

# AudioCodes

Technical Training and Knowledge  
Services

*Course Catalog 2012*





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## Notice

This document provides a description of AudioCodes Technical Training Courses for AudioCodes' products.

Information contained in this document is believed to be accurate and reliable at the time of printing. However, due to ongoing product improvements and revisions, AudioCodes cannot guarantee the accuracy of printed material after the Date Published nor can it accept responsibility for errors or omissions. Updates to this document and other documents can be viewed by registered customers at <http://www.audiocodes.com/support>.

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## Contact Information

AudioCodes Training and Knowledge Services can be contacted at the following:

- AudioCodes Technical Training Public Web site - <http://www.audiocodes.com/technical-training>
- AudioCodes Technical Training group e-mail - [training@audiocodes.com](mailto:training@audiocodes.com)

## Introduction

AudioCodes' **Training and Knowledge Services** is responsible for technical training, targeted at service personnel who provide support for AudioCodes products.

This technical training includes the following areas:

- Installation and configuration of AudioCodes equipment
- Operation and maintenance of AudioCodes equipment
- Basic interoperability and support services
- In-depth analysis of operational and diagnostics capabilities
- Troubleshooting and support of AudioCodes equipment

## *AudioCodes Technical Training Course Offerings*

AudioCodes offers the following generic technical training courses:

- [AudioCodes Basic SIP CPE](#)
- [AudioCodes Mediant 3000 SIP with EMS](#)
- [AudioCodes Mediant 3000 SIP with Web Interface](#)
- [AudioCodes Solutions in Microsoft® Lync™ Server 2010 Environment](#)
- [AudioCodes Mediant 800 and Mediant 1000 Enterprise Session Border Controllers](#)
- [AudioCodes Mediant 3000 Enterprise Session Border Controller](#)

Pre-scheduled training sessions are available at selected AudioCodes offices around the world. However, on-demand sessions can be arranged, depending on the number of trainees and location, as well as available equipment.

In addition to generic technical training courses, AudioCodes offers customized training courses upon request. For more information, contact AudioCodes Training and Knowledge Services.




## ***AudioCodes Training Centers***

AudioCodes offers a full range of International training courses at its Training Centers in six different locations worldwide:

- **EMEA:** AudioCodes Headquarters, Airport City, Israel
- **North America:** AudioCodes Research Triangle Park (Raleigh), North Carolina, USA
- **South America:** AudioCodes Argentina Office, Buenos Aires, Argentina
- **APAC:** AudioCodes Singapore Office, Singapore
- **Europe:** AudioCodes Hannover, Germany
- **Europe:** AudioCodes Farnborough, United-Kingdom

These Training Centers are equipped with all AudioCodes products necessary for conducting professional training courses. In addition, all types of courses are available at these Training Centers. Note that AudioCodes can provide training courses at customer premises upon request, provided that these sites meet training course requirements.

## AudioCodes Career Certifications Levels

Certification	Description	Requirements
	ACA AudioCodes Certified Associate  Basic level certification required for the installation and maintenance of AudioCodes CPE & Access Media Gateways in different customer scenarios	Successfully completed one of the following trainings: <ul style="list-style-type: none"> <li>• AudioCodes Basic SIP CPE</li> <li>• AudioCodes Mediant 3000 SIP</li> <li>• AudioCodes Solutions in Microsoft Lync Server 2010 Environment</li> </ul>
	ACP AudioCodes Certified Professional  Advanced level certification required for the installation, maintenance and advanced troubleshooting of all AudioCodes networking products in advanced customer scenarios	ACA Certification + 6 months of field experience as ACA + Successfully completed one of the following trainings: <ul style="list-style-type: none"> <li>• AudioCodes Mediant 800 and Mediant 1000 Enterprise Session Border Controllers</li> <li>• AudioCodes Mediant 3000 Enterprise Session Border Controller</li> </ul>
	ACE AudioCodes Certified Expert  Expert level certification required for the installation, maintenance and advanced troubleshooting of all AudioCodes networking products in advanced customer scenarios	ACP Certification + 12 months of field experience as ACP + Successfully completed 2 other AudioCodes technical training + on-line ACE exam

