar contains a navigation menu with categories like Users, PBX Configuration, and UM Configuration. The main area displays the 'CO Line Settings' table. The table has five columns: Slot, Port, Card Type, CO Name (20 characters), and Trunk Group Number. The Trunk Group Number column is highlighted with a red box, and the value '1' is selected for the highlighted row.

| Slot | Port | Card Type | CO Name (20 characters) | Trunk Group Number |
|------|------|-----------|-------------------------|--------------------|
| 2    | 1    | BRI4      |                         | 1                  |
| 2    | 1    | BRI4      |                         | 1                  |
| 2    | 2    | BRI4      |                         | 1                  |
| 2    | 2    | BRI4      |                         | 1                  |
| 2    | 3    | BRI4      |                         | 1                  |
| 2    | 3    | BRI4      |                         | 1                  |
| 2    | 4    | BRI4      |                         | 1                  |
| 2    | 4    | BRI4      |                         | 1                  |
| 31   | 1    | V-SIPGW16 |                         | 1                  |
| 31   | 2    | V-SIPGW16 |                         | 1                  |
| 31   | 3    | V-SIPGW16 |                         | 1                  |
| 31   | 4    | V-SIPGW16 |                         | 1                  |
| 31   | 5    | V-SIPGW16 |                         | 1                  |
| 31   | 6    | V-SIPGW16 |                         | 1                  |
| 31   | 7    | V-SIPGW16 |                         | 1                  |
| 31   | 8    | V-SIPGW16 |                         | 1                  |
| 31   | 9    | V-SIPGW16 |                         | 1                  |

## 4.6 PBX Server Feature

### 4.6-1 Configure the DHCP server example

DHCP Server: Enable

Starting IP address: 192.168.0.161 / Ending IP Address: 192.168.0.170

**Users**

**PBX Configuration**

**UM Configuration**

**Network Service**

- 1.IP Address/Ports
- 2.Server Feature
  - 1.DHCP**
  - 2.FTP
  - 4.HTTP
  - 5.NTP
  - 6.SMTP
  - 7.IMAP4
- 3.Client Feature
- 4.Other

**DHCP**

**DHCP Server** | IP Address Static Assignment | IP Address Assignment List

**DHCP server**

☒ Enable ☐ Disable

Port number 67

**IP address auto assignment**

Starting IP address 192.168.0.161 Ending IP address 192.168.0.170

Lease interval (h) 24

**Auto assignment exclusions**

|    | IP address | IP address |
|----|------------|------------|
| #1 |            | #9         |

### 4.6-2 Confirmation of SNTP “Enable”

**Users**

**PBX Configuration**

**UM Configuration**

**Network Service**

- 1.IP Address/Ports
- 2.Server Feature
- 3.Client Feature
- 4.HTTP
- 5.NTP**

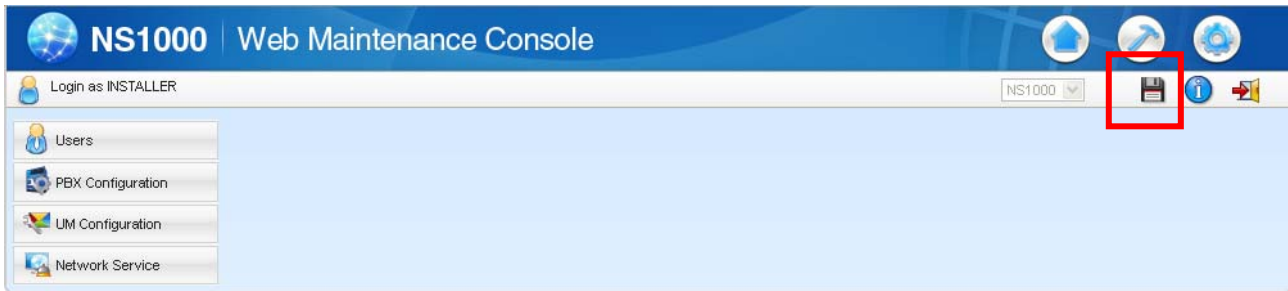
**NTP**

**NTP server** ☒ Enable ☐ Disable

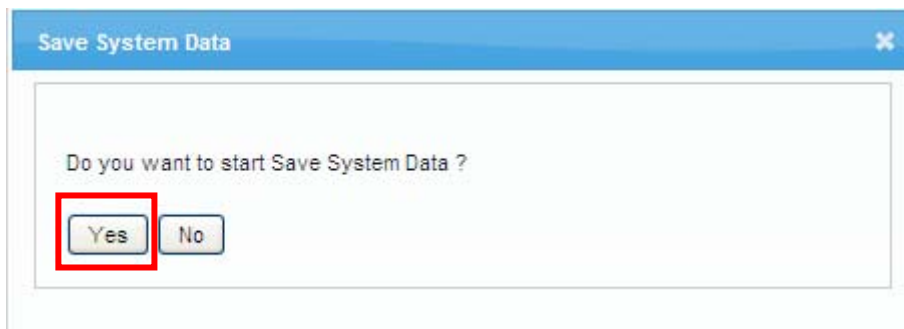
OK Cancel Apply

## 4.7 Save the System Data

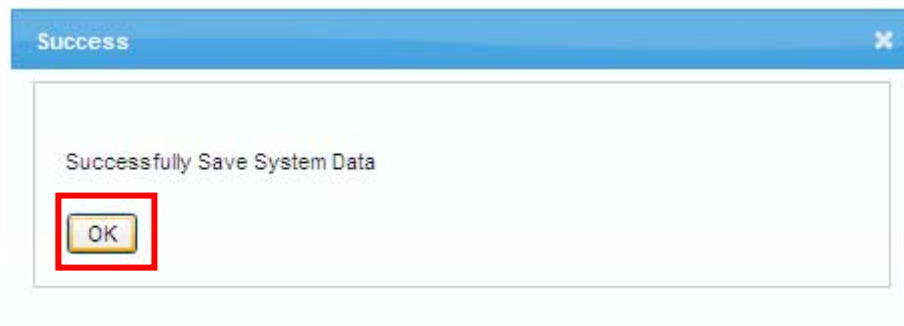
Click on the [Save System data]



Click on [Yes]



Click on [OK]

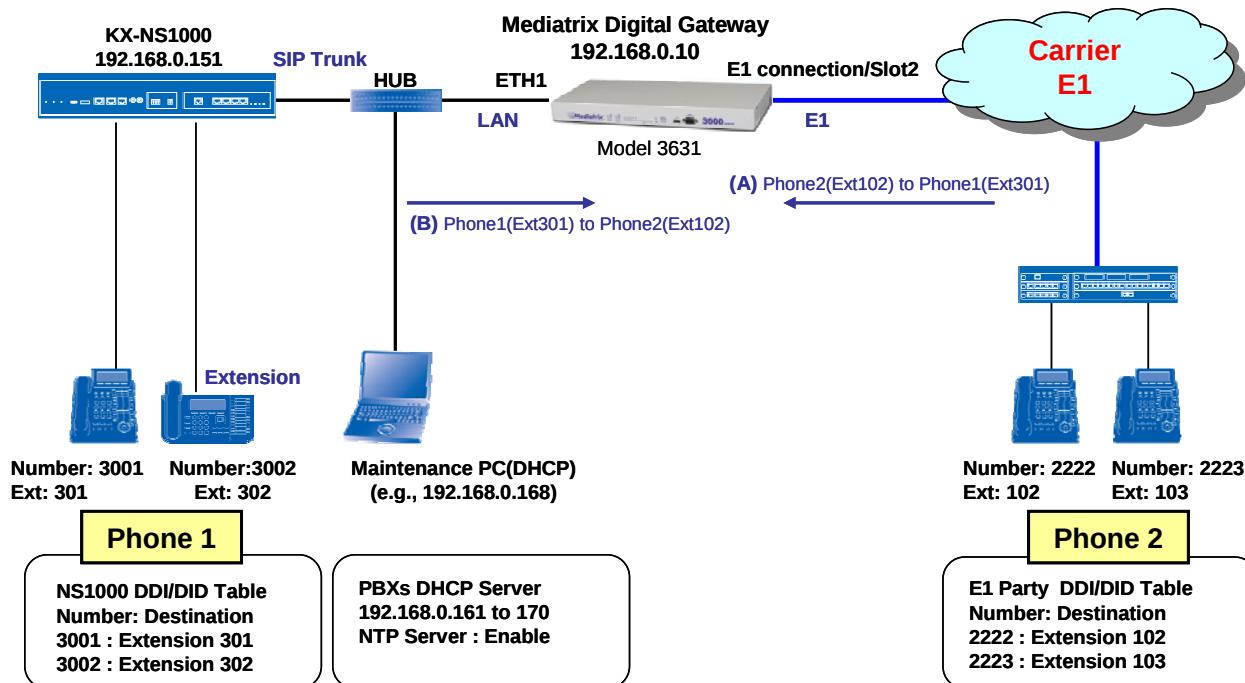


The PBXs basic configuration has finished.

## 5 Description of the Digital E1 PRI/R2 Gateway

### 5.1 Diagram of system configuration example

**The NS1000 SIP Trunk and the Mediatrix GW not have to register to each units as for SIP registration.**



### 5.2 Objectives

The steps described in the following pages will show you how to setup the Mediatrix 3000 DG so it can:

#### **(A) receive calls from the E1 and route them to the LAN (e.g., From Phone 2 calls To Phone 1):**

1. a user picks up Phone2(Ext103) and dials the number of a line connected to the Mediatrix 3000 DG. (e.g., 3001)
2. the E1 routes the call to the Mediatrix 3000 DG.
3. the Mediatrix 3000 DG routes the call to the appropriate PBX.
4. the PBX makes the appropriate Phone1(Ext301) ring.
5. a user picks up the Ext301 and the call is established.

#### **(B) receive calls from the PBX and route them to the E1 on one of the E1 lines connected to the Mediatrix 3000 DG (e.g. From Phone 1 calls To Phone 2):**

1. a user picks up Phone1(Ext301) and dials a number (e.g., 2222 )
2. the PBX routes the call to the Mediatrix 3000 DG.
3. the Mediatrix 3000 DG decides to which E1 interface route this call.
4. the E1 makes the appropriate Phone2 (Ext103) ring.
5. a user picks up the Phone2(Ext103) and the call is established.

### **5.3 Steps**

This configuration note will guide you through the following steps:

- 6.1 Physical connection of the Mediatix 3000 DG to the IP network and ISDN.
- 6.2 IP address discovery or configuration.
- 6.3 Web interface access.
- 6.4 Network Configuration
- 6.5 R2 Configuration
- 6.6 SIP Configuration.
- 6.7 Media Configuration
- 6.8 Call Routing Configuration
- 6.9 Basic call establishment.

## **6. Configuration of the Mediatrix 3000 Digital Gateway**

\* Note: Here is described as example for E1 / R2 connection.

### **6.1 Physical Connection of the Mediatrix 3000 DG to the Network and ISDN**

Please refer to the Mediatrix 3000 DG Quick Start booklet (packaged with the Mediatrix 3000 DG) for instructions on hardware installation.

The Mediatrix 3000 DG Quick Start booklet can also be found online at

[http://www.media5corp.com/repository/3000/installation%20guides/MTX\\_3000-Installation.pdf](http://www.media5corp.com/repository/3000/installation%20guides/MTX_3000-Installation.pdf)

### **6.2 IP Address Discovery or Configuration**

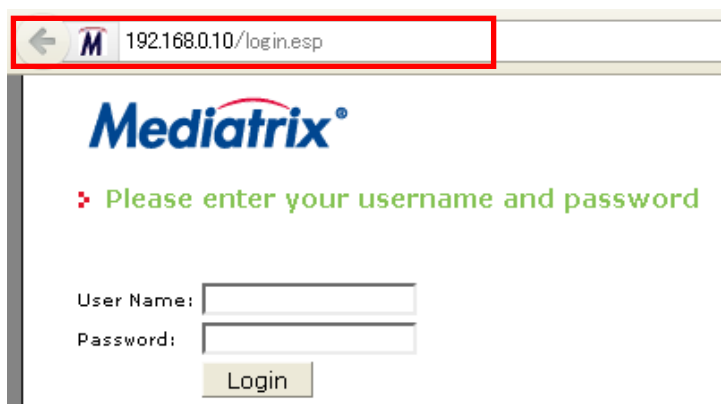
LAN Interface Access

The Mediatrix 3000 DG's default LAN IP address is 192.168.0.10.

