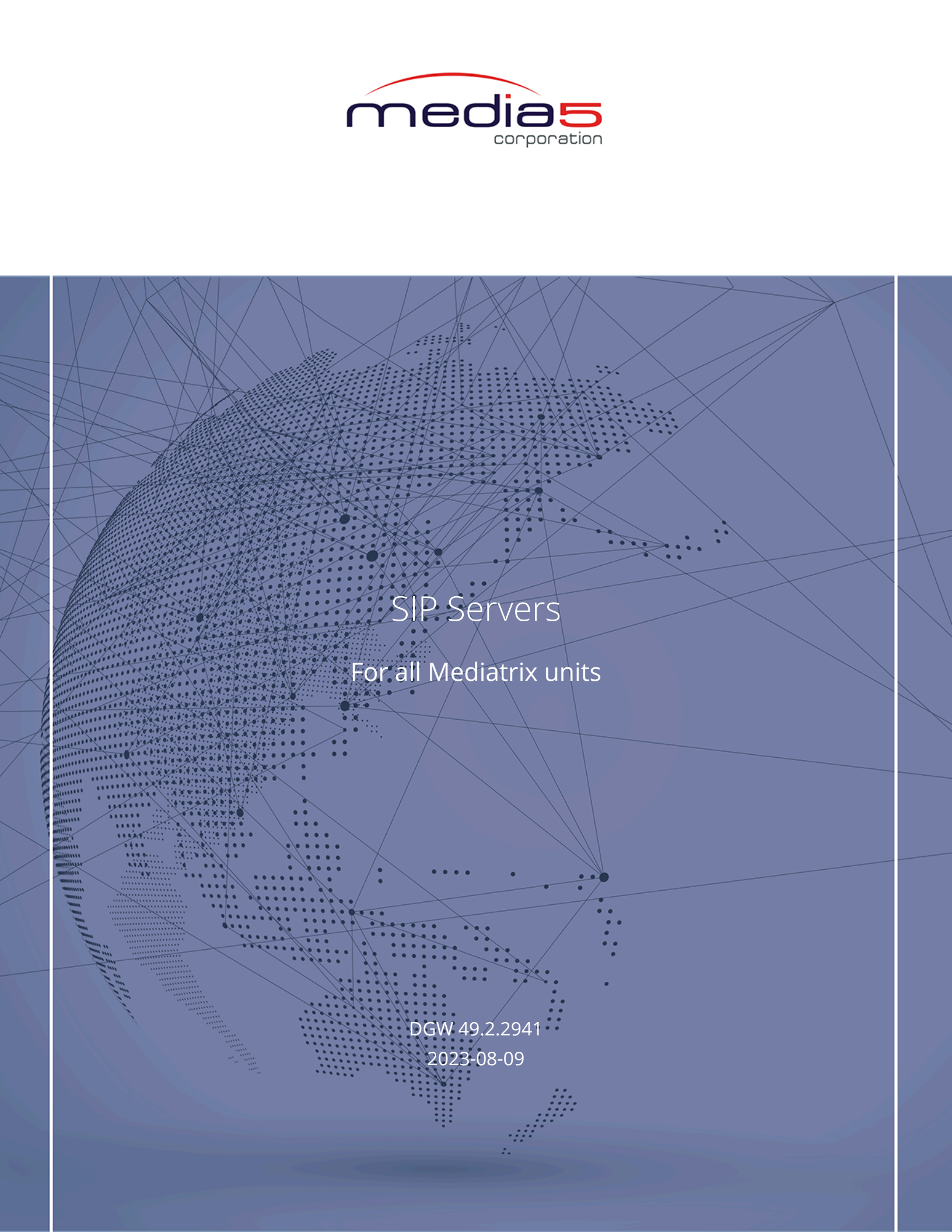


The background of the slide is a dark blue gradient with a complex, abstract graphic. It consists of a dense network of thin, light blue lines connecting numerous small, dark blue dots. These dots are arranged in a way that suggests a global map, with higher concentrations of dots in the Americas and Europe. The overall effect is a sense of global connectivity and technology.

SIP Servers

For all Mediatrix units

DGW 49.2.2941
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Basic Concepts

SIP Servers

SIP servers manage all SIP calls in the network, therefore they are the main component of an IP PBX system.

Depending on the environment and the needs of the SIP-based IP-PBX phone system, there are four types of SIP servers that can be used with the Mediatrix units.

