

Voice Gateway Basic Configuration

M500Li Analog VoIP Gateway

Version 7.2

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Notice

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Stay in the Loop with AudioCodes



Abbreviations and Terminology

Each abbreviation, unless widely used, is spelled out in full when first used.

Related Documentation

Document Name
Mediant MSBR CLI Reference Guide
Mediant 500Li User's Manual
Mediant 500Li Hardware Installation Manual

Important Notes



This document describes the recommended configuration for a typical deployment scenario. However, your deployment may require additional or other settings specific to your network topology. If you have any questions regarding required configuration, please contact your AudioCodes sales representative.

Document Revision Record

LTRT	Description
31635	Initial document release for Version 7.2.
31636	Voice configuration updated.

Documentation Feedback

AudioCodes continually strives to produce high quality documentation. If you have any comments (suggestions or errors) regarding this document, please fill out the Documentation Feedback form on our website at <https://online.audiocodes.com/documentation-feedback>.

1 Getting Started with Initial Connectivity

1.1 Introduction

This part describes how to initially access the device's management interface and change its default IP address to correspond with your networking scheme.



Device management can always be done through the LAN interface. It can also be enabled for the WAN interface as explained in section [1.3.2, Configuring the WAN Interface](#) on page 7.

1.2 Accessing the Device's Management Interfaces

This section describes initial access to the device's management interface.

1.2.1 Connecting to the Web Interface

You can access the Web- based management interface using the device's default LAN IP address:

Table 1-1: Default LAN IP Address

Networking Parameter	Default Value
IP Address	192.168.0.1
Prefix Length	24 (255.255.255.0)
Default Gateway	0.0.0.0
VLAN ID	1