## Training Courses

### *AudioCodes Basic SIP CPE*

#### AudioCodes Basic SIP CPE

<b>Course:</b>	Four-day hands-on, technical instruction covering installation, configuration, maintenance, troubleshooting and administration of AudioCodes CPE gateways (MediaPack, Mediant 600, Mediant 1000 and Mediant 2000 devices).
<b>Products:</b>	MediaPack, Mediant 600, Mediant 1000 and Mediant 2000 devices
<b>Student Profile:</b>	Tier 1, 2 and 3 support, sales engineers, trainers, technical writers, developers, and other technical staff which support AudioCodes gateways.
<b>Duration:</b>	4 days
<b>Time:</b>	9:00AM to 5:00PM
<b>Certification:</b>	This course includes an <b>ACA</b> (AudioCodes Certificate Associate) certification exam.
<b>General Course Objectives:</b>	<p>Students are expected to be active participants in the learning process. Emphasis is placed on diagnostic tools and troubleshooting strategies to help students become self-sufficient in the use and support of AudioCodes products. At the conclusion of this course, students will be able to:</p> <ul style="list-style-type: none"><li>• Install and configure AudioCodes CPE equipment using various management methods</li><li>• Operate and maintain AudioCodes CPE equipment</li><li>• Identify and isolate relevant configuration parameters for a variety of services including proxy, fax, modems and DTMF</li><li>• Provision digital trunks</li><li>• Describe AudioCodes gateway functionality with regard to call processing and routing for Tel-to-IP and IP-to-Tel call scenarios</li><li>• Collect diagnostic and troubleshooting logs</li><li>• Analyze diagnostic logs and traces to solve real world problems</li></ul>
<b>Prerequisites:</b>	Working knowledge of IP networking

## AudioCodes Basic SIP CPE

**Course Outline**

- Telephony, VoIP, and SIP Fundamentals
- MediaPack Overview
- Introduction to the Web Interface
- Introduction to Diagnostic Tools: Syslog
- Gateway Initialization and Installation
- Coder Selection and Dialing options
- Hunt Groups and Trunk Groups
- FXO Operation
- Call Hold and Transfer for Analog Gateways
- Analog Call Termination
- IP and Telephony Profiles
- SIP Routing
- SIP Proxy and Registration
- Mediant 600/1000 Overview
- Mediant 2000 Overview
- Mediant 2000 Hardware installation
- Software Upgrade Keys
- Using the Command Line Interface
- Digital Gateway Configuration
- Stand Alone Survivability (SAS)
- Number Manipulation Tables
- Dual Tone Multi-Frequency (DTMF)
- Fax/Modem Configuration
- Diagnostic Tools: Debug Recording
- Diagnostic Tools: Network Monitoring

**Lab Activities:**

- AudioCodes Gateway Installation
- Basic Debugging and FXS Line to Line Calls
- FXO Setup, Configuration, and Use
- Alternative Routing
- Working with SIP Proxy
- Digital Gateway Configuration and Use
- Stand Alone Survivability
- Local to Remote Call Routing and Manipulation
- Supplementary Services
- DTMF Configurations
- FAX and Modem
- Debug Recording

## ***AudioCodes Mediant 3000 SIP with EMS***

### **AudioCodes Mediant 3000 SIP with EMS**

<b>Course:</b>	Four-day hands-on, technical instruction covering installation, configuration, maintenance, troubleshooting and administration of the AudioCodes Mediant 3000 gateways for both the TP-6310 and TP-8410 configurations.
<b>Products:</b>	Mediant 3000
<b>Student Profile:</b>	Tier 1, 2 and 3 support, sales engineers, trainers, technical writers, developers, and other technical staff who support the Mediant 3000.
<b>Duration:</b>	4 days
<b>Time:</b>	9:00AM to 5:00PM
<b>Certification:</b>	This course includes an <b>ACA</b> (AudioCodes Certificate Associate) certification exam.
<b>General Course Objectives:</b>	<p>Students are expected to be active participants in the learning process. Emphasis is placed on diagnostic tools and troubleshooting strategies to help students become self-sufficient in the use and support of AudioCodes products.</p> <p>At the conclusion of this course, students will be able to:</p> <ul style="list-style-type: none"><li>• Install and configure AudioCodes Mediant 3000 using EMS</li><li>• Operate and maintain AudioCodes Mediant 3000 using EMS</li><li>• Provision DS3/Optical and DS1 interfaces using EMS</li><li>• Describe and demonstrate AudioCodes Mediant 3000 functionality with regard to call processing and routing for Tel-to-IP and IP-to-Tel call scenarios</li><li>• Collect diagnostic and troubleshooting logs using EMS</li><li>• Analyze diagnostic logs and traces to solve real world problems</li></ul>
<b>Prerequisites:</b>	Working knowledge of IP networking

