Mediant™ 1000B Gateway & E-SBC

Quick Setup Guide

Welcome

Congratulations on purchasing your AudioCodes **Mediant 1000B Gateway and Enterprise Session Border Controller (E-SBC)**, hereafter referred to as the *device*!

This document is intended to provide basic setup instructions for initial access to the device and for connecting it to your network. For advanced configuration and cabling, refer to the *User's Manual* and *Hardware Manual* respectively, which can be downloaded from AudioCodes website at https://www.audiocodes.com/library/technical-documents.

Before you begin, please read the Safety Precautions on page 7.

🇫🇷 Pour consulter le guide rapide de l'équipement en **français**, consultez le site web AudioCodes suivant : https://www.audiocodes.com/library/technical-documents?productFamilyGroup=1637&productGroup=1641&docTypeGroup=Quick+Guides.
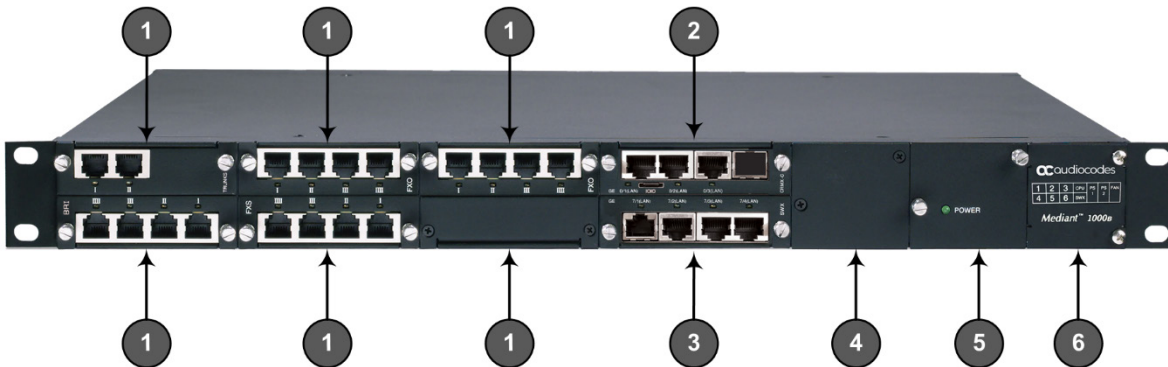
Package Contents

Make sure that the following items (in addition to any separate-orderable items that you may have purchased) are shipped with your device:

- 4 x anti-slide bumpers for desktop mounting

- 1 or 2 x AC power cables (depending on order)

- Regulatory Information document

Physical Description of Front Panel

[*The number and type of port interfaces depend on your ordered hardware configuration.*]

1	Telephony port interfaces and DSP resources, which can include any one or a combination of FXS (RJ-11), FXO (RJ-11), ISDN BRI (RJ-45), ISDN PRI (RJ-48), and Media Processing Module (MPM) interfaces.

FXS **FXS** port status LED:

🟩 Green On	Phone is in off-hook position.
🟩 Green Flashing	Phone is ringing.
🟥 Red On	▪ Malfunction in line or out of service due to Serial Peripheral Interface (SPI) failure. ▪ Port is disabled.
⬛ Off	Phone is in on-hook position or no power.

FXO **FXO** port status LED:

🟩 Green On	FXO line with PBX is in off-hook position.
🟩 Green Flashing	Ringing is detected from PBX.
🟥 Red On	▪ Malfunction in line or out of service due to SPI failure. ▪ Port is disabled.
⬛ Off	FXO line is in on-hook position or no power.

BRI **BRI** port status LED

🟩 Green On	Physical Layer 1 is synchronized (normal operation).
🟥 Red On	Physical Layer 1 is not synchronized.
⬛ Off	BRI trunk is not active.

TRUNKS **PRI** (E1/T1) port status LED:

🟩 Green On	Trunk is synchronized (normal operation).
🟥 Red On	Loss due to one of the following signals: ▪ LOS (Loss of Signal) ▪ LOF (Loss of Frame) ▪ AIS (Alarm Indication Signal - Blue Alarm) ▪ RAI (Remote Alarm Indication - Yellow Alarm)
⬛ Off	Failure or disruption in power supply or power is not being supplied to the device through the power supply entry.

