Release Notes

AudioCodes Session Border Controllers and Media Gateway Series

SBCs and Media Gateways

long Term Support (LTS) Versions

Version 7.40A.600

audiocodes

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Notice

Information contained in this document is believed to be accurate and reliable at the time of publishing. However, due to ongoing product improvements and revisions, AudioCodes cannot guarantee accuracy of published material after the Date Published nor can it accept responsibility for errors or omissions. Updates to this document can be downloaded from https://www.audiocodes.com/library/technical-documents.

This document is subject to change without notice.

Date Published: March-25-2026

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Customer Support

Customer technical support and services are provided by AudioCodes or by an authorized AudioCodes Service Partner. For more information on how to buy technical support for AudioCodes products and for contact information, please visit our website at https://www.audiocodes.com/services-support/maintenance-and-support.

Stay in the Loop with AudioCodes

Abbreviations and Terminology

Each abbreviation, unless widely used, is spelled out in full when first used.

Throughout this manual, unless otherwise specified, the term *device* refers to the AudioCodes products.

Related Documentation

Document Name
Mediant 500L Gateway and E-SBC Hardware Installation Manual
Mediant 500L Gateway and E-SBC User's Manual
Mediant 500 E-SBC Hardware Installation Manual
Mediant 500 E-SBC User's Manual
Mediant 800 Gateway and E-SBC Hardware Installation Manual
Mediant 800 Gateway and E-SBC User's Manual
Mediant 1000B Gateway and E-SBC Hardware Installation Manual
Mediant 1000B Gateway and E-SBC User's Manual
MP-1288 High-Density Analog Media Gateway Hardware Installation Manual
MP-1288 High-Density Analog Media Gateway User's Manual

Document Name
Mediant 3100 Gateway & E-SBC User's Manual
Mediant 3100 Gateway & E-SBC Hardware Installation Manual
Mediant 2600 E-SBC Hardware Installation Manual
Mediant 2600 E-SBC User's Manual
Mediant 4000 SBC Hardware Installation Manual
Mediant 4000 SBC User's Manual
Mediant 7000 SBC User's Manual
Mediant 7000 SBC Hardware Installation Manual
Mediant 9000 SBC User's Manual
Mediant 9080C SBC Series Hardware Installation Manual
Mediant 9080 / 9030 / 9000 Rev. B SBC Hardware Installation Manual
Mediant Software SBC User's Manual
SBC-Gateway CLI Reference Guide
SBC-Gateway Performance Monitoring Reference Guide
SBC-Gateway SNMP Alarms Reference Guide

Document Revision Record

LTRT	Description
27620	Initial LR document release for Version 7.4.
27621	Capacity updated for Forward On Busy Trunk Destination.
27627	Ver. 7.40A.300.012; GCP capacity; Access List table and Proxy Sets capacity; trademarks and USA address.
27635	Ver. 7.40A.300.013.
27637	Ver. 7.40A.260.152.
27641	WebRTC capacity note updated.
27644	Ver. 7.40A.400.023; know constraint SBC-42301 added to Ver. 7.40A.260.007
27647	Ver. 7.40A.300.021
27652	Ver. 7.40A.400.042; 7.2-to-7.4 upgrade note updated (7.20A.258.919 removed); feature added to Ver. 7.40A.400.023 for Mediant VE/CE Ddsv5 support; Mediant VE on Azure capacity (D2ds_v5 / D4ds_v5 / D8ds_v5)
27659	Ver. 7.40A.400.063
27661	Typo (GCP capacity)
27665	Version 7.40A.400.067 and 7.40A.260.313
27666	Ver. 7.40A.500.010
27670	Ver. 7.40A.500.017
27673	Typo - 8-GB RAM for GCP Media Components (Mediant CE)

LTRT	Description
27676	Mediant 3100 gateway capacity updated
27686	Ver. 7.40A.500.019
27691	Ver. 7.40A.500.357; 7.20A.259.* added for 7.2-to-7.4 upgrade; Mediant VE capacity updated for Azure (D2ds_v5, D4ds_v5, and D8ds_v5); Mediant VE note for 5,000 sessions
27705	Ver. 7.40A.500.775; SRTP capacity updated for GCP n2-standard-4 (Mediant VE)
27707	Ver. 7.40A.500.781
27720	Initial document for new LR releases (7.40A.600); Mediant 2600/Mediant 4000 TLS capacity updated; Mediant 800C SRTP capacity updated; Mediant CE Azure capacity updated; Mediant VE Hyper-V registered users capacity updated; Mediant VE GCP registered users capacity updated; MSRP capacity added; Mediant 800C non-hybrid SBC capacity updated
27728	V.150.1 removed
27730	Memory requirement updated for Mediant CE on VMware
27736	Ver. 7.40A.600.203
27743	Mediant 9080C added
27748	Ver. 7.40A.600.221
27752	Dial Plan Rule table capacity typo for VE/CE; Azure DS1_v2 recommendation to not use; Mediant 3100 T1 capacity.
27758	Ver. 7.40A.600.231
27769	Ver. 7.40A.600.627
27781	Ver. 7.40A.603.319
27783	Ver. 7.40A.603.324; Mediant 7000
27786	WebRTC capacity for Mediant 7000; Media Realm Extensions per Media Realm
27788	Ver. 7.40A.604.077

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1 Introduction

This document describes the Long Term Support (LTS) versions for Release 7.4 of AudioCodes' Session Border Controllers (SBC) and Media Gateways.

Note:

- Some of the features mentioned in this document are available only if the relevant software License Key has been purchased from AudioCodes and is installed on the device. For a list of available License Keys that can be purchased, please contact your AudioCodes sales representative.
- Open-source software may have been added and/or amended. For further information, contact your AudioCodes sales representative.
- Updates to this document may be made due to significant information discovered after the release or too late in the release cycle to be otherwise included in this release documentation. Click here to check for an updated document version on AudioCodes website.

1.1 Software Revision Record

The following table lists the versions for Release 7.4.

Note: The latest software versions can be downloaded from AudioCodes' Services Portal (registered Customers only).

Table 1-1: Software Revision Record

Version	Released Date
Long Term Support (LTS) Versions	
7.40A.604.077 (7.4.600-4)	March 25, 2026
Previous Latest Release (LR) Versions	
7.40A.603.324 (7.4.600-3.01)	February 11, 2026
7.40A.603.319 (7.4.600-3)	February 1, 2026
7.40A.600.627 (7.4.600-2)	August 4, 2025
7.40A.600.231 (7.4.600-1.03)	May 15, 2025
7.40A.600.221 (7.4.600-1.02)	February 20, 2025
7.40A.600.203 (7.4.600-1)	September 10, 2024
7.40A.600.014 (7.4.600)	May 6, 2024

1.2 Supported Products

The following table lists the SBC and Media Gateway products supported in this release.

Note:

- Product support and hardware configurations may change without notice. Currently available hardware configurations are listed in AudioCodes Price Book. For further enquiries, please contact your AudioCodes sales representative.
- Figures shown in the tables in this section are maximum values per interface. For available hardware configurations including combinations of supported interfaces, contact your AudioCodes sales representative.

Table 1-2: SBC and Media Gateway Products Supported in Release 7.4

Product	Telephony Interfaces			Ethernet Interfaces	USB	OSN
	FXS/FXO	BRI	E1/T1			
Hybrid SBC and Gateway Series						
Mediant 500 Gateway & E-SBC	-	-	1/1	4 GE	1	-
Mediant 500L Gateway & E-SBC	4/4	4	-	4 GE	1	-
Mediant 800B Gateway & E-SBC	12/12	8	2	4 GE / 8 FE	2	√
Mediant 800C Gateway & E-SBC	12/12	8	4	4 GE / 8 FE	2	√
Mediant 1000B Gateway & E-SBC	24/24	20	6/8	7 GE	-	√
MP-1288 Gateway & E-SBC	288/0	-	-	2 GE	1	-
Mediant 3100 Gateway & E-SBC	-	-	64	8 GE	1	-
SBC Series						
Mediant 2600 E-SBC	-	-	-	8 GE	-	-
Mediant 4000 SBC	-	-	-	8 GE	-	-
Mediant 4000B SBC	-	-	-	8 GE	-	√
Mediant 7100 SBC	-	-	-	12 GE	2	-
Mediant 7500 SBC	-	-	-	12 GE	2	-
Mediant 9030 SBC	-	-	-	12 GE	-	-
Mediant 9080 SBC	-	-	-	12 GE	-	-
Mediant 9080C SBC	-	-	-	12 GE	-	-
Mediant SE SBC	-	-	-	12 GE	-	-
Mediant VE SBC	-	-	-	12 GE	-	-
Mediant CE SBC	-	-	-	12 GE	-	-

1.3 Terms Representing Product Groups

Throughout this document, the following terms are used to refer to groups of AudioCodes products for feature applicability. Where applicability is specific to a product, the name of the product is used.

Table 1-3: Terms Representing Product Groups

Term	Product
Analog	Products with analog interfaces (FXS or FXO): ▪ MP-1288 ▪ Mediant 500L Gateway & E-SBC ▪ Mediant 800 Gateway & E-SBC (Rev. B and C) ▪ Mediant 1000B Gateway & E-SBC
Device	All products
Digital	Products with digital PSTN interfaces (ISDN BRI or PRI): ▪ Mediant 500 Gateway & E-SBC ▪ Mediant 500L Gateway & E-SBC ▪ Mediant 800 Gateway & E-SBC (Rev. ▪ Mediant 1000B Gateway & E-SBC B and C) ▪ Mediant 3100 Gateway & E-SBC
Mediant 7000	▪ Mediant 7100 SBC ▪ Mediant 7500 SBC
Mediant 90xx	▪ Mediant 9000 SBC ▪ Mediant 9000 Rev. B SBC ▪ Mediant 9030 SBC ▪ Mediant 9080 SBC ▪ Mediant 9080C SBC
Mediant Software	Software-based products: ▪ Mediant SE SBC ▪ Mediant VE SBC ▪ Mediant CE SBC

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2 Long Term Support (LTS) Versions

This chapter describes the LTS versions of Release 7.4.

2.1 Version 7.40A.604.077

This version includes new features, known constraints, and resolved constraints.

Version 7.40A.604.077 is the baseline version for the Long Term Support (LTS) 7.4 releases.

IMPORTANT NOTICE for MEDIANT 90xx/VE/CE/SE SBCs

Starting with Version 7.40A.250.001,.cmp files are digitally signed. Prior to upgrading the device, please refer to the upgrade prerequisites and instructions in the document Mediant SW-90xx SBC Signed-CMP Upgrade Procedure Configuration Note.

Note: Upgrading from Version 7.2 to a 7.4 version for all devices (hardware and software based):

- Upgrade to Version 7.4 can only be done from the following 7.2 versions:
  - √ 7.20A.260.*
  - √ 7.20A.259.*
  - √ 7.20A.258.*
  - √ 7.20A.256.*
  - √ 7.20A.204.878
  - √ 7.20A.204.549

  Therefore, prior to upgrading to Version 7.4, make sure that the device is running one of these 7.2 versions.
- **Mediant 90xx and Mediant VE/CE/SE SBCs:**
  Upgrade from Version 7.2 requires the use of a software image or an ISO file. For upgrade instructions, refer to the document *Mediant SW and 90xx SBC Upgrade Procedure from 7.2 to 7.4 Configuration Note*.

Note:

- **Compatibility with AudioCodes One Voice Operations Center (OVOC):**
  - √ This SBC version is compatible and recommended for use with OVOC Version 8.4 (8.4.591, or 8.4.3068 and later) to ensure optimal performance and feature support. It can also be managed using OVOC Version 8.2 (8.2.3122 or later), although full feature alignment may vary.
  - √ If you plan on using OVOC with this SBC version, first upgrade your OVOC to this compatible OVOC version prior to upgrading your device to this SBC version.
- **Using this SBC version with a centralized license pool:**

  Customers using OVOC to manage their centralized license pool (Fixed, Floating, or Flex pool) must first upgrade their OVOC to a compatible version (see above) prior to upgrading the devices in the pool to this SBC version. Failure in doing so removes the 7.4 devices from the centralized license pool.

  When using the Floating or Flex license pool for WebRTC and SIPREC sessions, OVOC version 8.0.3000 or later is required.

Note: This SBC version is compatible with Stack Manager Version 4.0.4 or later.

Note: The Media Transcoding Cluster (MTC) feature is supported only on Mediant 9080 SBC.

2.1.1 New Features

This section describes the new feature introduced in this version.

2.1.1.1 Fiber Optic Support for Mediant 7000 Series

The device now supports fiber optic network connectivity, using pluggable optical transceivers (SFP+), enabling high-speed and long-distance network deployments.

Support transceiver modules include:

- 10G SFP+ - supporting short range (SR) and long range (LR) transceivers
- 1G SFP - supporting short range (SR) for broader compatibility

Applicable Applications: SBC

Applicable Products: Mediant 7000

2.1.1.2 Configurable Maximum Call Reroute Attempts for SIP 3xx Responses

The maximum number of call-reroute attempts (1–30; default 8) for SIP 3xx redirection responses is now configurable. This is applicable to Tel-to-IP calls. Previously, this limit was fixed at 8.

The device first sends the call to the initial IP endpoint. If it receives a SIP 3xx response, it reroutes the call to the next endpoint. This process repeats for each subsequent SIP 3xx received. If the configured maximum is reached, the call fails.

This feature is configured by the following new global parameter:

- **CLI:** `configure voip > gateway routing settings > max-reroute-attempts-on-3xx`
- **INI:** [MaxRerouteAttemptsOn3xx]

Applicable Applications: Gateway

Applicable Products: Gateway

2.1.1.3 Preservation of Incoming SIP Response Reason-Phrase for Outgoing Messages

The device now preserves the original SIP response status code text (Reason-Phrase) received in the Response Line of an incoming SIP response (e.g., "Trying" in SIP 100 Trying) This text is forwarded unchanged in the corresponding outgoing SP response.

This enhancement ensures compliance with standards that require specific reason phrases. For example, the FCC-defined SIP 603+ response requires the reason phrase “Network Blocked”.

Previously, the device replaced the incoming Reason-Phrase with a standard, predefined phrase.

Applicable Applications: SBC

Applicable Products: All

2.1.1.4 Manipulation of Reason Phrases for SIP Responses

The device’s SIP Message Manipulation feature can now be used to access or modify the reason phrase in SIP response messages. The reason phrase is the text portion of the response line (for example, "Trying" in 100 response code).

This capability is enabled through the new `header.Request-URI.ReasonPhrase` parameter in Message Manipulation rules. This parameter lets you:

- Match a specific reason phrase ('Condition' field)
- Modify the reason phrase ('Action Subject' field)

The following example changes the reason phrase of a 100 "Trying" response to "Trying My Very Best":

- **Message Type:** Invite.Response.100
- **Action Subject:** Header.Request-URI.ReasonPhrase
- **Action Type:** Modify
- **Action Value:** 'Trying My Very Best'

Applicable Applications: SBC

Applicable Products: All

2.1.1.5 SBC Configuration Wizard Update 2.61

The device's SBC Configuration Wizard has been updated to Template Pack Version 2.61. This update includes the following new client templates:

- Microsoft Teams - Vodafone IP Anlagen-Anschluss SIP Trunk
- Vodafone IP Anlagen-Anschluss SIP Trunk

Applicable Applications: SBC

Applicable Products: All

2.1.1.6 Encryption Checksum Header and Validation for CLI Script File

When password obfuscation using an encryption key is implemented, the download CLI Script file now includes an encryption key checksum header, as shown in the following example:

```
;EncryptionKeyCksum:
ec122daf5f4caea66e6a31fac5b44ef0bf849b808e68d88b655003fb3caa8fb2
```

The device validates this header against the device's current encryption key (or a key provided in the Configuration Package, when included) during file upload through the Web interface, Automatic Update, or Configuration Package file. If the checksum header is missing or does not match, the device rejects the upload, preventing the configurations from being applied.

Applicable Applications: All

Applicable Products: All

2.1.2 Known Constraints

This section lists known constraints in this release.

Table 2-1: Known Constraints in Version 7.40A.604.077

Incident	Description	Impact	Severity	Affected Products	Affected Environments
SBC-62247	Rescue options using System Snapshots isn't available. Attempting to restore the device using a snapshot may result in a corrupted system image and require reinstallation from ISO.	Reinstall required	Medium	Mediant 7100; Mediant 7500	-

2.1.3 Resolved Constraints

This section lists resolved constraints in this release.

