

Configuring the Mediatrix Unit for a Telefonica Brazil Environment

Mediatrix units with PRI ports

DGW 49.2.2941

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Information to Know Before Starting

Before starting to use these configuration notes, complete the following table to make sure you have the required information to complete the different steps.

IMPORTANT: If you are not familiar with the meaning of the fields and buttons, click **Show Help**, located at the upper right corner of the Web page. When activated, the fields and buttons that offer online help will change to green and if you hover over them, the description will be displayed.

Note: The Mediatrix unit must be reinitialised to its factory default settings to make sure the configuration can be successfully executed.

Information	Value	Used in Step
IP address used by your Mediatrix unit to communicate with the Management Interface. If your computer is connected to the Ethernet port meant to be connected to the Local Area Network (LAN), i.e. Eth2 on most devices.	Use this value 192.168.0.10	Logging on to the Mediatrix Unit Web Interface (p.7)
If your Mediatrix unit is configured to use a DHCP server, use the DHCP server-provided IP address.		Logging on to the Mediatrix Unit Web Interface (p.7)
If your Mediatrix unit is configured to use the IPv6 Link Local.	Locate the IP Link Local label underneath your Mediatrix unit.	Logging on to the Mediatrix Unit Web Interface (p.7)
LAN IP address as defined in your network address range.		Configuring the Lan1 Network Interface (p.7)
Wan IP address as defined in your network address range.		Configuring the Uplink Network Interface to a static IP address (p.8)
Static Default Router IP address of the Uplink Network Interface.		Configuring the Default Network Gateway to a Static IP Address (p.9)
IP address of each DNS server.		Configuring the Domain Name Server (DNS) (p.10)
IP address of each SNTP server.		Configuring the SNTP Server to a Static IP Address (p.11)

Default Network Interfaces

There are four Network Interfaces created by default on the Mediatrix unit: Uplink, Lan 1, UplinkV6, and Rescue.

- The **Uplink** network interface defines the uplink information required by the Mediatrix unit to properly connect to the WAN. (By default eth1 for all platforms, except for the 4102S which is WAN . By default, this interface uses the **IpDhcp (IPv4 DHCP)** connection type. If you are using only one Network Interface, you must use **Uplink**.
- The **Lan1** network interface defines the information required by the Mediatrix unit to properly connect to the LAN.(By default eth2-5 for all platforms, except for the 4102 which is LAN) By default, the **Lan1** Network Interface uses the **IpStatic (IPv4 Static)** connection type. The **Lan1** network interface can only be added on units with 2 network ports.
- The **Rescue** network interface, is used to display the **Rescue** Management Interface when a partial reset of the unit is performed. By default, the **Rescue** network interface
 - is disabled and automatically enabled when a partial reset is performed.
 - uses the **IpStatic (IPv4 Static)** or the **Ip6Static (IPv6 Static)** addresses.

The **Rescue** Network Interface cannot be deleted. Refer to the [Technical Bulletin - Performing a Partial Reset](#) document published on the [Media5 Documentation Portal](#).

- The **UplinkV6** network interface defines the IPv6 uplink information required by the Mediatrix unit to properly connect to the WAN. By default, this interface uses the **IP6autoConf (IPv6 Auto-Conf)** configuration mode.

It is possible to create up to 48 Network Interfaces.

Configuring the Mediatrix Unit

Logging on to the Mediatrix Unit Web Interface

Before you start

The computer IP address must be in the same TCP/IP network as the Mediatrix unit.

Information

For better performances, it is recommended to use the latest available version of Microsoft Internet Explorer, Google Chrome, or Mozilla Firefox.

Note: You may not be able to log on to the Mediatrix unit Web interface if you are using older browser versions.

Steps

- 1) In your Web browser, enter the IP address at which the Web interface of your Mediatrix unit can be reached.
 - If your network has an IPv4 DHCP server, connect the primary Ethernet port of the Mediatrix unit to the network (ETH1 port), use the provided DHCP server IP address.
 - You can also connect your computer to the secondary Ethernet port of the Mediatrix unit (ETH2), use the 192.168.0.10 IP address. However, the computer must also own an IP address in the 192.168.0.0/24 network.
- 2) Enter **admin** as your username and **administrator** as the password.

Note: You can also use **public** as a username and leave the password field empty; it has the full administration rights by default.

- 3) Click **Login**.

Result

The **Information** page of the Web interface is displayed.

