

The background of the page is a dark blue graphic. It features a stylized globe with a grid of dots representing nodes. These nodes are interconnected by a network of thin, light blue lines, creating a complex web-like pattern that covers the entire page.

SIP Trunking Back-to-Back

Mediatrix Sentinel SBC on the Edge

Configuration Notes

2026/04/08

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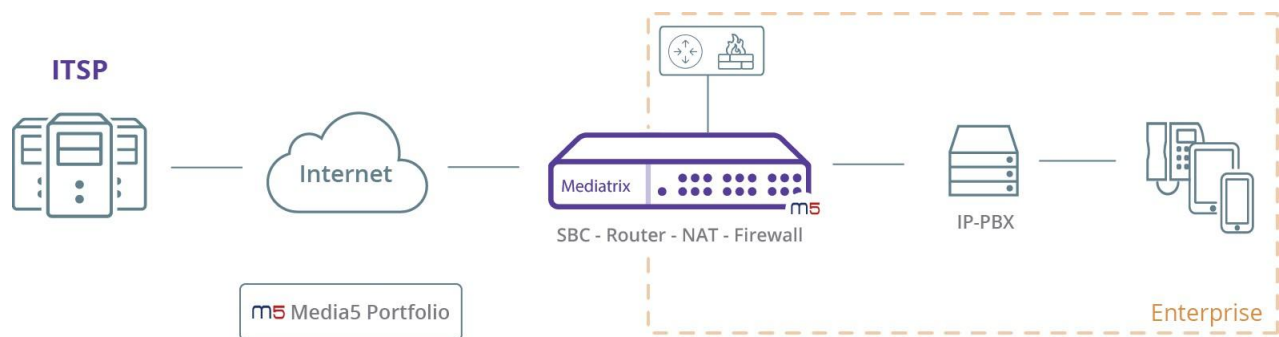
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SIP Trunking Back-to-Back Configuration

This scenario describes how to connect a local PBX to a SIP service provider through the corporate firewall using a Mediatrix Sentinel SBC. The Sentinel SBC is located on the Edge.

- The Sentinel SBC is set as a Demarcation point.
- The Sentinel SBC may or may not register to the SIP service provider. If registration is required, please check Technical Bulletin **“Configuring the Registration Agent”**
- The Sentinel SBC is located on the edge of the Internet with one interface in the LAN and one on the Internet.



Before Starting

Before starting to use these configuration notes, make sure network interfaces are configured, guidelines are available in the M5 Documentation Portal: [Basic Network Configuration](#)

Note: These configuration notes can be successfully executed, provided your unit is set to the factory default values.

Required information

Complete the following table to make sure you have the required information to complete the different steps.

Information	Value	Used in Step
IP address or FQDN of the service provider server		Configuring the wan_ip_trunk_ca Call Agent
IP address of the IP PBX		Configuring the lan_ip_pbx_ca Call Agent
Credentials to authenticate/register against the service provider (username, password and registrar address), if needed		Configuring a Registration Agent

SBC Service Configuration

Configuring the uplink_s Signaling Interface

Note: The Network Interfaces displayed in the **Network** column, are created under the **Network/Interfaces** page. The **uplink_s** signaling interface is preconfigured by default. This step will only be necessary if the **uplink_s** signaling interface was deleted or modified.

Steps

- 1) Go to **SBC/Configuration**.
- 2) In the **Signaling Interface Configuration** table, from the **Network** selection list located next to **uplink_s**, make sure **Uplink** is selected.
- 3) Set the SIP listening port for the Sbc service, if a listening port other than 5060 is required, or leave it as it is. Port 0 equals to 5060 or 5061 if Secure port.
- 4) Click **Save**.
- 5) Click **Apply** to apply all changes to the configuration.
- 6) Click **restart required services**, located at the top of the page.

Result

The **Signaling Interface** will be available when configuring a **Call Agent**, on the **Configure Call Agent** page on the **Signaling Interface** selection list.