Table 2-2: Resolved Constraints in Version 7.40A.604.077

Incident	Description	Impact	Severity	Affected Products	Affected Environments
SBC-61047	The device fails to register with ARM.	ARM registration failure	Medium	All	n/a
SBC-61091	The device restarts due to an error (Exception Reason: CMX Kernel Panic).	Device restart	Medium	All	n/a
SBC-61125	The device reverts manipulation of the SIP P-Asserted-Identity header done by ARM.	Incorrect manipulation	Medium	All	n/a
SBC-61186 SBC-61858	The device rejects (488 response) a SIP re-INVITE with a fax offer (VBD) if no fax Coder Group was configured.	Fax failure	Medium	All	n/a
SBC-61199 SBC-61789	The device fails to validate an empty prefix entry in the Dial Plan rules table, considering it as a wildcard.	Invalid Dial Plan rule	Medium	All	n/a
SBC-61248	The device fails to save the CSEQ on a SIP 200 OK response on a race condition in a switch-over, causing a wrong CSEQ.	Incorrect CSEQ	Medium	HA	n/a
SBC-61262	The device fails to clear a DNS alarm even though a DNS server error response is received.	False alarm	Medium	All	n/a
SBC-61268	The device allows duplicated trusted root certificates in the Trusted Root Certificates table.	Duplicated certificates	Medium	All	n/a
SBC-61357	The device's OpenSSL version is exposed to vulnerabilities CVE-2025-15467 and CVE-2025-11187.	Vulnerabilities	High	All	n/a
SBC-61487	The device's Message Manipulations table in the Web interface doesn't display the 'Activate' column.	Difficult to know if rule active or not	Low	All	n/a
SBC-61521	The device runs out of HTTP resources on high traffic.	HTTP resources	Medium	All	n/a
SBC-61652	The device plays a distorted ringback tone to the transferee for call transfer.	Distorted ringback tone	Medium	All	n/a
SBC-61659	The device fails to perform NAT translation on RTT, resulting in one-way voice.	One-way voice	Medium	All	n/a

Incident	Description	Impact	Severity	Affected Products	Affected Environments
SBC-61693	The device fails to reconnect to the Floating License server (OVOC) after a long timeout (more than 40s).	No connection to OVOC	Medium	All	n/a
SBC-61725 SBC-61658	The device fails to handle a race condition between SIP signaling (200 OK) and ICE connectivity checks, causing a loss of remote candidate state, preventing successful media latching.	No voice	Medium	All	n/a
SBC-61749	The device considers an RFC 2198 packet as invalid and discards it if it contains at least one block of 0 length.	Device discards RTP packet	Medium	All	n/a
SBC-61791	The parameter setting of 'Use Gateway Name for Options' to **Server** doesn't affect outgoing SIP OPTIONS messages.	Device sends incorrect host	Medium	All	n/a
SBC-61835	The device sends silent RTP packets to the SIPREC Server (SRS) after the call is changed from RTP forwarding to Transcoding.	Device sends silent RTP toward SRS	Medium	All	n/a
SBC-61876	The device rejects a SIP re-INVITE's 200 OK response with 488 and disconnects the call if the new media is added to the incoming SDP in a way that affects the 'mid' attribute.	Call disconnection	Medium	All	n/a
SBC-61928	The device fails to establish an LDAP connection with the second server from the same management group.	LDAP disconnected	Medium	All	n/a
SBC-61977	The device restarts because of incorrect validation of PowerSupplyIndex.	Device restarts	Medium	MP-1288	n/a
SBC-61978	The device's GW User Information table is not active when there is no Far End User license (FEU = 0).	No GW User Info table	Medium	MP-1288	n/a
SBC-61992	The device is affected by vulnerabilities regarding its Linux Red Hat Package Manager (CVE-2019-20916, CVE-2020-12362, CVE-2023-31315, CVE-2024-6345, CVE-2025-13601, CVE-2025-38051, CVE-2025-47273, CVE-2025-68615, CVE-2025-68973).	Vulnerability	High	All	n/a

Incident	Description	Impact	Severity	Affected Products	Affected Environments
SBC-62015	The device's OAuth HTTP buffer has exceeded its limit of 8500 (should be increased).	HTTP buffer exceeded	Medium	All	n/a
SBC-62079	The device restarts because many internal tasks are blocked from running due to an internal error.	Device restarts	Medium	All	n/a

2.2 Previous Latest Release (LR) Versions

2.2.1 Version 7.40A.603.324

This version includes new features only.

IMPORTANT NOTICE for MEDIANT 90xx/VE/CE/SE SBCs

Starting with Version 7.40A.250.001,.cmp files are digitally signed. Prior to upgrading the device, please refer to the upgrade prerequisites and instructions in the document Mediant SW-90xx SBC Signed-CMP Upgrade Procedure Configuration Note.

Note: Upgrading from Version 7.2 to a 7.4 version for all devices (hardware and software based):

- Upgrade to Version 7.4 can only be done from the following 7.2 versions:
  - √ 7.20A.260.*
  - √ 7.20A.259.*
  - √ 7.20A.258.*
  - √ 7.20A.256.*
  - √ 7.20A.204.878
  - √ 7.20A.204.549

  Therefore, prior to upgrading to Version 7.4, make sure that the device is running one of these 7.2 versions.
- **Mediant 90xx and Mediant VE/CE/SE SBCs:**

  Upgrade from Version 7.2 requires the use of a software image or an ISO file. For upgrade instructions, refer to the document *Mediant SW and 90xx SBC Upgrade Procedure from 7.2 to 7.4 Configuration Note*.

Note:

- **Compatibility with AudioCodes One Voice Operations Center (OVOC):**
  - √ This SBC version is compatible and recommended for use with OVOC Version 8.4 (8.4.591, or 8.4.3068 and later) to ensure optimal performance and feature support. It can also be managed using OVOC Version 8.2 (8.2.3122 or later), although full feature alignment may vary.
  - √ If you plan on using OVOC with this SBC version, first upgrade your OVOC to this compatible OVOC version prior to upgrading your device to this SBC version.
- **Using this SBC version with a centralized license pool:**

  Customers using OVOC to manage their centralized license pool (Fixed, Floating, or Flex pool) must first upgrade their OVOC to a compatible version (see above) prior to upgrading the devices in the pool to this SBC version. Failure in doing so removes the 7.4 devices from the centralized license pool.

  When using the Floating or Flex license pool for WebRTC and SIPREC sessions, OVOC version 8.0.3000 or later is required.

Note: This SBC version is compatible with Stack Manager Version 4.0.1 or later.

Note: The Media Transcoding Cluster (MTC) feature is supported only on Mediant 9080 SBC.

2.2.1.1 New Features

This section describes the new feature introduced in this version.

2.2.1.1.1 New Hardware Platforms – Mediant 7000 SBC Series

Mediant 7000 Session Border Controllers (SBC) are the newest platforms in the AudioCodes SBC family, designed to deliver exceptional performance, scalability, and reliability.

Available models:

- Mediant 7100, supporting up to 1,000 sessions
- Mediant 7500, supporting up to 10,000 sessions

Platform highlights:

- Powered by an x86-based architecture
- High Availability (HA) support
- Improved call per second performance
- Dual AC power supplies

Key benefits:

- High Performance – Optimized for superior processing power.
- Scalability – Ideal for expanding networks and high-traffic environments.
- Reliability – Robust and resilient design ensuring consistent, dependable operation.

Software compatibility:

- Compatible with Version 7.40A.603.319 or later.

Applicable Applications: SBC

Applicable Products: Mediant 7000

2.2.2 Version 7.40A.603.319

This version includes new features and resolved constraints only.

IMPORTANT NOTICE for MEDIANT 90xx/VE/CE/SE SBCs

Starting with Version 7.40A.250.001,.cmp files are digitally signed. Prior to upgrading the device, please refer to the upgrade prerequisites and instructions in the document Mediant SW-90xx SBC Signed-CMP Upgrade Procedure Configuration Note.

Note: Upgrading from Version 7.2 to a 7.4 version for all devices (hardware and software based):

- Upgrade to Version 7.4 can only be done from the following 7.2 versions:
  - √ 7.20A.260.*
  - √ 7.20A.259.*
  - √ 7.20A.258.*
  - √ 7.20A.256.*
  - √ 7.20A.204.878
  - √ 7.20A.204.549

  Therefore, prior to upgrading to Version 7.4, make sure that the device is running one of these 7.2 versions.
- **Mediant 90xx and Mediant VE/CE/SE SBCs:**

  Upgrade from Version 7.2 requires the use of a software image or an ISO file. For upgrade instructions, refer to the document *Mediant SW and 90xx SBC Upgrade Procedure from 7.2 to 7.4 Configuration Note*.

Note:

- **Compatibility with AudioCodes One Voice Operations Center (OVOC):**
  - √ This SBC version is compatible and recommended for use with OVOC Version 8.4 (8.4.591, or 8.4.3068 and later) to ensure optimal performance and feature support. It can also be managed using OVOC Version 8.2 (8.2.3122 or later), although full feature alignment may vary.
  - √ If you plan on using OVOC with this SBC version, first upgrade your OVOC to this compatible OVOC version prior to upgrading your device to this SBC version.
- **Using this SBC version with a centralized license pool:**

  Customers using OVOC to manage their centralized license pool (Fixed, Floating, or Flex pool) must first upgrade their OVOC to a compatible version (see above) prior to upgrading the devices in the pool to this SBC version. Failure in doing so removes the 7.4 devices from the centralized license pool.

  When using the Floating or Flex license pool for WebRTC and SIPREC sessions, OVOC version 8.0.3000 or later is required.

Note: This SBC version is compatible with Stack Manager Version 4.0.1 or later.

Note: The Media Transcoding Cluster (MTC) feature is supported only on Mediant 9080 SBC.

2.2.2.1 New Features

This section describes the new features introduced in this version.

2.2.2.1.1 Mediant VE Support for Azure Standard_B2ls_v2 Virtual Machine Size

Microsoft Azure DS_v2 virtual machine series in general and DS1_v2 virtual machine size in particular are scheduled for retirement by Microsoft. Therefore, it's recommended not to use them for new deployments, and to migrate existing deployments to the newly supported low-cost B2ls_v2 virtual machine size (or other already supported sizes).

Note: B2ls instances use a CPU credit-based model. The capacity specified in these Release Notes represents the baseline CPU consumption level (credit balance). Operating at higher capacity than specified will consume CPU credits. If credits are reduced or depleted, degradation of SBC performance may result.

Applicable Applications: SBC

Applicable Products: Mediant VE

2.2.2.1.2 Device's 32-bit Serial Number Displayed in Management Interfaces

The device now displays its 32-bit serial number in the management interfaces. Previously (and still supported), only the 64-bit serial number was displayed.

The 32-bit serial number is displayed in the new 'Serial Number 32bit' field:

- **Web:** Located on the Device Information page
- **CLI:** Visible through the `show ini-file` command
- **ini:** Listed after the 'Serial Number' for 64-bit

Applicable Applications: SBC

Applicable Products: Mediant 90xx; Mediant Software

2.2.2.1.3 Mediant VE/CE Deployment on Google Cloud via Terraform

Google Cloud has deprecated Google Cloud Deployment Manager in favor of Terraform, the industry-standard infrastructure-as-code (IaC) tool for provisioning and managing cloud resources.

To align with this change, AudioCodes Stack Manager now supports Terraform-based deployments of Mediant VE/CE SBCs on Google Cloud Platform (GCP), enabling a more standardized, flexible, and future-proof deployment experience.

Note:

- This feature requires the use of Stack Manager version 4.0.1 or later.
- Customers who have current Mediant VE/CE SBC stacks deployed in GCP should delete them and create new stacks using the latest Stack Manager version. It's recommended to backup SBC configuration in advance and restore it after the redeployment to preserve service continuity.

Applicable Applications: SBC

Applicable Products: Mediant VE/CE

2.2.2.1.4 Enhanced Table Functionality for Message Manipulation Rules

The Message Manipulation Rules table ("child" of the Message Manipulation table) now provides administrators with more flexibility by supporting the following table functionalities:

- **Inserting rows:** A new row can be added at any index in the table, using the new **Insert** button.
- **Reordering rows:** A row can now be moved up or down in the table, using the new up / down arrow icons.
- **Activation or Deacrivation of rules:** Rules can be individually activated or deactivated, providing administrators with greater flexibility in rule management. This capability allows users to retain previously configured rules for future use without deleting them, while controlling which rules are actively applied. Rules are enabled by default. The following parameter has been added to the table to support this functionality:
  - **Web:** 'Activate' (Enable/Disable)
  - **CLI:** `activate`

Applicable Applications: All

Applicable Products: All

2.2.2.1.5 Utilize Device's Serial Number for Message Manipulation, Conditions and CSR

The device's Serial Number can now be utilized as a dynamic parameter in Message Manipulations, Conditions, and Call Setup Rules (CSR).

The Serial Number is referenced using the following parameter syntax:

```
Param.Device.SN
```

This parameter syntax can be used in the following locations:

- **Message Manipulations Table:**
  - 'Condition'
  - 'Action Value'
- **Message Conditions Table:**
  - 'Condition'
- **Call Setup Rules Table:**
  - 'Condition'
  - 'Action Value'
  - 'Request Key'

For example, the following Message Manipulation rule adds the device's Serial Number to a custom SIP header:

- 'Action Subject': Header.Device-Info
- 'Action Type': Add
- 'Action Value': 'S/N' + Param.Device.SN

Applicable Applications: All

Applicable Products: All

2.2.2.1.6 Increased NAT Translation Table Capacity

The maximum number of rows that can be configured in the NAT Translation table has been increased from 32 to 256.

Applicable Applications: SBC

Applicable Products: Mediant 90xx; Mediant VE/CE/SE (≥ 4 GB)

2.2.2.1.7 MD5 and SHA-256 Cryptographic Algorithms for Web Services

The device now supports MD5 and SHA-256 cryptographic hash algorithms when communicating with remote HTTP/S servers (configured in the Remote Web Services table). This feature provides flexibility to match the security requirements of remote endpoints.

The desired algorithm is determined by the remote server and is sent as part of the WWW-Authenticate header in the 401 response to the device.

Applicable Applications: All

Applicable Products: All

2.2.2.1.8 Dynamic Reconnection upon OVOC IP Address Change for WebSocket Tunneling

When the device is configured to communicate with AudioCodes OVOC over a WebSocket tunnel using an FQDN ('OVOC WebSocket Tunnel Server Address' parameter), it now handles OVOC IP address changes seamlessly and dynamically. Upon detecting a connection loss due to an IP address change, the device resolves the FQDN to the new IP address and reconnects immediately without requiring a restart.

This feature ensures continuous management connectivity and high availability, eliminating service interruptions until a device restart occurs.

Applicable Applications: All

Applicable Products: All

2.2.2.1.9 Duplication and Forwarding of SIPREC INVITE and Metadata

The device now supports duplicating and forwarding incoming SIPREC INVITE requests to one or more destinations, such as Session Recording Servers (SRSs) or agent-assist contact center bots. This feature is especially useful for SIP User Agents (UAs) that don't support SIPREC INVITE duplication. In addition, the device also copies the original XML metadata from the incoming SIPREC INVITE and includes it in each duplicated SIPREC INVITE sent to the configured destinations.

Configuration of this feature is like standard SIPREC. In addition, for the device to copy the original XML metadata to the duplicated SIPREC INVITE messages, the existing 'Use Initial Incoming INVITE for re-INVITE' [SBCKeepInitialIncomingINVITE] parameter in the IP Profiles table must be enabled.

Note:

- This feature is not supported by the active-standby SIPREC feature.
- The device duplicates and forwards the SIPREC INVITE request only after receiving a SIP 200 OK response from the destination. (In standard SIPREC operation, duplication occurs immediately upon receipt of the INVITE.)

Applicable Applications: All

Applicable Products: All

2.2.2.1.10 RTP Mediation without Transcoding Regardless of License

The device can now be configured to perform RTP mediation between calls without performing transcoding even though it has a transcoding license and would normally transcode the call (for example, different coders used by call legs). If during SIP session establishment, the two sides of the call offer different coders, the device does a SIP re-INVITE to synchronize the media so that the same coder is used on both sides. This allows the device to bypass transcoding for specific calls, eliminating the use of valuable transcoding resources.

Both legs of the call should have this setting. The device handles the call as if the coder transcoding license is unavailable.

This feature is enabled by the following new optional value for the 'Mediation Mode' parameter in the IP Profiles table:

- **Web:** 'RTP Mediation Without Coder Transcoding'
- **CI:** `rtp-mediation-without-coder-transcoding`
- **Ini:** [3]

Applicable Applications: SBC

Applicable Products: All

2.2.2.1.11 Enhanced OAuth 2.0 Grant Type Support

The device now supports configurable grant types when requesting OAuth 2.0 access tokens for the HTTP client. This allows for greater flexibility in how the device authenticates with an OAuth 2.0 server. This enhancement ensures compatibility with a wider range of identity providers and security policies.

The authentication method is configured using the following new parameters in the OAuth Servers table:

- 'Grant Type' – new parameter that defines the grant type:
  - **Client Credentials:** (Default) The client authenticates using its own unique client ID and client secret to obtain an access token. This is typically used for application-to-application communication.

    The existing 'Secret Key' parameter configures the secret key.
  - **Password:** The client authenticates using a user's username and password (in addition to the client ID) to obtain an access token. This grant type introduces the following new parameters:
    - 'Username' – configures the username
    - 'Password' - configures the password

Note: The Password grant type is generally discouraged in OAuth 2.0 implementations due to security risks.

Applicable Applications: All

Applicable Products: All

2.2.2.1.12 Transparent Mode for SIP User-to-User Header

The device can now copy the SIP User-to-User header name and value as is from the incoming INVITE request to the outgoing SIP message without modification.

This feature is supported by the new optional value **Transparent Mode** for the existing [UserToUserHeaderFormat] parameter.

Applicable Applications: SBC

Applicable Products: All

2.2.2.1.13 Improved HA Support for Concurrent Call Limits

High Availability (HA) devices now maintain concurrent call limit enforcement during switchover events when using the device's tag functionality ('cac') in Call Setup Rules and Dial Plans to configure per-user concurrent call limits. The standby device automatically synchronizes call state information. Upon switchover, the newly active device is aware of the concurrent number of calls and the maximum call limits per, ensuring uninterrupted call admission control.

Applicable Applications: SBC

Applicable Products: HA

2.2.2.1.14 Online Certificate Status Protocol (OCSP) over HTTP/1.1

The device now supports OCSP over HTTP/1.1. Previously, the device supported only OCSP over HTTP/1.0.

A new parameter has been added to the TLS Contexts table to select the HTTP version for OCSP:

- **Web:** 'OCSP HTTP Version' (HTTP1.0 / HTTP1.1)
- **CLI:** `ocsp-http-version`
- **INI:** [OcspHttpVersion]

Applicable Applications: All

Applicable Products: All

2.2.2.2 Resolved Constraints

This section lists resolved constraints.