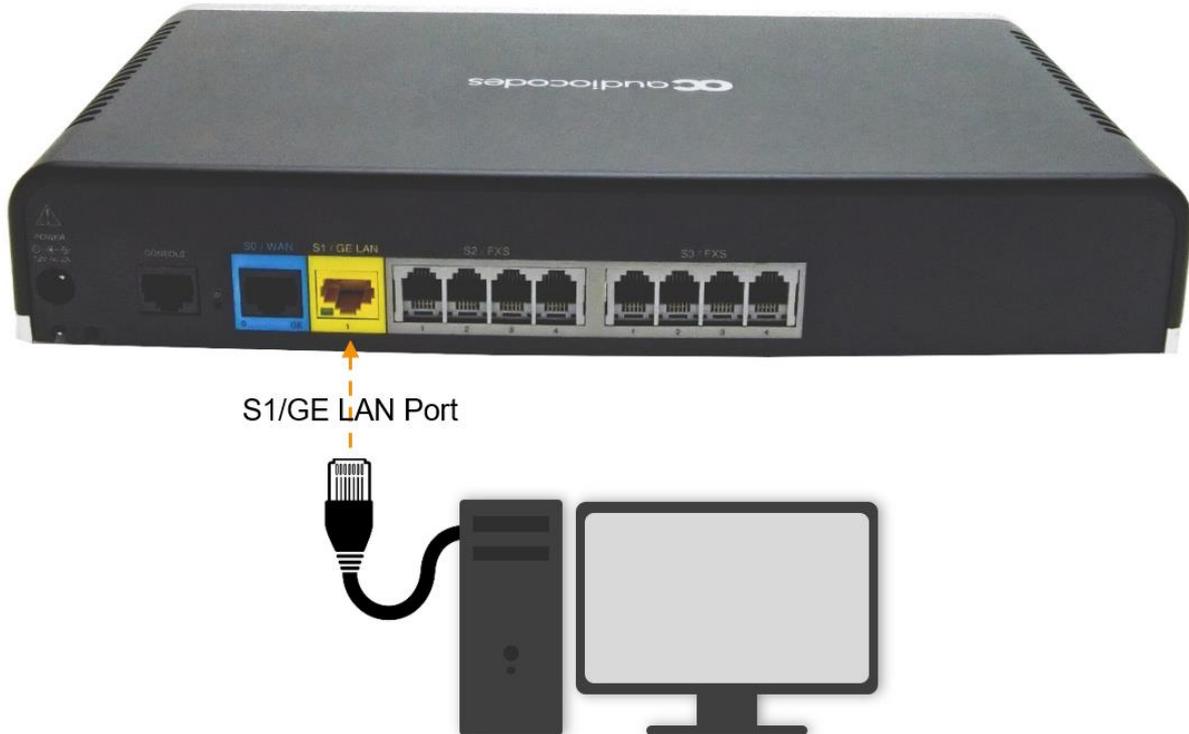


By default, the device's embedded DHCP server is enabled for the LAN, and with default IP pool addresses relating to the default subnet LAN. The DHCP server allocates this pool of IP addresses to computers connected to its LAN interface. You can disable the DHCP server or modify the IP address pool.

1.2.2 Accessing the Device Using the Default LAN IP Address

To access the device using the default LAN IP address:

1. Connect the LAN Port directly to your computer's network interface using a straight-through Ethernet cable:



Make sure that your computer is configured to automatically obtain an IP address. The device has an embedded DHCP server, which by default, allocates IP addresses to connected computers.

2. On your computer, start a Web browser and in the URL address field, enter the device's default IP address (see table above); the Web interface's Web Login screen appears:

Web Login

Username

Password

Remember Me Log In

3. In the 'Username' and 'Password' fields, enter the case-sensitive, default login username (**Admin**) and password (**Admin**).
4. Click **Log In**.

1.3 Configuring Voice Gateway LAN and WAN

This section describes how to configure the device's LAN and WAN interfaces.



After accessing the device through the LAN interface, you can configure Web management access from one of the following interfaces:

- Any of the configured Voice Gateway LAN interfaces (default LAN interface is 192.168.0.1).
- WAN port interface: In this setup, you need to enable remote access to the WAN port interface, as described in section 1.3.3, [Remote Web-based \(HTTP/S\) Management](#) on page 7.

1.3.1 Modifying the LAN Interface

The device's default LAN IP address is 192.168.0.1/24. You can change this to suit your networking scheme.

By default, the device's embedded DHCP server is enabled for the LAN, and with default IP pool addresses relating to the default subnet LAN. You can disable the DHCP server or modify the IP address pool. The DHCP server allocates this pool of IP addresses to the computers connected to its LAN interface.

To modify the LAN interface:

1. Open the LAN Interface page (**Setup** menu > **IP NETWORK** tab > **CORE ENTITIES** folder > **LAN Interface**).
2. In this page you can set:
 - LAN INTERFACES SETTINGS
 - DHCP SETTINGS (Enable / Disable)
 - DNS SETTINGS