Signaling Interface Configuration							
Name	Network	Port	Secure Port	Allowed Transports	Tls Mode	DiffServ (QoS)	Public Address
loop_s	Loop	0	0	All	Client	184	
lan1_s	Lan1	0	0	All	Client	184	
uplink_s	Uplink	0	0	All	Client	184	
							+

Configuring the uplink_m Media Interface

Note: The **uplink_m** media interface is preconfigured by default. This step will only be necessary if the **uplink_m** media interface was deleted or modified.

Steps

- 1) Go to **SBC/Configuration**.
- 2) In the **Media Interface Configuration** table, from the **Network** selection list located next to **uplink_m**, make sure **Uplink** is selected.
- 3) In the **Port Range** field, set the media (RTP) port range, if a port range other than 20000-20999 is required, or leave it as it is.
- 4) Click **Save**.

- 5) Click **Apply** to apply all changes to the configuration.
- 6) Click **restart required services**, located at the top of the page.

Result

The **Media Interface** will be available when configuring a **Call Agent**, on the **Configure Call Agent** page in the **Media Interface** selection list.

Media Interface Configuration						
Name	Network	Port Range	DiffServ (QoS)	Public Address		
loop_m	Loop	20000-20999	184		-	
lan1_m	Lan1	20000-20999	184		-	
uplink_m	Uplink	20000-20999	184		-	
					+	

Configuring the lan1_s Signaling Interface

Note: The **lan1_s** signaling interface is preconfigured by default. This step will only be necessary if the **lan1_s** signaling interface was deleted or modified.

Steps

- 1) Go to **SBC/Configuration**.
- 2) In the **Signaling Interface Configuration** table, from the **Network** selection list located next to **lan1_s**, make sure **Uplink** is selected.
- 3) Set the SIP listening port for the Sbc service, if a listening port other than 5060 is required, or leave it as it is. Port 0 equals to 5060 or 5061 if Secure port.
- 4) Click **Save**.
- 5) Click **Apply** to apply all changes to the configuration.
- 6) Click **restart required services**, located at the top of the page.

Result

The **Signaling Interface** will be available when configuring a **Call Agent**, on the **Configure Call Agent** page on the **Signaling Interface** selection list.

Signaling Interface Configuration								
Name	Network	Port	Secure Port	Allowed Transports	Tls Mode	DiffServ (QoS)	Public Address	
loop_s	Loop	0	0	All	Client	184		-
lan1_s	Lan1	0	0	All	Client	184		-
uplink_s	Uplink	0	0	All	Client	184		-
								+

Configuring the lan1_m Media Interface

Note: The **lan1_m** media interface is preconfigured by default. This step will only be necessary if the **lan1_m** media interface was deleted or modified.

Steps

- 1) Go to **SBC/Configuration**.
- 2) In the **Media Interface Configuration** table, from the **Network** selection list located next to **lan1_m**, make sure **Lan1** is selected.
- 3) In the **Port Range** field, set the media (RTP) port range, if a port range other than 20000-20999 is required, or leave it as it is.
- 4) Click **Save**.
- 5) Click **Apply** to apply all changes to the configuration.
- 6) Click **restart required services**, located at the top of the page.

Result

The **Media Interface** will be available when configuring a **Call Agent**, on the **Configure Call Agent** page in the **Media Interface** selection list.

Media Interface Configuration					
Name	Network	Port Range	DiffServ (QoS)	Public Address	
loop_m	Loop	20000-20999	184		–
lan1_m	Lan1	20000-20999	184		–
uplink_m	Uplink	20000-20999	184		–
					+

Configuring the wan_ip_trunk_ca Call Agent

Steps

- 1) Go to **SBC/Configuration**.
- 2) Select the **Enable** check box, located next to **wan_ip_trunk_ca**.
- 3) In the **Call Agent Configuration** table, click  next to **wan_ip_trunk_ca**.
- 4) In the **Configure Call Agent** table, complete the following fields:
 - a) From the **Signaling Interface** selection list, select **uplink_s**.
 - b) From the **Media Interface** selection list, select **uplink_m**.
 - c) Set the **Peer Host** to the IP address of the service provider server or FQDN.
- 5) In the **Call Agent Rulesets** table, click .
- 6) If the service provider is challenging for a password, from the **Name** selection list, choose **uac_authentication_out**.
- 7) In the **Parameters** field, enter **USERNAME=your_username PASSWORD=your_password** corresponding to the username and password used for authentication.