Table 2-3: Resolved Constraints in Version 7.40A.603.319

Incident	Description	Impact	Severity	Affected Products	Affected Environments
SBC-59094	The device sends a DNS failure alarm when the OVOC address is configured as a hostname and the DNS is changed.	OVOC connection error	Medium	All	-
SBC-59313	The device doesn't include the UPDATE\PRACK methods in the SIP Allow header in the outgoing INVITE message.	Allow header missing methods	Medium	All	-
SBC-59317	The device fails to handle call forking with Real-time Text (RTT), choosing the incorrect SDP.	RTT call failure	Medium	All	-
SBC-59352 SBC-59772	The device's Web interface doesn't reorder rules in the Message Manipulations table.	Rules in Web interface's Message Manipulations table can't be reordered	Medium	All	-
SBC-59401	The device doesn't preserve the Message Manipulation session variable (var.session) upon an HA switchover.	Stored Message Manipulation variable lost upon HA switchover	Medium	HA	HA
SBC-59602 SBC-59907	The video of WebRTC calls is blurred when multiple RTCP streams are received.	Blurring of WebRTC video calls	Medium	All	-
SBC-59636 SBC-60632	The device fails to do a proxy hot-swap and disconnects the call in a specific call flow scenario.	Call failure	Medium	All	-
SBC-59701 SBC-60156	Device upgrade fails because of an Azure log file that wasn't rotated, causing all available memory to be utilized.	Device upgrade failure	Medium	All	Azure
SBC-59746	The SIP Allow header is corrupted when it includes spaces and commas.	Corrupt SIP Allow header	Medium	All	-
SBC-59899	The device sends an SDP answer for a SIP re-INVITE with the incorrect DTMF payload type (110 instead of 101).	Device sends incorrect DTMF payload type in SDP	Medium	All	-
SBC-59926	The device sends the incorrect QOE status (different CDR and KPI, causing discrepancies in OVOC).	Incorrect QOE report	Medium	All	-

Incident	Description	Impact	Severity	Affected Products	Affected Environments
SBC-60090	The device is exposed to security vulnerability CVE-2025-38352.	Security vulnerability	High	All	-
SBC-60296	The device fails to send a call report to OVOC after receiving a SIP 422 on the outgoing leg.	Device sends incorrect CDR to OVOC	Medium	All	-
SBC-60335	The device's calculation of maximum RTP UDP port (65534 instead of 65535) is incorrect.	Incorrect RTP port calculation	Low	All	-
SBC-60361	The device restarts because of a bug in an internal SIP task.	Device restart	Medium	All	-
SBC-60389	The device increases the SDP version of an outgoing SIP 200 OK for terminated incoming re-INVITE messages without a reason.	Device sends incorrect SDP version	Medium	All	-
SBC-60442	The device removes the port of the Request-URI host part from the outgoing request.	Device sends INVITE without port number	Medium	All	-
SBC-60471	The device changes its SDP port in the outgoing SIP 200 OK for a re-INVITE after a Refer because of mishandling the 'a=label' attributes, causing one-way voice.	One-way voice	Medium	All	-
SBC-60588	The device stops the NGINX process on the redundant unit and therefore, after a switchover the device's service is affected.	Device service affected after a switchover	Medium	HA	AWS
SBC-60653	Device's date and time is not updated according to the incoming SIP Date header (doesn't consider UTC offset).	Date header offset error	Medium	All	-
SBC-60676	Device is exposed to security vulnerability of storing Cross-Site Scripting-XSS via REST API.	Security vulnerability	Medium	All	-
SBC-60845	CDR over REST API using OAuth 2.0 fails because the JSON response includes unexpected fields.	REST CDR failure	Medium	All	-
SBC-60872	The device fails to handle the RED (redundancy) coder for RTT SDP body because it was supported for audio and video, but not for text.	RTT call failure	Medium	All	-

Incident	Description	Impact	Severity	Affected Products	Affected Environments
SBC-60874	The device sends HTTP/S PUSH notification requests in response to SIP messages.	Device fails to ignore SIP messages	Medium	All	-
SBC-60962	The device fails to perform message manipulation on a SIP INVITE after a challenge (401/407), even though the manipulation is on the Authorization header.	Message manipulation failure	Medium	All	-
SBC-61004	The device truncates the SIP Contact header value after 300 characters.	Device truncates SIP Contact header value	Medium	All	-
SBC-61024	The device restarts with after an internal task (MDI) reaches 98% capacity.	Device restart	Medium	All	-
SBC-61039	The device's default CA bundle list is not updated.	Device's CA bundle list not updated	High	All	-
SBC-61107	Device has a security vulnerability regarding its Linux Red Hat Package Manager.	Security vulnerability	High	All	-
SBC-61137	The device's OAuth 2.0 HTTP buffer is limited to 6144 and rejects any HTTP request\response larger than this number.	OAuth 2.0 HTTP buffer limitation	Medium	All	-
SBC-61148	The device shows different expiry time between the 'Expires' column in the Web interface's Trusted Root Certificates table and the 'Not After' field in the certificate itself.	Different certificate expiration	Medium	All	-
SBC-61192	The device reports an incorrect CDR Remote Packets Count (max value instead of '-1' for default).	Incorrect CDR fields	Medium	All	-

2.2.3 Version 7.40A.600.627

This version includes new features and resolved constraints.

IMPORTANT NOTICE for MEDIANT 90xx/VE/CE/SE SBCs

Starting with Version 7.40A.250.001,.cmp files are digitally signed. Prior to upgrading the device, please refer to the upgrade prerequisites and instructions in the document Mediant SW-90xx SBC Signed-CMP Upgrade Procedure Configuration Note.

Note: Upgrading from Version 7.2 to a 7.4 version for all devices (hardware and software based):

- Upgrade to Version 7.4 can only be done from the following 7.2 versions:
  - √ 7.20A.260.*
  - √ 7.20A.259.*
  - √ 7.20A.258.*
  - √ 7.20A.256.*
  - √ 7.20A.204.878
  - √ 7.20A.204.549

  Therefore, prior to upgrading to Version 7.4, make sure that the device is running one of these 7.2 versions.
- **Mediant 90xx and Mediant VE/CE/SE SBCs:**

  Upgrade from Version 7.2 requires the use of a software image or an ISO file. For upgrade instructions, refer to the document *Mediant SW and 90xx SBC Upgrade Procedure from 7.2 to 7.4 Configuration Note*.

Note:

- **Compatibility with AudioCodes One Voice Operations Center (OVOC):**
  - √ This SBC version is compatible and recommended for use with OVOC Version 8.4 (8.4.591, or 8.4.3068 and later) to ensure optimal performance and feature support. It can also be managed using OVOC Version 8.2 (8.2.3122 or later), although full feature alignment may vary.
  - √ If you plan on using OVOC with this SBC version, first upgrade your OVOC to this compatible OVOC version prior to upgrading your device to this SBC version.
- **Using this SBC version with a centralized license pool:**

  Customers using OVOC to manage their centralized license pool (Fixed, Floating, or Flex pool) must first upgrade their OVOC to a compatible version (see above) prior to upgrading the devices in the pool to this SBC version. Failure in doing so removes the 7.4 devices from the centralized license pool.

  When using the Floating or Flex license pool for WebRTC and SIPREC sessions, OVOC version 8.0.3000 or later is required.

Note: This SBC version is compatible with Stack Manager Version 3.9.3 or later.

Note: The Media Transcoding Cluster (MTC) feature is supported only on Mediant 9080 SBC.

2.2.3.1 New Features

This section describes the new features introduced in this version.

2.2.3.1.1 Message Manipulations Table Restructured into Parent-Child Format

To enhance user experience and simplify configuration, the Message Manipulations table has been redesigned into an intuitive parent-child table structure:

- **Parent Table – 'Message Manipulation Sets':**

  This table defines each manipulation set by name and row index. It is used to group manipulation rules and assign them to other configuration entities (e.g., IP Groups).

  - **ini file:** [MsgManSet]
  - **CLI:** `configure voip > message msg-man-set`

- **Child Table – 'Message Manipulations':**

  This table contains the manipulation rules of the associated set defined in the parent table.

  - **ini file:** [MessageManipulations]
  - **CLI:** `configure voip > message msg-man-set > message-manipulations`

Applicable Application: All

Applicable Products: All

2.2.3.1.2 Increased Message Manipulation Table Capacity

The maximum capacity of the Message Manipulation Sets and Message Manipulation tables has been expanded to support more large-scale SIP message handling scenarios. The updated limits vary based on the device model and allocated memory:

- **8-GB Mediant VE/CE**
  - **Sets:** Increased to 100
  - **Rules:** No change
- **32-GB Mediant VE/CE, and Mediant 9030**
  - **Sets:** Increased to 1,000
  - **Rules:** Increased to 5,000 (Increased from 500)
- **64-GB Mediant VE/CE, Mediant SE, and Mediant 9000B/9080/9080C**
  - **Sets:** 1,000
  - **Rules:** 5,000 (Increased from 500)

Applicable Application: SBC

Applicable Products: Mediant Software; Mediant 90xx

2.2.3.1.3 Message Manipulation Function to Escape Special Characters

The device's Message Manipulation feature now supports escaping the double quotes ("") and backslashes (\) special characters in SIP messages. This is supported by the new `Func.Json-Escape` function, which uses the backslash (\) to escape these characters.

Escaping special characters is useful, for example, when the device needs to send a message in JSON format to AudioCodes ARM. For example, SIP messages typically contain some header values that are enclosed in double quotes. This function escapes the header value (i.e., JSON parser).

The function is used in the 'Action Value' field in the Message Manipulations table and can be used in any SIP header or body.

Applicable Application: All

Applicable Products: All

2.2.3.1.4 Message Manipulation Function to Insert Current Date and Time

The device's Message Manipulation feature now supports automatic insertion of the current date and time, using the `Func.DateTime()` function. This function generates a timestamp in standard ISO 8601 format (e.g., `2025-07-22T13:55:38Z`).

The function is typically used in the 'Action Value' field in the Message Manipulations table and can be used in any SIP header or body.

Below shows an example of a date and time added to a SIP message body of type `application/pidf+xml`:

```
Content-Type: application/pidf+xml
Content-Id: 12345678901@example.com
<?xml version="1.0" encoding="UTF-8"?>
<presence xmlns="urn:ietf:params:xml:ns:pidf"
…
…
<timestamp>2024-09-09T13:55:38Z</timestamp>
```

Applicable Application: All

Applicable Products: All

2.2.3.1.5 Message Manipulation Function to Insert Timestamps

The device's Message Manipulation feature now supports returning the current time (timestamp) since the Unix epoch, using the `Func.Now` function. The value is measured in seconds. The time is counted since the Unix epoch, which is a standard point in time -- January 1, 1970 at 00:00:00 UTC (also written as 1970-01-01T00:00:00Z).

For example, if `Func.Now` returns 1722259200, it means 1,722,259,200 seconds have passed since 1970-01-01T00:00:00Z, and this number corresponds to a date like 2024-07-29 00:00:00 UTC.

This functionality may be useful, for example, to add timestamps to SIP headers or SDP bodies.

Applicable Application: All

Applicable Products: All

2.2.3.1.6 Additional SIP Message Manipulation Sets per IP Group

The IP Groups table now supports associating an additional set of SIP message manipulation rules for inbound and outbound SIP messages. Previously, each IP Group could reference only one manipulation set per direction.

This enhancement allows for greater flexibility and reusability of manipulation logic. For example, you can apply a shared set of rules across multiple IP Groups, while also assigning IP Group-specific rules as needed.

Two new parameters have been added to the IP Groups table to support this feature:

- Specifies an additional Message Manipulation Set for inbound SIP messages, in addition to the existing 'Inbound Manipulation Set' parameter:
  - **Web:** 'Additional Inbound Manipulation Set'
  - **CLI:** `add-inbound-msg-manip-set-name`
  - **INI:** [AdditionalInboundManSetName]
- Specifies an extra manipulation set to be applied to outbound SIP messages, in addition to the existing 'Outbound Manipulation Set' parameter:
  - **Web:** 'Additional Outbound Manipulation Set'
  - **CLI:** `add-outbound-msg-manip-set-name`
  - **ini:** [AdditionalOutboundManSetName]

Applicable Application: SBC

Applicable Products: All

2.2.3.1.7 UPDATE and PRACK SIP Methods Now Listed in Allow Header

When an IP Profile is configured to support the SIP methods PRACK ('PRACK Mode' parameter) and UPDATE ('SIP UPDATE Support' parameter), the device now includes these methods in the Allow header of outgoing SIP responses (e.g., 200 OK and 18x responses).

This enhancement ensures that the remote SIP User Agent is explicitly informed that it may use UPDATE and PRACK methods in subsequent SIP exchanges, improving protocol compliance and interoperability in SIP call flows.

Applicable Application: SBC

Applicable Products: All

2.2.3.1.8 Customized SIP Response Codes

The device now supports customized SIP response codes, allowing it to recognize and forward unknown SIP reason codes received in the Request-URI and/or Reason header with corresponding custom text descriptions. This feature enhances interoperability with third-party systems that use proprietary or non-standard SIP codes, by preserving them on the outgoing leg.

In addition, the feature allows customization of text descriptions for standard SIP response codes. For example, an incoming `200 OK` can be customized and forwarded to the other leg as `200 Connected successfully`.

Below is an example of a non-standard SIP response code, shown in the Request-URI and Reason header:

```
SIP/2.0 452 Refused transfer
Via: SIP/2.0/TCP
10.1.1.1:5060;alias;branch=z9hG4;rport=529;received=10.2.2.2
From: <sip:4011111@def.acme.com>;tag=1abcd12345
To: <sip:sue@example.com:5070>;tag=12245abcd.1234aa56
```

```
Call-ID: 12345678@10.1.1.1
CSeq: 1 REFER
Content-Length: 0
Reason: SIP ;cause=452 ;text="Refused transfer"
```

This feature is configured in the following new table:

- **Web Interface:** 'Custom SIP Reason Codes' (Setup > Signaling & Media > SIP Definitions > Custom SIP Reason Codes)
- **CLI:** `configure voip > sip-definition cust-sip-reason-codes`
- **Ini:** [CustomSIPReasonCodes]

Applicable Application: All

Applicable Products: All

2.2.3.1.9 SIP Route Headers Preserved in Outgoing SIP Message

The device can now be configured to preserve the SIP Route headers received in the incoming SIP message for the outgoing SIP message. Normal SIP interoperability requires that the device remove the top-most Route header if it contains the device's IP address, before forwarding the outgoing message. Specialized non-standard applications may require receiving the Route headers as they were originally received by the device, which is now made possible by this new feature.

This feature is configured by the existing IP Profile parameter 'Keep Incoming Routing Headers' / [SBCKeepRoutingHeaders]. Previously, this parameter only applied to the Record-Route header. Now, it also applies to the Route header and its values have changed accordingly:

- **According to Operation Mode** – (no change) Behavior depends on the 'Operation Mode' parameter in the IP Groups or SRDs table.
- **Disable** – (no change) Removes both Record-Route and Route headers.
- **Record-Route Only** – (formerly **Enable**) Keeps only the Record-Route headers.
- **Route Only** – (new value) Keeps only the Route headers.
- **Record-Route and Route** - (new value) Keeps both Record-Route and Route headers.

Note: The **Route Only** and **Record-Route and Route** values should not be used when interoperating with standard SIP entities.

Applicable Application: SBC

Applicable Products: All

2.2.3.1.10 Increased IP Group Set Member Table Capacity

The maximum number of rows that can be added in the IP Group Set Member table has been increased from 5 to 10. This means that each IP Group Set can include up to 10 IP Groups.

Applicable Application: SBC

Applicable Products: All

2.2.3.1.11 Flexible Media Rejection Handling in Outgoing SIP Messages

Previously, when the device needed to reject an SDP media line ('m=') in a SIP message if the specific media wasn't supported, it did so by setting the port to "0" in the 'm=' line and adding the 'a=inactive' attribute in the outgoing SIP response (e.g., 200 OK).

With this new feature, the device can now be configured to omit the 'a=inactive' attribute when rejecting media (i.e., when port is "0"). This provides greater flexibility in SIP

interoperability scenarios where the 'a=inactive' attribute is not required or desired by the remote SIP User Agent.

This feature is enabled by the following new global parameter (disabled by default):

- **CLI:** `configure voip > sbc settings > remove-rejected-media-mode`
- **Ini:** [SBCRemoveRejectedMediaMode]

Applicable Application: SBC

Applicable Products: All

2.2.3.1.12 Enhanced Security for SSH using SHA2-based Signatures

The device's embedded SSH server used for accessing the CLI now supports SHA-256 (rsa-sha2-256) and SHA-512 (rsa-sha2-512) signature algorithms for public-key client authentication that utilizes RSA keys:

- Server host key algorithms (refer to RFC 4253, Section 7.1)
- Algorithm for client authentication (refer to RFC 8303, Section 3.1 and RFC 8332, Section 3.2).

Applicable Application: All

Applicable Products: All

2.2.3.1.13 Enhanced Call Preservation for In-Dialog SIP Transaction Failures

The device now offers expanded support for maintaining an active call when certain in-dialog SIP transactions fail during the call. Previously limited to failures of in-dialog SUBSCRIBE requests, this feature now also supports other in-dialog request types such as REFER.

By default (and in accordance with RFC 3261), the device terminates calls when in-dialog transaction failures occur. With this enhancement, you can optionally configure the device to preserve the call—a critical capability in scenarios such as 911 emergency calls, where maintaining the connection is essential.

This feature is configured by the following existing IP Profile parameter (renamed to reflect new feature):

- **Web Interface:** 'Disconnect On In-Dialog Failure' (formerly 'Disconnect In-Dialog Subscribe Failure')
- **Ini:** [DisconnectInDialogFailure] (formerly DisconnectInDialogSubscribeFailure)
- **CLI:** `disconnect-in-dialog-failure` (formerly `disconnect-in-dialog-subscribe-failure`)

Note: The call is maintained as long as at least one of the call legs is associated with an IP Profile where this parameter is configured to **Disable** (i.e., maintain call even if in-dialog SIP transaction fails).

Applicable Application: SBC

Applicable Products: All

2.2.3.1.14 OAuth 2.0 Authentication for Remote Web Services

Remote Web Services (accessible via **Setup** menu > **IP Network** tab > **Web Services** folder > **Remote Web Services**) previously supported only Basic and Digest authentication methods (i.e., username and password). This enhancement introduces support for OAuth 2.0 authentication, enabling outgoing HTTP/S requests to Remote Web Services (HTTP/S hosts) to be authenticated by standard OAuth 2.0 access tokens.

To support this functionality, the following configuration changes have been introduced:

- **OAuth Servers Table:**

  A new optional value—**Standard OAuth 2.0—**is available for the 'Server Type' field. This value should be selected when configuring an OAuth 2.0 server from which the device will obtain access tokens.

- **Remote Web Services Table:**

  A new field—'OAuth 2.0 Server'—has been added. This field allows you to reference the relevant OAuth server row from the OAuth Servers table.

Applicable Application: All

Applicable Products: All

2.2.3.1.15 Configurable TLS Client Certificate clientAuth EKU Validation

In X.509 TLS certificates, the clientAuth value is specified in the Extended Key Usage (EKU) field and indicates that the certificate can be used by a client to authenticate itself to a server:

```
Extended Key Usage:
  - TLS Web Client Authentication (clientAuth)
```

However, Public Certificate Authorities (CAs) like DigiCert and GlobalSign are phasing out support for issuing TLS certificates with the clientAuth EKU. CAs will issue TLS certificates with only the serverAuth EKU.

Up until now, the device rejected TLS certificates received from clients for client authentication that included the EKU extension but without the clientAuth value (serverAuth etc.).

To address this industry change and improve interoperability, the device now supports configurable behavior for validating the EKU field of client certificates during TLS handshake. A new parameter has been added to the TLS Contexts table:

- **Web Interface:** 'Allow Client Auth Key Usage'
- **Ini:** [AllowClientAuthKeyUsage]
- **CLI:** `client-auth-key-usage-mode`

The parameter can be configured to:

- **Always** – The device accepts client certificates regardless of the clientAuth EKU.
- **According to EKU extension rules** (default) – The device accepts client certificates only if they include the clientAuth EKU.