- Registrar host: receives REGISTER requests and places the information in the location service for the domain it handles
- Messaging host: receives MWI SUBSCRIBE requests and places the information in the location service for the domain it handles.
- Proxy host: An entity that acts as both a server and a client for the purpose of making requests on behalf of other clients. It is the final destination of the SIP requests.
- Outbound proxy host: A proxy that receives requests from a client, even though it may not be the server resolved by the Request-URI. It is an intermediate step before reaching the proxy host.

Important Information to Know Before Using SIP Servers

Servers

- The registrar and proxy SIP hosts must have one of the following formats:
 - IP address
 - IP address: port number, for example:192.168.0.5:5060
 - IP address: 0 where "0" indicates the default port 5060 or 5061 in secure mode.
 - FQDN
- If any of the SIP server parameters corresponds to a domain name that is bound to a SRV record, the corresponding port must be set to 0 for the unit to perform SRV type DNS requests (as per RFC 3263). Otherwise, the unit will not use DNS SRV requests, but will rather only use Type A requests because it does not need to be specified which port to use.
- All SIP servers identified by a single FQDN are considered by a trunk gateway as having a synchronised state.
- When the destination of a SIP server is an FQDN, each SIP transaction is possibly sent to a different IP address, depending on the DNS query result.

- The outbound SIP proxy server is enabled only if the IP address is valid (i.e., not 0.0.0.0:0). Setting the address to 0.0.0.0:0 or leaving the field empty disables the outbound proxy server.
- The outbound proxy address is never included in the SIP packets, it is only used as a physical network destination for the packets.

Basic Tasks

Configuring the Default Registrar Host

Information

In some instances, the configuration of the default servers may already be completed.

Steps

- 1) Go to **SIP/Servers**.
- 2) In the **Default Servers** table, in the **Registrar Host** field, indicate the server IP address or FQDN to use for all gateways.

Note: For example, 192.168.0.5:5060

- 3) In the **Proxy Host** field indicate the server IP address or FQDN to use for all gateways.
- 4) Click **Apply**.
- 5) Click **restart required services**, located at the top of the page.

Result

All gateways will use this registrar host, unless a gateway has been configured to specifically use another one in the **Registrar Servers** table, under **SIP/Servers**. Refer to [Assigning a Specific Registrar Host to a Gateway](#) (p.7).

Default Servers	
Registrar Host:	sip.registrarserver.com
Proxy Host:	sip.proxyserver.com
Messaging Server Host:	
Outbound Proxy Host:	

Configuring the Default Messaging Server Host

Information

In some instances, the configuration of the default servers may already be completed.

Steps

- 1) Go to **SIP/Servers**.
- 2) In the **Default Servers** table, in the **Messaging Server Host** field, indicate the static IP address or domain name and port number.

Note: For example, 192.168.0.5:5060

- 3) In the **Proxy Host** field indicate the server IP address or FQDN to use for all gateways.
- 4) Click **Apply**.
- 5) Click **restart required services**, located at the top of the page.

Result

All gateways will use this messaging server host, unless a gateway has been configured to use another one in the **Messaging Servers** table under **SIP/Servers**. Refer to [Assigning a Specific Messaging Server Host to a Gateway](#) (p.8).

Default Servers		
Registrar Host:		
Proxy Host:	sip.proxyserver.com	
Messaging Server Host:	IP address or domainname:port number	
Outbound Proxy Host:		

Configuring the Default Proxy Host

Information

In some instances, the configuration of the default servers may already be completed.

Steps

- 1) Go to **SIP/Servers**.
- 2) In the **Proxy Host** field indicate the server IP address or FQDN to use for all gateways.

Note: For example, 192.168.0.5:5060

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

Result

All gateways will use this proxy host, unless a gateway has been configured to use another one in the **Proxy Servers** table, under **SIP/Servers**. Refer to [Assigning a Specific Proxy Host to a Gateway](#) (p.9).

Default Servers		
Registrar Host:		
Proxy Host:	sip.proxyserver.com	
Messaging Server Host:		
Outbound Proxy Host:		

Configuring the Default Outbound Proxy Host

Information

In some instances, the configuration of the default servers may already be completed.

Steps

- 1) Go to **SIP/Servers**.
- 2) In the **Default Servers** table, in the **Proxy Host** field indicate the server IP address or FQDN to use for all gateways.
- 3) In the **Outbound Proxy Host** field, indicate the server IP address or FQDN to use for this gateway.
- 4) Click **Apply**.
- 5) Click **restart required services**, located at the top of the page.

