1 About this Guide

Thank you for purchasing AudioCodes Mediant 4000 Enterprise Session Border Controller (E-SBC).
This quick guide is designed to provide you with basic information on how to initially connect to your Mediant 4000 E-SBC and change its IP address to suit your network addressing scheme. Once you have established communication with the Mediant 4000 E-SBC, you can configure it as required in your deployment. You can refer to related documents listed at the end of this guide for detailed hardware installation and configuration. Before you start, please read the safety instructions provided in the Installation Manual which can be downloaded from AudioCodes Web site at http://www.audiocodes.com/library.

2 System Overview

AudioCodes' Mediant 4000 E-SBC is a member of AudioCodes family of Enterprise Session Border Controllers, enabling voice-over-IP (VoIP) connectivity and security between the Enterprise and Internet Telephony Service Provider (ITSP) networks. The Mediant 4000 E-SBC is a fully featured enterprise-class SBC, providing a secured voice network deployment based on a Back-to-Back User Agent (B2BUA) implementation. The SBC functionality provides perimeter defense for protecting the Enterprise from malicious VoIP attacks; mediation for allowing the connection of any IP PBX to any service provider; and service assurance for service quality and manageability.

The Mediant 4000 E-SBC also provides a call "survivability" feature with Local Mode survivability, maintaining service continuity to Enterprises served by centralized SIP-based IP Centrex servers, or branch offices of distributed enterprises. Local Mode enables internal office communication between SIP clients in the case of disconnection from the centralized IP Centrex server or IP PBX.

The Mediant 4000 E-SBC offers the following redundancy features:

• 1+1 High Availability, deploying two Mediant 4000 E-SBC devices where both are connected to the same broadcast domain/s.
• 1+1 LAN interface redundancy through its eight 10/100/1000Base-T Ethernet ports. These ports are grouped in pairs, where one port is active and the other standby.
• 1+1 Power load-sharing and redundancy through its two Power Supply modules.
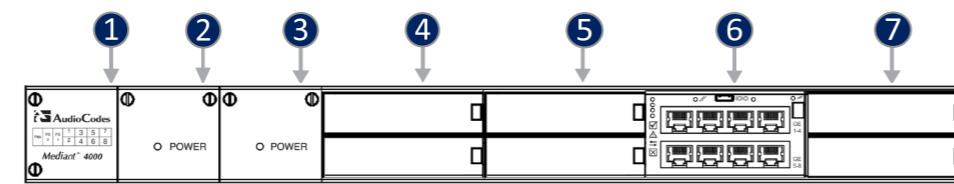
3 Verifying Package Contents

Ensure that the Mediant 4000 E-SBC package is shipped with the following items:

• Two AC power cables
• Four anti-slide bumpers for desktop installation
• Serial interface cable adaptor

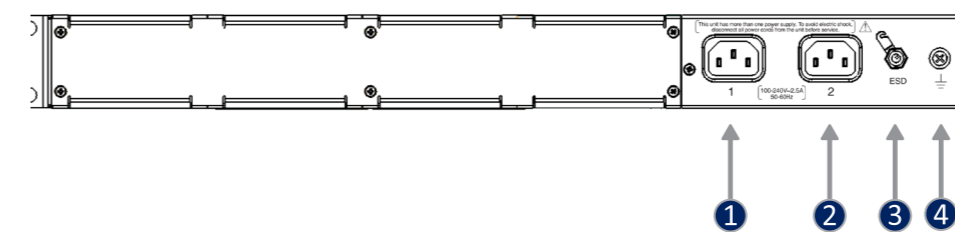If any items are missing or damaged, please contact your AudioCodes sales representative.