Applicable Application: All

Applicable Products: All

2.2.3.1.16 Remote Graceful Device Reset via SNMP

The device now supports initiating a graceful reset remotely through SNMP, enabling administrators to perform controlled reboots without disrupting active calls.

This is supported by the following new SNMP MIB parameters (under acBoardMIB):

- **acSysActionSetReset:** Triggers the device to reset:
  - 1 = Immediate reset.
  - 2 = Graceful reset (based on timeout defined below).
- **acSysActionAdminStateLockTimeout (OID 1.3.6.1.4.1.5003.9.10.10.3.1.1.1):** Defines the grace period for the graceful reset:
  - 0: Immediate reset (terminates all active calls).
  - -1: Resets only after all active calls have ended.

- <positive number>: Duration (in seconds) to wait before forcing a reset. If all calls end before the timeout, the device resets immediately without waiting.

Applicable Application: All

Applicable Products: All

2.2.3.1.17 SNMP Alarm for Same Password and Username

The device now raises the existing SNMP alarm acWeakPasswordAlarm (OID 1.3.6.1.4.1.5003.9.10.1.21.2.0.156) when a local user is configured with a password and username that are identical. This enhancement helps identify weak password configurations and improves overall system security.

Applicable Application: All

Applicable Products: All

2.2.3.1.18 Azure Blob Storage for Debug Recording Files

The device now supports automatic upload of debug recording files to a customer's Microsoft Azure Blob Storage container. When a debug recording file is generated, it is immediately transferred to the configured Azure Blob container for centralized storage and retrieval.

To configure this functionality, the following new parameters have been added to the Debug Recording page:

- 'File Storage' – Enables the storage of debug recording files.
- 'Recording' – Starts the creation of debug recording files.
- 'File Size' – Defines the maximum size of each debug recording file.
- 'Rotation Period' – Defines how frequently (in minutes) new debug files are created, or earlier if the maximum file size is reached.
- 'Filename Prefix' – Defines a custom prefix for generated debug recording filenames.
- 'Storage Location' – Selects the storage destination; in this case, the Azure Blob Storage container.
- 'Storage URL' – Defines the URL of the Azure Blob container.
- 'Container' – Defines the name of the Azure Blob container used for storing the files.
- 'Account Key' – Provides the Shared Access Signature (SAS) token required to securely authenticate and access the Blob storage.

Note: Previously, this capability was available only for the Mediant 90xx and Mediant Software platforms. It is now supported on additional models as listed in Applicable Products below.

Applicable Application: All

Applicable Products: Mediant 500; Mediant 500L; Mediant 800; Mediant 2600; Mediant 4000; MP-1288; Mediant 3100

2.2.3.1.19 Mediant VE Support for Azure Dds_v5 Virtual Machine Series

Azure DS_v2 virtual machine series in general and DS1_v2 virtual machine size in particular are scheduled for retirement by Microsoft in May 2028. Therefore, it's recommended not to use them for new deployments, and to migrate existing deployments to the newly supported Dds_v5 (D2ds_v5, D4ds_v5, or D8ds_v5) virtual machine series.

Applicable Application: SBC

Applicable Products: Mediant VE

2.2.3.1.20 Miscellaneous

- The [SendKeepAliveTrap] parameter is now an online parameter, eliminating the need for a device reset for its settings to take effect.
- The default value of the parameter 'Check Weak Passwords' / configure system > web > check-weak-psw / [WeakPasswordsCheck] has changed to **Enable**.

Applicable Application: All

Applicable Products: All

2.2.3.2 Resolved Constraints

This section lists resolved constraints.

Table 2-4: Resolved Constraints in Version 7.40A.600.627

Incident	Description	Impact	Severity	Affected Products	Affected Environments
SBC-56908	The device erroneously raises an alarm for an IPv6 interface (acIPv6ErrorAlarm / "IP interface alarm. IPv6 interface …") even though no IPv6 is configured.	False alarm	Medium	All	-
SBC-57155	The device's Web interface displays SNMP settings as invalid after a second HA switchover.	SNMP settings failure	Medium	HA	-
SBC-57638 SBC-57691	After a device upgrade, the IP Groups table and Message Manipulations table become corrupted due to the new Message Manipulations table format.	Invalid IP Group and Message Manipulations after upgrade	Medium	All	-
SBC-57774	The device doesn't send a SIP response for an incoming REFER request when NAT detection is disabled because it uses the incorrect element in the Via header.	Call transfer failure when user is behind NAT	Medium	All	-
SBC-57802	The device adds the body of the previous response to a subsequent HTTP request (using Call Setup Rules).	Device sends incorrect HTTP request	Medium	All	-
SBC-58141	The device restarts (error "Linux Signal") when uploading an incremental CLI Script file several times, causing an SNMP configuration mismatch (removes SNMPv2 communities as SNMPv3 user configured).	Device restarts	Medium	All	Azure
SBC-58397	The device restarts (error "Software Watchdog: Block task DSPD") affected by a hypervisor.	Device restarts	Medium	Mediant Software	Azure

Incident	Description	Impact	Severity	Affected Products	Affected Environments
SBC-58728	Security vulnerabilities CVE-2025-32462 and CVE-2025-32463 identified on the device.	Security vulnerability	Medium	All	Azure
SBC-58850	SNMP MIBS compilation errors (“Bad hour in timestamp”).	SNMP MIBs compilation error	Medium	All	Azure

2.2.4 Version 7.40A.600.231

This version includes new features and resolved constraints.

IMPORTANT NOTICE for MEDIANT 90xx/VE/CE/SE SBCs

Starting with Version 7.40A.250.001,.cmp files are digitally signed. Prior to upgrading the device, please refer to the upgrade prerequisites and instructions in the document Mediant SW-90xx SBC Signed-CMP Upgrade Procedure Configuration Note.

Note: Upgrading from Version 7.2 to a 7.4 version for all devices (hardware and software based):

- Upgrade to Version 7.4 can only be done from the following 7.2 versions:
  - √ 7.20A.260.*
  - √ 7.20A.259.*
  - √ 7.20A.258.*
  - √ 7.20A.256.*
  - √ 7.20A.204.878
  - √ 7.20A.204.549

  Therefore, prior to upgrading to Version 7.4, make sure that the device is running one of these 7.2 versions.
- **Mediant 90xx and Mediant VE/CE/SE SBCs:**

  Upgrade from Version 7.2 requires the use of a software image or an ISO file. For upgrade instructions, refer to the document *Mediant SW and 90xx SBC Upgrade Procedure from 7.2 to 7.4 Configuration Note*.

Note:

- **Using this SBC version with AudioCodes One Voice Operations Center (OVOC):**
  - √ This version is compatible only with OVOC Version 8.2 (8.2.3122) or later, and Version 8.4 (8.4.591) or later.
  - √ If you plan on using OVOC with this SBC version, first upgrade your OVOC to this compatible OVOC version prior to upgrading your device to this SBC version.
- **Using this SBC version with a centralized license pool:**

  Customers using OVOC to manage their centralized license pool (Fixed, Floating, or Flex pool) must first upgrade their OVOC to a compatible version (see above) prior to upgrading the devices in the pool to this SBC version. Failure in doing so removes the 7.4 devices from the centralized license pool.

  When using the Floating or Flex license pool for WebRTC and SIPREC sessions, OVOC version 8.0.3000 or later is required.

Note: This SBC version is compatible with Stack Manager Version 3.8.9 or later.

Note: The Media Transcoding Cluster (MTC) feature is supported only on Mediant 9080 SBC.

2.2.4.1 New Features

This section describes the new features introduced in this version.

2.2.4.1.1 Delayed Call Release for Forwarding SIP NOTIFY Requests

The device can now be enabled to delay (by 2 seconds) call release upon the completion of a SIP BYE transaction to allow it to forward any received in-dialog NOTIFY requests to the peer UA. Previously (and now default), the device rejects NOTIFY requests received after the BYE message.

This feature is enabled by the following new parameter:

- **CLI:** `configure voip > sbc settings > delay-call-release`
- **ini:** [DelayCallRelease]

Applicable Application: SBC

Applicable Products: All

2.2.4.1.2 Alternative Routing upon MSRP Signaling Failure

The device can now be configured to route Message Session Relay Protocol (MSRP) calls to an alternative destination upon the detection of a SIP signaling failure. Previously, MSRP calls would trigger alternative routing only if the MSRP media path failed.

This feature is configured by the following new IP Profiles table parameter:

- **Web: '**Broken Signaling Connection Mode'
- **CLI:** `disconnect-on-broken-signaling-connection`
- **ini:** [DisconnectOnBrokenSignalingConnection]

The feature is enabled by configuring the new parameter to **Reroute** or **Reroute with Original SIP Headers**.

If the MSRP endpoints don't establish an MSRP connection within a user-defined timeout (configured by the existing 'Timeout to Establish MSRP Connection' global parameter), or if the MSRP socket is closed after the call was established, the device ends the session and searches the IP-to-IP Routing table for an alternative route. Explicit alternative routing rules for broken connection scenarios can be configured by setting the existing 'Call Trigger' parameter to **Broken Connection**.

Applicable Application: SBC

Applicable Products: All

2.2.4.1.3 Client Certificate Verification per HTTP Location

Client TLS certificate verification can now be enabled per HTTP Location within an HTTP Proxy Server. Previously, this could only be enabled per HTTP Proxy Server.

This feature is supported by the following configuration enhancements:

- The 'Verify Client Certificate' in the HTTP Proxy Servers table provides an additional value called **Optional**, which must be selected to allow the associated HTTP Locations to decide whether to verify the client certificate.

- The HTTP Locations table now includes the 'Verify Client Certificate' parameter, with the following values:
  - **Use Parent Settings** – Associated HTTP Proxy Server determines certificate verification (applicable only if HTTP Proxy Server's 'Verify Client Certificate' parameter is **Yes** or **No**)
  - **No** – client certificate verification is disabled for the HTTP Location (applicable only if HTTP Proxy Server's 'Verify Client Certificate' parameter is **Optional**)
  - **Yes** - client certificate verification is enabled for the HTTP Location (applicable only if HTTP Proxy Server's 'Verify Client Certificate' parameter is **Optional**)

Applicable Application: All

Applicable Products: All

2.2.4.1.4 Client Certificate Verification for TCP/UDP Proxy Servers

Client TLS certificate verification can now be configured for TCP/UDP Proxy Servers.

This feature is supported by the new 'Verify Client Certificate' parameter in the TCP/UDP Proxy Servers table.

Applicable Application: All

Applicable Products: All

2.2.4.2 Resolved Constraints

This section lists resolved constraints.

Table 2-5: Resolved Constraints in Version 7.40A.600.231

Incident	Description	Impact	Severity	Affected Products	Affected Environments
SBC-56445	The device terminates a subscription if it receives a SIP NOTIFY request after a call disconnects.	Device terminates user subscription	Medium	All	-
SBC-56652	The device doesn't reroute call upon an MSRP broken connection when configured with both the DisconnectOnBrokenSignalingConnection and DisconnectOnBrokenConnection parameters.	Call failure	Medium	All	-
SBC-56698	The device doesn't send a SIP 4xx failure response when a SIP SUBSCRIBE request isn't answered at the far-end.	Response failure	Medium	All	-
SBC-56732	The device stops handling MSRP calls (sends CANCEL and then 404 upon INVITE with MSRP offer in SDP) when the Alternate Routing on MSRP Signaling Failure feature is enabled.	Call failure	High	All	-
SBC-57061 SBC-57526	The device doesn't send identical SDP offers for direct media (different incoming SDP offer and outgoing SDP offer).	SDP differences for direct media	Medium	All	-
SBC-57256	The device doesn't send the client certificate upon request for NGINX (HTTP Proxy).	Connection failure	Medium	All	-
SBC-57573	The device fails to handle SIP UPDATE messages without SDP, and terminates the call.	Call failure	Medium	All	-

2.2.5 Version 7.40A.600.221

This version includes known constraints and resolved constraints only.

IMPORTANT NOTICE for MEDIANT 90xx/VE/CE/SE SBCs

Starting with Version 7.40A.250.001,.cmp files are digitally signed. Prior to upgrading the device, please refer to the upgrade prerequisites and instructions in the document Mediant SW-90xx SBC Signed-CMP Upgrade Procedure Configuration Note.

Note: Upgrading from Version 7.2 to a 7.4 version for all devices (hardware and software based):

- Upgrade to Version 7.4 can only be done from the following 7.2 versions:
  - √ 7.20A.260.*
  - √ 7.20A.259.*
  - √ 7.20A.258.*
  - √ 7.20A.256.*
  - √ 7.20A.204.878
  - √ 7.20A.204.549

  Therefore, prior to upgrading to Version 7.4, make sure that the device is running one of these 7.2 versions.
- **Mediant 90xx and Mediant VE/CE/SE SBCs:**

  Upgrade from Version 7.2 requires the use of a software image or an ISO file. For upgrade instructions, refer to the document *Mediant SW and 90xx SBC Upgrade Procedure from 7.2 to 7.4 Configuration Note*.

Note:

- **Using this SBC version with AudioCodes One Voice Operations Center (OVOC):**
  - √ This version is compatible only with OVOC Version 8.2 (8.2.3122) or later, and Version 8.4 (8.4.591) or later.
  - √ If you plan on using OVOC with this SBC version, first upgrade your OVOC to this compatible OVOC version prior to upgrading your device to this SBC version.
- **Using this SBC version with a centralized license pool:**

  Customers using OVOC to manage their centralized license pool (Fixed, Floating, or Flex pool) must first upgrade their OVOC to a compatible version (see above) prior to upgrading the devices in the pool to this SBC version. Failure in doing so removes the 7.4 devices from the centralized license pool.

  When using the Floating or Flex license pool for WebRTC and SIPREC sessions, OVOC version 8.0.3000 or later is required.

Note: This SBC version is compatible with Stack Manager Version 3.7.9 or later.

Note: The Media Transcoding Cluster (MTC) feature is supported only on Mediant 9080 SBC.

2.2.5.1 Known Constraints

This section lists known constraints.

Table 2-6: Known Constraints in Version 7.40A.600.221

Incident	Description	Impact	Severity	Affected Products	Affected Environments
SBC-56450	After upgrading the Mediant CE Signaling Component (SC) from Version 7.4.600 / 7.4.600-1 to 7.4.600-1.02 or later, new DTLS calls fail during the upgrade of the Media Components (MC). (Upgrade from other versions earlier than 7.4.600 / 7.4.600-1 doesn't cause call failure.)	DTLS call failure	High	Mediant CE	Elastic Media Cluster

2.2.5.2 Resolved Constraints

This section lists resolved constraints.

Table 2-7: Resolved Constraints in Version 7.40A.600.221

Incident	Description	Impact	Severity	Affected Products	Affected Environments
SBC-55577	The device doesn’t enforce the CAC 'Limit per user' of 1 concurrent call per user when the user registers with multiple AORs.	CAC failure	Medium	All	-
SBC-56319	The device disconnects the call in ringing state after receiving TCP Reset (RST).	Call failure	Medium	All	-
SBC-56460	When the [EnableMicrosoftEXT] parameter is configured to 1, the device fails to include the 'ext=' parameter in the Request-URI, rejecting the request (for example, SIP NOTIFY) with a 404 response.	Call failure	Medium	MP-1288	-

2.2.6 Version 7.40A.600.203

This version includes new features and resolved constraints only.

IMPORTANT NOTICE for MEDIANT 90xx/VE/CE/SE SBCs

Starting with Version 7.40A.250.001,.cmp files are digitally signed. Prior to upgrading the device, please refer to the upgrade prerequisites and instructions in the document Mediant SW-90xx SBC Signed-CMP Upgrade Procedure Configuration Note.

Note: Upgrading from Version 7.2 to a 7.4 version for all devices (hardware and software based):

- Upgrade to Version 7.4 can only be done from the following 7.2 versions:
  - √ 7.20A.260.*
  - √ 7.20A.259.*
  - √ 7.20A.258.*
  - √ 7.20A.256.*
  - √ 7.20A.204.878
  - √ 7.20A.204.549

  Therefore, prior to upgrading to Version 7.4, make sure that the device is running one of these 7.2 versions.
- **Mediant 90xx and Mediant VE/CE/SE SBCs:**
  Upgrade from Version 7.2 requires the use of a software image or an ISO file. For upgrade instructions, refer to the document *Mediant SW and 90xx SBC Upgrade Procedure from 7.2 to 7.4 Configuration Note*.

Note:

- **Using this SBC version with AudioCodes One Voice Operations Center (OVOC):**
  - √ This version is compatible only with OVOC Version 8.2.3122 or later.
  - √ If you plan on using OVOC with this SBC version, first upgrade your OVOC to this compatible OVOC version prior to upgrading your device to this SBC version.
- **Using this SBC version with a centralized license pool:**
  Customers using OVOC to manage their centralized license pool (Fixed, Floating, or Flex pool) must first upgrade their OVOC to a compatible version (see above) prior to upgrading the devices in the pool to this SBC version. Failure in doing so removes the 7.4 devices from the centralized license pool.
  When using the Floating or Flex license pool for WebRTC and SIPREC sessions, OVOC version 8.0.3000 or later is required.

Note: This SBC version is compatible with Stack Manager Version 3.5.5 or later.

Note: The Media Transcoding Cluster (MTC) feature is supported only on Mediant 9080 SBC.

2.2.6.1 New Features

This section describes the new features introduced in this version.

2.2.6.1.1 New Hardware Platform - Mediant 9080C SBC

The Mediant 9080C Session Border Controller (SBC) is built on a cutting-edge hardware platform, delivering enhanced performance and reliability.

- **Increased Capacity:** This new model supports up to 100,000 concurrent call sessions, significantly boosting capacity to meet the demands of large-scale deployments.
- **Software Compatibility:** Supported by Version 7.40A.600 and later, the Mediant 9080C ensures seamless integration with existing systems and supports the full feature set of the Mediant SBC product line.
- **High Availability (HA) Deployments:** For HA deployments, it's mandatory to use two Mediant 9080C devices. Mixing different Mediant 90xx models (for example, using a 9080B and a 9080C) isn't supported by HA configurations.

  Note that Mediant 9080C doesn't support Media Transcoding Cluster (MTC) deployments.
- **Key Benefits:**
  - High Performance - optimized for superior processing power and efficiency.
  - Scalability - ideal for growing networks and high-traffic environments.
  - Reliability - robust design, ensuring consistent and dependable operation.