Related tasks

[Configuring the Lan1 Network Interface \(p.7\)](#)

Configuring the **Lan1** Network Interface

Steps

- 1) Go to **Network/Interfaces**.
- 2) From the **Link** list located next to **Lan1**, leave the default value.

- 3) In the **Static IP Address** field, enter the LAN static IP address as defined in your network address range.
- 4) Click **Apply** to apply all changes to the configuration.

Note: A Warning message is displayed, but this is normal.

- 5) Click **Apply**.

Note: Once the changes are applied, the connection with the unit might be lost. You may need to reconnect to the web page using the new address.

Result

The **Lan1** Network Interface will be available in all the lists of the Management Interface where a Network Interface needs to be selected. For example, in the Local Firewall, and Configuration pages.

Network Interface Configuration						
Name	Link	Type	Static IP Address	Static Default Router	Activation	
Lan1	eth2-5	▼ IpStatic (IPv4 Static)	LAN Static IP address/subnet		Enable ▼	–
Uplink	eth1	▼ IpStatic (IPv4 Static)	WAN Static IP address/subnet		Enable ▼	–
						+

Next Step

[Configuring the Uplink Network Interface to a static IP address \(p.8\)](#)

Configuring the **Uplink** Network Interface to a static IP address

Steps

- 1) Go to **Network/Interfaces**.
- 2) In the **Network Interface Configuration** table, from the **Link** selection list located next to **Uplink**, leave the default value, i.e. ETH1.
- 3) From the **Type** selection list, select **IpStatic (IPv4 Static)**.

Note: The **Uplink** Network Interface must be set with a fixed public IP address for the NAT/router to be able to do port-forwarding to the unit. It will also be easier for the PBX to communicate with the unit if the address is static.

- 4) In the **Static IP Address** field enter the assigned static IP address.
- 5) From the **Activation** selection list, select **Enable**.
- 6) Click **Apply** to apply all changes to the configuration.

Note: Once the changes are applied, the connection with the unit might be lost. You may need to reconnect to the Web page using the new address.

Result

The unit can be reached (via the Web) through the Uplink static IP address

Network Interface Configuration						
Name	Link	Type	Static IP Address	Static Default Router	Activation	
Uplink	eth1	IpStatic (IPv4 Static)	Uplink static IP address	Default router IP address	Enable	-
						+

Next Step

[Configuring the Default Network Gateway to a Static IP Address \(p.9\)](#)

Configuring the Default Network Gateway to a Static IP Address

Steps

- 1) Go to **Network/Host**.
- 2) In the **Default Gateway Configuration** table, from the **IPv4/Configuration Source** selection list, select **Static**.
- 3) In the **IPv4/Default Gateway** field, enter the IP address used as the **Static Default Router** for the Uplink Network Interface.
- 4) In the **Default Gateway Configuration** table, from the **IPv6/Configuration Source** selection list, select **Static**.
- 5) In the **IPv6/Default Gateway** field, enter the IP address used as the **Static Default Router** for the Uplink Network Interface.
- 6) Click **Apply**.

Result

The specified address is used as the current default router address.

Default Gateway Configuration	
IPv4	
Configuration Source:	Static
Default Gateway:	IP address
IPv6	
Configuration Source:	Static
Default Gateway:	IP address

Next Step

[Configuring the Syslog Server \(p.9\)](#)

Configuring the Syslog Server

Steps

- 1) Go to **System/Event Log**.

- 2) In the **Syslog Configuration** table, in the **Remote Host** field, enter the IP address of the syslog server.

Note: If you are gathering packets using Wireshark, you can also use the IP of the PC that takes the Wireshark capture.

- 3) Click **Apply**.

Result

Syslog Configuration	
Remote Host:	syslog server IP address
Technical Assistance Centre	
Diagnostic Traces:	Disable ▼
Filter:	Edit

Next Step

[Configuring the Domain Name Server \(DNS\) \(p.10\)](#)

Configuring the Domain Name Server (DNS)

Before you start

Although it is possible to use public DNS servers you should always ask your internet service provider to provide at least the primary and secondary DNS servers.

Steps

- 1) Go to **Network/Host**.
- 2) In the **DNS Configuration** table, form the **Configuration Source** selection list, select **Static**.
- 3) For each DNS used, enter the IP address of the DNS.
- 4) Click **Apply**.