4 Physical Description

The Mediant 4000 E-SBC front panel is shown below and described in the subsequent table:

Item	Description
1	Fan Tray module with a schematic on its front panel showing the chassis' slot numbers.
2	Power Supply module No. 2.
3	Power Supply module No. 1.
4	Slots 1-2, shown covered with blank AMC modules for unused AMC slots. These slots house the optional, customer-ordered Media Processing Module (MPM). For ordering the MPM, contact your AudioCodes representative.
5	Slots 3-4 covered with blank AMC modules for unused AMC slots. **Note:** If you purchased this device in a previous release, these slots may be occupied by the E-SBC CPU AMC module. If this is the case and you subsequently purchased the MPM, you must relocate the E-SBC module to slots 5-6 (item 6 in the illustration above).
6	Slots 5-6 with E-SBC CPU AMC module (referred to as the E-SBC module), providing the CPU and the following interfaces: • Eight 1000Base-T (Gigabit Ethernet) LAN ports. The LAN ports operate in pairs, where one port is active and the other standby, providing 1+1 LAN redundancy. These ports support half- and full-duplex modes, auto-negotiation, straight-through or crossover cable detection. • RS-232 port (IOIO) for serial communication with a computer. • Reset pinhole button (//): To reset the Mediant 4000 E-SBC, press the button for at least 1 second, but no longer than 10 seconds. To reset to factory defaults, press the button for at least 11 seconds, but no longer than 20 seconds. **Note:** If you purchased this device in a previous release, the E-SBC module is housed in slots 3-4. If this is the case and you subsequently purchased the MPM, you must relocate the E-SBC module to slots 5-6.
7	Slots 7-8 covered with blank AMC modules for unused AMC slots.

The Mediant 4000 E-SBC rear panel is shown below and described in the subsequent table:


| Item	Description
1	AC power supply inlet (100-240V~2.5A, 50-60 Hz) for Power Supply module No. 1.
2	AC power supply inlet (100-240V~2.5A, 50-60 Hz) for Power Supply module No. 2.
3	Electrostatic Discharge (ESD) socket.
4	Protective earthing screw.

5 Assigning an IP Address to the Mediant 4000 E-SBC

The Mediant 4000 E-SBC includes an embedded Web server (Web interface), providing a user-friendly graphical user interface (GUI) for Web-based configuration. The default management and voice IP network address is used to initially access this Web interface and can be changed if necessary to suit the network addressing scheme in which the Mediant 4000 E-SBC is deployed. In addition, the eight LAN ports on the E-SBC module operate in pairs (groups) for providing 1+1 LAN redundancy, where one serves as the active port while the other as standby. Each LAN port pair can be connected to a different LAN subnet, enabling the Mediant 4000 E-SBC to bridge the VoIP traffic between subnets. The procedure below describes how to change this default management IP address to suit your network addressing scheme.

➢ **To assign an IP address to the Mediant 4000 E-SBC:**
1. Connect one of the LAN ports on the E-SBC module directly to the network interface on your computer, using a straight-through Ethernet cable.

LAN Port on E-SBC Module

Straight-Through RJ-45 Ethernet Cable

PC
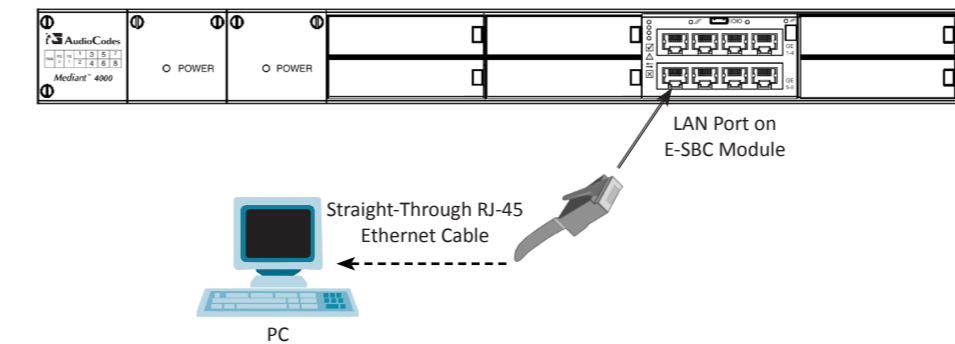
2. Change the IP address and subnet mask of your computer to correspond with the default IP address and subnet mask of the Mediant 4000 E-SBC (192.168.0.2 with subnet mask 255.255.255.0).
3. On your computer, open a standard Web browser, and then in the URL address field, enter the Mediant 4000 E-SBC default IP address **192.168.0.2**; the Web Login screen appears, prompting you to log in with your login credentials:
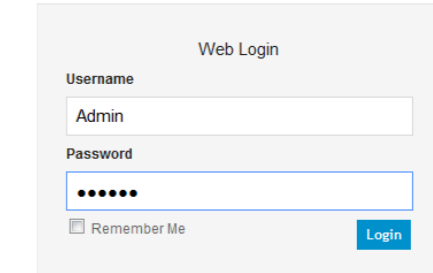