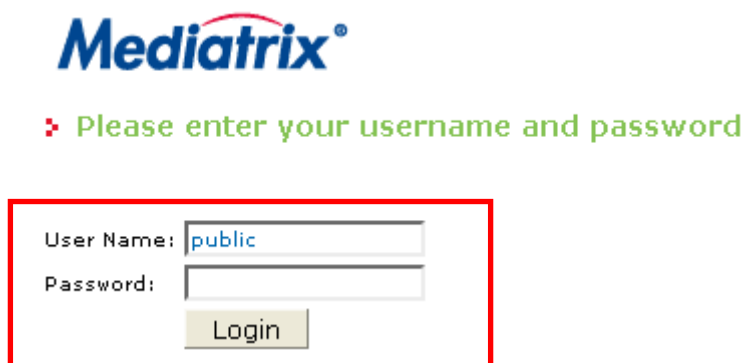
## 6.3 Web Interface Access

6.3-1 Start up software of web browser. (Internet Explorer Version 7 or later, Mozilla Firefox6 or later)

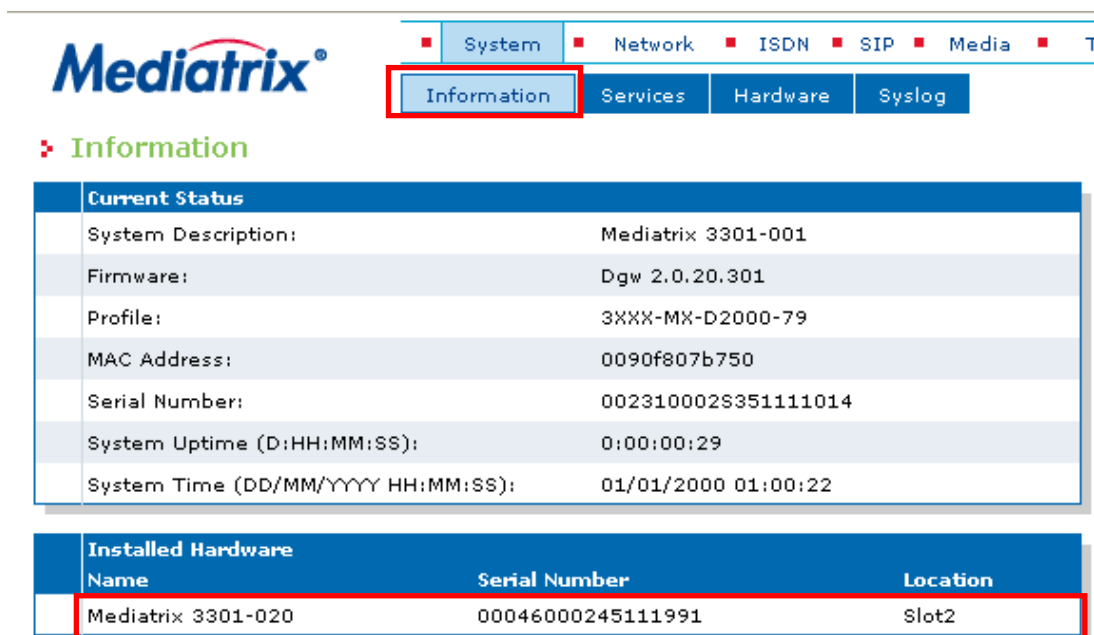
6.3-2 Access the Digital Gateway Web login page.



6.3-3 Enter the User Name: **Public**, Password field empty and Click “Login”



6.3-4 Access to Digital Gateway configuration web interface.



| Current Status                     |                     |
|------------------------------------|---------------------|
| System Description:                | Mediatrix 3301-001  |
| Firmware:                          | Dgw 2.0.20.301      |
| Profile:                           | 3XXX-MX-D2000-79    |
| MAC Address:                       | 0090f807b750        |
| Serial Number:                     | 0023100026351111014 |
| System Uptime (D:HH:MM:SS):        | 0:00:00:29          |
| System Time (DD/MM/YYYY HH:MM:SS): | 01/01/2000 01:00:22 |

| Installed Hardware |                   |          |
|--------------------|-------------------|----------|
| Name               | Serial Number     | Location |
| Mediatrix 3301-020 | 00046000245111991 | Slot2    |

Please check the installed cards in the Mediatrix Digital Gateway.  
In this case, Installed a Mediatrix 3301-020 (E1/T1) card

6.3-5 Click on [Hardware] --> Confirmation of Line type “E1” and Signaling “R2” Card Status  
Please select the configuration of Signaling type if required.



System
Network
ISDN
SIP
Media

Information
Services
Hardware
Syslog

**Hardware**

| PRI Cards Status |                 |           |           |
|------------------|-----------------|-----------|-----------|
| Slot             | Clock Reference | Line Type | Signaling |
| Slot2            | None            | E1        | Isdn      |

| PRI Cards Configuration |                 |           |           |
|-------------------------|-----------------|-----------|-----------|
| Slot                    | Clock Reference | Line Type | Signaling |
| Slot2                   | None            | E1        | Isdn      |

6.3-6 Click on [Submit]

| PRI Cards Configuration |                 |           |           |
|-------------------------|-----------------|-----------|-----------|
| Slot                    | Clock Reference | Line Type | Signaling |
| Slot2                   | None            | E1        | R2        |

6.3-7 Click on [OK] only if change of the configuration.

WARNING : Some configured routes may be unusable when changing the signaling protocol.

6.3-8 Click on [restart the unit]

Some changes require to restart the unit to apply new configuration.  
Please click this link to [restart the unit.](#)

6.3-9 Click on [Reboot] only if change of the configuration.



■ System ■ Network ■ ISDN ■ SIP ■ Media ■ Telephony ■ Call I

Some changes require to restart the unit to apply new configuration.

#### ➤ Reboot

| Current Status                                                                                                       |
|----------------------------------------------------------------------------------------------------------------------|
| Please click on the Reboot button to reboot the device.                                                              |
| <b>Warning:</b> Your web session will be lost and you will be redirected to the login page after the reboot process. |

Reboot

6.3-10 Reboot the device --> Login again

#### ➤ Reboot

| Current Status                                                                                                       |
|----------------------------------------------------------------------------------------------------------------------|
| Please click on the Reboot button to reboot the device.                                                              |
| Reboot In Progress...                                                                                                |
| <div><div></div><div></div><div></div><div></div><div></div></div>                                                   |
| <b>Warning:</b> Your web session will be lost and you will be redirected to the login page after the reboot process. |

## 6.4 Network Configuration

### 6.4-1 Network configuration

Click on [Network] --> [Status] --> Confirmation of currently Network status

The screenshot shows the Mediatrix web interface. The top navigation bar includes tabs for System, Network, R2, SIP, Media, Telephony, Call Router, Management, and Reboot. The Network tab is active, and the Status sub-tab is selected. The main content area displays the 'Status' page, which includes a table of interface status, host status configuration, advanced IP routes, firewall rules, and ethernet ports status.

**Interfaces Status**

| Name   | Link   | IP Address      | Default Router | VLAN Override | Status  |
|--------|--------|-----------------|----------------|---------------|---------|
| Lan1   | eth1-4 | 192.168.0.10/24 |                | Disable       | Active  |
| Uplink | eth5   |                 |                | Disable       | Disable |

**Host Status**

**General Configuration:**

- IPv4 Automatic Configuration Interface: Uplink
- IPv6 Automatic Configuration Interface: UplinkV6

**Host Name Configuration**

- Host Name:
- Domain Name: 192.168.0.10

**Default Gateway Configuration**

- IPv4 Default Gateway: 0.0.0.0
- IPv6 Default Gateway: 0.0.0.0

**DNS Configuration**

**SNTP Configuration**

- SNTP Host: 192.168.0.151:123

**Advanced IP Routes**

| #                                                      | Source Address | Source Link | Forward To Network | Status |
|--------------------------------------------------------|----------------|-------------|--------------------|--------|
| No custom route currently applied in the routing table |                |             |                    |        |

**Firewall**

| Scope                                     | # | Source Address | Source Port | Destination Address | Destination Port | Protocol | Connection State | Action |
|-------------------------------------------|---|----------------|-------------|---------------------|------------------|----------|------------------|--------|
| No rule currently applied in the Firewall |   |                |             |                     |                  |          |                  |        |

**Ethernet Ports Status**

| Name | Link   | Speed                  |
|------|--------|------------------------|
| ETH1 | eth1-4 | 100 Mbit/s Full-duplex |
| ETH2 | eth1-4 | Disconnected           |
| ETH3 | eth1-4 | Disconnected           |
| ETH4 | eth1-4 | Disconnected           |
| ETH5 | eth5   | Disconnected           |

### 6.4-2 Click on [Host]

The screenshot shows the Mediatrix web interface with the Network tab active and the Host sub-tab selected. The top navigation bar includes tabs for System, Network, R2, SIP, Media, Telephony, and Call Router. The Host sub-tab is highlighted.

### 6.4-3 Configure the [Network] Host Name Configuration

Configuration Source: Select the Static

Domain Name: Enter the Mediatrix Gateway own IP address, example 192.168.0.10

The screenshot shows the Host Name Configuration form. The Configuration Source is set to Static. The Domain Name is entered as 192.168.0.10. The Host Name field is empty.

| Host Name Configuration |              |
|-------------------------|--------------|
| <b>Domain Name</b>      |              |
| Configuration Source:   | Static       |
| Domain Name:            | 192.168.0.10 |
| <b>Host Name</b>        |              |
| Host Name:              |              |

#### 6.4-4 Configure the [Network] SNTP Configuration example

- Configuration Source: Select [Static]
- SNTP Host: 192.168.0.151 (It's PBX IP address and Enabling NTP server feature)
- Synchronization Period:1440
- Static Time Zone: UTC-1(Please refer the Mediatrix Software Configuration Guide)

| SNTP Configuration               |               |
|----------------------------------|---------------|
| Configuration Source:            | Static        |
| SNTP Host:                       | 192.168.0.151 |
| Synchronization Period:          | 1440          |
| Synchronization Period On Error: | 60            |

| Time Configuration |       |
|--------------------|-------|
| Static Time Zone:  | UTC-1 |

**Submit**

#### 6.4-5 Configure the [Network] Interface

Enter the Mediatrix own IP Address --> Click [Submit] after entering the IP Address

Example, Lan1 Static IP Address: 192.168.0.10/24 --> [Submit]

**Mediatrix®**

System **Network** R2 SIP Media Telephony Call Router

Status Host **Interfaces** VLAN QoS Local Firewall IP Routing Network

### Interfaces

| Name     | Link   | Type           | Static IP Address | Static Default Router | Activation |
|----------|--------|----------------|-------------------|-----------------------|------------|
| Lan1     | eth1-4 | IPv4 Static    | 192.168.0.10/24   |                       | Enable     |
| Uplink   | eth5   | IPv4 Static    | 192.168.10.10     |                       | Enable     |
| UplinkV6 | eth5   | IPv6 Auto-Conf |                   |                       | Disable    |

| Rescue interface |      |                           |            |
|------------------|------|---------------------------|------------|
| Family           | Link | IP Address                | Activation |
| IP version 4     | eth5 | 192.168.0.1/24            | Disable    |
| IP version 6     | All  | fe80::0290:f8ff:fe07:b750 |            |

| PPPoE Configuration |      |
|---------------------|------|
| Service Name:       |      |
| Protocol:           | CHAP |
| User Name:          |      |
| Password:           |      |

| Ethernet Link Configuration |      |                       |              |
|-----------------------------|------|-----------------------|--------------|
| Link                        | MTU  | 802.1x Authentication | EAP Username |
| eth1-4                      | 1500 | Disable               |              |
| eth5                        | 1500 | Disable               |              |

**Submit**

## 6.5 R2 Configuration

### 6.5-1 Configure the [R2]



### 6.5-2 Confirmation of Status

#### ✦ Status

| Location                               |  | Clock Reference  |  |                  |  |
|----------------------------------------|--|------------------|--|------------------|--|
| Slot2:                                 |  | None             |  |                  |  |
| Slot2/E1T1 <a href="#">[Configure]</a> |  |                  |  |                  |  |
| Physical Link: Up                      |  |                  |  |                  |  |
| Bearer Group                           |  |                  |  |                  |  |
| Channel 1: Idle                        |  | Channel 9: Idle  |  | Channel 17: Idle |  |
| Channel 2: Idle                        |  | Channel 10: Idle |  | Channel 18: Idle |  |
| Channel 3: Idle                        |  | Channel 11: Idle |  | Channel 19: Idle |  |
| Channel 4: Idle                        |  | Channel 12: Idle |  | Channel 20: Idle |  |
| Channel 5: Idle                        |  | Channel 13: Idle |  | Channel 21: Idle |  |
| Channel 6: Idle                        |  | Channel 14: Idle |  | Channel 22: Idle |  |
| Channel 7: Idle                        |  | Channel 15: Idle |  | Channel 23: Idle |  |
| Channel 8: Idle                        |  | Channel 16: Idle |  | Channel 24: Idle |  |
|                                        |  |                  |  | Channel 25: Idle |  |
|                                        |  |                  |  | Channel 26: Idle |  |
|                                        |  |                  |  | Channel 27: Idle |  |
|                                        |  |                  |  | Channel 28: Idle |  |
|                                        |  |                  |  | Channel 29: Idle |  |
|                                        |  |                  |  | Channel 30: Idle |  |