Result

DNS Configuration		
Configuration Source:	Static ▼	
Primary DNS:	Example (Google): 8.8.8.8	
Secondary DNS:	Example (Cloudflare): 1.1.1.1	
Third DNS:	Example (OpenDNS): 208.67.222.222	
Fourth DNS:	Example (Level3): 209.244.0.3	

Next Step

Configuring the SNTP Server to a Static IP Address (p.11)

Configuring the SNTP Server to a Static IP Address

Before you start

Make sure there is an SNTP server available.

Steps

- 1) Go to **Network/Host**.
- 2) In the **SNTP Configuration** table, from the **Configuration Source** selection list, select **Static**.
- 3) Provide an IP address or domain name and port numbers for each SNTP server you are using.

Note: The best practice is to use the servers supplied by your Internet Service Provider, then complement with servers from a different network close to your geographical area. For example: time.nist.gov (USA), ntp4.sptime.se (Sweden), time1.isu.net.sa (Saudi Arabia), ntp.nict.jp (Japan), time.google.com (Worldwide), pool.ntp.org or one of their regional server pools (see <https://www.ntppool.org/> for more information).

- 4) If necessary, change the value of the **Synchronisation Period**.
- 5) If necessary, change the value of the **Synchronisation Period on Error**.
- 6) Click **Apply**.

Result

The SNTP host name and port will be displayed in the **Host Status** table under **Network/Status**.

SNTP Configuration	
Configuration Source:	Static
Primary SNTP:	address of primary SNTP server
Secondary SNTP:	address of secondary SNTP server
Third SNTP:	address of third SNTP server
Fourth SNTP:	address of fourth SNTP server
Synchronization Period:	1440
Synchronization Period On Error:	60

Next Step

[Auto-Detecting and Auto-Configuring ISDN Interfaces \(p.13\)](#)

ISDN Configuration

Auto-Detecting and Auto-Configuring ISDN Interfaces

Information

Note: Some parameters cannot be auto configured. For example, the clock mode is configured according to the endpoint type, master for NT and slave for TE.

Steps

- 1) Go to **ISDN/Status**.
- 2) In the **Automatic Configuration** table, from the selection list, choose the interface you wish to auto configure or select all interfaces.
- 3) Click **Start Sensing**.

Note: Launching the Automatic Configuration may terminate abruptly all ongoing ISDN calls. The auto-configuration may take some time to complete and some of the current ISDN configuration settings might be replaced by new values.

Result

Under **ISDN/Status**, the **Physical Link** and **Signaling** fields of each interface should indicate **Up**.

Automatic Configuration	
Status:	--- All --- Start Sensing
Last Result:	None

Slot5/BRI1 [Configure]	
Physical Link: Up	
Signaling: Up	
Bearer Group	
Channel 1: Idle	Channel 2: Idle

Slot5/BRI2 [Configure]	
Physical Link: Up	
Signaling: Up	
Bearer Group	
Channel 1: Idle	Channel 2: Idle

Slot5/BRI3 [Configure]	
Physical Link: Up	
Signaling: Up	
Bearer Group	
Channel 1: Idle	Channel 2: Idle

Slot5/BRI4 [Configure]	
Physical Link: Up	
Signaling: Up	
Bearer Group	
Channel 1: Idle	Channel 2: Idle

Next Step

[Configuring the E1T1 Interface \(PRI\) \(p.14\)](#)

Configuring the E1T1 Interface (PRI)

Before you start

Always use [Auto-Detecting and Auto-Configuring ISDN Interfaces \(p.13\)](#) procedure first to automatically detect and to automatically configure your PRI interface. The manual configuration of the PRI interface should be used for fine tuning of the configuration.

Information

It is important to take into consideration the following information:

- **Fallback Encoding Scheme:** Only valid when receiving a SETUP message. The user sending the SETUP message does not indicate alternative bearer capability
- **Channel Range:** Channels outside of the range defined for this field are ignored. Channels reserved in both the **Channels Reserved for Incoming Calls** and **Channels Reserved for Outgoing Calls** fields are considered usable for both incoming and outgoing calls. The space character is ignored and duplication is not allowed. Channels must be specified in low to high order.
- **Endpoint Type:** To use a specific interface as the reference clock, the parameter must be set to **TE**.
- **Interface Configuration:** Call properties set in the Call Router have precedence over the default values of the table. For more details on the Call Router, refer to the [DGW Configuration Guide - Call Router user guide](#) published on the [Media5 Documentation Portal](#).
- **Signaling Protocol:** Refer to the [Supported Signaling Protocols](#) section.

Steps

- 1) Go to **ISDN/Primary Rate Interface**.