4. Log in with the default, case-sensitive user name ("Admin") and password ("Admin"), and then click **Login**; the Web interface appears, displaying the Home page.
5. Open the Physical Ports Settings page (**Configuration** tab > **VoIP** menu > **Network** > **Physical Ports Table**):

6. Modify the required physical ports settings, by selecting the 'Index' button corresponding to the port and then clicking **Edit**. You can configure the port Native VLAN ID and duplex mode, as well as provide a brief description of the port. The displayed string value in the 'Port' column represents the corresponding physical port on the E-SBC module, as displayed below:
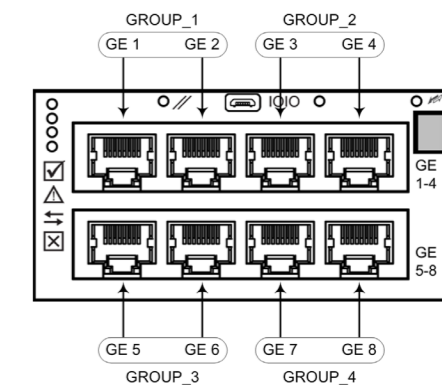
7. Open the IP Interfaces Table page (**Configuration** tab > **VoIP** > **Network** > **IP Interfaces Table**):
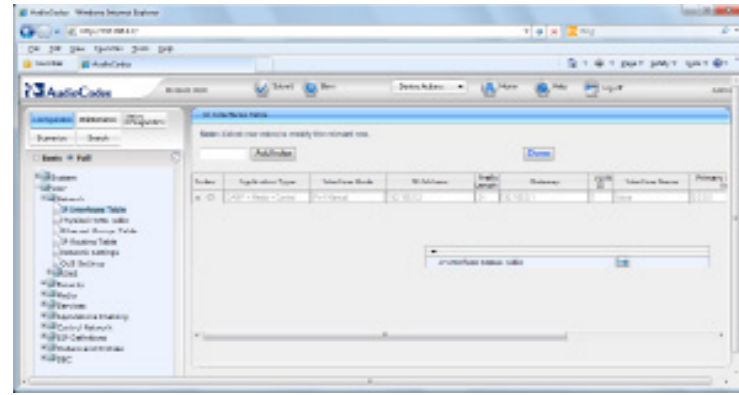
8. Select the 'Index' radio button corresponding to the **OAMP + Media + Control** application type, and then click **Edit**.

9. Configure a LAN network address so that it corresponds to your network IP addressing scheme:
- **Interface Mode**: IP addressing method (IPv4 or IPV6)
- **IP Address**: IP address of the network interface
- **Prefix Length**: Classless inter-domain routing (CIDR) representation style of a dotted-decimal subnet notation (e.g., **16** is synonymous with subnet 255.255.0.0)
- **Gateway**: IP address of the Default Gateway
- **VLAN ID**: VLAN ID for this interface
- **Interface Name**: Arbitrary descriptive string for this interface
- **Primary / Secondary DNS Server IP Address**: IP address of the primary and secondary Domain Name Server (DNS), if required
- **Underlying Interface**: Physical Ethernet port group (Group Member) on which this network interface operates

Note: If you are deploying two Mediant 4000 E-SBC devices for High Availability (HA), you also need to add a Maintenance network for HA. For more information, refer to the *User's Manual*.

