

Session Border Controllers - Essentials & Configuration

Course Code	TR-SBC-BSC
Course Name	Session Border Controllers - Essentials & Configuration
Course Details	
Course	AudioCodes training for Session Border Controller (SBC) course designed to provide engineers with experience in configuring, maintaining, and troubleshooting AudioCodes devices configured as an SBC.
Products	Mediant 500/800/1000/2600/3000/4000/9000/Software SBC.
Student Profile	Engineers with experience in configuring, maintaining, and troubleshooting AudioCodes devices as an SBC.
Duration	3 days
Certification	The course includes an ACA (AudioCodes Certificate Associated) certification exam.
General Objectives	<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. On completion of the course, students will be able to:</p> <ul style="list-style-type: none"> • Identify the AudioCodes products that support the Session Border Controller (SBC) features • Identify the functions of the SBC • Describe how the SBC handles SIP messages • Understand the reasons for message manipulation • Understand the survivability concept • List SBC security features • Configure SBC message manipulation rules • Configure the parameters required by the SBC • Configure the SBC for SIP trunking • Configure AudioCodes Gateways for PSTN fallback needs
Prerequisites	<p>Students are expected to have an applicable professional background with a minimum of one year of practical experience with:</p> <ul style="list-style-type: none"> • PSTN protocols and knowledge of analog and digital telephony systems • VoIP and SIP network architecture • Understanding of SIP control protocol signaling stacks • IP networking

Course Outline	<ul style="list-style-type: none">• AudioCodes Presentation• User Interface Introduction:<ul style="list-style-type: none">✓ Basic configuration✓ Management and maintenance options✓ Web Interface• Documentation• AudioCodes SBC Platforms:<ul style="list-style-type: none">✓ Hardware SBCs:<ul style="list-style-type: none">○ Mediant 2600/4000/9000○ Hybrid SBC Portfolio○ Mediant 500/8xx/1000/3000✓ Integrated SBC and MSBR:<ul style="list-style-type: none">○ Mediant 500/8xx/1000✓ Software SBC• SBC Description:<ul style="list-style-type: none">✓ SBC definition✓ SBC functions✓ SBC topologies and deployment✓ Logical and physical connections• SBC features:<ul style="list-style-type: none">✓ NAT traversal✓ Transcoding✓ Topology hiding✓ VoIP firewall✓ SIP routing✓ SIP normalization✓ Survivability• SBC Basic Terminology:<ul style="list-style-type: none">✓ Signaling Routing Domain (SRD)✓ SIP Interface✓ Media Realm✓ IP Groups✓ Proxy Sets✓ SIP dialog initiation process description✓ IP-to-IP routing✓ Multi-tenancy Concepts✓ Routing Policy• SBC Configuration:<ul style="list-style-type: none">✓ Parameters and tables✓ General parameters settings✓ Table assignments✓ Configuration example✓ SBC Configuration Wizard• Debugging Tools:<ul style="list-style-type: none">✓ Syslog and Syslog Viewer✓ Wireshark✓ SIP Test Calls• SBC Media Handling:
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	<ul style="list-style-type: none"> ✓ Media capabilities ✓ Media security ✓ Media handling modes ✓ Transcoding ✓ Extended and Allowed coders process ✓ Media handling example • SBC Message Manipulation: <ul style="list-style-type: none"> ✓ Reasons for SIP message manipulation ✓ Message manipulation configuration ✓ Message Manipulation Set ✓ Message manipulation rules ✓ IP-to-IP number manipulation • SBC Security Brief Overview: <ul style="list-style-type: none"> ✓ Security needs ✓ Network security feature: <ul style="list-style-type: none"> ○ Topology hiding ○ Firewall ✓ SBC security feature: <ul style="list-style-type: none"> ○ SIP firewall filtering rules (classification rules) ○ Call Admission Control (CAC) to enforce limits ○ SIP protection – filter methods ○ Signaling security – TLS ○ Media security – SRTP ○ Block unregistered users ✓ Management security feature: <ul style="list-style-type: none"> ○ HTTPS ○ SSH ○ SNMP ✓ IDS • AudioCodes Gateways Introduction: <ul style="list-style-type: none"> ✓ VoIP gateways ✓ Configuration basics ✓ IP-to-IP concept ✓ Inbound and outbound routing ✓ IP-to-IP SIP trunking scenario configuration example • SBC Survivability: <ul style="list-style-type: none"> ✓ Concepts ✓ Configuration ✓ CRP-Cloud Resilience Package • SBC High Availability: <ul style="list-style-type: none"> ✓ Concepts ✓ Configuration
Lab Activities	<ul style="list-style-type: none"> • Getting familiar with the GUI • SBC Routing

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	<ul style="list-style-type: none">• SBC Transcoding• Header Manipulation• SBC Survivability and PSTN Fallback

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