

INTERACTIVE INTELLIGENCE®  
Deliberately Innovative

## **3<sup>rd</sup> Party Certified Equipment Supplemental Information**

Certification Completed On:  
05/31/2013

## Dgw 2.0.20.301 – Mediatrix 3000 Series



### 1 Important Notes

- Check the *SIP 3<sup>rd</sup> Party Validation Website* for current validation status. The *SIP 3<sup>rd</sup> Party Validation Website* can be viewed at: <http://testlab.inin.com>
- The default behavior of the Mediatrix 3000 is to try to obtain a dynamic IP address through a DHCP server. If properly configured, once connectivity has been established, a reserved WAN IP address associated with a particular unit would already be known.
- If you have not reserved a WAN IP address, you can discover which WAN IP address has been assigned to the Mediatrix 3000 by either:
  - Obtaining the IP address of the Mediatrix 3000 by consulting your DHCP server's logs to find out details on the DHCP lease that was given to the Mediatrix 3000.
  - Using a network packet sniffer (e.g., Wireshark) examine the DHCP messages exchanged between the Mediatrix 3000 and your DHCP server while the Mediatrix 3000 boots up.
- As this unit is a critical piece of the SIP infrastructure, it is highly recommended that DHCP not be used. A static IP address is the preferred method and is how the unit was configured during validation.
- While this device supports IPv6, IPv4 was used in the certification tests.

### 2 Vendor Documentation

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

### 3 Validated Firmware Version

Dgw 2.0.20.301

## 4 Configuration

### Methods:

- Web interface. There are many advanced options that are exposed in the web interface. Caution should be exercised and the Mediatrix documentation should always be referenced when using the web interface configuration option.

### Initial Setup:

- Unzip the ZIP file containing the Mediatrix 3000 firmware and configuration files.
- Follow the Mediatrix instructions (on the CD or in the booklet shipped with the Mediatrix 3000) for getting an IP address assigned to the device.
- Start a web browser and type in the IP address of the Mediatrix 3000
- The default user name is “admin” and the password is “administrator”. It is recommended to change the password when possible for security reasons.

### Download Current Firmware:

- Refer to vender documentation for downloading current firmware.

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## Changing the Configuration:

### 4.1 System Configuration

- Once in the Mediatix web interface go to **System > Hardware**

Mediatix®

System Network ISDN SIP Media

Information Services Hardware Syslog

Hardware

PRI Cards Status			
Slot	Clock Reference	Line Type	Signaling
Slot2	None	T1	Isdn
Slot3	None	T1	Isdn

PRI Cards Configuration			
Slot	Clock Reference	Line Type	Signaling
Slot2	None	T1	Isdn
Slot3	None	T1	Isdn

Submit

- Change Slot2 Line Type drop down to **T1** and Signaling drop down to **Isdn**. Repeat for Slot3. (Refer to picture above)
- Press **Submit** to save changes.

## 4.2 ISDN Configuration

- Go to ISDN > Primary Rate Interface



### Primary Rate Interface

Select Interface: Slot2/E1T1

Interface Configuration	
Line Type: [Configure]	T1
Endpoint Type:	NT

- Change Select Interface drop down to **Slot2/E1T1**. (Refer to picture above)

- Change Endpoint Type drop down to **NT**, change Clock Mode drop down to **Master**, change Port Pinout drop down to **TE**, change Line Coding drop down to **B8ZS**, change Line Framing drop down to **ESF**, change Preferred Encoding Scheme drop down to **G.711 u-Law**, change Fallback Encoding Scheme drop down to **G.711 a-Law**, change Channel Range to **1-23**, and change Channel Allocation Strategy drop down to **Ascending**. (Refer to picture below)
- Press **Submit** to save changes.

Interface Configuration	
Line Type: <a href="#">[Configure]</a>	T1
Endpoint Type:	NT
Clock Mode:	Master
Port Pinout:	TE
Monitor Link State:	Enable
Line Coding:	B8ZS
Line Framing:	ESF
Signaling Protocol:	DSS1
Network Location:	User
Preferred Encoding Scheme:	G.711 u-Law
Fallback Encoding Scheme:	G.711 a-Law
Channel Range:	1-23
Channel Allocation Strategy:	Ascending
Maximum Active Calls:	0
Signal Information Element:	Disable
Inband Tone Generation:	Enable
Inband DTMF Dialing:	Enable
Overlap Dialing:	Enable
Calling Name Max Length:	34
Exclusive B-Channel Selection:	Disable
Sending Complete:	Enable
Send Restart On Startup:	Enable
Link Establishment:	On Demand
Accepted Status Causes:	
Accepted Progress Causes:	1-127
Send Isdn Progress:	Send All
Send Progress Indicator IE:	Send All

**Apply To The Following Interfaces** Check All    Uncheck All

Slot2/E1T1     Slot3/E1T1

**Submit**

- Change Select Interface drop down to **Slot3/E1T1**.
- Change Endpoint Type drop down to **TE**, change Clock Mode drop down to **Slave**, change Port Pinout drop down to **TE**, change Line Coding drop down to **B8ZS**, change Line Framing drop down to **ESF**, change Preferred Encoding Scheme drop down to **G.711 u-Law**, change Fallback Encoding Scheme drop down to **G.711 a-Law**, change Channel Range to **1-23**, and change Channel Allocation Strategy drop down to **Descending**. (Refer to picture below)
- Press **Submit** to save changes.

