

SBC Hybrid Configuration - Setup with FXS ports
For Sentinel units

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.

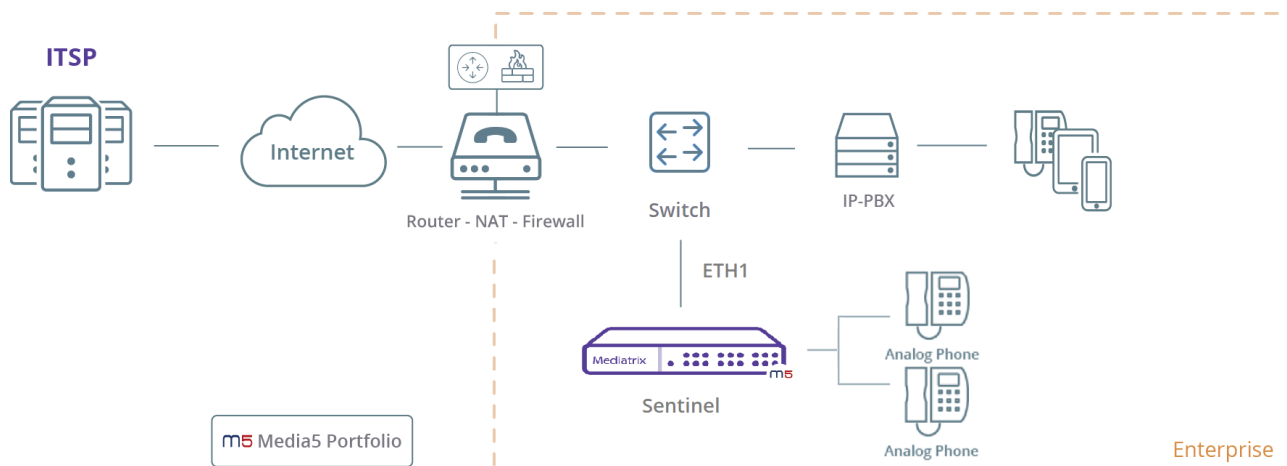
This TB explains how to integrate the local ports FXS to the scenario [SBC SIP Trunking Configuration-Sentinel on the LAN](#). Make sure the published on the Media5 documentation portal at <https://documentation.media5corp.com/> is completed and working before proceeding with this TB.

Information	Value	Used in Step
IP address of unit		Logging on to the Mediatrix Unit Web Interface
IP address or FQDN of Registrar host		Configuring the Default SIP Servers (p.5)
IP address or FQDN of Proxy host		Configuring the Default SIP Servers (p.5)
Type of endpoint used	FXS	

SBC SIP Trunking Configuration - Hybrid setup with FXS

This scenario describes how to integrate FXS ports on the Sentinel to a local PBX and to a SIP service provider using a Sentinel (SBC). It is an addition to the SBC SIP Trunking scenario, it implies that:

- The Sentinel unit is located in the LAN.
- Only port ETH1 of the Sentinel is used.
- The Sentinel unit is set as a Demarcation point.
- The Sentinel unit may or may not register to the SIP service provider.
- The Sentinel unit is located in the LAN, behind a Near-End NAT.
- The FXS ports will use the Gateway and will not consume SBC licenses



Important Information on NAT, Interfaces, and Ports

Since this scenario uses only one physical network interface (ETH1) for communicating both with the ITSP/Public Internet and the IP-PBX, different ports will need to be assigned to the signaling and media interfaces for the Sentinel to differentiate the traffic.

- On the ITSP/Public Internet side, port 5060 is used for signaling with the 20000-20999 range for media. The router/firewall will need to be set up to allow connections from the ITSP/Public Internet on these ports, and set up port forwarding to the Sentinel internal IP address.
- On the IP PBX side, port 5064 is used for signaling with the 21000-21999 range for media. Depending on the PBX, this can be accomplished by either creating a SIP trunk on an alternate port, or in the Outbound Proxy configuration.

- On the GW side, different port than 5060 or 5064 will be used for the signaling with the 20000-20999 range for the media.

Configuring the Default Gateway

Before you start

Make sure your telephony interface has both Physical and Signalling up before starting.

Steps

- 1) Go to **SIP/Gateways**.
- 2) In the **Gateway Configuration** table, enter in the **Port** field, the listening port the Gateway will be using for SIP signaling if it is different from 5060.