Applicable Application: SBC

Applicable Products: Mediant 9080C

2.2.6.1.2 Call Preservation Despite Subscription Failures

The device can now be configured to maintain an active call even if a subscription request (SIP SUBSCRIBE) sent during the call (in-dialog) fails. By default, the device disconnects the call upon a subscription failure (per RFC 3261). Maintaining calls if a subscription failure occurs is useful, for example, to preserve active 911 emergency calls.

This feature is configured by the new IP Profile parameter 'Disconnect In-Dialog Subscribe Failure'.

Note: The feature applies to the IP Group that initiated the in-dialog subscription request (regardless of whether it's the inbound or outbound leg).

Applicable Application: SBC

Applicable Products: All

2.2.6.1.3 Message Session Relay Protocol over IPv6

The device now supports Message Session Relay Protocol (MSRP) over IPv6. Previously, only MSRP over IPv4 was supported.

Applicable Application: SBC

Applicable Products: All

2.2.6.1.4 SIPREC Session Trigger by SIP 200 OK Responses

The device can now be triggered to start a SIPREC session for a call upon the receipt of a SIP 200 OK in response to the initial INVITE request. This is achieved using AudioCodes proprietary X-AC-Action header set to the value 'start-siprec' (X-AC-Action: start-siprec) in the 200 OK response. Previously, triggering SIPREC by SIP messages was supported only by SIP INFO messages (with the X-AC-Action header).

Once triggered by a 200 OK response, the SIPREC session can be paused, resumed, and stopped, using the X-AC-Action header in INFO messages (as previously supported).

Applicable Application: SBC

Applicable Products: All

2.2.6.1.5 Classification by Users Registration Database per SIP Interface

Classification to IP Groups of incoming SIP dialog-initiating requests (e.g., INVITE) by the device's users registration database can now be enabled or disabled per SIP Interface. Previously, classification by the users registration database was enabled for all SIP Interfaces (and couldn't be disabled).

This feature is configured by the new SIP Interfaces table parameter, 'Classify by Registration DB' parameter. By default, classification by users registration database is enabled.

Applicable Application: SBC

Applicable Products: All

2.2.6.2 Resolved Constraints

This section lists resolved constraints.

Table 2-8: Resolved Constraints in Version 7.40A.600.203

Incident	Description	Impact	Severity	Affected Products	Affected Environments
SBC-50669	The IP Group remains offline even though the proxy server replies to the device's SIP OPTIONS keep-alive messages.	IP Group erroneously considered offline	Medium	All	-
SBC-51145	The device fails to send syslog messages to the Kafka syslog server.	Device doesn't send syslog messages	Medium	Mediant VE / CE	Cloud
SBC-52487	The device sends a SIP BYE message to the incorrect proxy server (IP address) upon an alternative routing call when the parameter 'In-Call Route Mode' is enabled.	Call doesn't disconnect	Medium	All	-
SBC-52489	The device doesn't have a configuration option to ignore a No-RTP packets scenario (IP Profile parameter 'No RTP Mode').	Device ends emergency calls upon no RTP detection	Medium	All	-
SBC-54232	The device sends syslog warning messages ("BD Ring Internal Control: No free buffer").	Random syslog warning messages sent	Low	Mediant Software	-

2.2.7 Version 7.40A.600.014

This version includes new features and resolved constraints only.

IMPORTANT NOTICE for MEDIANT 90xx/VE/CE/SE SBCs

Starting with Version 7.40A.250.001,.cmp files are digitally signed. Prior to upgrading the device, please refer to the upgrade prerequisites and instructions in the document Mediant SW-90xx SBC Signed-CMP Upgrade Procedure Configuration Note.

Note: Upgrading from Version 7.2 to a 7.4 version for all devices (hardware and software based):

- Upgrade to Version 7.4 can only be done from the following 7.2 versions:
  - √ 7.20A.260.*
  - √ 7.20A.259.*
  - √ 7.20A.258.*
  - √ 7.20A.256.*
  - √ 7.20A.204.878
  - √ 7.20A.204.549

  Therefore, prior to upgrading to Version 7.4, make sure that the device is running one of these 7.2 versions.
- **Mediant 90xx and Mediant VE/CE/SE SBCs:**

  Upgrade from Version 7.2 requires the use of a software image or an ISO file. For upgrade instructions, refer to the document *Mediant SW and 90xx SBC Upgrade Procedure from 7.2 to 7.4 Configuration Note*.

Note:

- **Using this SBC version with AudioCodes One Voice Operations Center (OVOC):**
  - √ This version is compatible only with OVOC Version 8.2.3122 or later.
  - √ If you plan on using OVOC with this SBC version, first upgrade your OVOC to this compatible OVOC version prior to upgrading your device to this SBC version.
- **Using this SBC version with a centralized license pool:**

  Customers using OVOC to manage their centralized license pool (Fixed, Floating, or Flex pool) must first upgrade their OVOC to a compatible version (see above) prior to upgrading the devices in the pool to this SBC version. Failure in doing so removes the 7.4 devices from the centralized license pool.

  When using the Floating or Flex license pool for WebRTC and SIPREC sessions, OVOC version 8.0.3000 or later is required.

Note: This SBC version is compatible with Stack Manager Version 3.3.9 or later.

Note: The Media Transcoding Cluster (MTC) feature is supported only on Mediant 9080 SBC.

2.2.7.1 New Features

This section describes the new features introduced in this version.

2.2.7.1.1 Upgrade to OpenSSL 3

The device has now been upgraded to OpenSSL 3, ensuring secure communication.

Applicable Application: All

Applicable Products: All

2.2.7.1.2 Enhanced Handling of SRV Responses to NAPTR Queries

The device's handling of SRV responses to NAPTR queries has been enhanced to evaluate all responses (in priority order according to DNS server). Previously, when multiple SRV responses were received, the device considered only the first SRV response (and ignored the rest). This feature is relevant when the Proxy Set's 'DNS Resolve Method' parameter is configured to **NAPTR**.

Applicable Application: All

Applicable Products: All

2.2.7.1.3 Configurable Interval for QoE Collection and Reporting

The interval for collecting and sending aggregated Quality of Experience (QoE) call statistics is now configurable. The device's QoE reports are based on voice metrics obtained from RTCP / RTCP-XR packets that it generates or receives. These packets are typically sent and received every 5 seconds. By default, the device creates a QoE report based on a 30-second interval, reflecting the average quality over that period (i.e., multiple packet samplings of 5-second intervals).

This new feature allows the user to fine-tune how often the device gathers and reports on call quality. For example, shortening the interval results in more reports, offering the following benefits:

- Faster initial reports - first QoE report is available sooner after a call starts, providing valuable insights even for short calls.
- Capturing call fluctuations - subtle changes can be observed in call quality throughout the entire call duration.

This feature is configured by the new [QOEMediaStatisticTimer] ini file parameter (0 and 65,535 milliseconds (msec); default 30 seconds). Note that a device restart is required for changes to this parameter to take effect.

Applicable Application: SBC

Applicable Products: MP-1288; Mediant 500; Mediant 500L; Mediant 800; Mediant 2600; Mediant 4000; Mediant 3100; Mediant 90xx; Mediant Software

2.2.7.1.4 Performance Monitoring Parameters for SBC Call Failure Rate

The device now provides performance monitoring parameters (KPIs) for SBC call failure rate. This is given in percentage (%), which is calculated by the number of failed calls divided by the total calls multiplied by 100. These performance monitoring parameters are generated globally, per IP Group, and per SRD:

- Global:
  - acKpiSbcCallStatsCurrentGlobalFailedCallsInRatio
  - acKpiSbcCallStatsCurrentGlobalFailedCallsOutRatio
  - acKpiSbcCallStatsIntervalGlobalFailedCallsOutRatioAvg
  - acKpiSbcCallStatsIntervalGlobalFailedCallsInRatioAvg
- Per IP Group:
  - acKpiSbcCallStatsCurrentIpGroupFailedCallsOutRatio
  - acKpiSbcCallStatsCurrentIpGroupFailedCallsInRatio
  - acKpiSbcCallStatsIntervalIpGroupFailedCallsInRatioAvg
  - acKpiSbcCallStatsIntervalIpGroupFailedCallsOutRatioAvg
- Per SRD:
  - acKpiSbcCallStatsCurrentSrdFailedCallsOutRatio
  - acKpiSbcCallStatsCurrentSrdFailedCallsInRatio
  - acKpiSbcCallStatsIntervalSrdFailedCallsInRatioAvg
  - acKpiSbcCallStatsIntervalSrdFailedCallsOutRatioAvg

Applicable Application: SBC

Applicable Products: All

2.2.7.1.5 Updated List of Default Bundle of Trusted Root CAs

The device's default list of trusted root certificate authorities (CA) for TLS Contexts has been updated according to Mozilla CA Certificate Program's list (January 1, 2024). For example, it now includes DigiCert G5 as well as AudioCodes RootCA certificate. This list (now also sorted in ascending order) is displayed in the existing Web interface's existing CA Bundle page.

Applicable Application: All

Applicable Products: MP-1288; Mediant 500Li; Mediant 800C; Mediant 3100; Mediant 2600; Mediant 4000; Mediant 9000; Mediant Software

2.2.7.1.6 Mid-Call SIP Messages Sent to Currently Active Proxy

When a Proxy Set is configured with multiple proxies (IP addresses), the device can now send in-call SIP messages (e.g., re-INVITE and BYE) to the currently active proxy if the proxy to which the dialog-initiating INVITE message was sent is currently offline. This occurs even if the currently active proxy was offline when the call was established.

This feature is enabled (by default, disabled) by the following new Proxy Sets table parameter: 'In-Call Route Mode' / `configure voip > proxy-set > in-call-route-mode` / [InCallRouteMode]

Note:

- For this functionality, all proxies in the Proxy Set must have the same transport type (e.g., all TCP); otherwise, unexpected behavior may occur (e.g., call failure).
- The device's CDR displays only the proxy that was used for the dialog-initiating INVITE message.

Applicable Application: All

Applicable Products: All

2.2.7.1.7 TCP/TLS Connection Reuse per Proxy Set

The TCP/TLS Connection Reuse feature can now be configured per SIP server (Proxy Set). Previously, it could only be configured globally (all calls), using the [EnableTCPConnectionReuse] parameter. The TCP/TLS Connection Reuse feature allows the device to use the initially established TCP/TLS connection with the proxy for all subsequent SIP requests to that proxy.

This feature is configured by the following new Proxy Sets table parameter: 'TCP/TLS Connection Reuse' / `configure voip > proxy-set > connection-reuse` / [ConnectionReuse]. The default is according to the global parameter.

Applicable Application: All

Applicable Products: All

2.2.7.1.8 Blocking ICMP Timestamp Requests

The device can now be configured to block incoming ICMP timestamp requests. This prevents it from replying to such requests.

The ICMP protocol allows for network timing measurements, by sending an ICMP timestamp request to a remote peer and receiving an ICMP timestamp in reply. However, sending ICMP timestamp replies may expose the device to certain security vulnerabilities.

This feature is configured by the new ini file parameter [BlockIcmpTimeStamp]. By default, the device accepts ICMP timestamps and replies accordingly.

Applicable Application: SBC

Applicable Products: Mediant Software

2.2.7.1.9 Numeric Comparison Operators for Message Manipulation Conditions

Up until now, for Message Manipulation rules whose condition compared SIP header elements that were strings, the operators '>', '<', and '=' evaluated the expression using lexicographical (alphanumeric) comparison only.

Now, the Message Manipulation rule can be configured to compare only the numerical values in header elements. This is done using the new manipulation keyword "num" (e.g., num>, num<, num=, and num>=). For example, if the To header in a SIP message is "To: sip:**100**@10.33.40.88;user=phone" and there are two rules with the following conditions:

- Rule 1: `Header.to.url.user > '20'`
- Rule 2: `Header.to.url.user num> '20'`

Then:

- Rule 1 doesn't match because '100' is not lexicographically greater than '20' (i.e., 1 is less than 2).
- Rule 2 matches because '100' is **numerically** greater than '20'.

Applicable Application: All

Applicable Products: All

2.2.7.1.10 Increase in Maximum Sub-Variables for Message Manipulation

The maximum number of sub-variables that can be used in a Message Manipulation rule (e.g., Var.Session, Var.Global, and Var.Call) has been increased from 10 to 15 (Var.Session.var-1, Var.Session.var-2, ... Var.Session.var-15).

Applicable Application: SBC

Applicable Products: Mediant Software (8 GB and higher)

2.2.7.1.11 Retry-Interval for Failed OPTIONS with Proxy Configurable through CLI

Configuring the timeout before the device sends a SIP OPTIONS keep-alive message to an offline proxy server is now configurable through CLI:

```
configure voip > sip-definition proxy-and-registration > failed-options-retry-time
```

Previously, this functionality could only be configured through ini file (FailedOptionsRetryTime).

Applicable Application: All

Applicable Products: All

2.2.7.1.12 Enforce Password History Policy Configurable through CLI

Enforcing the password history policy (previous four passwords can't be used for changed password) is now configurable through CLI:

```
configure system > web > check-password-history
```

Previously, this functionality could only be configured through ini file (CheckPasswordHistory).

Applicable Application: All

Applicable Products: All

2.2.7.1.13 Call Rerouting upon No RTP during Early Media or Call Connect

When a timeout for no RTP traffic is configured (by the existing [NoRTPDetectionTimeout] parameter) and no RTP is detected during early media or upon call connect (i.e., call never had RTP), the device can now reroute the call (or disconnect it), according to the new parameters below. Previously, upon such a scenario of no RTP, the device could only disconnect the call (no reroute option).

This feature is configured by the new global parameter or IP Profile parameter, 'No RTP Mode' / `no-rtp-mode` / [NoRTPMode].

Note that detection of a cease in RTP in a call that was already established with RTP is still supported. This is configured by the existing parameters, [DisconnectOnBrokenConnection] and [BrokenConnectionEventTimeout].

Applicable Application: SBC

Applicable Products: All

2.2.7.1.14 Trunk Group Number Included in Outgoing SIP REGISTER Requests

The device can now be configured to include the Trunk Group number to which the call belongs in outgoing SIP REGISTER requests. The Trunk Group number is added using the SIP 'tgrp' parameter in the SIP Contact header. The device also adds the 'trunk-context' and 'user=phone' parameters to this header.

To configure this feature, the following new optional values have been added to the existing global parameter 'Use SIP tgrp Information' (UseSIPTgrp):

- **Send Only Including Register** - adds the SIP 'tgrp' parameter to outgoing INVITE and REGISTER requests.
- **Send & Receive Including Register** - adds the SIP 'tgrp' parameter to outgoing INVITE and REGISTER requests and uses them if present in the Request-URI of incoming INVITE requests.

This feature is useful, for example, when two FXS endpoints register with the same phone number. The 'tgrp' parameter allows the device to distinguish between these endpoints when routing their calls.

Applicable Application: Gateway

Applicable Products: MP-1288; Mediant 500; Mediant 500L; Mediant 800; Mediant 1000; Mediant 3100

2.2.7.1.15 Duplicated SIP TLS Performance Monitoring Parameters Removed

The following duplicated SIP TLS performance monitoring (KPI) parameters under network.ddosStats.global have been removed (and now only appear under network.tlsStats.sipTlsStats):

- acKpiDdosStatsCurrentGlobalRejectedSipTlsConnTotal
- acKpiDdosStatsCurrentGlobalAttemptedSipTlsConnTotal
- acKpiDdosStatsCurrentGlobalActiveSipTlsConn
- acKpiDdosStatsIntervalGlobalRejectedSipTlsConn
- acKpiDdosStatsIntervalGlobalAttemptedSipTlsConn
- acKpiDdosStatsIntervalGlobalActiveSipTlsConnAvg
- acKpiDdosStatsIntervalGlobalActiveSipTlsConnMax

Applicable Application: All

Applicable Products: All

2.2.7.2 Resolved Constraints

This section lists resolved constraints.

Table 2-9: Resolved Constraints in Version 7.40A.600.014

Incident	Description	Impact	Severity	Affected Products	Affected Environments
SBC-49648	The device fails to allocate virtual CID resources, causing call failure (SIP 488 response).	Call failure	High	All	-
SBC-49961	The device fails to load a TLS certificate (incomplete client certificate).	Security	Medium	All	-
SBC-50139	The device sends a SIP INVITE message with a corrupted P-Called-Party-ID header (name part), causing the INVITE to be rejected by the recipient.	Call failure	Medium	All	-
SBC-50150	The device resets the connection to OVOC because of a miscalculation of the network interface for the listening sockets in the nginx config file.	OVOC connection reset	Medium	All	-

Incident	Description	Impact	Severity	Affected Products	Affected Environments
SBC-50195	The device's Web interface displays “Unable to Apply Changes” when the Registration Status page is opened.	Web interface display issue	Low	All	-
SBC-50196	An IP Group remains online even though all associated proxy servers are down, when the Proxy Set configuration includes 'Proxy Keep-Alive' as **Using OPTIONS on Active Server** and 'Redundancy Mode' as **Parking**.	Incorrect device behavior	Low	All	-
SBC-50434	The device can't be accessed through HTTPS redirection.	Device is inaccessible	Medium	All	-
SBC-50615	The device's SNMP trap destination stops functioning when the OAMP IP address is changed.	Device stops sending SNMP traps	Medium	All	-
SBC-50620	Typo in the Message Manipulation editor ("suggestion").	Typo in Web interface	Low	All	-
SBC-50698 SBC-51346	The device sends a SIP re-INVITE message for media synchronization without incrementing the SDP version ('o=' line).	Device sends SDP offer with incorrect SDP version	Medium	All	-
SBC-50706	WebRTC-to-WebRTC call experiences a video freeze because of 'ssrc-group' SDP attribute mishandling.	Video freezes	Medium	All	-
SBC-50721	The device fails to re-open the channel when moving from SRTP tunneling with RTP forwarding, to mediation, causing a loss of audio.	No audio after SIP re-INVITE	Medium	All	-
SBC-50758	The device fails to recover from a restart and remains inaccessible (no ping, Telnet, SSH, or Web) because it fails to upload the Configuration Package file from SNMP/OVOC.	Device inaccessible after restart	Medium	Mediant 800C	-
SBC-51100 SBC-51278	The device restarts with the error message "Board Was Crashed: Signal 11, Task SPMR" because of an internal buffer overrun.	Device restart	Medium	All	-

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3 Session Capacity

This section provides capacity for the Gateway and SBC products.

3.1 SIP Signaling and Media Capacity

The following table lists the maximum, concurrent SIP signaling sessions, concurrent media sessions, and registered users per product.