Interface Configuration	
Line Type: <a href="#">[Configure]</a>	T1
Endpoint Type:	TE
Clock Mode:	Slave
Port Pinout:	TE
Monitor Link State:	Enable
Line Coding:	B8ZS
Line Framing:	ESF
Signaling Protocol:	DSS1
Network Location:	User
Preferred Encoding Scheme:	G.711 u-Law
Fallback Encoding Scheme:	G.711 a-Law
Channel Range:	1-23
Channel Allocation Strategy:	Descending
Maximum Active Calls:	0
Signal Information Element:	Disable
Inband Tone Generation:	Enable
Inband DTMF Dialing:	Enable
Overlap Dialing:	Enable
Calling Name Max Length:	34
Exclusive B-Channel Selection:	Disable
Sending Complete:	Enable
Send Restart On Startup:	Enable
Link Establishment:	On Demand
Accepted Status Causes:	
Accepted Progress Causes:	1-127
Send Isdn Progress:	Send All
Send Progress Indicator IE:	Send All

**Apply To The Following Interfaces**

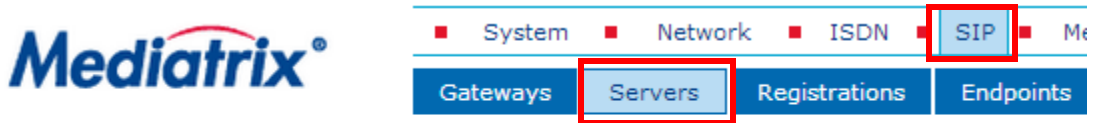
Slot2/E1T1
  Slot3/E1T1

**Submit**



### 4.3 SIP Configuration

- Go to SIP > Servers



#### ➤ Servers

##### SIP Default Servers

- Input the IP address of the Registrar Host.
- Input the IP address of the Proxy Host.
- Remove default IP address in Messaging Server Host.
- Click **Submit** to save changes.

#### ➤ Servers

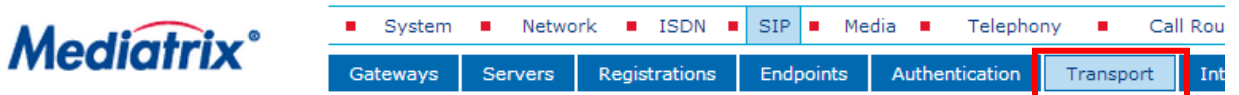
SIP Default Servers	
Registrar Host:	<input type="text" value="10.10.3.157"/>
Proxy Host:	<input type="text" value="10.10.3.157"/>
Messaging Server Host:	<input type="text"/>
Outbound Proxy Host:	<input type="text"/>

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

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

SIP Gateway Specific Proxy Servers			
Gateway Name	Gateway Specific	Proxy Host	Outbound Proxy Host
default	No	<input type="text" value="192.168.0.10:0"/>	<input type="text" value="0.0.0.0:0"/>

- Go to Transport



#### ➤ Transport

General Configuration	
Add SIP Transport in Registration:	<input type="text" value="Enable"/>

- Under UDP in Protocol Configuration change the drop down to **Enable**. (Refer to picture below)
- Click **Submit** to save changes.  
(If testing TCP, change UDP to **Disable** and TCP to **Enable**)

**Transport**

General Configuration	
Add SIP Transport in Registration:	Enable ▾
Add SIP Transport in Contact Header:	Disable ▾
Persistent TLS Base Port:	16000
Persistent TLS Retry Interval:	15
TLS Certificate Trust Level:	Locally Trusted ▾
TCP Connect Timeout:	1

Protocol Configuration						
UDP	UDP QValue	TCP	TCP QValue	TLS	TLS QValue	
Enable ▾		Disable ▾		Disable ▾		

Submit

## 4.4 Call Router Configuration

- Go to **Call Router > Route Config**

The screenshot shows the Mediatrix logo on the left. A navigation bar at the top contains several menu items: System, Network, ISDN, SIP, Media, Telephony, and Call Router. The 'Call Router' item is highlighted with a red box. Below the navigation bar, there are three buttons: Status, Route Config, and Auto-routing. The 'Route Config' button is also highlighted with a red box. Below these buttons, there is a green header for 'Route Config' and a table with one row: 'Config Modified: no'.

- In Route click the "+" button.

