

AudioCodes Gateways

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Supported Models And Features

Analog PSTN gateways



AudioCodes MP114 FXO

Featuring 4 analog ports, this gateway connects analog PSTN lines to the IP network using FXO connectivity.

AudioCodes MP118 FXO

Featuring 8 analog ports, this gateway connects analog PSTN lines to the IP network using FXO connectivity.

Digital PSTN gateways

AudioCodes TP-260 - 8 E1/T1 PCI VoIP Communications Board



The TP-260 PCI VoIP communications board is a solution for trunking gateways to the PSTN and integrated gateways for IP PBXs and all-in-one communications servers. The TP-260 provides 256 ports for voice, fax or data implementing VoIP media gateway applications.

The TP-260 supports a broad selection of voice processing related algorithms, including G.711, G.723.1 and G.729A Vocoders, G.168 compliant echo cancellation, T.38 real-time FAX over IP, as well as a wide selection of in-band and out-of-band tone detection and generation. The TP-260 supports E1, T1, and J1 PSTN interface standards. For more information see the [Audiocodes Web site](#).

AudioCodes Mediant 1000 VoIP Media Gateway



The Mediant 1000 VoIP gateway is a cost-effective, entry level member of the AudioCodes family of SIP gateways. It scales up to 4 E1 / T1 / J1 PSTN trunks in a 1U chassis. Features include NEBS level 3 certified, SIGTRAN backhauling (SS7: M2UA/M3UA,PRI), SS7 peer-to-peer tunneling over IP, G.711, G.723.1, G.726, G.729A codecs, echo cancellation, FAX support, tone generation.

Auto Configuring AudioCodes Gateways

AudioCodes gateways can be managed automatically by sipXcom. Some DHCP configuration changes are required however to make things work properly. The steps required are:

1. Upload Device Files to sipXcom
2. Add Gateway to sipXcom and Generate Profile
3. Configure DHCP

Upload Device Files to sipXecs

To upload device files to sipXcom:

1. Login to the GUI as superadmin.
2. Click on the 'Devices' menu and select the 'Device Files' menu item. The following page will appear:

The screenshot shows the SIPXECs web interface. At the top, there is a header with the SIPXECs logo, the date and time 'Fri, 03 Sep 2010 8:01 AM', and navigation links for Home, Help, Logout, and a search bar. Below the header is a main navigation menu with tabs for 'Users', 'Devices', 'Features', 'System', and 'Diagnostics'. The 'Devices' tab is selected, and the 'Device Files' sub-menu is active. The main content area displays a table of device files. The table has columns for 'Name', 'Active', 'Device Type', and 'Description'. There are three rows of data: 'acm1000' (Active), 'ACodes560' (Inactive), and 'ACodes580' (Active). Below the table are three buttons: 'Delete', 'Activate', and 'Deactivate'. To the right of the table, there is a text box explaining that phones and other devices can upload active files through TFTP, FTP, and HTTP, and that files can be activated and made inactive as needed. The footer of the page shows the version information: 'sipXconfig (4.2.1-018971 2010-08-17T02:19:33 build34)'.

<input type="checkbox"/>	Name	Active	Device Type	Description
<input type="checkbox"/>	acm1000	Active	AudioCodes Mediant	AudioCodes Mediant 1000
<input type="checkbox"/>	ACodes560	Inactive	AudioCodes MP 11x	AudioCodes 5.60a
<input type="checkbox"/>	ACodes580	Active	AudioCodes MP 11x	AudioCodes 5.80a

Phones and other devices can upload active files through TFTP, FTP and HTTP. Files can be activated and made inactive as needed. Only one version of the device firmware can be active at any given moment.

sipXconfig (4.2.1-018971 2010-08-17T02:19:33 build34)

3. Click on the 'Add files...' drop down box and select the type of AudioCodes gateway you are adding.

4. Give the device files a descriptive name as shown below and click on OK.

The screenshot shows the SIPX ECS web interface. At the top, there is a navigation bar with the SIPX ECS logo, a date and time display (Fri, 03 Sep 2010 8:06 AM), and links for Home, Help, Logout, and a search box. Below the navigation bar are tabs for Users, Devices, Features, System, and Diagnostics. The main content area is titled 'Upload' and contains a form for 'AudioCodes MP 11x'. The form has a 'Name' field with the value 'ACodes60A' and a 'Description' field with the value 'AudioCodes 6.0A firmware'. At the bottom of the form are three buttons: 'OK', 'Apply', and 'Cancel'. Below the form, the version information 'sipXconfig (4.2.1-018971 2010-08-17T02:19:33 build34)' is displayed.

5. Back in the Device Files list, click on the name of the newly added device file entry and the following page will be displayed:

This screenshot shows the same SIPX ECS web interface as the previous one, but with the 'Gateway Firmware Files' section expanded. The 'Name' and 'Description' fields remain the same. Below the description, there is a section titled 'Gateway Firmware Files' with the text 'Audiocodes Support only distributes firmware upgrades to certified resellers.' Below this text is a 'Firmware (*.cmp)' field with an empty text box and a 'Browse...' button. A note below the field states: 'Gateway SIP Firmware. Make sure that you use the firmware version that has been tested with this release. Example file name : M1000_SIP_F5.20AEB.004.007.cmp'. At the bottom of the form are four buttons: 'OK', 'Apply', 'Cancel', and 'Activate'. The version information 'sipXconfig (4.2.1-018971 2010-08-17T02:19:33 build34)' is displayed at the bottom.

6. Click on the Browse button and locate the firmware file you'd like to use. After the file is selected, click on the 'Activate' button and the firmware will be uploaded and set to 'Active'.