Table 3-1: SIP Signaling and Media Capacity per Product

Product		Signaling Capacity		Media Sessions			
		SIP Sessions	Registered Users	Session Type	RTP	SRTP	Detailed Media Capabilities
Mediant 500		250	1,500	Hybrid	250	200	Transcoding: n/a GW: Table 3-4
				GW-Only	30	30	
Mediant 500L		60	200	Hybrid	60	60	Transcoding: n/a GW: Table 3-6
				GW-Only	8	8	
Mediant 800B		250	1,500	Hybrid	250	250	GW & Transcoding: Table 3-8 SBC Only: Table 3-7
				GW-Only	64	64	
Mediant 800C		400	2,000	Hybrid	400	250	GW & Transcoding: Table 3-10
				GW-Only	124	124	
Mediant 1000B		150	600	Hybrid	150	120	Transcoding: Table 3-14 GW: Tables Table 3-11, Table 3-12, Table 3-13
				GW-Only	192	140	
Mediant 3100		5,000	20,000	Hybrid	5,000	5,000	Transcoding: Table 3-16 GW: Table 3-15
		960	20,000	GW-Only	960	960	Table 3-15
MP-1288		588	350	Hybrid	588	438	Transcoding: n/a GW: Table 3-17
				SBC-Only	300	300	
				GW-Only	288	288	
Mediant 2600		600	8,000	SBC-Only	600	600	Transcoding: Table 3-18
Mediant 4000		5,000	20,000	SBC-Only	5,000	3,000	Transcoding: Table 3-19
Mediant 4000B		5,000	20,000	SBC-Only	5,000	5,000	Transcoding: Table 3-21
Mediant 7100		1,000	10,000	SBC-Only	1,000	1,000	Transcoding: Table 3-23
Mediant 7500		10,000	50,000	SBC-Only	10,000	10,000	Transcoding: n/a
		10,000	50,000	SBC-Only	5,000	2,500	Transcoding: Table 3-23
Mediant 9000	SIP Performance Profile (HT Enabled)	30,000	300,000	SBC-Only	30,000	16,000	Transcoding: n/a
		55,000	0	SBC-Only	55,000	18,000	Transcoding: n/a
	DSP Performance Profile (HT Enabled)	50,000	0	SBC-Only	50,000	18,000	Transcoding: Table 3-25
	SRTP Performance Profile (HT Enabled)	50,000	0	SBC-Only	50,000	40,000	Transcoding: n/a
Mediant 9000 Rev. B	SIP Performance Profile	50,000	500,000	SBC-Only	50,000	30,000	Transcoding: n/a
		70,000	0	SBC-Only	70,000	30,000	Transcoding: n/a
	DSP Performance Profile	50,000	0	SBC-Only	50,000	28,000	Transcoding: Table 3-27
	SRTP Performance Profile	70,000	0	SBC-Only	70,000	40,000	Transcoding: n/a

Product			Signaling Capacity		Media Sessions			
			SIP Sessions	Registered Users	Session Type	RTP	SRTP	Detailed Media Capabilities
Mediant 9030	SIP Performance Profile		30,000	200,000	SBC-Only	30,000	30,000	Transcoding: n/a
	DSP Performance Profile		30,000	200,000	SBC-Only	30,000	15,000	Transcoding: Table 3-32
Mediant 9080	SIP Performance Profile		50,000	500,000	SBC-Only	50,000	30,000	Transcoding: n/a
			70,000	0	SBC-Only	70,000	30,000	Transcoding: n/a
	DSP Performance Profile		50,000	0	SBC-Only	50,000	28,000	Transcoding: Table 3-27
	SRTP Performance Profile		70,000	0	SBC-Only	70,000	40,000	Transcoding: n/a
Mediant 9080C	SIP Performance Profile		80,000	500,000	SBC-Only	80,000	75,000	Transcoding: n/a
			100,000	0	SBC-Only	100,000	90,000	Transcoding: n/a
	DSP Performance Profile		50,000	0	SBC-Only	50,000	27,000	Transcoding: Table 3-30
	SRTP Performance Profile		100,000	0	SBC-Only	100,000	100,000	Transcoding: n/a
Mediant 9000 Rev. B with Media Transcoders (MT-type)			60,000	200,000	SBC-Only	60,000	40,000	Transcoding: Table 3-29
Mediant 9080 with Media Transcoders (MT-type)			60,000	200,000	SBC-Only	60,000	40,000	Transcoding: Table 3-29
Mediant CE	AWS / EC2		50,000	100,000	SBC-Only	50,000	50,000	Forwarding: Table 3-34 Transcoding: Table 3-35
	Azure		50,000	100,000	SBC-Only	50,000	50,000	Forwarding: Table 3-36 Transcoding: Table 3-37
	VMware		12,000	100,000	SBC-Only	12,000	12,000	Forwarding: Table 3-38 Transcoding: Table 3-39
	GCP		50,000	100,000	SBC-Only	50,000	40,000	Forwarding: Table 3-40 Transcoding: Table 3-42
Mediant VE	VMware	1 vCPU 2-GB RAM (HT)	250	1,000	SBC-Only	250	250	Transcoding: n/a
		1 vCPU 8-GB RAM (HT)	4000	15,000	SBC-Only	4,000	2,600	Transcoding: n/a
		4 vCPU 16-GB RAM (HT)	10,000	75,000	SBC-Only	10,000	8,000	Transcoding: n/a
		2 vCPUs 8-GB RAM (HT)	4,000	15,000	SBC-Only	2,200	1,900	Transcoding: Table 3-43
		4 vCPU 8-GB RAM (HT)	4,000	15,000	SBC-Only	1,800	1,600	Transcoding: Table 3-43
		8 vCPU 16-GB RAM (HT)	9,000	75,000	SBC-Only	6,000	5,000	Transcoding: Table 3-43
		16 vCPU 16-GB RAM (HT)	9,000	75,000	SBC-Only	6,500	5,000	Transcoding: Table 3-43
	KVM / OpenStack	1 vCPU 2-GB RAM (HT)	250	1,000	SBC-Only	250	250	Transcoding: n/a
		1 vCPU 8-GB RAM (HT)	2,500	15,000	SBC-Only	2,500	1,700	Transcoding: n/a
		4 vCPU 16-GB RAM (HT)	4,500	75,000	SBC-Only	4,500	3,500	Transcoding: n/a
		2 vCPUs 8-GB RAM (HT)	1,900	15,000	SBC-Only	1,900	1,400	Transcoding: Table 3-43

Product			Signaling Capacity		Media Sessions			
			SIP Sessions	Registered Users	Session Type	RTP	SRTP	Detailed Media Capabilities
		8 vCPU 16-GB RAM (HT)	5,800	75,000	SBC-Only	5,800	4,800	Transcoding: Table 3-43
		16 vCPU 16-GB RAM (HT)	3,800	75,000	SBC-Only	3,800	2,800	Transcoding: Table 3-43
		8 vCPU 32-GB RAM SR-IOV Intel NICs (non-HT)	24,000	75,000	SBC-Only	24,000	10,000	Transcoding: n/a
	Hyper-V	1 vCPU 2-GB RAM (HT)	250	1,000	SBC-Only	250	250	Transcoding: n/a
		1 vCPU 8-GB RAM (HT)	1,500	15,000	SBC-Only	1,500	1,200	Transcoding: n/a
		4 vCPU 8-GB RAM (HT)	2,500	15,000	SBC-Only	2,500	2,300	Transcoding: n/a
		2 vCPUs 8-GB RAM (HT)	1,900	15,000	SBC-Only	1,900	1,400	Transcoding: Table 3-43
		8 vCPU 16-GB RAM (HT)	2,500	75,000	SBC-Only	2,500	2,300	Transcoding: Table 3-43
	AWS / EC2	m5n.large	3,200	30,000	SBC-Only	3,200	3,200	Transcoding: n/a
			2,500	20,000	SBC-Only	2,500	1,500	Transcoding: Table 3-44
		c5n.2xlarge	5,500	75,000	SBC-Only	5,500	5,000	Transcoding: n/a
			4,500	75,000	SBC-Only	4,500	2,400	Transcoding: Table 3-45
		c5n.9xlarge	7,000	75,000	SBC-Only	7,000	6,000	Transcoding: n/a
			7,000	75,000	SBC-Only	7,000	4,500	Transcoding: Table 3-46
	Azure	B2ls_v2	750	1,000	SBC-Only	750	500	Transcoding: n/a
			185	1,000	SBC-Only	185	185	Transcoding: Table 3-48
		D2ds_v5	3,200	15,000	SBC-Only	3,200	2,700	Transcoding: n/a
			2,500	15,000	SBC-Only	2,500	1,600	Transcoding: Table 3-48
		D4ds_v5	7,000	50,000	SBC-Only	7,000	6,000	Transcoding: n/a
			4,800	50,000	SBC-Only	4,800	3,200	Transcoding: Table 3-48
		D8ds_v5	12,000	75,000	SBC-Only	12,000	9,000	Transcoding: n/a
			4,600	75,000	SBC-Only	4,600	3,000	Transcoding: Table 3-48
	GCP	n2-standard-2	3,500	15,000	SBC-Only	3,500	2,400	Transcoding: n/a
			1,500	15,000	SBC-Only	1,500	1,100	Transcoding: Table 3-49
		n2-standard-4	4,000	75,000	SBC-Only	4,000	3,000	Transcoding: n/a
			2,400	75,000	SBC-Only	2,400	1,800	Transcoding: Table 3-49
		n2-standard-8	2,400	75,000	SBC-Only	2,400	1,800	Transcoding: Table 3-49
		n2-highcpu-32	3,600	75,000	SBC-Only	3,600	3,400	Transcoding: Table 3-49

Product			Signaling Capacity		Media Sessions			
			SIP Sessions	Registered Users	Session Type	RTP	SRTP	Detailed Media Capabilities
Mediant SE	DL360p Gen8 or DL360 Gen9		24,000	120,000	SBC-Only	16,000	14,000	Transcoding: n/a
			24,000	0	SBC-Only	24,000	14,000	Transcoding: n/a
	DL360 Gen10	SIP Performance Profile	50,000	500,000	SBC-Only	50,000	30,000	Transcoding: n/a
			70,000	0	SBC-Only	70,000	30,000	Transcoding: n/a
		DSP Performance Profile	50,000	0	SBC-Only	50,000	28,000	Transcoding: Table 3-50
		SRTP Performance Profile	70,000	0	SBC-Only	70,000	40,000	Transcoding: n/a

Note:

- The listed capacities are accurate at the time of publication of this document. However, they may change due to a later software update. For the latest capacities, please contact your AudioCodes sales representative.
- ***GW*** refers to Gateway functionality.
- ***SIP Sessions*** refers to the maximum concurrent signaling sessions for both SBC and Gateway (when applicable). Whenever signaling sessions is greater than the maximum media sessions, the remaining signaling sessions can be used for Direct Media.
- ***Session Type*** refers to Gateway-only sessions, SBC-only sessions, or Hybrid sessions which is any mixture of SBC and Gateway sessions under the limitations of Gateway-only or SBC-only maximum values.
- ***RTP Sessions*** refers to the maximum concurrent RTP sessions when all sessions are RTP-RTP (SBC sessions) or TDM-RTP (Gateway sessions).
- ***SRTP Sessions*** refers to the maximum concurrent SRTP sessions when all sessions are RTP-SRTP (for SBC sessions) or TDM-SRTP (for Gateway sessions).
- ***Registered Users*** refers to the maximum number of users that can be registered with the device. This applies to the supported application (SBC or CRP).
- Regarding signaling, media, and transcoding session resources:
  - √ A signaling session is a SIP dialog session between two SIP entities, traversing the device and using one signaling session resource.
  - √ A media session is an audio (RTP or SRTP), fax (T.38), or video session between two SIP entities, traversing the device and using one media session resource.
  - √ A gateway session (TDM-RTP or TDM-SRTP) is considered as a media session for the calculation of media sessions. In other words, the maximum media sessions shown in the table refer to the sum of Gateway and SBC sessions.
  - √ For direct media (i.e., anti-tromboning or non-media anchoring) where only SIP signaling traverses the device and media flows directly between the SIP entities, only a signaling session resource is used. Thus, for products with a greater signaling session capacity than media, even when media session resources have been exhausted, additional signaling sessions can still be handled for direct-media calls.
  - √ For call sessions requiring transcoding, one transcoding session resource is also used. For example, for a non-direct media call in which one leg uses G.711 and the other G.729, one signaling, one media, and one transcoding session resources are used.

- Cloud Resilience Package (CRP) application capacity appears under ***Registered Users***.
- Lync Analog Device (LAD) application capacity appears under ***Media Sessions***.

Note for MP-1288:

- The maximum number of media and signaling sessions is the sum of the maximum 300 RTP-to-RTP (SBC) sessions and the maximum 288 TDM-RTP (Gateway) sessions.
- The maximum number of SRTP sessions is the sum of the maximum 150 RTP-to-SRTP (SBC) sessions and the maximum 288 TDM-SRTP (Gateway) sessions.

Note for Mediant 90xx SBC:

- Mediant 90xx SBC with Media Transcoders limitations:
  - √ To allow DSP capabilities (such as transcoding), the 'Performance Profile' parameter must be configured to the DSP profile.
    Each transcoding session is weighted as two RTP-RTP sessions without transcoding. Therefore, the number of sessions without transcoding plus the doubled number of sessions with transcoding must be less than the maximum RTP-RTP figure specified in the table. As a result, if all sessions involve transcoding, the maximum number of sessions is half the maximum RTP-RTP sessions without transcoding specified in the table.
  - √ The maximum number of SRTP-RTP sessions is also affected by the above limitations. For example, if sessions involve transcoding, the maximum number of SRTP-RTP sessions is also limited by half of the maximum SRTP-RTP sessions without transcoding.
- The Media Transcoding Cluster (MTC) feature is supported only on Mediant 9080 SBC.

Note for Mediant VE SBC:

- **Mediant VE SBC on VMware:** Capacity was measured with ESXi Version 7.0.3 and a host of CPU Xeon 6226R with Hyper-Threading enabled. For example, a 4-vCPU virtual machine allocates only 2 physical cores. For minimum requirements, see Section 3.3.17.1 on page 109.
- **Mediant VE SBC on KVM:** Capacity for virtual machine instance with SR-IOV was done with Intel 82599 NIC.
- **Mediant VE SBC on Azure:**
  - √ Azure DS_v2 virtual machine series in general and DS1_v2 virtual machine size in particular are scheduled for retirement in May 2028. Therefore, it's recommended not to use them for new deployments, and to migrate existing deployments to the Dds_v5 (D2ds_v5, D4ds_v5, or D8ds_v5) virtual machine series.
  - √ Capacity for virtual machine instances D2ds_v5, D4ds_v5, D8ds_v5 is with Accelerated Networking enabled.
  - √ When operating in HA mode, it's not recommended to exceed 5,000 sessions because of the duration required for processing a failover.
- **Mediant VE SBC on AWS:**
  - √ Network performance on AWS cloud is subject to network conditions, which may depend on time and region.
  - √ Capacity shown in the table are based on lowest capacities found during performance testing.
  - √ It's recommended to use the m5n and c5n instance types as they provide more stable network characteristics. However, the m5 and c5 instance types are still supported.

Note for Mediant CE SBC:

Mediant CE SBC is based on the following instances:

- **AWS:**
  - √ Signaling Components (SC): m5.2xlarge
  - √ Media Components (MC) - forwarding only: m5n.large
  - √ MC - forwarding and transcoding: c5.4xlarge
- **Azure:**
  - √ SC: D4ds_v5 (up to 10,000 sessions and 50,000 users) or D8ds_v5 (up to 50,000 sessions and 100,000 users)
  - √ MC - forwarding only: D2ds_v5, D4ds_v5, and D8ds_v5
  - √ MC - forwarding and transcoding: D2ds_v5, D4ds_v5, and D8ds_v5

  It's not recommended to exceed 5,000 sessions per MC because of the duration required for processing an MC failover.
- **VMware:**
  - √ SC: 4 vCPU (Hyper-Threading), 16-GB RAM (if more than 50,000 registered users, or more than 6,000 TLS connections are required, memory should be increased to 32GB.
  - √ MC - forwarding only: 2 vCPU (Hyper-Threading), 8-GB RAM
  - √ MC - forwarding and transcoding: 8 vCPU (Hyper-Threading), 8-GB RAM
- **GCP:**
  - √ SC: n2-standard-8 (8 vCPU, 32-GB RAM)
  - √ MC - forwarding only: n2-standard-2 (2 vCPU, 8-GB RAM)
  - √ MC - forwarding and transcoding: n2-standard-2 (2 vCPU, 8-GB RAM), n2_highcpu-8 (8 vCPU, 8-GB RAM)

Note for Mediant SE SBC: For new deployments, it's highly recommended to use the DL360 G10 server. For exact specifications and BIOS settings, please contact your AudioCodes sales representative.

3.2 Capacity per Feature

The table below lists maximum capacity per feature.