LAN Interface

<div style="background-color: #f0f0f0; padding: 5px; margin-bottom: 10px;">INTERFACE INFORMATION</div> <table border="0" style="width: 100%;"> <tr><td>Name</td><td>VLAN 1</td></tr> <tr><td>Description</td><td>incoming_connection_vlan 1</td></tr> <tr><td>Status</td><td>Connected</td></tr> <tr><td>State Time</td><td>05:36:47</td></tr> </table>	Name	VLAN 1	Description	incoming_connection_vlan 1	Status	Connected	State Time	05:36:47	<div style="background-color: #f0f0f0; padding: 5px; margin-bottom: 10px;">LAN INTERFACES SETTINGS</div> <table border="0" style="width: 100%;"> <tr><td>IP Address</td><td><input type="text" value="192.168.0.1"/></td></tr> <tr><td>Subnet Mask</td><td><input type="text" value="255.255.255.0"/></td></tr> </table>	IP Address	<input type="text" value="192.168.0.1"/>	Subnet Mask	<input type="text" value="255.255.255.0"/>						
Name	VLAN 1																		
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<div style="background-color: #f0f0f0; padding: 5px; margin-bottom: 10px;">DHCP SETTINGS</div> <table border="0" style="width: 100%;"> <tr><td>Enable DHCP Server</td><td><input type="text" value="Enable"/></td></tr> <tr><td>First IP Pool Address</td><td><input type="text" value="192.168.0.3"/></td></tr> <tr><td>Last IP Pool Address</td><td><input type="text" value="192.168.0.8"/></td></tr> <tr><td>IP Pool Subnet Mask</td><td><input type="text" value="255.255.255.0"/></td></tr> <tr><td>Primary DNS Server IP Address</td><td><input type="text" value="0.0.0.0"/></td></tr> <tr><td>Secondary DNS Server IP Address</td><td><input type="text" value="0.0.0.0"/></td></tr> <tr><td>Client Lease Time [Minutes]</td><td><input type="text" value="60"/></td></tr> </table>	Enable DHCP Server	<input type="text" value="Enable"/>	First IP Pool Address	<input type="text" value="192.168.0.3"/>	Last IP Pool Address	<input type="text" value="192.168.0.8"/>	IP Pool Subnet Mask	<input type="text" value="255.255.255.0"/>	Primary DNS Server IP Address	<input type="text" value="0.0.0.0"/>	Secondary DNS Server IP Address	<input type="text" value="0.0.0.0"/>	Client Lease Time [Minutes]	<input type="text" value="60"/>	<div style="background-color: #f0f0f0; padding: 5px; margin-bottom: 10px;">DNS SETTINGS</div> <table border="0" style="width: 100%;"> <tr><td>Primary DNS Server IP Address</td><td><input type="text"/></td></tr> <tr><td>Secondary DNS Server IP Address</td><td><input type="text"/></td></tr> </table>	Primary DNS Server IP Address	<input type="text"/>	Secondary DNS Server IP Address	<input type="text"/>
Enable DHCP Server	<input type="text" value="Enable"/>																		
First IP Pool Address	<input type="text" value="192.168.0.3"/>																		
Last IP Pool Address	<input type="text" value="192.168.0.8"/>																		
IP Pool Subnet Mask	<input type="text" value="255.255.255.0"/>																		
Primary DNS Server IP Address	<input type="text" value="0.0.0.0"/>																		
Secondary DNS Server IP Address	<input type="text" value="0.0.0.0"/>																		
Client Lease Time [Minutes]	<input type="text" value="60"/>																		
Primary DNS Server IP Address	<input type="text"/>																		
Secondary DNS Server IP Address	<input type="text"/>																		

1.3.2 Configuring the WAN Interface

This procedure describes how to configure the WAN interface and uses Gigabit Ethernet.



Before configuring the WAN interface, make sure that you have all the required information from your Internet Telephone Service Provider (ITSP)

To configure a WAN IP address:

1. Connect the WAN port to the WAN network.
For information on cabling the WAN port, refer to the Hardware Installation Manual.
2. Open the WAN Interface page (**Setup** menu > **IP NETWORK** tab > **CORE ENTITIES** folder > **WAN Interface**).
3. In this page you can set:
 - **WAN SETTINGS** (Static or DHCP Client - Default WAN interface is DHCP Client)
 - **DNS SETTINGS** (Static or Auto - Default DNS settings is Auto)

WAN Interface

INTERFACE INFORMATION	WAN SETTINGS
Name	GigabitEthernet 0/0
Description	WAN Copper
Status	Connected
State Time	05:43:21
DNS SETTINGS	
DNS Server Mode	Auto
Primary DNS Server IP Address	10.1.1.10
Secondary DNS Server IP Address	10.1.1.6

Cancel
Apply

1.3.3 Remote Web-based (HTTP/S) Management

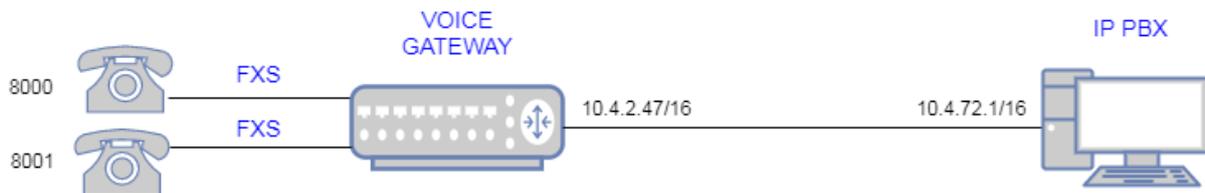
To enable remote Web-based management (HTTP/S) from the WAN:

1. Open the WEB Settings page (**Setup** menu > **Administration** tab > **Web & CLI** folder > **WEB Settings**).
2. Allow WAN access:
 - For **HTTP**: From the 'Allow WAN access to HTTP' drop-down list, select **Enable**.
 - For **HTTPS**: From the 'Allow WAN access to HTTPS' drop-down list, select **Enable**.
3. Click **Apply** and save to flash.

