



# ACTIS ACADEMY

## AUDIOCODES TRAINING

# AUDIOCODES SBC IN MICROSOFT TEAMS ENVIRONMENT ESSENTIALS & CONFIGURATION

## Course

Hands-on technical instruction covering installation, configuration, maintenance, troubleshooting and administration of AudioCodes equipment in Microsoft Teams.

## Student Profile

Systems Engineers, Network Architects, Consultants, and Integrators who are responsible for the planning, design, implementation and management of Microsoft Teams.

## Products

AudioCodes MediaPack (MP) Series, AudioCodes SBC Series, AudioCodes Gateway Series.

## Prerequisites

Students are expected to have an applicable professional background with a minimum of one year of practical experience with.

- PSTN protocols and knowledge of analog and digital telephony systems;
- VoIP and SIP network architecture.
- Understanding of SIP control protocol signaling stacks.
- IP Networking.

## Details

- Four days training.
- Classroom Instructor Led.
- ACA (AudioCodes Certified Associate).
- € 2.095,- ex. VAT per trainee.
- The training is subject to a minimum number of attendees.
- Access to the training course will only be accepted when the payment is fulfilled before the training date.
- Course code is TR-TEAMS-BSC-S.

## General 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 their use and support of AudioCodes products in a Microsoft Teams environment. On completion of the course, students will be able to:

- Install and configure AudioCodes equipment using various management tools.
- Demonstrate and understand the operation, maintenance and monitoring tools of AudioCodes equipment.
- Troubleshoot and debug AudioCodes equipment.
- Demonstrate familiarity with Microsoft Teams related voice configuration aspects.
- Integrate AudioCodes Mediant SBC series in Microsoft Teams environment that require integrated voice components.
- Understand the advantages of connecting SIP Trunks using Mediant SBCs.
- Understand the requirements and features of an SBC.
- Configure SIP Trunk connection to Teams using a Mediant SBC.
- Understand how to perform basic SIP headers Manipulations.

## Lab Activities

- Getting Familiar with the GUI.
- Basic SIP Trunk Configuration.
- Teams to SIP Trunk Connection.
- SBC Message Manipulation.
- SBC Survivability and PSTN Fallback.



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## Course Outline

AudioCodes Solutions - Brief Overview  
AudioCodes User Interface Introduction  
Documentation Description  
Debugging Tools  
AudioCodes Gateways Hardware Description  
Analog Gateways: MediaPack Family  
Digital Gateways: Mediant Family  
SBC Application description  
SBC Basic Terminology  
Signaling Routing Domain - SRD

### SIP Interface:

- Media Realm
- IP Groups
- Proxy Sets
- Routing
- Accounts

### Multi-tenant Concepts

### SBC Configuration

### Teams System Brief Overview:

- High level Architecture
- Teams Logical Architecture
- Teams as your phone
- Moving to the Cloud
- Connecting Phone System to the PSTN
- Microsoft Teams Direct Routing
- Direct Routing Signaling Path
- Teams Direct Media call without Media ByPass
- Teams Direct Media call with Media ByPass

## Voice Routing Basics

- Direct Routing Benefits
- Direct Routing Enterprise Model
- Direct Routing Hosting Model
- Direct Routing Solution Components
- SBC FQDN Requirements
- Public Trusted Certificate for the SBC
- SBC Domain Names in Enterprise and Hosting Model

## SBC Direct routing configuration for Teams

- Prerequisites
- Configure VLAN's & IP Interface's
- NTP Servers
- TLS Contexts
- How to Configure Certificate
- Trusted root certificate
- SRV Record
- SRV Table Configuration
- Coder Group
- Teams & ITSP IP Profiles
- SDP Codecs offered list manipulation
- Coder Transcoding Flow
- ICE Lite
- Candidates list
- ICE and Candidates example
- STUN Server
- Generic call flow from PSTN to Teams
- SIP and STUN messages
- Media security
- Condition Table
- Classification Table
- IP to IP Routing table

## SBC Number & Message Manipulation:

- CMR Process (CMR = Classify, Manipulate, Route)
- SBC Number Manipulation

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## Message Manipulation:

- Message manipulation reasons
- Pre & Post Message Manipulation
- Inbound & Outbound message manipulation
- Message Manipulation Configuration
- Mandatory Headers Handling
- SIP Interface Pre-Parsing Manipulation Sets
- Message Manipulation Table
- Message Manipulation – Manipulation Set ID
- Message Manipulation – Syntax
- Auto Completion Editor
- Message Manipulation parameters description
- SIP Message Manipulation – Examples
- SIP Message Normalization
- Digital Gateways Basic Configuration

## SBC Survivability

- Survivability Methodology
- Alternative Routing Reasons
- PSTN Fallback

## SBC High Availability

- High Availability Overview
- High Availability Architecture
- HA License Key
- High Availability Configuration
- IP Interfaces table
- HA Setting
- Preempt Mode
- HA Status in the Monitor Page
- Initialization Process
- Direct and in-direct Physical Connections
- HA Software Upgrade
- Device Failure Detection
- High Availability Maintenance



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