Table 3-2: Maximum Capacity per Feature

Product	Concurrent WebRTC Sessions (see note #3)		One-Voice Resiliency (OVR) Users	Concurrent SIPREC Sessions (see note #4)	Concurrent TLS Connections	Concurrent MSRP Sessions
	Click-to-Call	Registered Agents				
MP-1288	-	-	-	150	350	100
Mediant 500	-	-	-	125	300	100
Mediant 500L	-	-	-	30	100	100
Mediant 800B	100	100	100	200	300	100
Mediant 800C	100	100	150	200	450	100
Mediant 1000B	-	-	50	-	300	100
Mediant 3100	1,000	1,000	-	2,500	6,000	100
Mediant 2600	600	600	-	300	2,500	100
Mediant 4000/B	1,000	1,000	-	2,500	2,500	100
Mediant 7100	1,000	10,000	10,000	500	6,000	110
Mediant 7500	10,000	50,000	50,000	5,000	6,000	110
Mediant 9000	5,000	16,000	-	▪ Hyper-Threading: 20,000 ▪ No Hyper-Threading: 12,000	25,000	100
Mediant 9030	5,000	16,000	-	15,000	16,000	100
Mediant 9080	8,000	25,000	-	20,000	25,000	100
Mediant 9080C	8,000	25,000	-	20,000	25,000	100
Mediant SE (see Note #1)	5,000	25,000	-	12,000	25,000	100
Mediant VE (see Note #2)	5,000	5,000	2,000	12,000	▪ 2 GB: 100 ▪ 3 GB: 500 ▪ 4 GB: 5,000 ▪ 8-16 GB: 6,000 ▪ 32 GB: 16,000 ▪ 64 GB: 25,000	100
Mediant CE (see note #2)	5,000	▪ SC with 8 vCPUs: 16,000 ▪ SC with 4 vCPUs: 5,000	-	20,000	▪ 2 GB: 100 ▪ 3 GB: 500 ▪ 4 GB: 5,000 ▪ 8-16 GB: 6,000 ▪ 32 GB: 16,000 ▪ 64 GB: 25,000	100

Note:

1. Using the approved Mediant SE server specifications with an Intel Xeon Gold 6126 processor. For specifications, please contact AudioCodes.
2. WebRTC sessions:
   - √ The maximum number of concurrent WebRTC sessions can't be greater than the maximum number of concurrent SRTP sessions (specified in Table 3-1). Therefore, the actual maximum number of concurrent WebRTC sessions per deployment environment will be the lower of these numbers.
   - √ The maximum number of concurrent WebRTC sessions can't be greater than the maximum number of concurrent TLS connections.
3. Capacity assumes TLS key size of 2048-bit is used for WebSocket and DTLS negotiation,
4. SIPREC capacity assumes that there are no other concurrent, regular (non-SIPREC) voice sessions. SIPREC sessions are counted as part of the SBC session capacity. The maximum number of SIPREC sessions cannot be higher than the number of RTP sessions, as indicated in Table 3-1. Therefore, the actual maximum number of SIPREC sessions per deployment environment will be the lower of these numbers.
5. For TLS connections capacity, each registered user is assigned a TLS connection, even if there are no ongoing SIP dialogs or transactions using the same connection.

3.3 Detailed Capacity

This section provides detailed capacity figures.

3.3.1 Mediant 500 E-SBC

The SBC session capacity and DSP channel capacity for Mediant 500 E-SBC are shown in the tables below.

3.3.1.1 Non-Hybrid (SBC) Capacity

Table 3-3: Mediant 500 E-SBC (Non-Hybrid) - SBC Capacity

Hardware Configuration	TDM-RTP Sessions				Max. SBC Sessions (RTP-RTP)
	DSP Channels Allocated for PSTN	Wideband Coders			
		G.722	AMR-WB (G.722.2)	SILK-WB	
SBC	n/a	n/a	n/a	n/a	250

3.3.1.2 Hybrid (with Gateway) Capacity

Table 3-4: Mediant 500 Hybrid E-SBC (with Gateway) - Media & SBC Capacity

Hardware Configuration	TDM-RTP Sessions				Max. SBC Sessions (RTP-RTP)
	DSP Channels Allocated for PSTN	Wideband Coders			
		G.722	AMR-WB (G.722.2)	SILK-WB	
1 x E1/T1	30 (full E1)	√	-	-	220
	24 (full T1)				226
	26 (partial E1)	√	√	-	224
	24 (full T1)	√	√	-	226
	26 (partial E1)	√	√	√	224
	24 (full T1)	√	√	√	226

3.3.2 Mediant 500L Gateway and E-SBC

The SBC session capacity and DSP channel capacity for Mediant 500L Gateway and E-SBC is shown in the tables below.

3.3.2.1 Non-Hybrid (SBC) Capacity

Table 3-5: Mediant 500L E-SBC (Non-Hybrid) - SBC Capacity

Hardware Configuration	TDM-RTP Sessions			Max. SBC Sessions (RTP-RTP)
	DSP Channels Allocated for PSTN	Wideband Coders		
		G.722	AMR-WB (G.722.2)	
SBC	n/a	n/a	n/a	60

3.3.2.2 Hybrid (with Gateway) Capacity

Table 3-6: Mediant 500L Hybrid E-SBC (with Gateway) - Media & SBC Capacity

Hardware Configuration	DSP Channels Allocated for PSTN	Additional Coders				Max. SBC Sessions
		Narrowband	Wideband			
		Opus-NB	G.722	AMR-WB (G.722.2)	Opus-WB	
2 x BRI / 4 x BRI	4/8	-	-	-	-	56/52
	4/8	-	√	-	-	56/52
	4/6	√	-	√	-	56/54
	4	-	-	-	√	56

3.3.3 Mediant 800 Gateway & E-SBC

This section describes capacity for Mediant 800 Gateway & E-SBC.

3.3.3.1 Mediant 800B Gateway & E-SBC

The DSP channel capacity and SBC session capacity for Mediant 800B Gateway & E-SBC are shown in the tables below.

3.3.3.1.1 Non-Hybrid (SBC) Capacity

Table 3-7: Mediant 800B Gateway & E-SBC - SBC Session Capacity per Capabilities (SBC Only)

H/W Configuration	DSP Channels for PSTN	SBC Transcoding Sessions								Max. SBC Sessions
		From Profile 2 with Additional Advanced DSP Capabilities						To Profile 1	To Profile 2	
		AMR-NB / G.722	AMR-WB (G.722.2)	SILK-NB / iLBC	SILK-WB	Opus-NB	Opus-WB			
SBC	n/a	-	-	-	-	-	-	57	48	250
	n/a	√	-	-	-	-	-	51	42	250
	n/a	-	-	√	-	-	-	39	33	250
	n/a	-	√	-	-	-	-	36	30	250
	n/a	-	-	-	√	-	-	27	24	250
	n/a	-	-	-	-	√	-	27	24	250
	n/a	-	-	-	-	-	√	21	21	250

Note: "Max. SBC Sessions" applies to scenarios without registered users. When registered users are used, "Max. SBC Sessions" is reduced according to the main capacity table (see Section 3.1).

3.3.3.1.2 Hybrid (with Gateway) Capacity

Table 3-8: Mediant 800B Gateway & E-SBC - Channel Capacity per Capabilities (with Gateway)

Telephony Interface Assembly	DSP Channels Allocated for PSTN	SBC Transcoding Sessions								Conf. Participants	Max. SBC Sessions
		From Profile 2 with Additional Advanced DSP Capabilities						To Profile 1	To Profile 2		
		AMR-NB / G.722	AMR-WB (G.722.2)	SILK-NB	SILK-WB	Opus-NB	Opus-WB				
2 x E1/T1	60/48	-	-	-	-	-	-	3/15	2/13	-	190/202
2 x T1	48	-	-	-	-	-	-	11	9	-	202
1 x E1/T1 8 x FXS/FXO	38/32	-	-	-	-	-	-	22/28	18/22	-	212/218
	38/32	-	-	√	-	-	-	8/12	7/11	-	212/218
1 x E1/T1	30/24	-	-	√	-	-	-	14/18	12/16	-	220/226
1 x E1 4 x BRI	38	-	-	-	-	-	-	22	18	-	212
1 x E1 4 x FXS	34	-	-	-	-	-	-	26	21	-	216
2 x E1 4 x FXS	64	-	-	-	-	-	-	0	0	-	186
4 x BRI 4 x FXS 4 x FXO	16	-	-	-	-	-	-	5	4	-	234
8 x BRI 4 x FXS	20	-	-	-	-	-	-	1	1	-	230
8 x BRI	16	-	-	-	-	-	-	5	4	-	234
12 x FXS	12	-	-	√	-	-	-	3	3	-	238
4 x FXS 8 x FXO	12	-	-	√	-	-	-	3	3	-	238
8 x FXS 4 x FXO	12	-	-	√	-	-	-	3	3	-	238
4 x BRI 4 x FXS	12	-	-	√	-	-	-	3	3	-	238
4 x FXS 4 x FXO	8	-	-	-	-	-	-	7	5	6	242
	8	-	-	√	-	-	-	6	6	-	242
4 x BRI	8	-	-	-	-	-	-	7	5	6	242
	8	-	-	√	-	-	-	6	6	-	242

Telephony Interface Assembly	DSP Channels Allocated for PSTN	SBC Transcoding Sessions								Conf. Participants	Max. SBC Sessions
		From Profile 2 with Additional Advanced DSP Capabilities						To Profile 1	To Profile 2		
		AMR-NB / G.722	AMR-WB (G.722.2)	SILK-NB	SILK-WB	Opus-NB	Opus-WB				
1/2/3 x BRI	2/4/6	-	-	-	-	-	-	17/15 /14	14/13 /11	-	248/246/ 244
	2/4/6	-	-	√	-	-	-	11/10 /8	10/8/ 7	-	248/246/ 244
4 x FXS or 4 x FXO	4	-	-	√	-	-	-	10	8	-	246
	4	√	-	-	-	-	-	12	10	4	246
	4	-	-	√	-	-	-	6	6	4	246
	4	-	√	√	-	-	-	4	4	4	246
	4	-	√	√	√	-	-	3	3	4	246
	4	-	-	-	-	√	-	1	0	4	246
	4	-	-	-	-	-	√	0	0	3	246
FXS, FXO, and/or BRI, but not in use	0	-	-	-	-	-	-	19	16	-	250

Notes:

- "Max. SBC Sessions" for Mediant 800B applies to scenarios without registered users. When registered users are used, "Max. SBC Sessions" is reduced according to the main capacity table (see Section 3.1).
- *Profile 1*: G.711 at 20ms only, with In-band signaling (in voice channel), DTMF transcoding (RFC 2833 to in-band signaling), and Silence Suppression (no fax detection or T.38 support).
- *Profile 2*: G.711, G.726, G.729 (A / AB), and G.723.1, T.38 with fax detection, In-band signaling (in voice channel), and Silence Compression.
- All hardware assemblies also support the following DSP channel capabilities: echo cancellation (EC), CID (caller ID), RTCP XR reporting, and SRTP.
- SBC enhancements (e.g., Acoustic Echo Suppressor, Noise Reduction) are also available for these configurations. For more information, please contact your AudioCodes sales representative.
- Automatic Gain Control (AGC) and Answer Detector / Answer Machine Detector (AD/AMD) are also available for these configurations. For more information, please contact your AudioCodes sales representative.
- *Transcoding Sessions* represents part of the total SBC sessions.
- Conference Participants represents the number of concurrent analog ports in a three-way conference call.
- For availability of the telephony assemblies listed in the table above, please contact your AudioCodes sales representative.

3.3.3.2 Mediant 800C Gateway & E-SBC

The DSP channel capacity and SBC session capacity for Mediant 800C Gateway & E-SBC are shown in the tables below.

3.3.3.2.1 Non-Hybrid (SBC) Capacity

Table 3-9: Mediant 800C Gateway & E-SBC - SBC Session Capacity per Capabilities (SBC Only)

H/W Configuration	SBC Transcoding Sessions								Max. SBC Sessions
	From Profile 2 with Additional Advanced DSP Capabilities						To Profile 1	To Profile 2	
	AMR-NB / G.722	AMR-WB (G.722.2)	SILK-NB / iLBC	SILK-WB	Opus-NB	Opus-WB			
SBC	-	-	-	-	-	-	120	96	400
	√	-	-	-	-	-	108	84	400
	-	-	√	-	-	-	78	66	400
	-	√	-	-	-	-	72	60	400
	-	-	-	√	-	-	54	48	400
	-	-	-	-	√	-	54	48	400
	-	-	-	-	-	√	42	42	400
	From Profile 1						156	120	400

Note:

- Max. SBC Sessions applies to scenarios without registered users. When registered users are used, "Max. SBC Sessions" is reduced according to the main capacity table (see Section 3.1).
- *Profile 1*: G.711 at 20ms only, with In-band signaling (in voice channel), DTMF transcoding (RFC 2833 to in-band signaling), and Silence Suppression (no fax detection or T.38 support).
- *Profile 2*: G.711, G.726, G.729 (A / AB), and G.723.1, T.38 with fax detection, In-band signaling (in voice channel), and Silence Compression.
- The maximum SBC sessions with DTMF transcoding (Profile 1 in-band DTMF to Profile 1 RFC 2833) is 156 sessions (RTP-RTP or RTP-SRTP).

3.3.3.2.2 Hybrid (with Gateway) Capacity

Table 3-10: Mediant 800C Gateway & E-SBC - SBC Session Capacity per Capabilities with Gateway

Telephony Interface Assembly	DSP Channels Allocated for PSTN	SBC Transcoding Sessions							Max SBC Sessions
		From Profile 2	From Profile 2 with SILK-NB / iLBC	From Profile 2 with SILK-WB	From Profile 2 with OPUS-NB	From Profile 2 with OPUS-WB	To Profile 1	To Profile 2	
4 x E1/T1 4 x FXS	124/100	√	-	-	-	-	2/23	2/18	276/300
	102/100	-	√	-	-	-	0	0	298/300
	78	-	-	√	-	-	0	0	322
	72	-	-	-	√	-	0	0	328
	54	-	-	-	-	√	0	0	346
1 x E1/T1 4 x FXS	35/29	√	-	-	-	-	25/30	20/25	365/371
	35/29	-	√	-	-	-	10/15	9/13	365/371
	35/29	-	-	√	-	-	1/5	1/5	365/371
	35/29	-	-	-	√	-	0/4	0/3	365/371
	27	-	-	-	-	√	0	0	373
8 x BRI 4 x FXS	20	√	-	-	-	-	38	31	380
	20	-	√	-	-	-	22	19	380
	20	-	-	√	-	-	12	11	380
	20	-	-	-	√	-	11	9	380
	20	-	-	-	-	√	4	3	380
Not in use	-	√	-	-	-	-	114	96	400
	-	-	√	-	-	-	78	66	400
	-	-	-	√	-	-	54	48	400
	-	-	-	-	√	-	54	48	400
	-	-	-	-	-	√	42	42	400

Notes:

- "Max. SBC Sessions" applies to scenarios without registered users. When registered users are used, "Max. SBC Sessions" is reduced according to the main capacity table (see Section 3.1).
- *Profile 1*: G.711 at 20ms only, with In-band signaling (in voice channel), DTMF transcoding (RFC 2833 to in-band signaling), and Silence Suppression (no fax detection or T.38 support).
- *Profile 2*: G.711, G.726, G.729 (A / AB), and G.723.1, T.38 with fax detection, In-band signaling (in voice channel), and Silence Compression.
- All hardware assemblies also support the following DSP channel capabilities: echo cancellation (EC), CID (caller ID), RTCP XR reporting, and SRTP.
- SBC enhancements (e.g., Acoustic Echo Suppressor, Noise Reduction) are also available for these configurations. For more information, please contact your AudioCodes sales representative.
- Automatic Gain Control (AGC) and Answer Detector / Answer Machine Detector (AD/AMD) are also available for these configurations. For more information, please contact your AudioCodes sales representative.
- *Transcoding Sessions* represents part of the total SBC sessions.
- Conference Participants represents the number of concurrent analog ports in a three-way conference call.
- For availability of the telephony assemblies listed in the table above, please contact your AudioCodes sales representative.

3.3.4 Mediant 1000B Gateway & E-SBC

This section lists the channel capacity and DSP templates for Mediant 1000B Gateway & E-SBC DSP.

Notes:

- The maximum number of channels on any form of analog, digital, and MPM module assembly is 192. When the device handles both SBC and Gateway call sessions, the maximum number of total sessions is 150. When the device handles SRTP, the maximum capacity is reduced to 120.
- Installation and use of voice coders is subject to obtaining the appropriate license and royalty payments.
- For additional DSP templates, contact your AudioCodes sales representative.

3.3.4.1 Analog (FXS/FXO) Interfaces

The channel capacity per DSP firmware template for analog interfaces is shown in the table below.

Table 3-11: Mediant 1000B Analog Series - Channel Capacity per DSP Firmware Template

	DSP Template	
	0, 1, 2, 4, 5, 6	10, 11, 12, 14, 15, 16
	Number of Channels	
	4	3
Voice Coder		
G.711 A/Mu-law PCM	√	√
G.726 ADPCM	√	√
G.723.1	√	√
G.729 (A / AB)	√	√
G.722	-	√

3.3.4.2 BRI Interfaces

The channel capacity per DSP firmware template for BRI interfaces is shown in the table below.

Table 3-12: Mediant 1000B BRI Series - Channel Capacity per DSP Firmware Template

	DSP Template					
	0, 1, 2, 4, 5, 6			10, 11, 12, 14, 15, 16		
	Number of BRI Spans					
	4	8	20	4	8	20
	Number of Channels					
	8	16	40	6	12	30
Voice Coder						
G.711 A/Mu-law PCM	√			√		
G.726 ADPCM	√			√		
G.723.1	√			√		
G.729 (A / AB)	√			√		
G.722	-			√		

3.3.4.3 E1/T1 Interfaces

The channel capacity per DSP firmware template for E1/T1 interfaces is shown in the table below.

Table 3-13: Mediant 1000B E1/T1 Series - Channel Capacity per DSP Firmware Templates

	DSP Template																					
	0 or 10					1 or 11					2 or 12					5 or 15					6 or 16				
	Number of Spans																					
	1	2	4	6	8	1	2	4	6	8	1	2	4	6	8	1	2	4	6	8	1	2	4	6	8
	Number of Channels																					
Default Settings	31	62	120	182	192	31	48	80	128	160	24	36	60	96	120	24	36	60	96	120	31	60	100	160	192
With 128-ms Echo Cancellation	31	60	100	160	192	31	48	80	128	160	24	36	60	96	120	24	36	60	96	120	31	60	100	160	192
With IPM Features	31	60	100	160	192	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	31	60	100	160	192
Voice Coder																									
G.711 A-Law/M-Law PCM	✓					✓					✓					✓					✓				
G.726 ADPCM	✓					✓					✓					✓					-				
G.723.1	✓					-					-					-					-				
G.729 (A / AB)	✓					✓					✓					✓					✓				
GSM FR	✓					✓					-					-					-				
MS GSM	✓					✓					-					-					-				
iLBC	-					-					-					✓					-				
EVRC	-					-					✓					-					-				
QCELP	-					-					✓					-					-				
AMR	-					✓					-					-					-				
GSM EFR	-					✓					-					-					-				
G.722	-					-					-					-					✓				
Transparent	✓					✓					✓					✓					✓				

Note: "IPM Features" refers to Automatic Gain Control (AGC), Answer Machine Detection (AMD) and Answer Detection (AD).

3.3.4.4 Media Processing Interfaces

The transcoding session capacity according to DSP firmware template (per MPM module) is shown in the table below.

Notes:

- The device can be housed with up to four MPM modules.
- The MPM modules can only be housed in slots 1 through 5.