## AudioCodes Mediant 3000 SIP with EMS

**Course Outline:**

- Telephony, VoIP, and SIP Fundamentals
- Mediant 3000 Hardware Overview
- Mediant 3000 Hardware Installation
- Introduction to the Element Management System (EMS)
- Introduction to the Web Interface
- Mediant 3000 Software Overview and installation
- Mediant 3000 Software Upgrades
- Introduction to the Command Shell
- Basic Diagnostic tools: Syslog
- EMS Alarms and Provisioning
- PSTN Provisioning
- NFAS Configurations
- SIP Trunk Group Settings
- SIP Routing
- Mediant 3000 VLAN Settings
- SIP Proxy and Registration
- DTMF Configuration
- Manipulation Tables
- Coders and Dialing
- Faxes and Modems
- Stand Alone Survivability
- Diagnostic Tools – Debug Recording
- Diagnostic Tools – Network Monitoring
- Mediant 3000 Security Hardening
- EMS Server Installation

**Lab Activities:**

- Mediant 3000 gateway installation
- Mediant 3000 software upgrade
- PSTN Link provisioning
- Debug trunk to trunk calls
- Configure Mediant 3000 to make calls of the PSTN DS-3 links
- Debug Recording

## AudioCodes Mediant 3000 SIP with Web Interface

### AudioCodes Mediant 3000 SIP with Web Interface

**Course:** Three-day hands-on, technical instruction covering installation, configuration, maintenance, troubleshooting and administration of the AudioCodes Mediant 3000 gateways for both the TP-6310 and TP-8410 configurations.

**Products:** Mediant 3000

**Student Profile:** Tier 1, 2 and 3 support, sales engineers, trainers, technical writers, developers, and other technical staff who support the Mediant 3000

**Duration:** 3 days

**Time:** 9:00AM to 5:00PM

**Certification:** This course includes an **ACA** (AudioCodes Certificate Associate) certification exam.

**General Course Objectives:** Students are expected to be active participants in the learning process. Emphasis is placed on diagnostic tools and troubleshooting strategies to help students become self-sufficient in the use and support of AudioCodes products. At the conclusion of this course, students will be able to:

- Install and configure AudioCodes Mediant 3000
- Operate and maintain AudioCodes Mediant 3000
- Provision DS3/Optical and DS1 interfaces
- Describe and demonstrate AudioCodes Mediant 3000 functionality with regard to call processing and routing for Tel-to-IP and IP-to-Tel call scenarios
- Collect diagnostic and troubleshooting logs
- Analyze diagnostic logs and traces to solve real world problems

**Prerequisites:** Working knowledge of IP networking

**Course Outline:**

- Telephony, VoIP, and SIP Fundamentals
- Mediant 3000 Hardware Overview
- Mediant 3000 Hardware Installation
- Introduction to the Web Interface
- Mediant 3000 Software Overview and installation
- Mediant 3000 Software Upgrades
- Introduction to the Command Shell
- Basic Diagnostic Tools: Syslog
- PSTN Provisioning
- NFAS Configurations
- SIP Trunk Group Settings
- SIP Routing
- Mediant 3000 VLAN Settings
- SIP Proxy and Registration
- DTMF Configuration
- Manipulation Tables
- Coders and Dialing
- Faxes and Modems
- Stand Alone Survivability

## AudioCodes Mediant 3000 SIP with Web Interface

**Lab Activities:**

- Diagnostic Tools – Debug Recording
- Diagnostic Tools – Network Monitoring
- Mediant 3000 Gateway Installation
- Mediant 3000 Software Upgrade
- PSTN Link Provisioning
- Debug Trunk-to-Trunk Calls
- Configure MPs and Mediant 3000 to make calls of the PSTN DS-3 links
- Debug Recording