### 6.5-3 Click on [R2 Config]



### 6.5-4 Select the country in the Country Selection drop-down menu:

#### ➤ R2 Channel Associated Signaling Config

Select Interface:

| Interface Configuration      |                                                     |
|------------------------------|-----------------------------------------------------|
| Clock Mode:                  | <input type="text" value="Slave"/>                  |
| Port Pinout:                 | <input type="text" value="Auto"/>                   |
| Monitor Link State:          | <input type="text" value="Enable"/>                 |
| Line Coding:                 | <input type="text" value="HDB3"/>                   |
| Line Framing:                | <input type="text" value="NO-CRC4"/>                |
| Channel Range:               | <input type="text" value="1-30"/>                   |
| Channel Allocation Strategy: | <input type="text" value="Ascending"/>              |
| Maximum Active Calls:        | <input type="text" value="30"/>                     |
| Encoding Scheme:             | <input type="text" value="G.711 a-Law"/>            |
| Line Signaling Protocol:     | <input type="text" value="Q.421 2 Bits Signaling"/> |
| Incoming Digit Signaling:    | <input type="text" value="MFC/R2"/>                 |
| Outgoing Digit Signaling:    | <input type="text" value="MFC/R2"/>                 |
| Country Selection:           | <input type="text" value="ITU-TR2"/>                |
| Digit Attenuation:           | <input type="text" value="12"/>                     |

### 6.5-5 Select the correct Country and click on [Submit]

|                    |                                      |
|--------------------|--------------------------------------|
| Country Selection: | <input type="text" value="ITU-TR2"/> |
| Digit Attenuation: | <input type="text" value="12"/>      |

BrazilR2

MexicoR2

ArgentinaR2

SaudiArabiaR2

VenezuelaR2

PhilippinesR2

ITU-TR2

Submit

#### **\* Important concern**

**You have the following choices:**

- Brazil R2
- Mexico R2
- Argentina R2
- SaudiArabia R2
- Venezuela R2
- Philippines R2
- ITU-TR2

**Please contact Media5 or Media5 distributor support for configuration of Gateway if you**

have any issues.

Note: In this example the gateway is configure to used E1 R2 CAS, please note that E1/T1 PRI or E&M can also be used. For more information you can contact Media5 distributor or Media5

6.5-6 Click on [service table] if required

Some changes require to restart a service to apply new configuration.  
Please click this link to access the [services table](#).

6.5-7 Click on [Restart Required Services]

| R2 Channel Associated Signaling (R2):      | Started | Auto |  |  |  | Restart needed |
|--------------------------------------------|---------|------|--|--|--|----------------|
| SIP Endpoint (SIPEP):                      | Started | Auto |  |  |  |                |
| Simple Network Management Protocol (SNMP): | Started | Auto |  |  |  |                |
| Telephony Interface (TELIF):               | Started | Auto |  |  |  |                |
| Web (WEB):                                 | Started | Auto |  |  |  |                |

Submit Restart Required Services

6.5-8 Reference R2 Signaling Variants Setting

**Note: This example is data of ITU-TR2 environment.**

#### R2 Signaling Variants

Select Interface: Slot2/E1T1

| Country                            |         |
|------------------------------------|---------|
| Country Selection:                 | ITU-TR2 |
| Override Default Country Settings: | Enable  |

| R2 Signaling Variants                   |                       |
|-----------------------------------------|-----------------------|
| Parameters                              | Value                 |
| Bits CD:                                | 1                     |
| ANI Length:                             | 4                     |
| DNIS Length:                            | 4                     |
| ANI Request:                            | Enable                |
| Send ANI request after nth DNIS Digits: | 0                     |
| Collect Call Blocked:                   | Disable               |
| ANI Category:                           | Nat Subscriber NoPrio |
| Line Free Category:                     | Line Free Charge      |
| ANI Restricted:                         | Enable                |

Submit Reset to default

## 6.5-9 Reference R2 Timer Variants Settings

**Note: This example is data of ITU-TR2 environment.**

### ✦ R2 Timers Variants

Select Interface: Slot2/E1T1 ▼

| Country                            |                       |  |
|------------------------------------|-----------------------|--|
| Country Selection:                 | ITU-TR2               |  |
| Override Default Country Settings: | <span>Enable ▼</span> |  |

| R2 Timers Variants Parameters             |  | Value                               |
|-------------------------------------------|--|-------------------------------------|
| Seizure Ack Timeout:                      |  | <input type="text" value="2000"/>   |
| Fault Seizure Ack Timeout:                |  | <input type="text" value="60000"/>  |
| Double Seizure Timeout:                   |  | <input type="text" value="100"/>    |
| Double Answer Timeout:                    |  | <input type="text" value="1500"/>   |
| Answer Timeout:                           |  | <input type="text" value="0"/>      |
| ReAnswer Timeout:                         |  | <input type="text" value="1000"/>   |
| Release Guard Timeout:                    |  | <input type="text" value="100"/>    |
| InterCall Guard Timeout:                  |  | <input type="text" value="100"/>    |
| Congestion Tone Guard Timeout:            |  | <input type="text" value="1000"/>   |
| Unblocking Timeout:                       |  | <input type="text" value="100"/>    |
| Address Complete Timeout:                 |  | <input type="text" value="8000"/>   |
| Wait Answer Timeout:                      |  | <input type="text" value="180000"/> |
| Digit Complete Timeout:                   |  | <input type="text" value="4000"/>   |
| Wait GroupB Response Complete Timeout:    |  | <input type="text" value="3000"/>   |
| Wait Immediate Response Complete Timeout: |  | <input type="text" value="1000"/>   |
| Play Tone Guard Timeout:                  |  | <input type="text" value="70"/>     |
| Accept Call Timeout:                      |  | <input type="text" value="2000"/>   |
| Clear Forward Guard Timeout:              |  | <input type="text" value="1500"/>   |
| Clear Backward Guard Timeout:             |  | <input type="text" value="1500"/>   |
| Fault On Answered Guard Timeout:          |  | <input type="text" value="250"/>    |
| Fault On Clear Backward Guard Timeout:    |  | <input type="text" value="250"/>    |
| Fault On Seize Ack Guard Timeout:         |  | <input type="text" value="250"/>    |
| Fault On Seize Guard Timeout:             |  | <input type="text" value="250"/>    |

Submit

Reset to default

#### 6.5-10 Reference R2 Digit Timers Variants

**Note: This example is data of ITU-TR2 environment.**

##### ➤ R2 Digit Timers Variants

Select Interface:

| Country                            |                                       |
|------------------------------------|---------------------------------------|
| Country Selection:                 | ITU-TR2                               |
| Override Default Country Settings: | <input type="button" value="Enable"/> |

| R2 Digit Timers Variants       |                                    |
|--------------------------------|------------------------------------|
| Parameters                     | Value                              |
| MFC Pulse Inter Digit Timeout: | <input type="text" value="100"/>   |
| MFC Pulse Min On Timeout:      | <input type="text" value="150"/>   |
| MFC Max Sequence Timeout:      | <input type="text" value="10000"/> |
| MFC Max On Timeout:            | <input type="text" value="5000"/>  |
| MFC Max Off Timeout:           | <input type="text" value="5000"/>  |

#### 6.5-11 Reference R2 Link Timers Variants Setting example

**Note: This example is data of ITU-TR2 environment.**

##### ➤ R2 Link Timers Variants

Select Interface:

| Country                            |                                       |
|------------------------------------|---------------------------------------|
| Country Selection:                 | ITU-TR2                               |
| Override Default Country Settings: | <input type="button" value="Enable"/> |

| R2 Link Timers Variants        |                                   |
|--------------------------------|-----------------------------------|
| Parameters                     | Value                             |
| Link Activation Timeout:       | <input type="text" value="1000"/> |
| Link Activation Retry Timeout: | <input type="text" value="3000"/> |

## 6.5-12 Reference R2 Tone Variants Setting example

**Note: This example is data of ITU-TR2 environment.**

### ❖ R2 Tones Variants

Select Interface: Slot2/E1T1 ▼

| Country                            |                       |
|------------------------------------|-----------------------|
| Country Selection:                 | ITU-TR2               |
| Override Default Country Settings: | <span>Enable ▼</span> |

| R2 Tones Forward Groups | Value               |
|-------------------------|---------------------|
| End of DNIS Tone        | <span>I3 ▼</span>   |
| End of ANI Tone         | <span>I15 ▼</span>  |
| Restricted ANI Tone     | <span>None ▼</span> |

| R2 Tones Backward Groups                           | Value               |
|----------------------------------------------------|---------------------|
| Send Next DNIS Digit Tone                          | <span>A1 ▼</span>   |
| Send Previous DNIS Digit Tone                      | <span>A9 ▼</span>   |
| Switch to Group II Tone                            | <span>A3 ▼</span>   |
| Network Congestion Tone                            | <span>A4 ▼</span>   |
| Send Calling Party Category Tone                   | <span>A5 ▼</span>   |
| Immediate Accept Tone                              | <span>A6 ▼</span>   |
| Send DNIS Digit N-2 Tone                           | <span>A7 ▼</span>   |
| Send DNIS Digit N-3 Tone                           | <span>A8 ▼</span>   |
| Repeat all DNIS Tone                               | <span>A10 ▼</span>  |
| Send Next ANI Digit Tone                           | <span>A5 ▼</span>   |
| Send Calling Party Category Tone switch to Group C | <span>None ▼</span> |
| Send Special Information Tone                      | <span>B2 ▼</span>   |
| User Busy Tone                                     | <span>B3 ▼</span>   |
| Network Congestion Tone                            | <span>B4 ▼</span>   |
| Unassigned Number Tone                             | <span>B5 ▼</span>   |
| Line Free with Charge Tone                         | <span>B6 ▼</span>   |
| Line Free with Charge Tone (Supplementary)         | <span>None ▼</span> |
| Line Free without Charge Tone                      | <span>B7 ▼</span>   |
| Line Out of Order Tone                             | <span>B8 ▼</span>   |
| Changed Number Tone                                | <span>None ▼</span> |
| Send Next ANI Digit Tone                           | <span>None ▼</span> |
| Repeat all DNIS Tone switch to Group A             | <span>None ▼</span> |
| Send Next DNIS Digit Tone switch to Group A        | <span>None ▼</span> |
| Network Congestion Tone                            | <span>None ▼</span> |
| Send Previous DNIS Digit Tone switch to Group A    | <span>None ▼</span> |
| Switch to Group II Tone                            | <span>None ▼</span> |

Submit

Reset to default

## 6-6 SIP Configuration

### 6.6-1 Configure the [SIP] Configuration

■ System ■ Network ■ ISDN ■ **SIP** ■ Media ■ Telephony ■ Call Router ■ Management ■ Reboot

**Gateways** Servers Registrations Endpoints Authentication Transport Interop Misc

### 6.6-2 Configure the [SIP] Gateways

Name: default

Signaling Network: Select the [Lan1]

Media Networks: Select the [Lan1] --> Click on [Submit]

#### ✚ Gateways

| Gateway Status |                   |                |      |             |       |  |
|----------------|-------------------|----------------|------|-------------|-------|--|
| Name           | Signaling Network | Media Networks | Port | Secure Port | State |  |
| default        | Lan1              | Lan1           | 0    | 0           | Ready |  |

| Gateway Configuration |                                   |                                   |                                                 |                                |                                |                                  |
|-----------------------|-----------------------------------|-----------------------------------|-------------------------------------------------|--------------------------------|--------------------------------|----------------------------------|
| Name                  | Signaling Network                 | Media Networks                    | Media Networks Suggestion                       | Port                           | Secure Port                    |                                  |
| default               | <input type="text" value="Lan1"/> | <input type="text" value="Lan1"/> | <input type="text" value="--- Suggestion ---"/> | <input type="text" value="0"/> | <input type="text" value="0"/> | <input type="button" value="-"/> |
|                       |                                   |                                   |                                                 |                                |                                | <input type="button" value="+"/> |

### 6.6-3 Click on [service table] if required

Some changes require to restart a service to apply new configuration.  
Please click this link to access the [services table](#).