Note: ISDN ports can be configured while they are active. However they are internally disabled to modify the configuration and then re-enabled. All active calls on the port are dropped during this process. Configuration changes should only be performed during planned down times. Most of the ISDN parameters change require a restart of the ISDN service to be applied.

- 2) From the **Select Interface** drop box, select the E1/T1 interface you wish to modify.

Note: Depending on the Mediatrix model, there may be several interfaces.

- 3) In the **Interface Configuration** table, set the **Endpoint Type** to **TE**.
- 4) Modify the parameters as indicated in the Results section.
- 5) Click **Apply**.
- 6) Repeat the tasks **2** to **5** for each interfaces.

Result

Next Step

[Configuring Interoperability](#) (p.15)

Configuring Interoperability

Steps

- 1) Go to **ISDN/Interop**.
- 2) From the **Select Interface** selection list, choose **an interface**.
- 3) In the **Interop Configuration** table, select **Enable** for all fields.
- 4) In the **Apply To The Following Endpoints** table, select the interfaces you wish to apply the interoperability configuration.

5) Click **Apply**.

Note: When facing issues in call establishment, disable the parameters one by one.

Result

Interop

Select Interface: Slot2/Bri0

Interop Configuration		
Progress Indicator In Setup:	Enable	
Progress Indicator In Setup Ack:	Enable	
Progress Indicator In Call Proceeding:	Enable	
Progress Indicator In Progress:	Enable	
Progress Indicator In Alerting:	Enable	
Progress Indicator In Connect:	Enable	
Maximum Facility Waiting Delay (ms):	0	
Use Implicit Inband Info:	Enable	
Call Proceeding Delay (ms):	0	
Calling Name Delivery:	Signaling Protocol	
Allow TEI Broadcast in Point-to-Point:	Enable	

Apply To The Following Interfaces					Check All	Uncheck All			
☒	Slot2/Bri0	☐	Slot2/Bri1	☐	Slot2/Bri2	☐	Slot2/Bri3	☐	Slot2/Bri4

Next Step

[Setting ISDN Automatic Call Cancellation Timers \(p.16\)](#)

Setting ISDN Automatic Call Cancellation Timers

Steps

- 1) Go to **ISDN/Timer**.
- 2) In the **Time Configuration** table, set the **Auto Cancel Timeout** parameter.
- 3) Set the **L1 Timer T3**.
- 4) Click **Apply**.

Result

Next Step

[Setting the Mediatrix Unit to Use the R2 Signaling Protocol \(p.17\)](#)

R2 Configuration

Important information about R2-ISDN Collect Call Blockage (CCB)

When the collect call information for inbound calls (SIP --> ISDN / SIP --> R2) is relayed, the Telefonica IMS (PSTN) sends the **P-Asserted-Service-Info: service-code=Collect Call** header in the SIP INVITE:

When relaying collect call information to ISDN, the **IE: Reverse Charging Indication (len = 3)** Information Element in the call setup is included. A call received with the SIP header **P-Asserted-Service-Info: service-code=Collect Call** is tagged as "Collect Call" in the call router.

The Interop parameter to ignore the header, relay to the telephony lines or block right away the call is: **SipEp.InteropCollectCallProprietaryHeader**

- Ignore: (default)
- Relay
- Block: (reject the call with a 603 Decline)

Note: This parameter is only available using the CLI.

Setting the Mediatrix Unit to Use the R2 Signaling Protocol

Before you start

R2 signaling protocol can only be used on E1 line type.

Steps

- 1) Go to **System/Hardware**.
- 2) In the **PRI Cards Configuration** table, from the **Signaling** selection list, located on the same line as the port you wish to dedicate to R2 signaling, choose **R2**.

Note: When changing from R2 to ISDN or ISDN to R2, you must change your routes accordingly (Call Router/Route Config).

- 3) From the **Line Type** selection list, make sure **E1** is selected.
- 4) Click **Apply**.
- 5) Restart the unit.

Result

PRI Ports Configuration			
Port	Line Type		Signaling
Slot1/E1T1	E1		Isdn
Slot2/E1T1	E1		R2

Next Step

[Configuring R2 CAS Parameters](#) (p.18)

Configuring R2 CAS Parameters

Steps

- 1) Go to **R2/R2 Config**.
- 2) **Note:** The number of available interfaces depends on the Mediatrix unit model.
- 3) In the **Interface Configuration** configure the fields as required.