Note: The default value is 0 which stands for 5060.

- 3) Click **Apply**.

Result

Gateway Configuration							
Name	Type	Signaling Network	Media Networks	Media Networks Suggestion	Port	Secure Port	
default	Trunk	Uplink		--- Suggestion ---	Port	0	-
							+

Configuring the Default SIP Servers

Information

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

Steps

- 1) Go to **SIP/Servers**.
- 2) In the **Registrar Host** field, indicate the server IP address or FQDN of the SIP Registrar server .
- 3) In the **Proxy Host** field, indicate the server IP address or FQDN of the SIP Proxy server.
- 4) In the **Messaging Server Host** field, indicate the server IP address or FQDN of the Messaging server, if needed.
- 5) Leave the **Outbound Proxy Host** field empty, unless specifically instructed to set a value.

Note: Setting the address to 0.0.0.0:0 or leaving the field empty disables the outbound proxy host.

- 6) Click **Apply**.
- 7) Located at the top of the page, click **restart required services**.

Result

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

Registering Endpoints to the Default Sip Gateway

Steps

- 1) Go to **SIP/Registrations**.
- 2) In the **Endpoints Registration** table, from the **Register** selection list, select **Enable** for each endpoint to register.
- 3) In the **Endpoints Registration** table, from the **Messaging** selection list, select **Enable** for each endpoint to register if a messaging server was set in the [Configuring the Default SIP Servers](#) (p.5) step.
- 4) From the **Gateway Name** selection list, select **default** for each endpoint to register.
- 5) Click **Apply and Refresh**.

Result

Endpoints Registration						
Endpoint	User Name	Friendly Name	Register	Messaging	Gateway Name	
Slot1/E1T1	user_name 1		Enable ▼	Disable ▼	default ▼	
Slot2/FX01	user_name 2		Enable ▼	Disable ▼	default ▼	
Slot2/FX02	user_name 3		Enable ▼	Disable ▼	default ▼	
Slot2/FX03	user_name 4		Enable ▼	Disable ▼	default ▼	

Configuring Endpoint Authentication

Steps

- 1) Go to **SIP/Authentication**.
- 2) Click **Edit All Entries** located at the bottom of the page.
- 3) In the **Authentication** table, from the **Criteria** selection list, select **Endpoint** for all endpoints needing registration.
- 4) From the **Endpoint** selection list, select the related FXS port for each entry.
- 5) From the **Realm** field, enter the provided realm and from the **Validate Realm** selection list, select **Enable**. If no **Realm** was provided, leave the field empty and from the **Validate Realm** selection list, select **Disable**.
- 6) In the **User Name** field, enter the SIP user name for each entry.
- 7) In the **Password** field, enter the appropriate password for each entry.

- 8) Click **Apply and Refresh Registration**.

Result

The endpoints will be registered.

Authentication									
Priority	Criteria	Endpoint	Gateway	Username Criteria	Validate Realm	Realm	User Name	Password	
1	Endpoint	Endpoint 1			Disable		SIP user_name	00 00 00 00 00 00	
2	Endpoint	Endpoint 2			Disable		SIP user_name	00 00 00 00 00 00	
3	Endpoint	Endpoint 3			Disable		SIP user_name	00 00 00 00 00 00	
4	Endpoint	Endpoint 4			Disable		SIP user_name	00 00 00 00 00 00	

Configuring the Country for all Endpoints

Steps

- 1) Go to **Telephony/Misc**.
- 2) Make sure the **Select Endpoint** drop-down list is set to **Default**.
- 3) In the **Country** table, select your country from the drop-down list.
- 4) Click **Apply**.

Result

Country	
Country Selection:	NorthAmerica1

Setting Auto-Routing to Use SIP Usernames

Information

This task is mandatory if the registration username is a string, not only numbers.

Steps

- 1) Go to **Call Router/Auto-Routing**.
- 2) From the **Auto-Routing** selection list, select **Enable**.
- 3) From the **Criteria Type** selection list, select **SIP Username**.
- 4) Click **Apply**.

Result

Auto-routing:	Enable ▾	
Criteria Type:	SIP Username ▾	
Incoming Transformations	 Suggestion ... ▾	
Outgoing Transformations	 Suggestion ... ▾	
Incoming Signaling Properties	... Suggestion ... ▾	
Outgoing Signaling Properties	... Suggestion ... ▾	

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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