### 6.6-4 Configure the [SIP] Servers

SIP Default Servers

Register Host: [Blank]

Proxy Host: 192.168.0.151:35060 (Its IP address is PBXs IP and port number)

#### ✚ Servers

| SIP Default Servers    |                                                  |  |
|------------------------|--------------------------------------------------|--|
| Registrar Host:        | <input type="text"/>                             |  |
| Proxy Host:            | <input type="text" value="192.168.0.151:35060"/> |  |
| Messaging Server Host: | <input type="text"/>                             |  |
| Outbound Proxy Host:   | <input type="text"/>                             |  |

| SIP Gateway Specific Registrar Servers |                                 |                                             |
|----------------------------------------|---------------------------------|---------------------------------------------|
| Gateway Name                           | Gateway Specific                | Registrar Host                              |
| default                                | <input type="text" value="No"/> | <input type="text" value="192.168.0.10:0"/> |

| SIP Gateway Specific Messaging Servers |                                 |                                              |
|----------------------------------------|---------------------------------|----------------------------------------------|
| Gateway Name                           | Gateway Specific                | Messaging Server Host                        |
| default                                | <input type="text" value="No"/> | <input type="text" value="192.168.10.10:0"/> |

Click on [Submit]

## 6.6-5 Confirmation of Registration (No need configuration)

### ✦ Registrations

| Endpoints Registration Status |           |              |           |        |  |
|-------------------------------|-----------|--------------|-----------|--------|--|
| Endpoint                      | User Name | Gateway Name | Registrar | Status |  |
|                               |           |              |           |        |  |

| Endpoints Messaging Subscription Status |           |              |                |            |
|-----------------------------------------|-----------|--------------|----------------|------------|
| Endpoint                                | User Name | Gateway Name | Messaging Host | MWI Status |
|                                         |           |              |                |            |

| Unit Registration Status |              |           |        |
|--------------------------|--------------|-----------|--------|
| User Name                | Gateway Name | Registrar | Status |
|                          |              |           |        |

| Endpoints Registration |                      |                      |           |           |              |
|------------------------|----------------------|----------------------|-----------|-----------|--------------|
| Endpoint               | User Name            | Friendly Name        | Register  | Messaging | Gateway Name |
| Slot2/E1T1             | <input type="text"/> | <input type="text"/> | Disable ▾ | Disable ▾ | default ▾    |

| Unit Registration |           |              |
|-------------------|-----------|--------------|
| Index             | User Name | Gateway Name |
|                   |           |              |

| Registration Configuration                 |                                   |
|--------------------------------------------|-----------------------------------|
| Default Registration Refresh Time:         | <input type="text" value="60"/>   |
| Proposed Expiration Value In Registration: | <input type="text" value="0"/>    |
| Default Expiration Value In Registration:  | <input type="text" value="3600"/> |

## 6.6-6 Confirmation of Endpoint (No need configuration)

### ✦ Endpoints

| Endpoint States |                |             |       |                        |                      |  |
|-----------------|----------------|-------------|-------|------------------------|----------------------|--|
| Endpoint        | Administrative | Operational | Usage | Initial Administrative | Action               |  |
| Slot2/E1T1      | Unlocked       | Enable      | Idle  | Unlocked ▾             | <input type="text"/> |  |

| Administration                                                                              |           |
|---------------------------------------------------------------------------------------------|-----------|
| Disable Unit (All Endpoints) When No Gateways Are In State Ready:                           | Disable ▾ |
| Shutdown Endpoint When Operational State is Disable And Its Usage State Is 'idle-unusable': | Disable ▾ |

## 6.6-7 Confirmation of Authentication

### ✦ Authentication

| Authentication |          |          |         |                |       |           |         |                                                                                                              |   |   |   |
|----------------|----------|----------|---------|----------------|-------|-----------|---------|--------------------------------------------------------------------------------------------------------------|---|---|---|
| Priority       | Apply To | Endpoint | Gateway | Validate Realm | Realm | User Name | Actions |                                                                                                              |   |   |   |
| 1              | Unit     |          |         | Enable         |       |           | Edit    |                                                                                                              | ▼ | + | - |
| 2              | Unit     |          |         | Enable         |       |           | Edit    | ▲                                                                                                            | ▼ | + | - |
| 3              | Unit     |          |         | Enable         |       |           | Edit    | ▲                                                                                                            | ▼ | + | - |
| 4              | Unit     |          |         | Enable         |       |           | Edit    | ▲                                                                                                            | ▼ | + | - |
| 5              | Unit     |          |         | Enable         |       |           | Edit    | ▲                                                                                                            | ▼ | + | - |
| 6              | Unit     |          |         | Enable         |       |           | Edit    | ▲                                                                                                            | ▼ | + | - |
| 7              | Unit     |          |         | Enable         |       |           | Edit    | ▲                                                                                                            | ▼ | + | - |
| 8              | Unit     |          |         | Enable         |       |           | Edit    | ▲                                                                                                            | ▼ | + | - |
| 9              | Unit     |          |         | Enable         |       |           | Edit    | ▲                                                                                                            | ▼ | + | - |
| 10             | Unit     |          |         | Enable         |       |           | Edit    | ▲                                                                                                            | ▼ | + | - |
| 11             | Unit     |          |         | Enable         |       |           | Edit    | ▲                                                                                                            | ▼ | + | - |
| 12             | Unit     |          |         | Enable         |       |           | Edit    | ▲                                                                                                            | ▼ | + | - |
| 13             | Unit     |          |         | Enable         |       |           | Edit    | ▲                                                                                                            | ▼ | + | - |
| 14             | Unit     |          |         | Enable         |       |           | Edit    | ▲                                                                                                            | ▼ | + | - |
| 15             | Unit     |          |         | Enable         |       |           | Edit    | ▲                                                                                                            | ▼ | + | - |
| 16             | Unit     |          |         | Enable         |       |           | Edit    | ▲                                                                                                            | ▼ | + | - |
| 17             | Unit     |          |         | Enable         |       |           | Edit    | ▲                                                                                                            | ▼ | + | - |
| 18             | Unit     |          |         | Enable         |       |           | Edit    | ▲                                                                                                            | ▼ | + | - |
| 19             | Unit     |          |         | Enable         |       |           | Edit    | ▲                                                                                                            | ▼ | + | - |
| 20             | Unit     |          |         | Enable         |       |           | Edit    | ▲                                                                                                            |   | + | - |
|                |          |          |         |                |       |           |         | Number of rows to add: <input type="text" value="1"/> <input style="float: right;" type="button" value="+"/> |   |   |   |

## 6.6-8 Confirmation of [SIP] Transport

### ✦ Transport

| General Configuration                |                                                  |  |  |  |  |
|--------------------------------------|--------------------------------------------------|--|--|--|--|
| Add SIP Transport in Registration:   | <input type="button" value="Disable"/> ▼         |  |  |  |  |
| Add SIP Transport in Contact Header: | <input type="button" value="Disable"/> ▼         |  |  |  |  |
| Persistent TLS Base Port:            | <input type="text" value="16000"/>               |  |  |  |  |
| Persistent TLS Retry Interval:       | <input type="text" value="15"/>                  |  |  |  |  |
| TLS Certificate Trust Level:         | <input type="button" value="Locally Trusted"/> ▼ |  |  |  |  |
| TCP Connect Timeout:                 | <input type="text" value="189"/>                 |  |  |  |  |

| Protocol Configuration                  |                      |                                          |                      |                                          |                      |
|-----------------------------------------|----------------------|------------------------------------------|----------------------|------------------------------------------|----------------------|
| UDP                                     | UDP QValue           | TCP                                      | TCP QValue           | TLS                                      | TLS QValue           |
| <input type="button" value="Enable"/> ▼ | <input type="text"/> | <input type="button" value="Disable"/> ▼ | <input type="text"/> | <input type="button" value="Disable"/> ▼ | <input type="text"/> |

## 6.6-9 Configure the [SIP] Interop

Ignore OPTIONS on no Usable Endpoints: Select [Enable] \* Recommended Setting

### ❖ Interop

| Behavior on T.38 INVITE Not Accepted |                                    |
|--------------------------------------|------------------------------------|
| SIP Error Code                       | Behavior                           |
| 406                                  | Re-INVITE For Clear Channel Only ▼ |
| 488                                  | Re-INVITE For Clear Channel Only ▼ |
| 606                                  | Re-INVITE For Clear Channel Only ▼ |

| SIP Interop                            |                             |
|----------------------------------------|-----------------------------|
| Secure Header:                         | Disable ▼                   |
| Default Username Value:                | Anonymous ▼                 |
| OPTIONS Method Support:                | Always 200 OK ▼             |
| Ignore OPTIONS on no Usable Endpoints: | Enable ▼                    |
| SIP URI User Parameter Value:          |                             |
| Behavior on Machine Detection:         | Re-INVITE on Fax T38 Only ▼ |
| Registration Contact Matching:         | Strict ▼                    |
| Transmission Timeout:                  | 32                          |

| SDP Interop                                                  |                               |
|--------------------------------------------------------------|-------------------------------|
| <b>Offer Answer Model:</b>                                   |                               |
| Answer Codec Negotiation:                                    | All Common - Local Priority ▼ |
| Enforce Offer Answer Model:                                  | Enable ▼                      |
| Allow Less Media In Response:                                | Disable ▼                     |
| Allow Media Reactivation in Answer:                          | Disable ▼                     |
| <b>Multiple Active Media:</b>                                |                               |
| Allow Audio and Image Negotiation:                           | Disable ▼                     |
| Allow Multiple Active Media In Answer:                       | Enable ▼                      |
| <b>Other:</b>                                                |                               |
| On Hold SDP Stream Direction in Answer:                      | RecvOnly ▼                    |
| Codec Vs Bearer Capabilities Mapping Preferred Codec Choice: | First Codec ▼                 |

| TLS Interop             |             |
|-------------------------|-------------|
| Certificate Validation: | Host Name ▼ |

| Misc Interop                          |           |
|---------------------------------------|-----------|
| Map Plus To TON International:        | Enable ▼  |
| Ignore Plus In Username:              | Disable ▼ |
| Escape Pound (#) In SIP URI Username: | Enable ▼  |

## 6.6-10 Confirmation of [SIP] MISC

Minimum Expiration Delay (s): Enter 1800 (Default:180)

### Misc

| Penalty Box             |           |
|-------------------------|-----------|
| Penalty Box Activation: | Disable ▾ |
| Penalty Box Time (s):   | 300       |

| SIP To Cause Error Mapping |       |
|----------------------------|-------|
| SIP Code                   | Cause |
|                            |       |
|                            |       |

| Cause To SIP Error Mapping |          |
|----------------------------|----------|
| Cause                      | SIP Code |
|                            |          |
|                            |          |

| Reason Header          |        |
|------------------------|--------|
| Reason Header Support: | None ▾ |

| Keep Alive               |        |
|--------------------------|--------|
| Keep Alive Method:       | None ▾ |
| Keep Alive Interval (s): | 30     |

| PRACK                         |               |
|-------------------------------|---------------|
| UAS PRACK Support (RFC 3262): | Unsupported ▾ |
| UAC PRACK Support (RFC 3262): | Unsupported ▾ |

| Session Refresh                 |            |
|---------------------------------|------------|
| Session Refresh Timer Enable:   | Enable ▾   |
| Minimum Expiration Delay (s):   | 1800       |
| Maximum Expiration Delay (s):   | 3600       |
| Session Refresh Request Method: | ReInvite ▾ |

| Gateway Configuration |                     |
|-----------------------|---------------------|
| Gateway Name          | SIP Domain Override |
| default               |                     |

| Diversion    |        |
|--------------|--------|
| Gateway Name | Method |
| default      | None ▾ |

6-6-11 Click on [Submit]

|                        |         |
|------------------------|---------|
| <b>DNS</b>             |         |
| Supported DNS Queries: | NAPTR ▼ |

|                       |                     |               |                  |
|-----------------------|---------------------|---------------|------------------|
| <b>Event Handling</b> | <b>Gateway Name</b> | <b>Reboot</b> | <b>CheckSync</b> |
|                       | default             | Rejected ▼    | Rejected ▼       |

Submit

## 6-7 Media Configuration

6.7-1 Configure the [Media] Codecs

■ System
 ■ Network
 ■ ISDN
 ■ SIP
 ■ **Media**
■ Telephony
 ■ Call Router
 ■ Management
 ■ Reboot

■ **Codecs**
■ Security
 ■ RTP Stats
 ■ Misc

6.7-2 Configure the [Media]

To select the “Enable” the G.711 a-Law, u-Law and G.729 only

Click on [Submit]