Result

Interface Configuration		
Clock Mode:	Slave	▼
Port Pinout:	Auto	▼
Monitor Link State:	Enable	▼
Line Coding:	HDB3	▼
Line Framing:	CRC4	▼
Channel Range:	1-30	
Channel Allocation Strategy:	Ascending	▼
Maximum Active Calls:	0	
Encoding Scheme:	G.711 a-Law	▼
Line Signaling Protocol:	Q.421 2 Bits Signaling	▼
Incoming Digit Signaling:	MFC/R2	▼
Outgoing Digit Signaling:	MFC/R2	▼
Country Selection:	BrazilR2	▼
Digit Attenuation:	0	

Next Step

[Overriding Country Default R2 Signaling Variants](#) (p.19)

Overriding Country Default R2 Signaling Variants

Steps

- 1) Go to **R2/Signaling**.
- 2) From the **Select Interface** selection list, choose an interface.

Note: The number of available interfaces depends on the Mediatrix unit model.

- 3) In the **Country** table, from the **Override Default Country Settings** selection list, choose **Enable**.
- 4) Click **Reset to Default** to update the values with the selected country.

Note: Once the **Override Default Country Settings** is enabled, the indicated values in the table are not from the specified country in the **Country Selection** field. To get the appropriate values of the selected country, you must reset the table values first.

- 5) When prompted to, restart required services.

- 6) In the **R2 Signaling Variants**, complete the fields as required.
- 7) Click **Apply**.
- 8) Again, when prompted to, restart required services.

Result

Country	
Country Selection:	BrazilR2
Override Default Country Settings:	Enable ▾

R2 Signaling Variants Parameters		Value
Bits CD:		1
ANI Length:		0
DNIS Length:		0
ANI Request:		Enable ▾
Send ANI request after nth DNIS Digits:		0
Collect Call Blocked:		Enable ▾
ANI Category:		Nat Subscriber NoPrio ▾
Line Free Category:		Line Free Charge ▾
ANI Restricted:		Enable ▾
Incoming Decline Method:		Release ▾

Next Step

[Overriding Country Default R2 Timers Variants \(p.20\)](#)

Overriding Country Default R2 Timers Variants

Before you start

Modifying the default values of the Timers Variants should be performed by qualified technicians unless you are an expert in R2 CAS protocol.

Steps

- 1) Go to **R2/Timers**.
- 2) From the **Select Interface** selection list, choose an interface.

Note: The number of available interfaces depends on the Mediatrix unit model.

- 3) In the **Country** table, from the **Override Default Country Settings** selection list, choose **Enable**.
- 4) Click **Reset to Default** to update the values with the selected country.

Note: Once the **Override Default Country Settings** is enabled, the indicated values in the table are not from the specified country in the **Country Selection**. To get the appropriate values of the selected country, you must reset the table values first.

- 5) When prompted to, restart required services.
- 6) In the **R2 Timers Variants**, complete the fields as required.

Note: Changing a timeout value could require to adjust other timeout values in R2 Timers Variants and R2 Digit Timers Variants. Refer to the parameter description for more details.

- 7) Click **Apply**.
- 8) Again, when prompted to, restart required services.

Result

Country		
Country Selection:	BrazilR2	
Override Default Country Settings:	Enable Disable	

R2 Timers Variants		
Parameters	Value	
Seizure Ack Timeout:	2000	
Fault Seizure Ack Timeout:	60000	
Double Seizure Timeout:	100	
Double Answer Timeout:	1500	
Answer Timeout:	0	
ReAnswer Timeout:	1000	
Release Guard Timeout:	100	
InterCall Guard Timeout:	100	
Congestion Tone Guard Timeout:	1000	
Unblocking Timeout:	100	
Address Complete Timeout:	8000	
Wait Answer Timeout:	60000	
Digit Complete Timeout:	4000	
Wait GroupB Response Complete Timeout:	3000	
Wait Immediate Response Complete Timeout:	1000	
Play Tone Guard Timeout:	70	
Accept Call Timeout:	2000	
Clear Forward Guard Timeout:	1500	
Clear Backward Guard Timeout:	1500	
Fault On Answered Guard Timeout:	250	
Fault On Clear Backward Guard Timeout:	250	
Fault On Seize Ack Guard Timeout:	250	
Fault On Seize Guard Timeout:	250	
Decline Guard Timeout:	1500	
No Digit Timeout:	0	

Next Step

[Overriding Country Default Tone Variants \(p.22\)](#)

Overriding Country Default Tone Variants

Steps

- 1) Go to **R2/Tones**.

- 2) From the **Select Interface** selection list, choose an interface.