Result

All gateways will use this outbound proxy host, unless the gateway has been configured to use another one in the **Proxy Servers** table, under **SIP/Servers**. Refer to [Assigning a Specific Outbound Proxy Host to a Gateway](#) (p.9).

Default Servers		
Registrar Host:		
Proxy Host:	sip.proxyserver.com	
Messaging Server Host:		
Outbound Proxy Host:	sip.outboundproxyserver.com	

Assigning a Specific Registrar Host to a Gateway

Before you start

You can assign a specific Registrar Server to the default gateway, or to a gateway you have created.

Steps

- 1) Go to **SIP/Servers**.
- 2) In the **Registrar Servers** table, from the **Gateway Specific** drop down located on the same row as **local**, select **Yes**.

- 3) In the **Registrar Host** field, indicate the server IP address or FQDN.
- 4) Click **Apply**.

Result

The gateway(s) for which **Yes** was selected will now use the specified IP address or FQDN instead of the address or FQDN indicated in the **Registrar Host** field of the **Default Servers** table, under **SIP/Servers**.

Registrar Servers			
Gateway	Gateway Specific	Registrar Host	
gateway_1_gw	Yes ▾	IP address/FQDN	
gateway_2_gw	Yes ▾	IP address/FQDN	

Assigning a Specific Messaging Server Host to a Gateway

Before you start

You can assign a specific Messaging Server to the default gateway, or to a gateway you have created.

Steps

- 1) Go to **SIP/Servers**.
- 2) In the **Messaging Servers** table, from the **Gateway Specific** drop down select **Yes** to assign a specific messaging server to the gateway.
- 3) In the **Messaging Server Host** field, indicate the IP address: Port number to use.
- 4) Click **Apply**.
- 5) Click **restart required services** located at the top of the page.

Result

The gateway(s) for which **Yes** has been selected, will now use the specified IP address: port number instead of the IP address: port number indicated in the **Messaging Server Host** field of the **Default Servers** table, under **SIP/Servers**.

Messaging Servers			
Gateway	Gateway Specific	Messaging Server Host	
gateway_1_gw	Yes ▾	IP address/: port number	
gateway_2_gw	Yes ▾	IP address/: port number	

Assigning a Specific Proxy Host to a Gateway

Before you start

You can assign a specific Registrar Server to the default gateway, or to a gateway you have created.

Steps

- 1) Go to **SIP/Servers**.
- 2) In the **Proxy Servers** table, from the **Gateway Specific** drop down list located next to the gateway you wish to assign a specific Proxy SIP server, select **Yes**.
- 3) In the **Proxy Host** field, indicate the server IP address or FQDN.
- 4) Click **Apply**.

Result

The gateway(s) for which **Yes** was selected will use the specified IP address or FQDN instead of the default IP address or FQDN indicated in the **Proxy Host** field of the **Default Servers** table, under **SIP/Servers**.

Proxy Servers			
Gateway	Gateway Specific	Proxy Host	Outbound Proxy Host
gateway_1_gw	Yes ▾	IP address/FQDN	
gateway_2_gw	Yes ▾	IP address/FQDN	

Assigning a Specific Outbound Proxy Host to a Gateway

Before you start

You can assign a specific Registrar Server to the default gateway, or to a gateway you have created.

Steps

- 1) Go to **SIP/Servers**.
- 2) In the **Registrar Servers** table, from the **Gateway Specific** drop down located on the same row as **local**, select **Yes**.
- 3) In the **Outbound Proxy Host** field, indicate the server IP address or FQDN.
- 4) Click **Apply**.

Result

The gateway(s) for which **Yes** was selected will use the specified IP address or FQDN instead of the address indicated in the **Outbound Proxy Host** field of the **Default Servers** table, under **SIP/Servers**.

Proxy Servers				
Gateway	Gateway Specific	Proxy Host	Outbound Proxy Host	
gateway_1_gw	Yes v	IP address/FQDN	IP address/FQDN	
gateway_2_gw	Yes v	IP address/FQDN	IP address/FQDN	

Advanced Parameters

SIP Server Parameters

Although the services can be configured in great part in the Web browser, some aspects of the configuration can only be completed with the Configuration parameters by :

- using a MIB browser
- using the CLI
- creating a configuration script containing the configuration parameters

For more details on the following advanced parameters, refer to the [DGW Configuration Guide - Reference Guide](#) published on the [Media5 Documentation Portal](#).

Setting the default Outbound Proxy Router Type

[SipEp.defaultProxyOutboundType](#)

Setting Gateway-Specific Outbound Proxy Router Type

[SipEp.gwSpecificProxy.OutboundType](#)

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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