### ❖ Codecs

Select Endpoint: Default ▼

| Codec                                                             | Voice                                                                  | Data                                                                   | Advanced                                                          |
|-------------------------------------------------------------------|------------------------------------------------------------------------|------------------------------------------------------------------------|-------------------------------------------------------------------|
| G.711 a-Law                                                       | <span style="border: 1px solid red; padding: 0 5px;">Enable ▼</span>   | <span style="border: 1px solid blue; padding: 0 5px;">Enable ▼</span>  | <span style="border: 1px solid red; padding: 0 5px;">Edit</span>  |
| G.711 u-Law                                                       | <span style="border: 1px solid red; padding: 0 5px;">Enable ▼</span>   | <span style="border: 1px solid blue; padding: 0 5px;">Enable ▼</span>  | <span style="border: 1px solid blue; padding: 0 5px;">Edit</span> |
| G.723                                                             | <span style="border: 1px solid blue; padding: 0 5px;">Disable ▼</span> |                                                                        | <span style="border: 1px solid blue; padding: 0 5px;">Edit</span> |
| G.726 16Kbps                                                      | <span style="border: 1px solid blue; padding: 0 5px;">Disable ▼</span> |                                                                        | <span style="border: 1px solid blue; padding: 0 5px;">Edit</span> |
| G.726 24Kbps                                                      | <span style="border: 1px solid blue; padding: 0 5px;">Disable ▼</span> |                                                                        | <span style="border: 1px solid blue; padding: 0 5px;">Edit</span> |
| G.726 32Kbps                                                      | <span style="border: 1px solid blue; padding: 0 5px;">Disable ▼</span> | <span style="border: 1px solid blue; padding: 0 5px;">Disable ▼</span> | <span style="border: 1px solid blue; padding: 0 5px;">Edit</span> |
| G.726 40Kbps                                                      | <span style="border: 1px solid blue; padding: 0 5px;">Disable ▼</span> | <span style="border: 1px solid blue; padding: 0 5px;">Disable ▼</span> | <span style="border: 1px solid blue; padding: 0 5px;">Edit</span> |
| <span style="border: 1px solid red; padding: 0 5px;">G.729</span> | <span style="border: 1px solid red; padding: 0 5px;">Enable ▼</span>   |                                                                        | <span style="border: 1px solid blue; padding: 0 5px;">Edit</span> |
| T.38                                                              |                                                                        | <span style="border: 1px solid blue; padding: 0 5px;">Enable ▼</span>  | <span style="border: 1px solid blue; padding: 0 5px;">Edit</span> |
| Clear Mode                                                        | <span style="border: 1px solid blue; padding: 0 5px;">Disable ▼</span> | <span style="border: 1px solid blue; padding: 0 5px;">Disable ▼</span> | <span style="border: 1px solid blue; padding: 0 5px;">Edit</span> |
| Clear Channel                                                     | <span style="border: 1px solid blue; padding: 0 5px;">Disable ▼</span> | <span style="border: 1px solid blue; padding: 0 5px;">Disable ▼</span> | <span style="border: 1px solid blue; padding: 0 5px;">Edit</span> |
| X CCD                                                             | <span style="border: 1px solid blue; padding: 0 5px;">Disable ▼</span> | <span style="border: 1px solid blue; padding: 0 5px;">Disable ▼</span> | <span style="border: 1px solid blue; padding: 0 5px;">Edit</span> |

| Codec vs. Bearer Capabilities Mapping |                                                                        |                                                                      |                                                                           |                                                                       |
|---------------------------------------|------------------------------------------------------------------------|----------------------------------------------------------------------|---------------------------------------------------------------------------|-----------------------------------------------------------------------|
| Index                                 | Enable                                                                 | Codec                                                                | Mapping Type                                                              | ITC                                                                   |
| 1                                     | <span style="border: 1px solid blue; padding: 0 5px;">Disable ▼</span> | <span style="border: 1px solid blue; padding: 0 5px;">G.729 ▼</span> | <span style="border: 1px solid blue; padding: 0 5px;">Prioritize ▼</span> | <span style="border: 1px solid blue; padding: 0 5px;">speech ▼</span> |
| 2                                     | <span style="border: 1px solid blue; padding: 0 5px;">Disable ▼</span> | <span style="border: 1px solid blue; padding: 0 5px;">G.729 ▼</span> | <span style="border: 1px solid blue; padding: 0 5px;">Prioritize ▼</span> | <span style="border: 1px solid blue; padding: 0 5px;">speech ▼</span> |
| 3                                     | <span style="border: 1px solid blue; padding: 0 5px;">Disable ▼</span> | <span style="border: 1px solid blue; padding: 0 5px;">G.729 ▼</span> | <span style="border: 1px solid blue; padding: 0 5px;">Prioritize ▼</span> | <span style="border: 1px solid blue; padding: 0 5px;">speech ▼</span> |

|                                               |                                                                             |
|-----------------------------------------------|-----------------------------------------------------------------------------|
| <b>Generic Voice Activity Detection (VAD)</b> |                                                                             |
| Enable (G.711 and G.726):                     | <span style="border: 1px solid blue; padding: 0 5px;">Conservative ▼</span> |

Submit

### 6.7-3 Configure the [Media] Voice Priority (G.711 a-Law)

Click on [Edit] --> Set the default priority for Voice (the maximum priority is 10)

Example, Set the Voice Priority and the Data Priority “3”

Click on [Submit]

#### ✚ Codecs

Select Endpoint:

Select Codec:

| G.711 a-Law                 |                                     |
|-----------------------------|-------------------------------------|
| Voice Transmission:         | <input type="text" value="Enable"/> |
| Voice Priority:             | <input type="text" value="3"/>      |
| Data Transmission:          | <input type="text" value="Enable"/> |
| Data Priority:              | <input type="text" value="3"/>      |
| Minimum Packetization Time: | <input type="text" value="30 ms"/>  |
| Maximum Packetization Time: | <input type="text" value="30 ms"/>  |

### 6.7-4 Configure the Voice Priority (G.711 u-Law)

Select Codec: [G711u-Law] --> Set the Voice Priority and the Data Priority “2”

--> Click on [Submit]

#### ✚ Codecs

Select Endpoint:

Select Codec:

| G.711 u-Law                 |                                     |
|-----------------------------|-------------------------------------|
| Voice Transmission:         | <input type="text" value="Enable"/> |
| Voice Priority:             | <input type="text" value="2"/>      |
| Data Transmission:          | <input type="text" value="Enable"/> |
| Data Priority:              | <input type="text" value="2"/>      |
| Minimum Packetization Time: | <input type="text" value="30 ms"/>  |
| Maximum Packetization Time: | <input type="text" value="30 ms"/>  |

### 6.7-5 Configure the Voice Priority (G.729)

Select Codec: [G-729] --> Set the Voice Priority and data Priority "1"

#### Codecs

Select Endpoint:

Select Codec:

| G.729                                    |                                     |
|------------------------------------------|-------------------------------------|
| Voice Transmission:                      | <input type="text" value="Enable"/> |
| Voice Priority:                          | <input type="text" value="1"/>      |
| Minimum Packetization Time:              | <input type="text" value="30 ms"/>  |
| Maximum Packetization Time:              | <input type="text" value="80 ms"/>  |
| Built-In Voice Activity Detection (VAD): | <input type="text" value="Enable"/> |

### 6.7-6 Some changes require to restart a service to apply new configuration

Click on [Service table]



☐ System
 ☐ Network
 ☐ R2
 ☐ SIP
 ☐ Media
 ☐ Telephony

Some changes require to restart a service to apply new configuration.  
Please click this link to access the [services table](#).

### 6.7-7 Click on [Restart Required Services]

| User Service                                | Status         | Startup Type                        | Action                                                                                             | Comment               |
|---------------------------------------------|----------------|-------------------------------------|----------------------------------------------------------------------------------------------------|-----------------------|
| Basic Network Interface (BNI):              | Started        | <input type="text" value="Auto"/>   | <input type="button" value="▶"/> <input type="button" value="□"/> <input type="button" value="▶"/> |                       |
| Call Routing (CROUT):                       | Started        | <input type="text" value="Auto"/>   | <input type="button" value="▶"/> <input type="button" value="□"/> <input type="button" value="▶"/> |                       |
| Call Detail Record (CDR):                   | Stopped        | <input type="text" value="Manual"/> | <input type="button" value="▶"/> <input type="button" value="□"/> <input type="button" value="▶"/> |                       |
| Command Line Interface (CLI):               | Started        | <input type="text" value="Auto"/>   | <input type="button" value="▶"/> <input type="button" value="□"/> <input type="button" value="▶"/> |                       |
| DHCP Server (DHCP):                         | Stopped        | <input type="text" value="Manual"/> | <input type="button" value="▶"/> <input type="button" value="□"/> <input type="button" value="▶"/> |                       |
| Endpoint Administration (EPADM):            | Started        | <input type="text" value="Auto"/>   | <input type="button" value="▶"/> <input type="button" value="□"/> <input type="button" value="▶"/> |                       |
| Endpoint Services (EPSERV):                 | Started        | <input type="text" value="Auto"/>   | <input type="button" value="▶"/> <input type="button" value="□"/> <input type="button" value="▶"/> |                       |
| IP Routing (IPROUTING):                     | Started        | <input type="text" value="Auto"/>   | <input type="button" value="▶"/> <input type="button" value="□"/> <input type="button" value="▶"/> |                       |
| Integrated Services Digital Network (ISDN): | Started        | <input type="text" value="Auto"/>   | <input type="button" value="▶"/> <input type="button" value="□"/> <input type="button" value="▶"/> |                       |
| Local Firewall (LFW):                       | Started        | <input type="text" value="Auto"/>   | <input type="button" value="▶"/> <input type="button" value="□"/> <input type="button" value="▶"/> |                       |
| Link Layer Discovery Protocol (LLDP):       | Stopped        | <input type="text" value="Manual"/> | <input type="button" value="▶"/> <input type="button" value="□"/> <input type="button" value="▶"/> |                       |
| <b>Media IP Transport (MIPT):</b>           | <b>Started</b> | <input type="text" value="Auto"/>   | <input type="button" value="▶"/> <input type="button" value="□"/> <input type="button" value="▶"/> | <b>Restart needed</b> |
| Music On Hold (MOH):                        | Started        | <input type="text" value="Auto"/>   | <input type="button" value="▶"/> <input type="button" value="□"/> <input type="button" value="▶"/> |                       |
| Network Address Translation (NAT):          | Stopped        | <input type="text" value="Manual"/> | <input type="button" value="▶"/> <input type="button" value="□"/> <input type="button" value="▶"/> |                       |
| Network Firewall (NFW):                     | Stopped        | <input type="text" value="Manual"/> | <input type="button" value="▶"/> <input type="button" value="□"/> <input type="button" value="▶"/> |                       |
| Notifications and Logging Manager (NLM):    | Started        | <input type="text" value="Auto"/>   | <input type="button" value="▶"/> <input type="button" value="□"/> <input type="button" value="▶"/> |                       |
| SIP Endpoint (SIPEP):                       | Started        | <input type="text" value="Auto"/>   | <input type="button" value="▶"/> <input type="button" value="□"/> <input type="button" value="▶"/> |                       |
| Simple Network Management Protocol (SNMP):  | Started        | <input type="text" value="Auto"/>   | <input type="button" value="▶"/> <input type="button" value="□"/> <input type="button" value="▶"/> |                       |
| Telephony Interface (TELIF):                | Started        | <input type="text" value="Auto"/>   | <input type="button" value="▶"/> <input type="button" value="□"/> <input type="button" value="▶"/> |                       |
| Web (WEB):                                  | Started        | <input type="text" value="Auto"/>   | <input type="button" value="▶"/> <input type="button" value="□"/> <input type="button" value="▶"/> |                       |

## 6.8 Call Routing Configuration

The purpose of this section is to configure the Mediatrix3000DG's call router so it can route calls "To / From" the VoIP network and the E1 / R2 as described in the Network Diagram section.