Note: The number of available interfaces depends on the Mediatrix unit model.

- 3) In the **Country** table, from the **Override Default Country Settings** selection list, choose **Enable**.
- 4) Click **Reset to Default** to update the values with the selected country.

Note: Once the **Override Default Country Settings** is enabled, the indicated values in the table are not from the specified country in the **Country Selection**. To get the appropriate values of the selected country, you must reset the table values first.

- 5) When prompted to, restart required services.
- 6) In the **R2 Tones Backward Groups** and **R2 Tones Forward Groups**, complete the fields as required.

Note: For more details on Forward tones/groups and Backward tones/groups, refer to the [Interregister Signals](#) section.

- 7) Click **Apply**.
- 8) Again, when prompted to, restart required services.

Result

Country	
Country Selection:	BrazilR2
Override Default Country Settings:	Enable ▾

R2 Tones Forward Groups	Value
End of DNIS Tone:	I15 ▾
End of ANI Tone:	I15 ▾
Restricted ANI Tone:	I12 ▾

R2 Tones Backward Groups	Value
Send Next DNIS Digit Tone:	A15 ▾
Send Previous DNIS Digit Tone:	A15 ▾
Switch to Group II Tone:	A15 ▾
Network Congestion Tone:	A15 ▾
Send Calling Party Category Tone:	A15 ▾
Immediate Accept Tone:	A15 ▾
Send DNIS Digit N-2 Tone:	A15 ▾
Send DNIS Digit N-3 Tone:	A15 ▾
Repeat all DNIS Tone:	A15 ▾
Send Next ANI Digit Tone:	A15 ▾
Send Calling Party Category Tone switch to Group C:	A15 ▾
Send Special Information Tone:	B15 ▾
User Busy Tone:	B15 ▾
Network Congestion Tone:	B15 ▾
Unassigned Number Tone:	B15 ▾
Line Free with Charge Tone:	B15 ▾
Line Free with Charge Tone (Supplementary):	B15 ▾
Line Free without Charge Tone:	B15 ▾
Line Out of Order Tone:	B15 ▾
Changed Number Tone:	B15 ▾
Send Next ANI Digit Tone:	C15 ▾
Repeat all DNIS Tone switch to Group A:	C15 ▾
Send Next DNIS Digit Tone switch to Group A:	C15 ▾
Network Congestion Tone:	C15 ▾
Send Previous DNIS Digit Tone switch to Group A:	C15 ▾
Switch to Group II Tone:	C15 ▾

SIP Configuration

Configuring the SIP Proxy Server

Steps

- 1) Go to **SIP/Servers**.
- 2) In the **Default Servers** table, set the **Proxy Host** field to the IP address of the Proxy server followed with its SIP port number.

Note: For example, 192.168.0.5:5060

- 3) Click **Apply**.
- 4) Click **restart required services**, located at the top of the page.

Result

Default Servers		
Registrar Host:		
Proxy Host:	IPaddress:portnumber	
Messaging Server Host:		
Outbound Proxy Host:		

Next Step

[Setting SIP Interoperability Parameters \(p.25\)](#)

Setting SIP Interoperability Parameters

Information

Steps

- 1) Go **SIP/Interop**.
- 2) Complete the fields of the **SIP Interop** table as required.

Note: no direction attribute is present in the SDP if the **InteropSdpDirectionAttributeEnable** parameter is set to disable.

- 3) Click **Apply**.

Result

Next Step

[Enabling Default Codecs](#) (p.27)

Media Configuration

Enabling Default Codecs

Steps

- 1) Go to **Media/Codecs**.
- 2) From the **Select Codec Bank**, choose if you want the G.722 , the G.723.1, G.726 or G.729 codec.

Note: All Codec Banks include the T.38, the Clear Mode, the Clear Channel, and the X-CCD codecs.

- 3) In the **Codec** table, select the desired codecs and **Enable** / **Disable** them.

Note: Codecs that appear in Red are not part of the selected codec Bank, thus they can be disabled without a problem.

- 4) Click  for Advanced codec settings.

Note: When enabling two codecs or more, the priority order can be modified by selecting the advanced options.

- 5) Click **Apply**.