Add Gateway to sipXcom and Generate Profile

To add a gateway to sipXcom:

1. Login to the GUI as superadmin.

2. Click on the 'Devices' menu and select the 'Gateways' menu item. The following page will be displayed:

The screenshot shows the 'Gateways' management interface. At the top, there are navigation tabs for 'Users', 'Devices', 'Features', 'System', and 'Diagnostics'. The 'Gateways' section contains a table with the following data:

Name	Address	Location	Model	Description
TestGW	172.16.2.5	All	AudioCodes MP114 FXO	
ACM1000	172.16.2.6	All	AudioCodes Mediant 1000 PRI	

Below the table are buttons: 'Send Profiles', 'Send All Profiles', 'Restart', and 'Delete'. On the right, the 'Quick Links' section includes 'Dial Plans' and 'Job Status'. A text block explains: 'Configure "unmanaged gateways", "SIP trunks" and PSTN gateways. PSTN gateway models listed here are plug & play configurable very similar to how phones are configured. A configuration file for the respective gateway is automatically generated. It can be automatically downloaded by the gateway when the gateway is plugged in and powered up, or the configuration file can be manually downloaded and transferred to the gateway. An "unmanaged gateway" needs to be created for all manually configured gateways so that they can be inserted into the dialplan.'

3. Click on the 'Add new gateway...' drop down menu and select the type of AudioCodes gateway you'd like to add. The following page will then be displayed:

The screenshot shows the 'Gateway Details' configuration page for an 'AudioCodes MP114 FXO' gateway. The page includes the following fields and options:

- Enabled:**
- Name:** [Text input field]
- Address:** [Text input field]
- Serial Number:** [Text input field]
- Firmware Version:** 6.0 (dropdown menu)
- Location:** -- all -- (dropdown menu)
- Shared:**
- Description:** [Text area]

Buttons at the bottom: 'OK', 'Apply', 'Cancel'. A 'Show Advanced Settings' link is located on the right side of the configuration area.

4. At a minimum specify the gateway a name (no spaces or special characters in name), IP Address, Serial Number (MAC Address), Firmware version and a description.

5. Click the 'OK' button.

6. Click on the gateway name hyperlink and the following page will be displayed:

The screenshot displays the 'Gateway Details' configuration page for a gateway named 'TestGW'. The page is part of the SIPXcom web interface. The main configuration area includes the following fields and options:

- Gateway:** TestGW / AudioCodes MP114 FXO
- Enabled:**
- Name:** TestGW
- Address:** 172.16.2.5
- Serial Number:** 00908f0cf9ba
- Firmware Version:** 5.6
- Location:** -- all --
- Shared:**
- Description:** (Empty text area)

Buttons at the bottom include 'OK', 'Apply', and 'Cancel'. A sidebar on the left lists various configuration categories, with 'Configuration' selected. The top navigation bar includes 'Users', 'Devices', 'Features', 'System', and 'Diagnostics'. The footer indicates the version: sipXconfig (4.2.1-018971 2010-08-17T02:19:33 build34).

7. Click on 'PSTN Lines' in the left side menu and add the FXO ports you'd like to use.

8. Click the 'OK' button after you have added lines and are done.

9. If prompted to, click on the hyperlink to restart required services.

10. In the gateways page, click on the check box beside the newly added gateway and click on the 'Send Profiles' button.

Don't forget that you'll need to add the gateway into dial plans to use it for outbound dialing.

Configure DHCP

To configure DHCP, ssh to the sipXcom system and login as root.

At the command prompt enter: nano -w /etc/dhcpd.conf

- Add a 'next-server' option into the subnet that will contain the AudioCodes gateway.
- Add a 'group' section to the subnet. This will contain the host entries for the gateways.
- Add a 'host' section for each gateway. Note that case in MAC address and file names is important!
- The 'filename' is a concatenation of the firmware file name followed by the name of the ini file generated by sipXcom.

After dhcpd.conf file is edited, restart the dhcpd service. To do this enter: service dhcpd restart

If you get a 'Failed' message on service restart, check the syntax in the dhcpd.conf file, it is likely you missed a bracket or semi-colon.

Example dhcpd.conf

```
authoritative;
ddns-update-style ad-hoc;
option sip-servers-name code 120 = text;

subnet 172.16.2.0 netmask 255.255.255.0 {
    next-server 172.16.2.2;
    option tftp-server-name "172.16.2.2";
    default-lease-time 43200;
    max-lease-time 43200;
    option routers 172.16.2.1;
    option subnet-mask 255.255.255.0;
    option domain-name "sipxecs.info";
    option sip-servers-name "sipx.sipxecs.info:12000/cmcprov/login";
    option domain-name-servers 172.16.2.2 , 172.16.1.254 , 8.8.8.8;
    option ntp-servers 172.16.2.2;
    range 172.16.2.5 172.16.2.250;
group {
    host acgateway {
        hardware ethernet 00:90:8f:0c:aa:aa;
        fixed-address 172.16.2.5;
        filename "MP118_SIP_F5.80A.053.003.cmp;00908F0CAAAA.ini";
    }

    host acm1000 {
        hardware ethernet 00:90:8f:2d:aa:aa;
        fixed-address 172.16.2.6;
        filename "M1000_SIP_F6.00A.025.004.cmp;00908F2DAAAA.ini";
    }
}
}
```

Additional Notes

1. If you are having difficulty getting the gateway to pickup the changes, reset the gateway (hold in reset button for at least 6 seconds) and then power cycle the gateway. A regular reset from the AudioCodes GUI menu does not force the gateway to pickup.
2. Disconnect on Broken RTP needs to be set to No. This can be found in Protocol Definition or Advanced SIP settings (must be in Full menu to see).