### 6.8-1 Configure the [Call Router] Route Config



### 6.8-2 Confirmation of [Call Router] Status

The image shows the Mediatrix web interface with the 'Call Router' tab selected. The 'Status' sub-tab is active. The page displays the following information:

Config Modified: no

| Route | Type | Sources | Properties Criteria | Expression Criteria | Mappings | Signaling Properties | Destination |
|-------|------|---------|---------------------|---------------------|----------|----------------------|-------------|
|-------|------|---------|---------------------|---------------------|----------|----------------------|-------------|

| Signaling Properties |               |                  |                  |                    |                       |         |                          |                              |
|----------------------|---------------|------------------|------------------|--------------------|-----------------------|---------|--------------------------|------------------------------|
| Name                 | Early Connect | Early Disconnect | Destination Host | Allow 180 with SDP | Allow 183 without SDP | Privacy | SIP Headers Translations | Call Properties Translations |

| SIP Headers Translations |      |            |            |           |
|--------------------------|------|------------|------------|-----------|
| Index                    | Name | SIP Header | Built From | Fix Value |

| Call Properties Translations |      |               |            |           |
|------------------------------|------|---------------|------------|-----------|
| Index                        | Name | Call Property | Built From | Fix Value |

| Hunt |              |                     |                   |        |
|------|--------------|---------------------|-------------------|--------|
| Name | Destinations | Selection Algorithm | Timeout (seconds) | Causes |

| Available Interface (ISDN/R2/POTS endpoints and SIP Gateways) |  |
|---------------------------------------------------------------|--|
| Name                                                          |  |
| sip-default                                                   |  |
| r2-slot2/E1T1                                                 |  |

### 6.8-3 Click on Route Config

First of all, create the "From E1 route". The "From E1" means call from E1 to PBXs SIP trunk

The Caller --> E1 --> Mediatatrix(E1) --> PBX(SIP) --> Callee

**Mediatatrix®**

System Network R2 SIP Media Telephony Call Router Management Reboot

Status **Route Config** Auto-routing

✚ Route Config

Config Modified: no

| Route |         |            |          |            |          |          |                      |             |         |
|-------|---------|------------|----------|------------|----------|----------|----------------------|-------------|---------|
| Index | Sources | Properties | Criteria | Expression | Criteria | Mappings | Signaling Properties | Destination | Actions |
| +     |         |            |          |            |          |          |                      |             |         |

| Mapping Type |      |          |                |         |
|--------------|------|----------|----------------|---------|
| Index        | Name | Criteria | Transformation | Actions |
| +            |      |          |                |         |

| Mapping Expression |      |          |                |              |         |  |
|--------------------|------|----------|----------------|--------------|---------|--|
| Index              | Name | Criteria | Transformation | Sub Mappings | Actions |  |
| +                  |      |          |                |              |         |  |

| Signaling Properties |      |               |                  |                  |                    |                       |         |                          |                              |         |
|----------------------|------|---------------|------------------|------------------|--------------------|-----------------------|---------|--------------------------|------------------------------|---------|
| Index                | Name | Early Connect | Early Disconnect | Destination Host | Allow 180 with SDP | Allow 183 without SDP | Privacy | SIP Headers Translations | Call Properties Translations | Actions |
| +                    |      |               |                  |                  |                    |                       |         |                          |                              |         |

| SIP Headers Translations |      |            |            |           |         |
|--------------------------|------|------------|------------|-----------|---------|
| Index                    | Name | SIP Header | Built From | Fix Value | Actions |
| +                        |      |            |            |           |         |

| Call Properties Translations |      |               |            |           |         |
|------------------------------|------|---------------|------------|-----------|---------|
| Index                        | Name | Call Property | Built From | Fix Value | Actions |
| +                            |      |               |            |           |         |

| Hunt  |      |              |                     |                   |        |         |
|-------|------|--------------|---------------------|-------------------|--------|---------|
| Index | Name | Destinations | Selection Algorithm | Timeout (seconds) | Causes | Actions |
| +     |      |              |                     |                   |        |         |

Apply Rollback

#### 6.8-4 Configure the [Call Router] Hunt

Click on [ + ]

| Hunt Index | Name | Destinations | Selection Algorithm | Timeout (seconds) | Causes | Actions                                                                             |
|------------|------|--------------|---------------------|-------------------|--------|-------------------------------------------------------------------------------------|
|            |      |              |                     |                   |        |  |

6.8-5 Configure Hunt End example (This is only required when using gateway with more than 1 TDM Interface) In this case you can use a HUNT as destination instead of the Interface.)

Name: Enter the Hunt\_PSTN

Destinations: Select the [sip-default]

Selection Algorithm: Sequential (Default)

Timeout: 0 (Default)

Causes: 31,34,38, 41,42,43,44,47 (Default)

Click on [Submit]

#### ➤ Hunt

Configure Hunt 1

|                     | Value                                     | Suggestion                                                                                                                                                                                    |
|---------------------|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name                | <input type="text" value="Hunt_PSTN"/>    |                                                                                                                                                                                               |
| Destinations        | <div><div>sip-default</div></div>         | <div><div>--- Suggestion ---</div><div>--- Suggestion ---</div><div>sip-default</div><div>r2-Slot2/E1T1</div><div>hunt-Hunt_PSTN</div><div>route-</div><div>hunt-</div><div>Clear</div></div> |
| Selection Algorithm | <div>Sequential</div>                     |                                                                                                                                                                                               |
| Timeout (seconds)   | <input type="text" value="0"/>            |                                                                                                                                                                                               |
| Causes              | <div>31, 34, 38, 41, 42, 43, 44, 47</div> | <div>--- Suggestion ---</div>                                                                                                                                                                 |

Config

Status

Submit

Cancel

Click on [Apply] if required every time

## 6.8-6 Configure the [Call Router] Mapping Type

Click on [ + ]

| Mapping Type |      |          |                |         |  |
|--------------|------|----------|----------------|---------|--|
| Index        | Name | Criteria | Transformation | Actions |  |
|              |      |          |                |         |  |

## 6.8-7 Configure the Mapping Type example

Name: Enter the From\_E1

Criteria: Select the [Called E164]

Transformation: Select the [Called E164]

Click on [Submit And Insert Expression]

### Mapping Type

| Configure Mapping Type 1 |                                          |
|--------------------------|------------------------------------------|
|                          | Value                                    |
| Name                     | <input type="text" value="From_E1"/>     |
| Criteria                 | <input type="text" value="Called E164"/> |
| Transformation           | <input type="text" value="Called E164"/> |
| Config Status            |                                          |

## 6.8-8 Configure the Mapping Expression example

Name: Select the [From\_E1]

Criteria: Select the <undefined>

Transformation: Select the "/0"

Click on [Submit]

### Mapping Expression

| Configure Mapping Expression 1 |                                                |                                                 |
|--------------------------------|------------------------------------------------|-------------------------------------------------|
|                                | Value                                          | Suggestion                                      |
| Type                           | Called E164 to Called E164                     |                                                 |
| Name                           | <input type="text" value="From_E1"/>           | <input type="text" value="--- Suggestion ---"/> |
| Criteria                       | <input type="text" value="&lt;undefined&gt;"/> | <input type="text" value="--- Suggestion ---"/> |
| Transformation                 | <input type="text" value="/0"/>                | <input type="text" value="--- Suggestion ---"/> |
| Sub Mappings                   | <div></div>                                    | <input type="text" value="--- Suggestion ---"/> |
| Config Status                  |                                                |                                                 |

## 6.8-9 Configure the [Call Router] Route

Click on [ + ]

| Route |         |                     |                     |          |                      |             |         |                                                                                     |
|-------|---------|---------------------|---------------------|----------|----------------------|-------------|---------|-------------------------------------------------------------------------------------|
| Index | Sources | Properties Criteria | Expression Criteria | Mappings | Signaling Properties | Destination | Actions |                                                                                     |
|       |         |                     |                     |          |                      |             |         |  |

## 6.8-10 Configure the Route

Sources: Select the [r2-Slot2/E1T1]

Mappings: Select the [From\_E1]

Destination: Select the [sip-default]

Click on [Submit]

➤ Route

| Configure Route 1    |                                            | Suggestion                                      |  |
|----------------------|--------------------------------------------|-------------------------------------------------|--|
| Sources              | <input type="text" value="r2-Slot2/E1T1"/> | <input type="text" value="--- Suggestion ---"/> |  |
| Properties Criteria  | <input type="text" value="None"/>          | <input type="text" value="--- Suggestion ---"/> |  |
| Expression Criteria  | <input type="text"/>                       | <input type="text" value="--- Suggestion ---"/> |  |
| Mappings             | <input type="text" value="From_E1"/>       | <input type="text" value="--- Suggestion ---"/> |  |
| Signaling Properties | <input type="text"/>                       | <input type="text" value="--- Suggestion ---"/> |  |
| Destination          | <input type="text" value="sip-default"/>   | <input type="text" value="--- Suggestion ---"/> |  |
| Config Status        |                                            |                                                 |  |

### 6.8-11 Configure the Route rule

Next, create the "From NS1000 route".

The "From NS1000 " means call from PBXs SIP trunk to E1

The Caller --> PBX(SIP) --> Mediatrix(E1) --> E1 --> The Callee

### 6.8-12 Configure the Mapping Type

Click on [ + ]

| Mapping Type |         |             |                |         |   |   |
|--------------|---------|-------------|----------------|---------|---|---|
| Index        | Name    | Criteria    | Transformation | Actions |   |   |
| 1            | From_E1 | Called E164 | Called E164    | Edit    | + | - |
|              |         |             |                |         | + |   |

### 6.8-13 Configure the Mapping

Name: Enter the From\_NS1000

Criteria: Select the [Called E164]

Transformation: Select the [Calling E164]

Click on [Submit And Insert Expression]

#### ➤ Mapping Type

| Configure Mapping Type 2 |  | Value        |   |  |
|--------------------------|--|--------------|---|--|
| Name                     |  | From NS1000  |   |  |
| Criteria                 |  | Called E164  | ▼ |  |
| Transformation           |  | Calling E164 | ▼ |  |
| Config Status            |  |              |   |  |

Submit Submit And Insert Expression Cancel

### 6.8-14 configure the Mapping Expression

Name: Select the [From\_NS1000]

Criteria: Select the [undefined]

Transformation: Select the [/0]

Click on [Submit]

#### ➤ Mapping Expression

| Configure Mapping Expression 2 |  | Value                       | Suggestion           |  |
|--------------------------------|--|-----------------------------|----------------------|--|
| Type                           |  | Called E164 to Calling E164 |                      |  |
| Name                           |  | From NS1000                 | --- Suggestion --- ▼ |  |
| Criteria                       |  | <undefined>                 | --- Suggestion --- ▼ |  |
| Transformation                 |  | /0                          | --- Suggestion --- ▼ |  |
| Sub Mappings                   |  |                             | --- Suggestion --- ▼ |  |
| Config Status                  |  |                             |                      |  |

Submit Submit And Insert Expression Cancel

## 6.8-15 Configure the [Call Router] Route

Click on [ + ]

| Route | Index | Sources | Properties Criteria | Expression Criteria | Mappings | Signaling Properties | Destination | Actions                                                                             |
|-------|-------|---------|---------------------|---------------------|----------|----------------------|-------------|-------------------------------------------------------------------------------------|
|       |       |         |                     |                     |          |                      |             |  |

## 6.8-16 Configure the [Route]

Sources: Select the [sip-default]

Mappings: Select the [From\_NS1000]

Signaling Properties:

Destination: Select the [r2-Slot2/E1T1]

Click on [Submit ]

### ✚ Route

| Configure Route End  |                                            | Suggestion                                      |
|----------------------|--------------------------------------------|-------------------------------------------------|
| Sources              | <input type="text" value="sip-default"/>   | <input type="text" value="--- Suggestion ---"/> |
| Properties Criteria  | <input type="text" value="None"/>          | <input type="text" value="--- Suggestion ---"/> |
| Expression Criteria  | <input type="text"/>                       | <input type="text" value="--- Suggestion ---"/> |
| Mappings             | <input type="text" value="From NS1000"/>   | <input type="text" value="--- Suggestion ---"/> |
| Signaling Properties | <input type="text"/>                       | <input type="text" value="--- Suggestion ---"/> |
| Destination          | <input type="text" value="r2-Slot2/E1T1"/> | <input type="text" value="--- Suggestion ---"/> |
| Config Status        |                                            |                                                 |

## 6.8-17 Click on [Apply] if required every time

|                  |            |
|------------------|------------|
| Config Modified: | <b>yes</b> |
|------------------|------------|

## 6.8-18 Configure the [Call Router] Route Config

Click on [Status]



☐ System
 ☐ Network
 ☐ ISDN
 ☐ SIP
 ☐ Media
 ☐ Telephony
 ☒ **Call Router**
☐ Management
 ☐ Reboot

6.8-19 The call routing parameters can be seen in the Call Routing Status window.