- 8) Click **+**
- 9) From the **Name** selection list, choose **automatic_media_relay**.
- 10) Click **+**
- 11) From the **Name** selection list, choose **topology_hiding_out**.
- 12) Click **Save**.
- 13) Click **Apply** to apply all changes to the configuration.

Result

No will be displayed in the **Config. Modified** field, indicating that the configuration that was modified is now applied to the system. When the Sentinel SBC uses the selected Call Agent for a communication, the selected parameters will be applied.

Configure Call Agent		Value
Call Agent Parameters		
Name	wan_ip_trunk_ca	
Enable	☒	
Gateway		
Signaling Interface	uplink_s	
Media Interface	uplink_m	
Peer Host	Service provider IP address	
Peer Network		
Force Transport	None	
Monitoring and Blacklisting Parameters		
Keep-Alive Interval	0	
Blacklisting Duration	0	
Blacklisting Delay	0	
Blacklisting Error Codes		

Call Agent Rulesets			
Priority	Name	Parameters	
1	uac_authentication_out	USERNAME=your_username PASSWORD=your_password	↑ ↓ −
2	automatic_media_relay		↑ ↓ −
3	topology_hiding_out		↑ ↓ −
			+ −

Configuring the lan_ip_pbx_ca Call Agent

Steps

- 1) Go to **SBC/Configuration**.
- 2) Select the **Enable** check box, located next to **lan_ip_pbx_ca**.
- 3) In the **Call Agent Configuration** table, click  next to **lan_ip_pbx_ca**.
- 4) In the **Configure Call Agent** table, complete the following fields:
 - a) From the **Signaling Interface** selection list, select **lan1_s**.
 - b) From the **Media Interface** selection list, select **lan1_m**.
 - c) Set the **Peer Host** to the IP address of the IP PBX.
- 5) In the **Call Agent Rulesets** table, click .
- 6) From the **Name** selection list, choose **media_relay**.
- 7) Click **Save**.
- 8) Click **Apply** to apply all changes to the configuration.

Result

No will be displayed in the **Config. Modified** field, indicating that the configuration that was modified is now applied to the system. When the Sentinel SBC uses the selected Call Agent for a communication, the selected parameters will be applied.

Configure Call Agent		Value
Call Agent Parameters		
Name	lan_ip_pbx_ca	
Enable	☒	
Signaling Interface	lan1_s	
Media Interface	lan1_m	
Peer Host	IP PBX address	
Peer Network		
Force Transport	None	
Monitoring and Blacklisting Parameters		
Keep-Alive Interval	30	
Blacklisting Duration	60	
Blacklisting Delay	0	
Blacklisting Error Codes		
Custom Header		

Call Agent Rulesets		
Priority	Name	Parameters
1	media_relay	







Associating Routing Rulesets to Your Configuration

Steps

- 1) Go to **SBC/Configuration**.
- 2) In the **Routing Rulesets** table, from the **Name** selection list, select **wan_ip_trunk_to_lan_pbx**.
- 3) Click **+**
- 4) If registering to the IP PBX, from the **Name** selection list, select **lan_pbx_to_wan_ip_trunk**.
- 5) Click **Save**.
- 6) Click **Apply** to apply all changes to the configuration.

Result

Routing Rulesets			
Priority	Name	Parameters	
1	lan_pbx_to_wan_ip_trunk_dm		⬆ ⬇ ⬅
2	wan_ip_trunk_to_lan_pbx		⬆ ⬇ ⬅
+			

IP PBX and Main IP Phones

Configuring the IP PBX

Information

The IP PBX server is configured with the IP address and port of the Mediatrix SBC lan1_s Signaling Interface. The Mediatrix unit must be configured in the PBX as a SIP Trunk. **If PBX needs to register to the SBC, see Technical Bulletin "REGISTERING TO THE SBC"**



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