Result

Select Codec Bank: **G.723.1, G.726, and G.729** (always includes G.711, T.38, Clear Mode, Clear Channel, and X-CCD)

Select Endpoint: **Default**

Codec	Voice	Data	Advanced	
G.711 a-Law	Enable	Enable		
G.711 u-Law	Enable	Enable		
G.722	Disable			
G.723.1	Disable			
G.726 16Kbps	Disable			
G.726 24Kbps	Disable			
G.726 32Kbps	Disable	Disable		
G.726 40Kbps	Disable	Disable		
G.729	Enable			
T.38		Enable		
Clear Mode	Disable	Disable		
Clear Channel	Disable	Enable		
X-CCD	Disable	Disable		

Next Step

[Configuring Codec Advanced Parameters \(p.28\)](#)

Configuring Codec Advanced Parameters

Steps

- 1) Go to **Media/Codecs**.
- 2) From the **Select Codec Bank**, choose the G.723.1, G.726 or G.729 codec bank.

Note: All Codec Banks include the T.38, the Clear Mode, the Clear Channel, and the X-CCD codecs.

- 3) In the **Codec** table, click next to the codec you wish to configure.
- 4) From the **Select Endpoint** drop-down list, select **Default** to apply changes to all endpoints or select the specific **Endpoint** to apply changes to the selected endpoint.
- 5) Complete the fields as required.
- 6) Click **Apply**.

Result

This is an example for the G.711 Codec.

G.711 a-Law		
Voice Transmission:	Enable	▼
Voice Priority:	10	
Data Transmission:	Disable	▼
Data Priority:	8	
Minimum Packetization Time:	20 ms	▼
Maximum Packetization Time:	20 ms	▼

Next Step

[Configuring Machine Detection](#) (p.29)

Configuring Machine Detection

Information

Note: This procedure is only required if your fax machine is directly connected to a specific FXS port and if this port is not used for modem transmission.

Steps

- 1) Go to **Media/Misc.**
- 2) Set the **CNG Tone Detection** selection list to **Enable**.
- 3) Set the **CED Tone Detection** selection list to **Enable**.
- 4) Set the **V.21 Modulation Detection** selection list to **Enable**.
- 5) Set the **Behavior On CED Tone Detection** selection list to **Fax Mode**.
- 6) Click **Apply**.

Result

Machine Detection	
CNG Tone Detection:	Enable ▾
CED Tone Detection:	Enable ▾
V.21 Modulation Detection:	Enable ▾
Behavior On CED Tone Detection:	Fax Mode ▾

Next Step

[Configuring DTMF Transport - Out of Band Using RTP \(p.30\)](#)

Configuring DTMF Transport - Out of Band Using RTP

Steps

- 1) Go to **Media/Misc.**
- 2) In the **DTMF Transport** table, set the **Transport Method** to **Out-of-Band using RTP**.
- 3) In the **Payload Type** field, type **100**.
- 4) Click **Apply**.

Result

DTMF Transport	
Transport Method:	Out-of-Band using RTP ▾
SIP Transport Method:	Draft Choudhuri SIP Info Digit 00 ▾
Payload Type:	100

Next Step

[Creating a Hunt Group - PRI \(p.31\)](#)

Configuring the Call Router

Creating a Hunt Group - PRI

Steps

- 1) Go to **Call Router/Route Config**.
- 2) In the **Hunt** table, click **+**.
- 3) In the **Configure New Hunt** table, set the following:
 - a) Set the **Name** field to **PRI**.
 - b) Using the **Destinations'** dropbox, add all the PRI ports used in your configuration.
 - c) Leave the other fields with their default value.
- 4) Click **Save**.
- 5) In the **Route Config** window, click **Save** again.

Result

Configure New Hunt		Suggestion
	Value	
Name	PRI	
Destinations	All PRI ports	--- Suggestion ---
Selection Algorithm	Sequential	
Timeout (seconds)	0	
Causes	31, 34, 38, 41, 42, 43, 44, 47	--- Suggestion ---
Config Status		

Next Step

[Creating a New Route](#) (p.31)

Creating a New Route

Before you start

The task [Creating a Hunt Group - PRI](#) (p.31) must be completed.

Steps

- 1) Go to **Call Router/Route Config**.

- 2) In the **Routes** table, click .
- 3) From the dropbox next to the **Sources** field, select **sip-default**.
- 4) From the dropbox next to the **Destination** field, select hunt-PRI_Hunt.
- 5) Click **Save**.
- 6) In the **Routes** table, click .
- 7) From the dropbox next to the **Sources**, select all the used PRI port.
- 8) In the **Destination** field, set **sip-default**.
- 9) Click **Save** to apply the new configuration.
- 10) In the **Route Config** window, click **Save** again.