❖ Status

|                                                               |               |                     |                  |                             |                       |             |                                |                              |  |
|---------------------------------------------------------------|---------------|---------------------|------------------|-----------------------------|-----------------------|-------------|--------------------------------|------------------------------|--|
| Config Modified: no                                           |               |                     |                  |                             |                       |             |                                |                              |  |
| Route                                                         |               |                     |                  |                             |                       |             |                                |                              |  |
| Type                                                          | Sources       | Properties Criteria |                  | Expression Criteria         |                       | Mappings    | Signaling Properties           | Destination                  |  |
| User                                                          | sip-default   | None                |                  |                             |                       | From NS1000 |                                | r2-Slot2/E1T1                |  |
| User                                                          | r2-Slot2/E1T1 | None                |                  |                             |                       | From_E1     | To NS1000                      | sip-default                  |  |
| Mapping From_E1                                               |               |                     |                  |                             |                       |             |                                |                              |  |
| Criteria Called E164                                          |               |                     |                  | Transformation Called E164  |                       |             | Sub Mappings                   |                              |  |
| <undefined>                                                   |               |                     |                  | \0                          |                       |             |                                |                              |  |
| Mapping From NS1000                                           |               |                     |                  |                             |                       |             |                                |                              |  |
| Criteria Called E164                                          |               |                     |                  | Transformation Calling E164 |                       |             | Sub Mappings                   |                              |  |
| <undefined>                                                   |               |                     |                  | \0                          |                       |             |                                |                              |  |
| Signaling Properties                                          |               |                     |                  |                             |                       |             |                                |                              |  |
| Name                                                          | Early Connect | Early Disconnect    | Destination Host | Allow 180 with SDP          | Allow 183 without SDP | Privacy     | SIP Headers Translations       | Call Properties Translations |  |
| To NS1000                                                     | Disable       | Disable             |                  | Enable                      | Enable                | Disable     | SIP                            |                              |  |
| SIP Headers Translations                                      |               |                     |                  |                             |                       |             |                                |                              |  |
| Index                                                         | Name          | SIP Header          |                  |                             | Built From            |             | Fix Value                      |                              |  |
| Call Properties Translations                                  |               |                     |                  |                             |                       |             |                                |                              |  |
| Index                                                         | Name          | Call Property       |                  |                             | Built From            |             | Fix Value                      |                              |  |
| Hunt                                                          |               |                     |                  |                             |                       |             |                                |                              |  |
| Name                                                          | Destinations  | Selection Algorithm |                  |                             | Timeout (seconds)     |             | Causes                         |                              |  |
| Hunt_PSTN                                                     | r2-Slot2/E1T1 | Sequential          |                  |                             | 0                     |             | 31, 34, 38, 41, 42, 43, 44, 47 |                              |  |
| Available Interface (ISDN/R2/POTS endpoints and SIP Gateways) |               |                     |                  |                             |                       |             |                                |                              |  |
| Name                                                          |               |                     |                  |                             |                       |             |                                |                              |  |
| sip-default                                                   |               |                     |                  |                             |                       |             |                                |                              |  |
| r2-Slot2/E1T1                                                 |               |                     |                  |                             |                       |             |                                |                              |  |

Apply

## **6-9 Basic Call Establishment**

Once this configuration procedure is completed, you are ready to start making basic calls through your new Mediatrix 3000 DG, providing that the rest of your network's setup is configured properly.

### **(A) receive calls from the E1 and route them to the LAN (e.g., From Phone 2 calls To Phone 1):**

1. a user picks up Phone2(Ext103) and dials the number of a line connected to the Mediatrix 3000 DG. (e.g., 3001)
2. the E1 routes the call to the Mediatrix 3000 DG.
3. the Mediatrix 3000 DG routes the call to the appropriate PBX.
4. the PBX makes the appropriate Phone1(Ext301) ring.
5. a user picks up the Ext301 and the call is established.

### **(B) receive calls from the PBX and route them to the E1 on one of the E1 lines connected to the Mediatrix 3000 DG (e.g. From Phone 1 calls To Phone 2):**

1. a user picks up Phone1(Ext301) and dials a number (e.g., 2222 )
2. the PBX routes the call to the Mediatrix 3000 DG.
3. the Mediatrix 3000 DG decides to which E1 interface route this call.
4. the E1 makes the appropriate Phone2 (Ext103) ring.
5. a user picks up the Phone2(Ext103) and the call is established.

## **7. Further Information and Configuration**

All documents are available online on the Mediatrix Download Portal at

<https://support.mediatrix.com/DownloadPlus/Download.asp>.

Or on the web site at the following link

<http://www.media5corp.com/en/voip-gateways/mediatrix-3000-series>

Under the documentation tab.

1- For more information on the Partial Reset feature, and on what to do after performing a Partial Reset to recover a unit with which you have lost contact, refer to the Partial Reset section of the Mediatrix 3000 Series Digital Gateway Software Configuration Guide.

[http://www.media5corp.com/repository/common%20manuals/MTX\\_Dgw\\_v2-0\\_SCG.pdf](http://www.media5corp.com/repository/common%20manuals/MTX_Dgw_v2-0_SCG.pdf)

2- For more information on configuring level 2 network links, level 3 network interfaces and IP addresses, refer to the Interfaces Configuration section of the Mediatrix 3000 Series Digital Gateway Software Configuration Guide.

[http://www.media5corp.com/repository/common%20manuals/MTX\\_Dgw\\_v2-0\\_SCG.pdf](http://www.media5corp.com/repository/common%20manuals/MTX_Dgw_v2-0_SCG.pdf)

3- For more information on configuring the Mediatrix 3000 DG's ISDN BRI interfaces in TE or NT mode and additional parameters such as ISDN power feeding, refer to the ISDN Configuration section of the Mediatrix 3000 Series Digital Gateway Software Configuration Guide.

[http://www.media5corp.com/repository/common%20manuals/MTX\\_Dgw\\_v2-0\\_SCG.pdf](http://www.media5corp.com/repository/common%20manuals/MTX_Dgw_v2-0_SCG.pdf)

4- For more information on configuring the Mediatrix 3000 DG to work with SIP servers that require SIP authentication, refer to the SIP Authentication section of the Mediatrix 3000 Series Digital Gateway Software Configuration Guide.

[http://www.media5corp.com/repository/common%20manuals/MTX\\_Dgw\\_v2-0\\_SCG.pdf](http://www.media5corp.com/repository/common%20manuals/MTX_Dgw_v2-0_SCG.pdf)

5- For information on how to configure the Mediatrix 3000 DG so it processes dialed DTMFs according to specific dialing plans, refer to the DTMF Maps Configuration section of the Mediatrix 3000 Series Digital Gateway Software Configuration Guide.

[http://www.media5corp.com/repository/common%20manuals/MTX\\_Dgw\\_v2-0\\_SCG.pdf](http://www.media5corp.com/repository/common%20manuals/MTX_Dgw_v2-0_SCG.pdf)

6- For more information on call routing including routes, criteria, mappings, signaling properties, hunts, and regular expressions, refer to the Call Router Configuration section of the Mediatrix 3000 Series Digital Gateway Software Configuration Guide.

[http://www.media5corp.com/repository/common%20manuals/MTX\\_Dgw\\_v2-0\\_SCG.pdf](http://www.media5corp.com/repository/common%20manuals/MTX_Dgw_v2-0_SCG.pdf)

## 8. Management

### 8.1 Configuration Backup

#### 8.1-1 Backup example

(This can be use to do a backup on the same model or same unit. To copy the configuration to a different type of hardware the Script need to be used)

|                       |                  |                  |              |         |                |               |              |          |
|-----------------------|------------------|------------------|--------------|---------|----------------|---------------|--------------|----------|
| ■ System              | ■ Network        | ■ R2             | ■ SIP        | ■ Media | ■ Telephony    | ■ Call Router | ■ Management | ■ Reboot |
| Configuration Scripts | Backup / Restore | Firmware Upgrade | Certificates | SNMP    | Access Control | Misc          |              |          |

### ❖ Backup / Restore

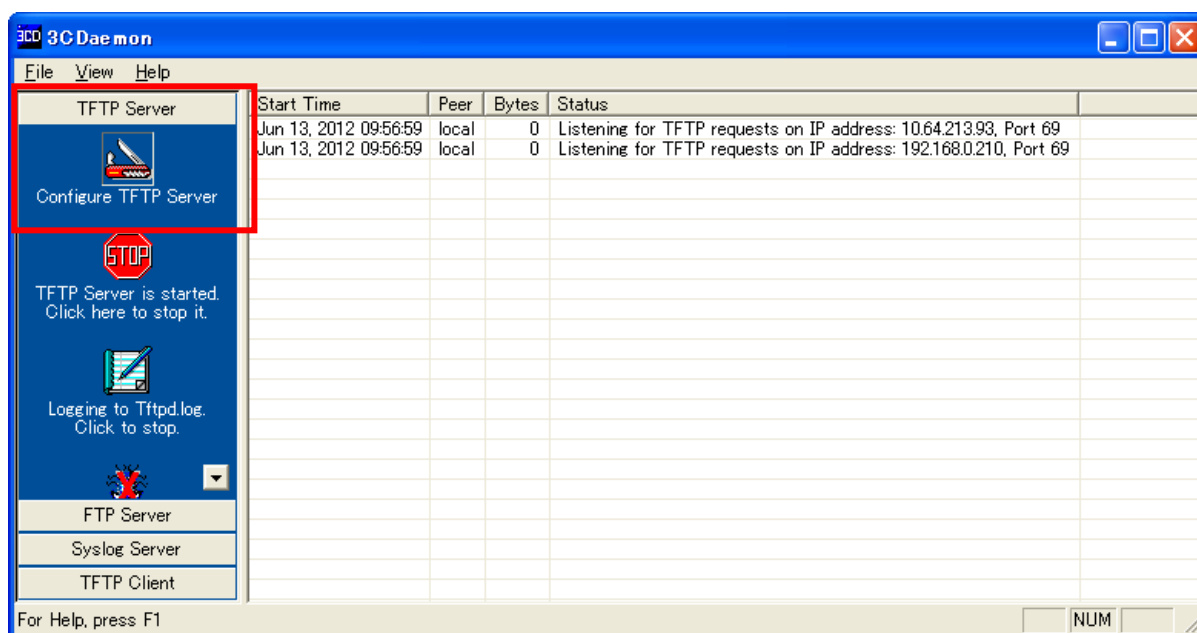
| Status               |         |
|----------------------|---------|
| Last Backup Result:  | Success |
| Last Restore Result: | Success |

| Image Configuration |                                                  |
|---------------------|--------------------------------------------------|
| File Name:          | <input type="text" value="Config_3361_0531_jp"/> |
| Location:           | <input type="text"/>                             |
| Backup Content:     | <input type="text" value="Config"/> ▼            |
| Transfer Protocol:  | <input type="text" value="TFTP"/> ▼              |
| User Name:          | <input type="text" value="anonymous"/>           |
| Password:           | <input type="password"/>                         |
| Host Name:          | <input type="text" value="192.168.0.168"/>       |
| Privacy Algorithm:  | <input type="text" value="Default"/> ▼           |
| Privacy Key:        | <input type="text" value="1234"/>                |

- File Name: Config\_3361\_0531\_jp
- Backup Content: Select the Config
- Transfer Protocol: TFTP:
- Host Name: 192.168.0.168 (in this case, It's Maintenance PC)
- Privacy Algorithm: Select the [Default]
- Privacy Key: 1234 (Please write it down)

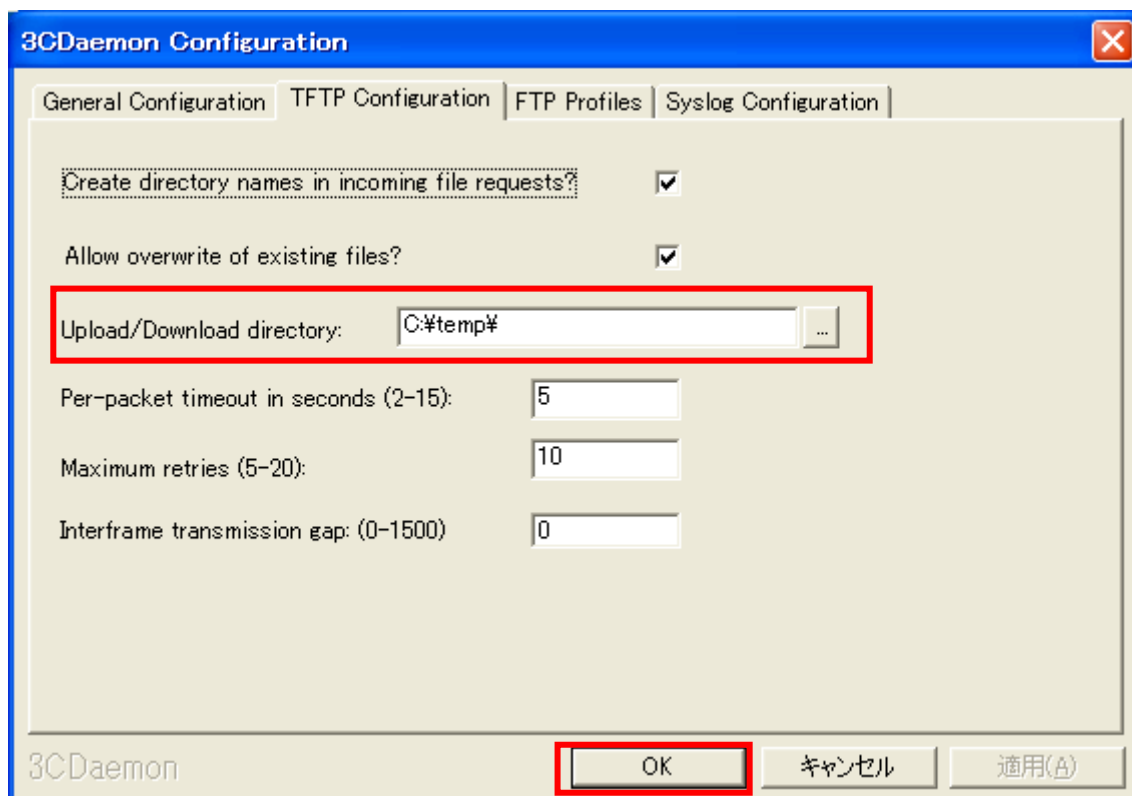
8.1-2 Start up the TFTP Server example, in this case 3CDeamon on Maintenance PC.