## **AudioCodes Solutions in Microsoft® Lync™ Server 2010 Environment**

### **AudioCodes Solutions in Microsoft® Lync™ Server 2010 Environment**

<b>Course:</b>	Four-day hands-on, technical instruction covering installation, configuration, maintenance, troubleshooting and administration of AudioCodes equipment in a Lync environment.
<b>Products:</b>	Microsoft Unified Communications Networks
<b>Student Profile:</b>	Systems Engineers, Network Architects, Consultants, and Integrators who are responsible for the planning, design, implementation and management of Microsoft Unified Communications networks.
<b>Duration:</b>	4 days
<b>Time:</b>	9:00AM to 5:00PM
<b>Certification:</b>	This course includes an <b>ACA</b> (AudioCodes Certificate Associate) certification exam.
<b>General Course Objectives:</b>	<p>Students are expected to be active participants in the learning process. Emphasis is placed on diagnostic tools and troubleshooting strategies to help students become self-sufficient in their use and support of AudioCodes products in a Lync environment.</p> <p>At the conclusion of this course, students will be able to:</p> <ul style="list-style-type: none"><li>• Install and configure AudioCodes equipment using various management tools.</li><li>• Demonstrate an understanding of the operating, maintenance and monitoring tools used on AudioCodes equipment.</li><li>• Troubleshoot and debug AudioCodes equipment.</li><li>• Integrate the Mediant Gateways in UC environments that require integrated voice components.</li><li>• Deploy and configure the Survivable Branch Appliance (SBA) feature.</li><li>• Configure an integrated dial plan between the Gateway and Lync 2010/SBA components to support PSTN, TDM PBX and Local VoIP connectivity for Microsoft Enterprise different voice scenarios.</li><li>• Configure and operate the SPS Communication System integrated in the Microsoft Lync 2010 System</li><li>• Describe the MobilityPlus architecture and functionality</li><li>• Become familiar with Lync 2010 related voice configuration aspects</li><li>• Understand AudioCodes solutions for various customer voice scenarios</li></ul>
<b>Prerequisites:</b>	<p>Students are expected to have an applicable professional background with a minimum of one year practical experience with:</p> <ul style="list-style-type: none"><li>• PSTN protocols and knowledge of analog and digital telephony systems</li><li>• VoIP and SIP network architecture</li><li>• Understanding of SIP control protocol signaling stack</li><li>• Knowledge of IP networking</li><li>• Knowledge of Microsoft Active Directory and Network Infrastructure</li></ul>

## AudioCodes Solutions in Microsoft® Lync™ Server 2010 Environment

**Course Outline:**

- Introduction to SIP
- AudioCodes Gateway Introduction
- Lync System Overview
- SBA Hardware Platforms
- SBA Installation and Configuration
- SBA Upgrade and Recovery
- Enhanced Gateway Configuration
- Analog Devices in Lync Environment
- Advanced Integration Topologies
- SIP Trunking Solution
- SPS Overview
- MobilityPlus Solution

**Lab Activities:**

- MP-11x and Mediant 1000 Configuration setup
- OSN3 Console
- SBA Installation and Configuration
- SBA Gateway Configuration
- SBA Gateway and Analog Device Configuration
- SPS User Provisioning