10. Click **Apply** and then click **Done** to apply and validate your network settings.

11. Reset the Mediant 4000 E-SBC with a burn to flash of your new IP address settings. From the **Device Actions** drop-down list on the toolbar, choose **Reset**, and then in the opened Maintenance Actions page, click the **Reset** button.
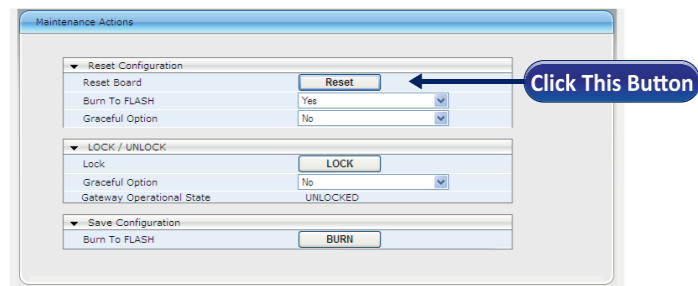

11. Disconnect the Mediant 4000 E-SBC from the computer and then connect the Mediant 4000 E-SBC to the desired network.

6 Obtaining Documentation and Software

If you are a registered user, you can obtain this quick guide and other relevant documentation and software files from AudioCodes Website at http://www.audiocodes.com/downloads.

For access to all the relevant documentation and software files on the Website, ensure that you log in as a registered user.
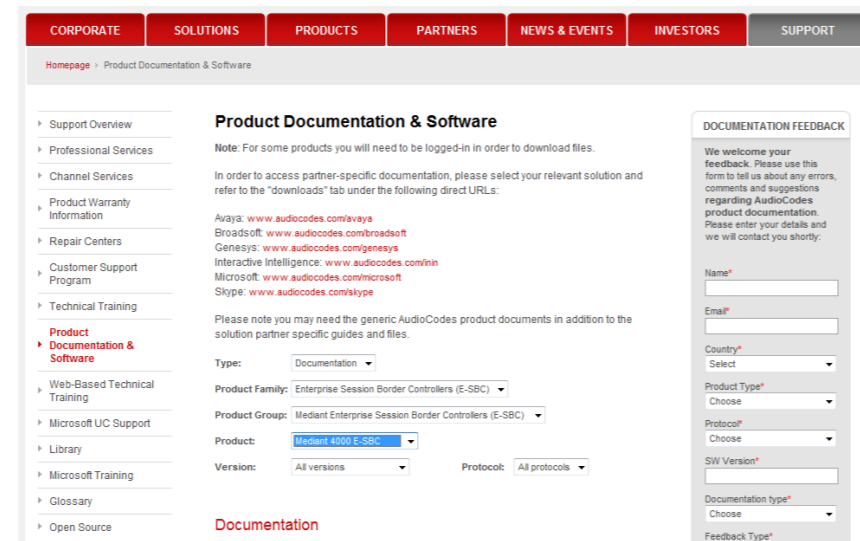
The table below lists the Mediant 4000 E-SBC related documentation:

Document	Description
Mediant 4000 E-SBC Hardware Installation Manual	Provides a physical description of the Mediant 4000 E-SBC, including mounting and cabling.
Mediant 4000 E-SBC User's Manual	Provides full configuration of the Mediant 4000 E-SBC.

7 Customer Support

Customer technical support and service are generally provided by AudioCodes' Distributors, Partners, and Resellers from whom the product was purchased.

For technical support for products purchased directly from AudioCodes, or for customers subscribed to AudioCodes Customer Technical Support (ACTS), please contact support@audiocodes.com.

Quick Guide

Mediant 4000

Enterprise Session Border Controller (E-SBC)

LTRT-41563