2 Voice Gateway using Proxy Server

This example scenario describes how to route calls when the Voice Gateway configured to work using a Proxy Server and FXS ports (Basic configuration).

Figure 2-1: Example of Voice Gateway using SIP Proxy and FXS Ports



2.1 WAN Interface Configuration

This section describes the WAN Interface configuration of the Voice Gateway.

To configure WAN IP address:

- Open the **WAN Interface** page (**Setup** menu > **IP NETWORK** tab > **CORE ENTITIES** folder > **WAN Interface**).

WAN Interface	
INTERFACE INFORMATION	
Name	GigabitEthernet 0/0
Description	WAN Copper
Status	Connected
State Time	06:06:28
DNS SETTINGS	
DNS Server Mode	Auto
Primary DNS Server IP Address	10.1.1.10
Secondary DNS Server IP Address	10.1.1.6
WAN SETTINGS	
IP Address Mode	DHCP
IP Address	10.4.2.47
Subnet Mask	255.255.0.0
Add Default Route to DHCP Gateway	<input checked="" type="checkbox"/>
<input type="button" value="Cancel"/> <input type="button" value="Apply"/>	

2.2 Voice Configuration

This section describes the voice configuration on Voice Gateway.

2.2.1 Configuring Proxy Server Address

To configure Proxy Server Address (IP or Hostname):

1. Open the Proxy Sets page (**Setup** menu > **SIGNALING & MEDIA** tab > **CORE ENTITIES** folder > **Proxy Sets**).
2. Click on the Proxy Address items link (located at the bottom of the screen).
3. Configure IP or Hostname.

Proxy Sets (1)

Page 1 of 1 | Show 10 records per page

INDEX	NAME	SRD	GATEWAY IPv4 SIP INTERFACE	PROXY KEEP-ALIVE TIME [SEC]	REDUNDANCY MODE	PROXY HOT SWAP
0	ProxySet_0	DefaultSRD (#0)	SIPInterface_0	60		Disable

#0[ProxySet_0] ■ DefaultSRD [Edit](#)

GENERAL

Name	ProxySet_0
Gateway IPv4 SIP Interface	SIPInterface_0 View
Gateway IPv6 SIP Interface	-- View
TLS Context Name	-- View

KEEP ALIVE

Proxy Keep-Alive	Disable
Proxy Keep-Alive Time [sec]	60
Keep-Alive Failure Responses	
Success Detection Retries	1
Success Detection Interval	10
Failure Detection Retransmissions	-1

REDUNDANCY

Redundancy Mode	
Proxy Hot Swap	Disable
Proxy Load Balancing Method	Disable
Min. Active Servers for Load Bal...	1

ADVANCED

Classification Input	IP Address only
DNS Resolve Method	
Accept DHCP Proxy List	Disable

[Proxy Address 0 Items >>](#)

2.2.2 Configuring FXS Ports (Trunk Groups)

To configure FXS Ports (Trunk Groups):

- Open the Trunk Groups page (Setup menu > SIGNALING & MEDIA tab > GATEWAY folder > Trunks & Groups folder > Trunk Groups).

Trunk Groups

Add Phone Context As Prefix
Trunk Group Index

Disable ▾
1-12 ▾

GROUP INDEX	MODULE	FROM TRUNK	TO TRUNK	CHANNELS	PHONE NUMBER	TRUNK GROUP ID	TEL PROFILE NAME
1	Module 2 FXS			1	8000	1	None
2	Module 2 FXS			2	8001	1	None
3							None
4							None
5							None
6							None
7							None
8							None
9							None
10							None
11							None
12							None

Register Un-Register

Cancel APPLY

2.2.3 Configuring Trunk Group Settings

To configure Trunk Group Settings:

- Open the Trunk Group Settings page (Setup menu > SIGNALING & MEDIA tab > GATEWAY folder > Trunks & Groups folder > Trunk Group Settings).