This screenshot shows the 'Route Config' page. It features a 'Config Modified: no' status bar. Below it is a table with columns: Index, Sources, Properties Criteria, Expression Criteria, Mappings, Signaling Properties, Destination, and Actions. The 'Actions' column contains a '+' button, which is highlighted with a red box. Below the table is another table with columns: Mapping Type, Index, Name, Criteria, Transformation, and Actions.

- In Sources change the Suggestion drop down to **sip-default**, in Destination change Suggestion drop down to **isdn-Slot2/E1T1**. (Refer to picture below)
- Click **Submit** to save configuration.

The screenshot shows the 'Configure Route End' form. It has a table with columns: Value and Suggestion. The rows are: Sources (Value: sip-default, Suggestion: --- Suggestion ---), Properties Criteria (Value: None, Suggestion: --- Suggestion ---), Expression Criteria (Value: empty, Suggestion: --- Suggestion ---), Mappings (Value: empty, Suggestion: --- Suggestion ---), Signaling Properties (Value: empty, Suggestion: --- Suggestion ---), Destination (Value: isdn-Slot2/E1T1, Suggestion: --- Suggestion ---), and Config Status. The 'Suggestion' dropdowns for 'Sources' and 'Destination' are highlighted with red boxes. Below the table are 'Submit' and 'Cancel' buttons.

- Repeat previous Configuration Route End for another Route except change the Sources to **isdn-Slot3/E1T1** and Destination to **sip-default**. (Refer to picture below)
- Click **Apply** to apply changes.

➤ **Route Config**

Config Modified:	no
------------------	----

Route									
Index	Sources	Properties	Criteria	Expression	Criteria	Mappings	Signaling Properties	Destination	Actions
1	sip-default		None					isdn-Slot2/E1T1	Edit [v] + -
2	isdn-Slot3/E1T1		None					sip-default	Edit ^ + -

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
+					

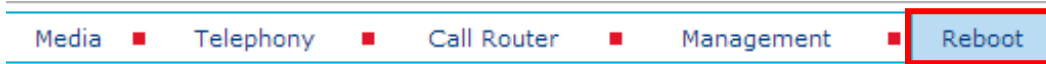
Call Properties Translations					
Index	Name	Call Property	Built From	Fix Value	Actions
+					

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

**Apply** Rollback

## 4.5 System Reboot

- Go to **Reboot**

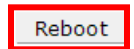


- If prompted, click **Reboot** to restart the unit and apply new configuration settings. (Refer to picture below)

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.



## 5 Redundant Proxy Configuration

- Go to **SIP > Misc**

**Mediatrix** System Network ISDN **SIP** Media Telephony Call Router Manag

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

**Misc**

Penalty Box	
Penalty Box Activation:	<input type="text" value="Disable"/>
Penalty Box Time (s):	<input type="text" value="30"/>

- Change Keep Alive Method under Keep Alive to **SIP Options**, Change Supported DNS Queries under DNS to **SRV**. (Refer to picture below)
- Click **Submit** to save changes.

Keep Alive	
Keep Alive Method:	<input type="text" value="SIP OPTIONS"/>
Keep Alive Interval (s):	<input type="text" value="30"/>

PRACK	
UAS PRACK Support (RFC 3262):	<input type="text" value="Unsupported"/>
UAC PRACK Support (RFC 3262):	<input type="text" value="Unsupported"/>

Session Refresh	
Session Refresh Timer Enable:	<input type="text" value="Enable"/>
Minimum Expiration Delay (s):	<input type="text" value="1800"/>
Maximum Expiration Delay (s):	<input type="text" value="3600"/>
Session Refresh Request Method:	<input type="text" value="ReInvite"/>

Gateway Configuration	
Gateway Name	SIP Domain Override
default	<input type="text"/>

Diversion	
Gateway Name	Method
default	<input type="text" value="None"/>

DNS	
Supported DNS Queries:	<input type="text" value="SRV"/>

Event Handling		
Gateway Name	Reboot	CheckSync
default	<input type="text" value="Rejected"/>	<input type="text" value="Rejected"/>

**Submit**

- Go to **SIP > Servers**



System  
  Network  
  ISDN  
  **SIP**  
  Media

» **Servers**

**SIP Default Servers**

- In Registrar Host type the SRV Record Name.
- In Proxy Host type the SRV Record Name.
- Click **Submit** to save changes.

» **Servers**

SIP Default Servers	
Registrar Host:	<input type="text" value="SRVRecordName.Domain.com"/>
Proxy Host:	<input type="text" value="SRVRecordName.Domain.com"/>
Messaging Server Host:	<input type="text"/>
Outbound Proxy Host:	<input type="text"/>

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

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

SIP Gateway Specific Proxy Servers			
Gateway Name	Gateway Specific	Proxy Host	Outbound Proxy Host
default	No ▾	<input type="text" value="192.168.0.10:0"/>	<input type="text" value="0.0.0.0:0"/>

- Repeat [Step 5.5](#) to Reboot and confirm that changes take effect.