2	CRMX	CRMX module, providing

- RS-232 serial interface port (flat connector).
- Dry-contact relay connector for interfacing with a third-party, external alarm system (separate orderable item).
- Reset pinhole button for resetting the device or restoring it to factory defaults. To restore to defaults, press and hold down the button for at least 15 seconds (but no more than 25 seconds).
- Gigabit Ethernet LAN interface ports (RJ-45) for connecting IP phones, computers, or switches. The ports support 1+1 Ethernet port redundancy (active-standby), half- and full-duplex modes, auto-negotiation, and straight-through or crossover cable detection. Each port has a status LED:

🟩 Green On	Ethernet link established.
🟩 Green Flashing	Data is being received or transmitted.
⬛ Off	No Ethernet link.

The **WAN / STATUS** LED indicates the following:

🟥 Red On	Reset button has been pressed.
🟥 Red Flashing	- Under-voltage condition on CRMX module. - Booting up phase (U-boot) of the operating system kernel has completed successfully. **Note:** When the device is ordered with dry-contact relay interfaces, the LED label is **STATUS**; otherwise, the label is **WAN** (despite no WAN interfaces).
🟩 Green On	Dry contact relay alarm: No Alarm (Dry Contact I Closed and II Open).
🟧 Orange On	Dry contact relay alarm: Minor Alarm (Dry Contact I and II Open).
🟥 Red On	Dry contact relay alarm: - Major Alarm (Dry Contact I and II Closed). - Critical Alarm (Dry Contact I Open and II Closed).

3	SWX	LAN Extension (SWX) module, providing four additional Gigabit Ethernet LAN port interfaces. **Note:** The SWX module is a separate orderable item.
4	Power 1	Secondary Power Supply module, providing load sharing with and power redundancy in case of failure in primary Power Supply module. **Note:** The secondary Power Supply module is a separate orderable item.
5	Power 2	Primary Power Supply module with a status LED: 🟩 Green On — AC power is received by device. ⬛ Off — No power.
6	-	Fan Tray module and a schematic on its front panel showing the chassis' slot numbers.

Mounting the Device

You can mount the device on a desktop using the four anti-slide bumpers (supplied), which you need to stick on the grooves located on the underside of the device.

Alternatively, you can mount the device in a standard 19-inch rack, using one of the following methods:

- Attaching the device to the rack posts using the pre-attached front-mounting brackets. When using this method, it is highly recommended that the device be placed on a pre-installed rack shelf (not supplied) for additional support.

- Attaching the device to the rack posts using the pre-attached front-mounting brackets and rear-mounting brackets (separate orderable item).

Cabling the Device to Power

1. **GROUNDING:** Ground (earth) the device by connecting an electrically earthed strap of 16-AWG (minimum) wire to the device's grounding screw located on the rear panel, using the supplied washer. Connect the other end of the strap to protective earthing. This should be in accordance with regulations enforced in the country of installation. The grounding screw must be connected to the equipotential grounding bus bar located in the Telecommunication rack, using a wire of 6 mm^2 surface wire. This line must be connected to the equipotential bus bar of the electrical circuit board located in the Telecommunication room, using a stranded cable with surface area of 25 mm^2. The length of this cable must be as short as possible (no longer than 3 meters).

Earthing Connection on Ground Lug

Grounding Lug Wire

2. Connect the line socket of the AC power cord (supplied) to the device's AC power inlet (left) located on the rear panel. Connect the plug at the other end of the AC power cord to a standard electrical outlet.

AC Power Inlet

AC Power Cord
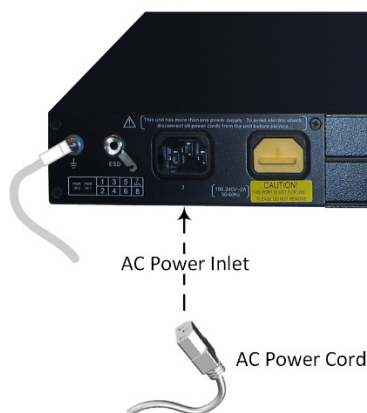
Assigning an IP Address to the Device

Use the device's factory default IP address (**192.168.0.2/24** and Default Gateway 0.0.0.0) to initially access the device's Web-based management interface and then change it to suit your networking addressing scheme for subsequent connectivity.