Trunk Group Settings (1)

+ New Edit Insert Action

Page 1 of 1 Show 10 records per page

INDEX	NAME	TRUNK GROUP ID	CHANNEL SELECT MODE	REGISTRATION MODE	SERVING IP GROUP	ADMIN STATE	STATUS
0		1	By Dest Phone Number	Per Endpoint	IPGroup_1	Unlocked	

#0 Edit

GENERAL

Name

Trunk Group ID • 1

Channel Select Mode • By Dest Phone Number

Registration Mode • Per Endpoint

Used By Routing Server Not used

SIP CONFIGURATION

Gateway Name

Contact User

Serving IP Group • IPGroup_1 View

MWI Interrogation Type

STATUS

Admin State Unlocked

Status

2.2.4 Configuring FXS Authentication

To configure FXS Authentication:

- Open the Authentication page (**Setup** menu > **SIGNALING & MEDIA** tab > **GATEWAY** folder > **Analog Gateway** folder > **Authentication**).

Authentication (6)

[Edit](#) Page 1 of 1 Show 10 records per page

INDEX	MODULE	PORT	PORT TYPE	USER NAME	PASSWORD
0	2	1	FXS	8000	*
1	2	2	FXS	8001	*
2	2	3	FXS		
3	2	4	FXS		
4	3	1	FXS		
5	3	2	FXS		
6	3	3	FXS		
7	3	4	FXS		

#0 [Edit](#)

GENERAL		CREDENTIALS	
Module	2	User Name	* 8000
Port	1	Password	* *
Port Type	FXS		

2.2.5 Configuring IP -> Tel Routing

To configure IP -> Tel Routing:

- Open the IP -> Tel Routing page (**Setup** menu > **SIGNALING & MEDIA** tab > **GATEWAY** folder > **Routing** folder > **IP -> Tel Routing**).

IP-to-Tel Routing (1)

[New](#) [Edit](#) [Insert](#) Page 1 of 1 Show 10 records per page

INDEX	NAME	SOURCE IP GROUP	SOURCE SIP INTERFACE	SOURCE IP ADDRESS	SOURCE PHONE PATTERN	DESTINATION PHONE PATTERN	TRUNK GROUP ID
0		--	Any	*	*	*	1

#0 [Edit](#)

GENERAL		ACTION	
Name		Destination Type	Trunk Group
		Trunk Group ID	* 1
		Source IP Group	-- View
		IP Profile	-- View
		Trunk ID	-1
		Call Setup Rules Set ID	-1

MATCH	
Source SIP Interface	* Any View
Source IP Address	*
Source Phone Pattern	*
Source Host Pattern	*
Source Tag	
Destination Phone Pattern	*
Destination Host Pattern	*
Destination Tag	

2.2.6 Configuring Proxy & Registration

To configure Proxy & Registration:

1. Open the Proxy & Registration page (**Setup** menu > **SIGNALING & MEDIA** tab > **SIP DEFINITIONS** folder > **Proxy & Registration**).

Proxy & Registration

GENERAL	GATEWAY PROXY
Redundancy Mode	Use Default Proxy
Proxy IP List Refresh Time	Use Proxy
Proxy DNS Query Type	Proxy Set Table
Number of RTX Before Hot-Swap	Proxy Name
Use Proxy IP as Host	Prefer Routing Table
User-Information Usage	Use Routing Table for Host Names and Profiles
Add Empty Authorization Header	Always Use Proxy
Gateway Name	Enable Fallback to Routing Table
Use Gateway Name for OPTIONS	
Challenge Caching Mode	
REGISTRATION	AUTHENTICATION
Registration Time	User Name
Re-registration Timing [%]	Password
Registration Retry Time	Cnonce
Max Registration Backoff Time [sec]	
Registration Time Threshold	GATEWAY AUTHENTICATION
Re-register On INVITE Failure	Authentication Mode
ReRegister On Connection Failure	
Gateway Registration Name	GATEWAY REGISTRATION
SRV URI	Enable Registration
	Registrar Name
	Registrar IP Address

Cancel APPLY

2. Set the following parameters:
 - Use Default Proxy = Use Proxy
 - Enable Registration = Enable

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