## ***AudioCodes Mediant 800 and Mediant 1000 Enterprise Session Border Controllers***

### **AudioCodes Mediant 800 and Mediant 1000 Enterprise Session Border Controllers**

<b>Course:</b>	Three-day AudioCodes training for Enterprise Session Border Controller (E-SBC) course designed to provide engineers with experience in configuring, maintaining, and troubleshooting AudioCodes devices configured as an SBC.
<b>Products:</b>	Mediant 800 and Mediant 1000
<b>Student Profile:</b>	Engineers with experience in configuring, maintaining, and troubleshooting AudioCodes devices as an SBC
<b>Duration:</b>	3 days
<b>Time:</b>	9:00AM to 5:00PM
<b>Certification:</b>	This course includes an <b>ACP</b> (AudioCodes Certificate Professional) certification exam.
<b>General Course Objectives:</b>	<p>Students are expected to be active participants in the learning process. Emphasis is placed on diagnostic tools and troubleshooting strategies to help students become self-sufficient in the use and support of AudioCodes SBC products.</p> <p>At the conclusion of this course, students will be able to:</p> <ul style="list-style-type: none"><li>• Configure AudioCodes SBC device</li><li>• Identify and configure parameters for a variety of services related to IP-to-IP and SBC</li><li>• Configure SBC IP-to-IP call routing</li><li>• Configure Session Border Control routing</li><li>• Configure SBC Security features</li><li>• Configure SBC Survivability functionality</li></ul>
<b>Prerequisites:</b>	<p>Students are expected to have an applicable professional background with a minimum of one year practical experience with:</p> <ul style="list-style-type: none"><li>• PSTN protocols and knowledge of analog and digital telephony systems</li><li>• VoIP and SIP network architecture</li><li>• Understanding of SIP control protocol signaling stacks</li><li>• IP networking</li></ul> <p>and successfully completed any of the following:</p> <ul style="list-style-type: none"><li>• AudioCodes Basic SIP CPE training course</li><li>• AudioCodes Mediant 3000 SIP training courses</li><li>• AudioCodes Solution in Microsoft Lync Server 2010 Environment course</li></ul>

## AudioCodes Mediant 800 and Mediant 1000 Enterprise Session Border Controllers

**Course Outline:**

- Overview of Session Border Controller
- SBC General Configuration
- SBC IP-to-IP Routing
- SBC Routing
- SBC Configuration
- SBC Registration
- SBC Media Handling
- SBC Security

**Lab Activities:**

- Basic Gateway Call Configuration and Testing
- Configure IP-to-IP Routing Using Proxies
- Configure SBC Connections
- Configure SBC SIP Message Manipulation Tables
- Configure to Operate in Survivability Mode

## AudioCodes Mediant 3000 Enterprise Session Border Controller

### AudioCodes Mediant 3000 Enterprise Session Border Controller

<b>Course:</b>	Two-day AudioCodes training for the Enterprise Session Border Controller (E-SBC) course is designed to provide engineers with experience in configuring, maintaining, and troubleshooting AudioCodes devices configured as an SBC.
<b>Products:</b>	Mediant 3000
<b>Student Profile:</b>	This course is targeted for engineers with experience in configuring, maintaining, and troubleshooting AudioCodes devices configured as an SBC.
<b>Duration:</b>	2 days
<b>Time:</b>	9:00AM to 5:00PM
<b>Certification:</b>	This course includes an <b>ACP</b> (AudioCodes Certificate Professional) certification exam.
<b>General Course Objectives:</b>	<p>Students are expected to be active participants in the learning process. Emphasis is placed on diagnostic tools and troubleshooting strategies to help students become self-sufficient in the use and support of AudioCodes SBC products.</p> <p>At the conclusion of this course, students will be able to:</p> <ul style="list-style-type: none"><li>• Configure AudioCodes SBC device</li><li>• Identify and configure parameters for a variety of services related to IP-to-IP and SBC</li><li>• Configure SBC IP-to-IP call routing</li><li>• Configure Session Border Control routing</li><li>• Configure SBC Security features</li><li>• Configure SBC Survivability functionality</li></ul>
<b>Prerequisites:</b>	<p>Students are expected to have an applicable professional background with a minimum of one year practical experience with:</p> <ul style="list-style-type: none"><li>• PSTN protocols and knowledge of analog and digital telephony systems</li><li>• VoIP and SIP network architecture</li><li>• Understanding of SIP control protocol signaling stacks</li><li>• IP networking</li></ul> <p>Successfully completed:</p> <ul style="list-style-type: none"><li>• AudioCodes Mediant 3000 training course</li></ul>

## AudioCodes Mediant 3000 Enterprise Session Border Controller

**Course Outline:**

- Overview of Session Border Controller
- SBC General Configuration
- SBC IP-to-IP Routing
- SBC Routing
- SBC Configuration
- SBC Registration
- SBC Media Handling
- SBC Security

**Lab Activities:**

- Configure IP-to-IP Routing Using Proxies
- Configure SBC Connections
- Configure SBC SIP Message Manipulation Tables
- Configure to Operate in Survivability Mode

# **Technical Training and Knowledge Services**

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