--> Then Click on [Configure TFTP Server]



8.1-3 You can set an Upload/Download directory.

--> Then Click on [OK]



#### 8.1-4 Click on [Submit & Backup Now]

##### Backup / Restore

| Status               |         |
|----------------------|---------|
| Last Backup Result:  | Success |
| Last Restore Result: | Success |

| Image Configuration |                     |
|---------------------|---------------------|
| File Name:          | Config_3361_0531_jp |
| Location:           |                     |
| Backup Content:     | Config              |
| Transfer Protocol:  | TFTP                |
| User Name:          | anonymous           |
| Password:           |                     |
| Host Name:          | 192.168.0.168       |
| Privacy Algorithm:  | Default             |
| Privacy Key:        | 1234                |

|        |                     |                      |
|--------|---------------------|----------------------|
| Submit | Submit & Backup Now | Submit & Restore Now |
|--------|---------------------|----------------------|

#### 8.1-5 You can see the status of TFTP.

| 3CDaemon                                                                                                                    |                       |              |       |                                                                  |
|-----------------------------------------------------------------------------------------------------------------------------|-----------------------|--------------|-------|------------------------------------------------------------------|
| File View Help                                                                                                              |                       |              |       |                                                                  |
| TFTP Server<br><br>Configure TFTP Server | Start Time            | Peer         | Bytes | Status                                                           |
|                                                                                                                             | Jun 12, 2012 15:16:16 | 192.168.0.10 | 58673 | Rcv of /Config_0612New.jp done. 58673 bytes in 0 secs(57 KB/sec) |
|                                                                                                                             |                       |              |       |                                                                  |
|                                                                                                                             |                       |              |       |                                                                  |
|                                                                                                                             |                       |              |       |                                                                  |

#### 8.1-6 You can find a Configuration file.

| アドレス (D:) C:\Temp                                |       |                        |                  |  |
|--------------------------------------------------|-------|------------------------|------------------|--|
| ファイルとフォルダのタスク                                    |       |                        |                  |  |
| 新しいフォルダを作成する<br>このフォルダを Web に公開する<br>このフォルダを共有する |       |                        |                  |  |
| その他                                              |       |                        |                  |  |
| ローカル ディスク (C:)                                   |       |                        |                  |  |
| 名前                                               | サイズ   | 種類                     | 更新日時             |  |
| 0090f807b750(Backup0531-2...                     | 59 KB | Microsoft Office Ou... | 2012/06/12 11:40 |  |
| 0090f807b750(Backup0531).c...                    | 59 KB | Microsoft Office Ou... | 2012/05/31 11:37 |  |
| 0090f807b750.cfg                                 | 58 KB | Microsoft Office Ou... | 2012/06/12 11:45 |  |
| 0090F8077D7F.cfg                                 | 64 KB | Microsoft Office Ou... | 2012/06/12 14:16 |  |
| Backup0531.jp                                    | 62 KB | ファイル                   | 2012/05/31 16:43 |  |
| Config_0612New.jp                                | 57 KB | ファイル                   | 2012/06/12 10:55 |  |
| Config_3361_0522.jp                              | 62 KB | ファイル                   | 2012/05/22 11:19 |  |
| Config_3361_0524.jp                              | 60 KB | ファイル                   | 2012/05/31 11:50 |  |
| Config_3361_0531.jp                              | 60 KB | ファイル                   | 2012/05/31 11:50 |  |
| Config_Test.jp                                   | 57 KB | ファイル                   | 2012/06/12 10:54 |  |

## 8-2 Configuration Restore

### 8.2-1 Restore example.

(This can be use to do a backup on the same model or same unit. To copy the configuration to a different type of hardware the Script need to be used)

#### Backup / Restore

| Status               |         |
|----------------------|---------|
| Last Backup Result:  | Success |
| Last Restore Result: | Success |

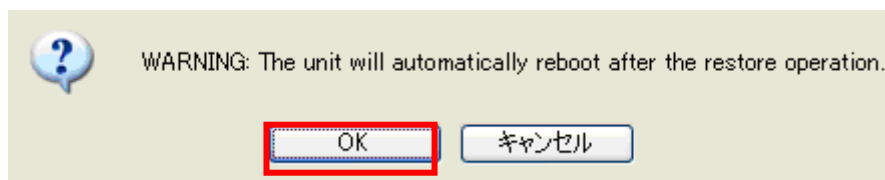
| Image Configuration |                     |
|---------------------|---------------------|
| File Name:          | Config_3361_0531_jp |
| Location:           |                     |
| Backup Content:     | Config              |
| Transfer Protocol:  | TFTP                |
| User Name:          | anonymous           |
| Password:           |                     |
| Host Name:          | 192.168.0.168       |
| Privacy Algorithm:  | Default             |
| Privacy Key:        | 1234                |

Please enter the following as example

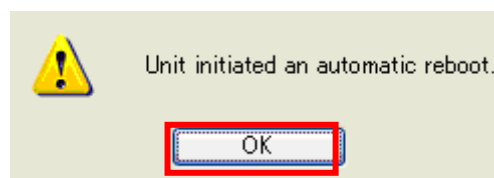
- File Name: Config\_3361\_0531\_jp
- Backup Content: Select the config
- Transfer Protocol: TFTP:
- Host Name: 192.168.0.168 (in this case, It's Maintenance PC)
- Privacy Algorithm: Select the [Default]
- Privacy Key: 1234 (Please write it down)

Click on [Submit & Restore Now]

### 8.2-2 Pop-up the window in the following.

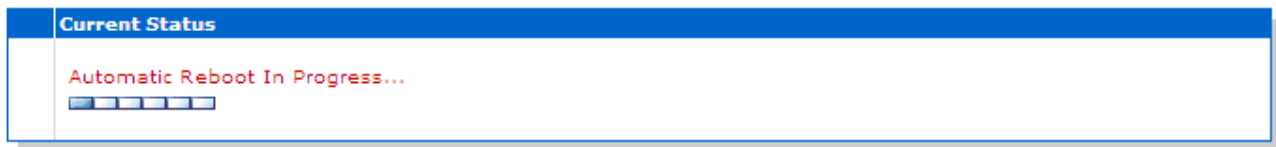


### 8.2-3 Unit initialed an automatic reboot. --> Then Click on [OK].

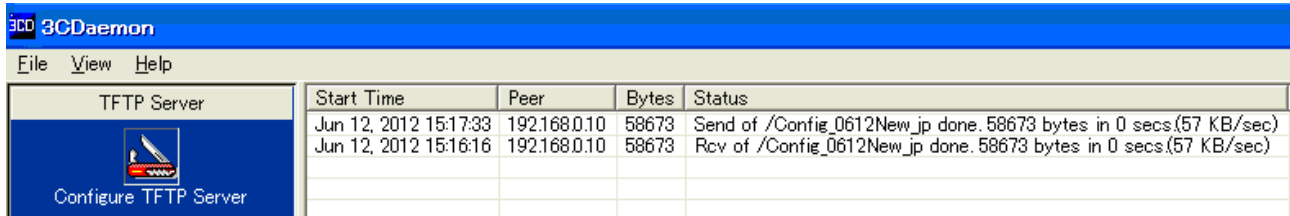


#### 8.2-4 You can see Reboot Current Status

##### ❖ Reboot



And TFTP Status on TFTP software.



#### 8.2-5 Please login again.



##### ❖ Please enter your username and password

User Name:

Password:

### 8.3 Configuration Scripts Export

The configuration Scripts is able to transfer to another unit.

Note: It is necessary to use TFTP server as same as Configuration Backup/Restore.

#### 8.3-1 Export Script example.

Click on [Management] – [Configuration Scripts]



#### 8.3-2

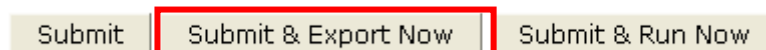
##### ✚ Configuration Scripts

| Scripts Status   |                     |                                                 |
|------------------|---------------------|-------------------------------------------------|
| Description      | Export              | Run                                             |
| Current State:   | Idle                | Idle                                            |
| Last Result:     | Success             | Transfer succeeded but failed to run completely |
| Last Successful: | 2012-06-12 14:54:56 |                                                 |

| Export Script |                                   |
|---------------|-----------------------------------|
| Content:      | All Config (download)             |
| Send To URL:  | tftp://192.168.0.168:69/%mac%.cfg |
| Privacy Key:  | 1234                              |

#### 8.3-3 Click on [Submit & Export Now]



#### 8.3-4 You can confirm Export result. Click on [Refresh]

Operation in progress... Refresh to update the scripts status.

| Scripts Status   |                                                                              |                                                 |
|------------------|------------------------------------------------------------------------------|-------------------------------------------------|
| Description      | Export                                                                       | Run                                             |
| Current State:   | Exporting <div><div></div><div></div><div></div><div></div><div></div></div> | Idle                                            |
| Last Result:     | Success                                                                      | Transfer succeeded but failed to run completely |
| Last Successful: | 2012-06-13 10:49:22                                                          |                                                 |

## 8.4 Configuration Scripts Run

### 8.4-1 Run Script example

| Run Scripts               |                                               |
|---------------------------|-----------------------------------------------|
| Generic File Name:        | <input type="text" value="0090f807b750.cfg"/> |
| Specific File Name:       | <input type="text"/>                          |
| Location:                 | <input type="text"/>                          |
| Transfer Protocol:        | <input type="text" value="TFTP"/>             |
| User Name:                | <input type="text"/>                          |
| Password:                 | <input type="text"/>                          |
| Host Name:                | <input type="text" value="192.168.0.168:69"/> |
| Privacy Key:              | <input type="text" value="1234"/>             |
| Allow Repeated Execution: | <input type="text" value="Enable"/>           |

Please enter the following as example

- Generic File Name: 0090f8\*\*\*\*\*.cfg
- Transfer Protocol: Select the TFTP
- Host Name: 192.168.0.168:69 (It's Maintenance PC)
- Privacy Key: 1234

### 8.4-2 Click on [Submit & Run Now]

|                                       |                                                        |                                                     |
|---------------------------------------|--------------------------------------------------------|-----------------------------------------------------|
| <input type="button" value="Submit"/> | <input type="button" value="Submit &amp; Export Now"/> | <input type="button" value="Submit &amp; Run Now"/> |
|---------------------------------------|--------------------------------------------------------|-----------------------------------------------------|

### 8.4-3

#### ❖ Configuration Scripts

Operation in progress... [Refresh](#) to update the scripts status.

| Scripts Status   |                     |                                                 |
|------------------|---------------------|-------------------------------------------------|
| Description      | Export              | Run                                             |
| Current State:   | Idle                | Running <input type="checkbox"/>                |
| Last Result:     | Success             | Transfer succeeded but failed to run completely |
| Last Successful: | 2012-06-13 10:49:59 |                                                 |

#### 8.4-4 Require to restart

Click on [service table]

Some changes require to restart a service to apply new configuration.  
Please click this link to access the [services table](#).

#### 8.4-5 Restart Require Services

Click on [Restart Require Services]

SIP Endpoint (SIPEP): Started Auto    Restart needed

Submit

Restart Required Services

#### 8-4-6 You can confirm Scripts Status

##### ➤ Configuration Scripts

| Scripts Status   |                     |                     |
|------------------|---------------------|---------------------|
| Description      | Export              | Run                 |
| Current State:   | Idle                | Idle                |
| Last Result:     | Success             | Success             |
| Last Successful: | 2012-06-13 11:53:03 | 2012-06-13 11:54:09 |

## **9. Troubleshooting**

For Troubleshooting please refer to the following document:

<http://www.media5corp.com/repository/Common%20configuration%20notes/Technical%20Bulletin%20662%20-Troubleshooting%20Tools%20to%20Diagnose%20or%20Report%20a%20problem.pdf>