1. Using a CAT-5e/6 straight-through RJ-45 Ethernet cable, connect the device's Ethernet port GE **0/1** or **0/2** (front panel) to the LAN port of your computer.

GE Port **0/1** or **0/2**
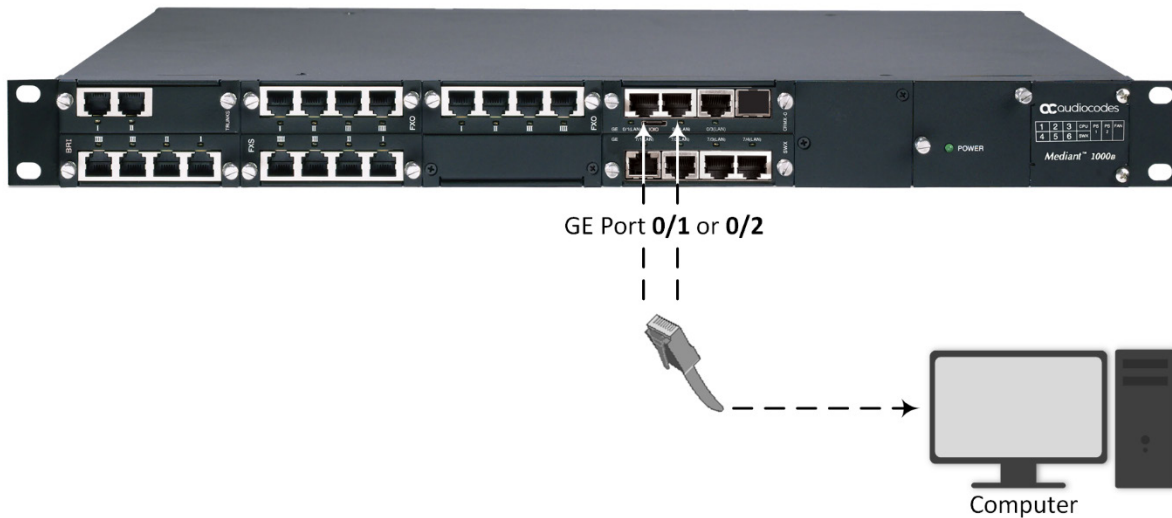
Computer

2. Change the IP settings of your computer to correspond with the device's default IP address and subnet mask.

3. On your computer, open a standard Web browser (for example, Google Chrome), and then in the URL field, enter the device's default IP address; the Web Login screen appears:
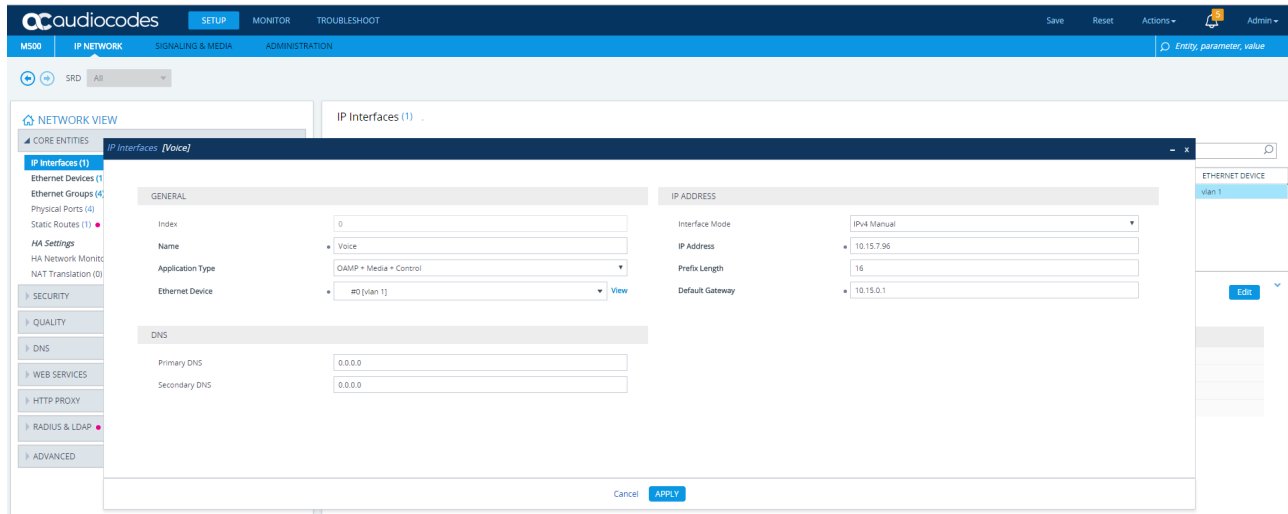