Result

Routes						
Index	Sources	Criteria Property	Criteria Rule	Transformations	Signaling Properties	Destination
1	sip-default	None				hunt-FXO_Hunt    
2	fxo-Slot4/FXO1,fxo-Slot4/FXO2,fxo-Slot4/FXO3,fxo-Slot4/FXO4	None				sip-default    
						

Next Step

[Creating a Call Property Transformation \(p.32\)](#)

Creating a Call Property Transformation

Steps

- 1) Go to **Call Router/Route Config**.
- 2) In the **Transformations** table, click .
 - click  located on the same row as an existing call property transformation to add a new call property transformation above or,
 - click  located at the bottom of the table to add a call property transformation at the end of the table.

Note: A maximum of 40 call property transformations can be created.

- 3) In the **Configure Transformation** table, in the **Name** field, enter a name for the call property transformation.
- 4) From the selection list of the **Criteria Based On** field, select the call property that must be matched to apply the Transformation.
- 5) From the selection list of the **Transformation Applies To** field, select the call property to transform.
- 6) Click **Save and Insert Rule**.

- 7) In the **Configure Transformation Rule** table, from the **Name** selection list, select the name entered at step 3.
- 8) In the **Criteria** field, indicate the call property criteria to match to apply the transformation.
- 9) In the **Transformation** field, select the transformation to apply to the call property.
- 10) Click **Save** or **Save and Insert Rule** to add another Transformation.

Result

The new Call Property Transformation is available to be used in a route.

Call Property Transformations

Transformations					
Index	Name	Criteria Based On	Transformation Applies To		
1	Name	Call Property to match	Call property to Transform		  
2					  
					

Transformation Rules					
Index	Name	Criteria Rule	Transformation Rule	Next Transformation	
1	Name	Call Property criteria to match	Transformation to apply		   
2	Name	Call Property criteria to match	Transformation to apply		   
					

Next Step

[Creating a Signaling Property \(p.33\)](#)

Creating a Signaling Property

Steps

- 1) Go to **Call Router /Route Config**.
- 2) In the **Signaling Properties** table, click .
 - click  located on the same row as an existing signaling property to add a new signaling property above or,
 - click  located at the bottom of the table to add a signaling property at the end of the table.

Note: A maximum of 40 signaling properties can be created.

- 3) In the **Configure Signaling Property** table, modify the fields as required.
- 4) Click **Save**.

Result

The signaling property will be available to be used in a route.

Next Step

[Restarting Services](#) (p.35)

Restarting Services

Restarting Services

Steps

- 1) Go to **System/Services**.
- 2) In the **restart required services** table, click **restart required services**.

Online Help

If you are not familiar with the meaning of the fields and buttons, click **Show Help**, located at the upper right corner of the Web page. When activated, the fields and buttons that offer online help will change to green and if you hover over them, the description will be displayed.

DGW Documentation

Mediatrix devices are supplied with an exhaustive set of documentation.

Mediatrix user documentation is available on the [Media5 Documentation Portal](#).

Several types of documents were created to clearly present the information you are looking for. Our documentation includes:

- **Release notes:** Generated at each GA release, this document includes the known and solved issues of the software. It also outlines the changes and the new features the release includes.
- **Configuration notes:** These documents are created to facilitate the configuration of a specific use case. They address a configuration aspect we consider that most users will need to perform. However, in some cases, a configuration note is created after receiving a question from a customer. They provide standard step-by-step procedures detailing the values of the parameters to use. They provide a means of validation and present some conceptual information. The configuration notes are specifically created to guide the user through an aspect of the configuration.
- **Technical bulletins:** These documents are created to facilitate the configuration of a specific technical action, such as performing a firmware upgrade.
- **Hardware installation guide:** They provide the detailed procedure on how to safely and adequately install the unit. It provides information on card installation, cable connections, and how to access for the first time the Management interface.
- **User guide:** The user guide explains how to customise to your needs the configuration of the unit. Although this document is task oriented, it provides conceptual information to help the user understand the purpose and impact of each task. The User Guide will provide information such as where and how TR-069 can be configured in the Management Interface, how to set firewalls, or how to use the CLI to configure parameters that are not available in the Management Interface.
- **Reference guide:** This exhaustive document has been created for advanced users. It includes a description of all the parameters used by all the services of the Mediatrix units. You will find, for example, scripts to configure a specific parameter, notification messages sent by a service, or an action description used to create Rulesets. This document includes reference information such as a dictionary, and it does not include any step-by-step procedures.

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