4. Type in the default username (**Admin**) and password (**Admin**), and then click **Log In**.

5. Open the IP Interfaces table (**Setup** menu > **IP Network** tab > **Core Entities** folder > **IP Interfaces**).

6. Select the OAMP interface ('Application Type' with **OAMP + Media + Control**), click **Edit**, and then in the dialog box, modify the device's OAMP interface.

7. Click **Apply** to submit your changes; your connection with the device becomes unavailable at the default IP address (due to the new IP address).

8. Change the IP settings of your computer to correspond with the new OAMP IP addresses and subnet of the device.

9. Access the device again, but at its' new IP address, and then on the Web interface's toolbar, click the **Save** button; the new IP address is now saved to the device's flash memory.

10. Re-cable the device to the required network. You can now access the device's management interfaces remotely, using the new IP address.

Safety Precautions

- This device is an indoor unit and therefore, must not be installed outdoors. Ethernet cabling must be routed only indoors and must not exit the building.
- The device must be installed and serviced only by qualified service personnel.
- Do not open or dismantle the device.
- Do not expose the device to water or moisture.
- Make sure the device is installed in a well-ventilated location to avoid over heating of internal components and subsequent damage.
- Make sure that all unoccupied module slots are covered with blank panels to ensure optimal airflow pressure inside the chassis.
- Do not place any object on top of the device and make sure that sufficient clearance from the top and sides are maintained to ensure proper airflow to avoid over heating of internal components.
- Operate the device in an ambient temperature (Tma) that does not exceed 40°C (104°F).
- The device must be installed only in restricted access locations.
- Connect FXO, E1/T1, and BRI interfaces utilizing 26-AWG minimum wiring.
- Use only the supplied AC power cord for connection to the power source.
- When using only one Power Supply module, the second AC power socket on the rear panel is covered with a plastic sticker. Please do not remove the sticker and connect anything to this power socket. Remove the sticker only when the device is ordered with two Power Supply modules.
- When using two Power Supply modules, connect each Power Supply module to a different AC supply circuit and make sure that the two AC power sources have the same ground potential.
- The device must be connected to an electrical socket-outlet providing a protective earthing connection.
- Operate the device only from the type of power source indicated on the chassis.
- Installation of the device must be in accordance with national wiring codes and conform to local regulations.
- The device must be installed only in telecommunication sites in compliance with ETS 300-253 requirements "Earthing and Bonding of Telecommunication Equipment in Telecommunication Centers".
- Prior to installation, earth loop impedance test must be performed by a certified electrician to ensure grounding suitability at the power outlet intended to feed the device. It is essential that impedance is kept below 0.5 ohms.
- The device includes an integrated secondary surge protection, but does not provide primary telecom protection! When the FXS / FXO lines are routed outside the building, additional protection - usually a 350V three-electrode Gas Discharge Tube (GDT) as described in ITU-T K.44 - must be provided at the entry point of the telecom wires into the building (usually on the main distribution frame / MDF), in conjunction with proper grounding. The center pin of the GDT (MDF grounding bar) must be connected to the equipotential grounding bus bar of the Telecommunication room.

About AudioCodes

AudioCodes Ltd. (NASDAQ, TASE: AUDC) is a leading vendor of advanced communications software, products and productivity solutions for the digital workplace. AudioCodes enables enterprises and service providers to build and operate all-IP voice networks for unified communications, contact centers, and hosted business services. AudioCodes offers a broad range of innovative products, solutions and services that are used by large multi-national enterprises and leading tier-1 operators around the world.

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