Table 3-14: Transcoding Sessions Capacity per MPM According to DSP Firmware Template for Mediant 1000B

	DSP Template				
	0 or 10	1 or 11	2 or 12	5 or 15	6 or 16
IPM Detectors Automatic Gain Control (AGC), Answer Machine Detection (AMD) and Answer Detection (AD)	**Number of Transcoding Sessions per MPM Module**				
-	24	16	12	12	20
✓	20	-	-	-	20
Voice Coder					
G.711 A-law / Mμ-law PCM	✓	✓	✓	✓	✓
G.726 ADPCM	✓	✓	✓	✓	-
G.723.1	✓	-	-	-	-
G.729 (A / AB)	✓	✓	✓	✓	✓
GSM FR	✓	✓	-	-	-
MS GSM	✓	✓	-	-	-
iLBC	-	-	-	✓	-
EVRC	-	-	✓	-	-
QCELP	-	-	✓	-	-
AMR	-	✓	-	-	-
GSM EFR	-	✓	-	-	-
G.722	-	-	-	-	✓
Transparent	✓	✓	✓	✓	✓

3.3.5 Mediant 3100 Gateway & E-SBC

This section describes the capacity of Mediant 3100 Gateway & E-SBC.

3.3.5.1 Gateway Capacity

The following table shows the maximum number of Gateway sessions when there are no SBC transcoding sessions.

Table 3-15: Mediant 3100 - Gateway Channel Capacity per Capability Profile

Profile	Hardware Assembly							
	E1				T1			
	8 x E1	16 x E1	32 x E1	64 x E1	8 x T1	16 x T1	32 x T1	64 x T1
Profile 1	240	480	960	1920	192	384	768	1536
Profile 2	240	480	960	1920	192	384	768	1536
Profile 2 + G.722 / AMR-NB	240	480	960	1920	192	384	768	1536
Profile 2 + AMR-WB	240	480	960	1920	192	384	768	1536
Profile 2 + SILK-NB	240	480	960	1920	192	384	768	1536
Profile 2 + SILK-WB	208	416	832	1664	192	384	768	1536
Profile 2 + Opus-NB	240	480	960	1920	192	384	768	1536
Profile 2 + Opus-WB	240	480	960	1920	192	384	768	1536

Notes:

- *Profile 1:* G.711 at 20ms only, with in-band signaling (in voice channel), DTMF transcoding (RFC 2833 to in-band signaling), and Silence Suppression (no fax detection or T.38 support).
- *Profile 2:* G.711, G.726, G.729 (A / AB), G.723.1, T.38 with fax detection, in-band signaling (in voice channel), and Silence Compression.
- Acoustic Echo Suppressor reduces performance. For more information, contact your AudioCodes sales representative.

3.3.5.2 Non-Hybrid (SBC) Transcoding Capacity

The following table shows the maximum number of SBC transcoding sessions when there are no Gateway sessions.

Table 3-16: Mediant 3100 - SBC Transcoding Capacity per Coder Capability Profile

Transcoding Session Coders		8 x E1/T1	16 x E1/T1	32 x E1/T1	64 x E1/T1
From Coder	To Coder				
Profile 1	Profile 1	460	925	1,855	3,700
Profile 1	Profile 2	400	800	1,600	3,200
Profile 2	Profile 2	350	700	1,405	2,800
Profile 1	Profile 2 + G.722 / AMR-NB	400	800	1,600	3,200
Profile 2	Profile 2 + G.722 / AMR-NB	350	700	1,405	2,800
Profile 1	Profile 2 + AMR-WB	255	510	1,020	2,025
Profile 2	Profile 2 + AMR-WB	240	480	960	1,900
Profile 1	Profile 2 + SILK-NB	260	525	1,055	2,100
Profile 2	Profile 2 + SILK-NB	245	495	990	1,975
Profile 1	Profile 2 + SILK-WB	180	365	735	1,450
Profile 2	Profile 2 + SILK-WB	175	350	700	1,400
Profile 1	Profile 2 + Opus-NB	220	445	895	1,775
Profile 2	Profile 2 + Opus-NB	205	415	830	1,650
Profile 1	Profile 2 + Opus-WB	205	415	830	1,650
Profile 2	Profile 2 + Opus-WB	190	380	765	1,525

Notes:

- *Profile 1:* G.711 at 20ms only, with in-band signaling (in voice channel), DTMF transcoding (RFC 2833 to in-band signaling), and Silence Suppression (no fax detection or T.38 support).
- *Profile 2:* G.711, G.726, G.729 (A / AB), G.723.1, T.38 with fax detection, in-band signaling (in voice channel), and Silence Compression.
- Acoustic Echo Suppressor reduces performance. For more information, contact your AudioCodes sales representative.

3.3.6 MP-1288 Analog Gateway & E-SBC

Session capacity includes Gateway sessions as well as SBC sessions without transcoding capabilities. The maximum capacity of Gateway sessions for MP-1288 Gateway & E-SBC is shown in the table below.

Table 3-17: MP-1288 Gateway - Session Capacity

Coder	Gateway Sessions Capacity	
	Single FXS Blade	Fully Populated (4 x FXS Blades)
Basic: G.711, G.729 (A / AB), G.723.1, G.726 / G.727 ADPCM	72	288
G.722	72	288
AMR-NB	72	288
Opus-NB	60	240

Note:

- Quality Monitoring and Noise Reduction are not supported.
- SRTP is supported on all configurations.

3.3.7 Mediant 2600 E-SBC

The maximum number of supported SBC sessions is shown in Section 3.1 on page 63. These SBC sessions also support SRTP and RTCP XR. When DSP capabilities are required, the number of sessions that can use DSP capabilities is reduced, as shown in the table below:

Table 3-18: Mediant 2600 E-SBC - Transcoding Capacity per Coder Capability Profile

Session Coders		Max. Sessions	
From Coder Profile	**To Coder Profile**	**Without MPM4**	**With MPM4**
Profile 1	Profile 1	400	600
Profile 2	Profile 1	300	600
Profile 2	Profile 2	250	600
Profile 1	Profile 2 + AMR-NB / G.722	275	600
Profile 2	Profile 2 + AMR-NB / G.722	225	600
Profile 1	Profile 2 + iLBC	175	575
Profile 2	Profile 2 + iLBC	150	500
Profile 1	Profile 2 + AMR-WB (G.722.2)	200	600
Profile 2	Profile 2 + AMR-WB (G.722.2)	175	525
Profile 1	Profile 2 + SILK-NB	200	600
Profile 2	Profile 2 + SILK-NB	175	525
Profile 1	Profile 2 + SILK-WB	100	350
Profile 2	Profile 2 + SILK-WB	100	350
Profile 1	Profile 2 + Opus-NB	125	425
Profile 2	Profile 2 + Opus-NB	125	375
Profile 1	Profile 2 + Opus-WB	100	300
Profile 2	Profile 2 + Opus-WB	75	275

Notes:

- *Profile 1:* G.711 at 20ms only, with in-band signaling (in voice channel), DTMF transcoding (RFC 2833 to in-band signaling), and Silence Suppression (no fax detection or T.38 support).
- *Profile 2:* G.711, G.726, G.729 (A / AB), G.723.1, T.38 with fax detection, in-band signaling (in voice channel), and Silence Compression.
- Acoustic Echo Suppressor reduces performance. For more information, contact your AudioCodes sales representative.
- MPM is the optional, Media Processing Module that provides additional DSPs, allowing greater capacity.

3.3.8 Mediant 4000 SBC

The maximum number of supported SBC sessions is listed in Section 3.1 on page 63. These SBC sessions also support SRTP and RTCP XR. When DSP capabilities are required, the number of sessions that can use DSP capabilities is reduced, as shown in the table below.

Table 3-19: Mediant 4000 SBC - Transcoding Capacity per Coder Capability Profile

Session Coders		Max. Sessions	
From Coder Profile	**To Coder Profile**	**Without MPM8**	**With MPM8**
Profile 1	Profile 1	800	2,400
Profile 2	Profile 1	600	1,850
Profile 2	Profile 2	500	1,550
Profile 1	Profile 2 + AMR-NB / G.722	550	1,650
Profile 2	Profile 2 + AMR-NB / G.722	450	1,350
Profile 1	Profile 2 + iLBC	350	1,150
Profile 2	Profile 2 + iLBC	300	1,000
Profile 1	Profile 2 + AMR-WB (G.722.2)	400	1,200
Profile 2	Profile 2 + AMR-WB (G.722.2)	350	1,050
Profile 1	Profile 2 + SILK-NB	400	1,200
Profile 2	Profile 2 + SILK-NB	350	1,050
Profile 1	Profile 2 + SILK-WB	200	700
Profile 2	Profile 2 + SILK-WB	200	700
Profile 1	Profile 2 + Opus-NB	250	850
Profile 2	Profile 2 + Opus-NB	250	750
Profile 1	Profile 2 + Opus-WB	200	600
Profile 2	Profile 2 + Opus-WB	150	550

Notes:

- *Profile 1:* G.711 at 20ms only, with in-band signaling (in voice channel), DTMF transcoding (RFC 2833 to in-band signaling), and Silence Suppression (no fax detection or T.38 support).
- *Profile 2:* G.711, G.726, G.729 (A / AB), G.723.1, T.38 with fax detection, in-band signaling (in voice channel), and Silence Compression.
- Acoustic Echo Suppressor reduces performance. For more information, contact your AudioCodes sales representative.
- MPM is the optional, Media Processing Module that provides additional DSPs, allowing greater capacity.

3.3.8.1 Forwarding Session Capacity per Feature without Transcoding

The table below lists the maximum number of concurrent forwarding sessions per feature without using transcoding.

Table 3-20: Mediant 4000 SBC - Forwarding Capacity per Feature

Feature	Max. Sessions
Fax Detection	5,000
AD/AMD/Beep Detection	5,000
CP Detection	5,000
Jitter Buffer	5,000

Notes:

- All figures were calculated for call duration of 100 seconds.
- For fax detection, figures are based on the following assumptions:
  - √ Timeout for fax detection is 10 seconds (default)
  - √ Fax detection is required on both legs of the call
- Figures for Call Progress (CP), AD, AMD, and Beep detection assume that detection is only on one leg of the call (if not, figures will be reduced).

3.3.9 Mediant 4000B SBC

The maximum number of supported SBC sessions is listed in Section 3.1 on page 63. These SBC sessions also support SRTP and RTCP XR. When DSP capabilities are required, the number of sessions that can use DSP capabilities is reduced, as shown in the table below.

Table 3-21: Mediant 4000B SBC - Transcoding Capacity per Coder Capability Profile

Session Coders		Max. Sessions				
From Coder Profile	To Coder Profile	Without MPM	1 x MPM8B	1 x MPM12B	2 x MPM12B	3 x MPM12B
Profile 1	Profile 1	800	2,400	3,250	5,000	5,000
Profile 2	Profile 1	600	1,850	2,450	4,350	5,000
Profile 2	Profile 2	500	1,550	2,100	3,650	5,000
Profile 1	Profile 2 + AMR-NB / G.722	550	1,650	2,200	3,850	5,000
Profile 2	Profile 2 + AMR-NB / G.722	450	1,350	1,800	3,150	4,550
Profile 1	Profile 2 + iLBC	400	1,200	1,600	2,850	4,050
Profile 2	Profile 2 + iLBC	350	1,050	1,400	2,500	3,600
Profile 1	Profile 2 + AMR-WB (G.722.2)	400	1,200	1,600	2,850	4,050
Profile 2	Profile 2 + AMR-WB (G.722.2)	350	1,050	1,400	2,500	3,600
Profile 1	Profile 2 + SILK-NB	400	1,200	1,600	2,850	4,050

Session Coders		Max. Sessions				
From Coder Profile	To Coder Profile	Without MPM	1 x MPM8B	1 x MPM12B	2 x MPM12B	3 x MPM12B
Profile 2	Profile 2 + SILK-NB	350	1,050	1,400	2,500	3,600
Profile 1	Profile 2 + SILK-WB	200	700	950	1,650	2,400
Profile 2	Profile 2 + SILK-WB	200	700	950	1,650	2,400
Profile 1	Profile 2 + Opus-NB	250	850	1,150	2,000	2,850
Profile 2	Profile 2 + Opus-NB	250	750	1,050	1,800	2,600
Profile 1	Profile 2 + Opus-WB	200	600	850	1,500	2,150
Profile 2	Profile 2 + Opus-WB	150	550	750	1,300	1,900

Notes:

- *Profile 1:* G.711 at 20ms only, with In-band signaling (in voice channel), DTMF transcoding (RFC 2833 to in-band signaling), and Silence Suppression (no fax detection or T.38 support).
- *Profile 2:* G.711, G.726, G.729 (A / AB), G.723.1, AMR-NB, T.38 with fax detection, In-band signaling (in voice channel), and Silence Compression.
- Acoustic Echo Suppressor reduces performance by about 30%. For more information, contact your AudioCodes sales representative.
- MPMB is the optional, Media Processing Module that provides additional DSPs, allowing greater capacity.

3.3.9.1 Forwarding Session Capacity per Feature without Transcoding

The table below lists the maximum number of concurrent forwarding sessions per feature without using transcoding.

Table 3-22: Mediant 4000B SBC - Forwarding Capacity per Feature

Feature	Max. Sessions
Fax Detection	5,000
AD/AMD/Beep Detection	5,000
CP Detection	5,000
Jitter Buffer	5,000

Notes:

- All figures were calculated for call duration of 100 seconds.
- For fax detection, figures are based on the following assumptions:
  - √ Timeout for fax detection is 10 seconds (default)
  - √ Fax detection is required on both legs of the call
- Figures for Call Progress (CP), AD, AMD, and Beep detection assume that detection is only on one leg of the call (if not, figures will be reduced).

3.3.10 Mediant 7100 and Mediant 7500 SBCs

The maximum number of supported SBC sessions is listed in Section 3.1 on page 63. These SBC sessions also support SRTP and RTCP XR. When DSP capabilities are required, the number of sessions that can use DSP capabilities is reduced, as shown in the table below.

Table 3-23: Mediant 7100 and Mediant 7500 SBCs - Transcoding Capacity per Coder Capability Profile

Session Coders		Max. Sessions	
From Coder Profile	To Coder Profile	Basic	Extended
Profile 1	Profile 1	Mediant 7100: 1,000 Mediant 7500: 1,200	Mediant 7100: 1,000 Mediant 7500: 1,200
Profile 2	Profile 1	Mediant 7100: 1,000 Mediant 7500: 1,100	Mediant 7100: 1,000 Mediant 7500: 1,050
Profile 2	Profile 2	700	700
Profile 1	Profile 2 + AMR-NB / G.722	875	825
Profile 2	Profile 2 + AMR-NB / G.722	600	600
Profile 1	Profile 2 + AMR-WB (G.722.2)	350	350
Profile 2	Profile 2 + AMR-WB (G.722.2)	300	300
Profile 1	Profile 2 + SILK-NB	875	825
Profile 2	Profile 2 + SILK-NB	600	600
Profile 1	Profile 2 + SILK-WB	475	475
Profile 2	Profile 2 + SILK-WB	375	375
Profile 1	Profile 2 + Opus-NB	525	500
Profile 2	Profile 2 + Opus-NB	400	400
Profile 1	Profile 2 + Opus-WB	475	475
Profile 2	Profile 2 + Opus-WB	375	375

Notes:

- *Profile 1:* G.711 at 20ms only, without T.38 support.
- *Profile 2:* G.711, G.726, G.729 (A / AB), G.723.1, T.38.
- *Basic*: Excludes in-band signaling (in voice channel), VAD, Silence Suppression and fax detection.
- *Extended*: Includes DTMF transcoding (RFC 2833 to in-band signaling), VAD, Silence Suppression and fax detection
- Acoustic Echo Suppressor may reduce capacity. For more information, contact your AudioCodes sales representative.
- For transcoding capabilities, the 'SBC Performance Profile' (SBCPerformanceProfile) parameter must be configured to **Optimized for Transcoding** (2).

3.3.10.1 Forwarding Session Capacity per Feature without Transcoding

The table below lists the maximum number of concurrent forwarding sessions per feature without using transcoding.

Table 3-24: Mediant 7100 and Mediant 7500 SBCs - Forwarding Capacity per Feature

Feature	Max. Sessions	
	Mediant 7100	Mediant 7500
Fax Detection	1,000	1,200
AD, AMD, and Beep Detection	1,000	1,200
CP Detection	1,000	1,200
Jitter Buffer	1,000	1,200

Notes:

- All figures were calculated for call duration of 100 seconds.
- For fax detection, figures are based on the following assumptions:
  - √ Timeout for fax detection is 10 seconds (default)
  - √ Fax detection is required on both legs of the call
- Figures for Call Progress (CP), AD, AMD, and Beep detection assume that detection is only on one leg of the call (if not, figures will be reduced).

3.3.11 Mediant 9000 SBC

The maximum number of supported SBC sessions is listed in Section 3.1 on page 63. These SBC sessions also support SRTP and RTCP XR. When DSP capabilities are required, the number of sessions that can use DSP capabilities is reduced, as shown in the table below.

Table 3-25: Mediant 9000 SBC - Transcoding Capacity per Coder Capability Profile

Session Coders		Max. Sessions			
From Coder Profile	To Coder Profile	Without Hyper-Threading		With Hyper-Threading	
		Basic	Extended	Basic	Extended
Profile 1	Profile 1	3,025	2,525	6,575	3,875
Profile 2	Profile 1	1,500	1,325	2,125	1,700
Profile 2	Profile 2	1,000	900	1,275	1,100
Profile 1	Profile 2 + AMR-NB / G.722	1,500	1,300	2,075	1,625
Profile 2	Profile 2 + AMR-NB / G.722	1,000	900	1,225	1,050
Profile 1	Profile 2 + AMR-WB (G.722.2)	500	475	600	575
Profile 2	Profile 2 + AMR-WB	425	400	500	475
Profile 1	Profile 2 + SILK-NB	1,300	1,175	1,700	1,450
Profile 2	Profile 2 + SILK-NB	900	825	1,100	975
Profile 1	Profile 2 + SILK-WB	775	750	1,000	950
Profile 2	Profile 2 + SILK-WB	625	600	750	725
Profile 1	Profile 2 + Opus-NB	825	750	1,050	900
Profile 2	Profile 2 + Opus-NB	650	600	775	700
Profile 1	Profile 2 + Opus-WB	625	575	800	700
Profile 2	Profile 2 + Opus-WB	525	475	625	575

Notes:

- *Profile 1:* G.711 at 20ms only, without T.38 support.
- *Profile 2:* G.711, G.726, G.729 (A / AB), G.723.1, T.38.
- *Basic*: Excludes in-band signaling (in voice channel), VAD, Silence Suppression and fax detection.
- *Extended*: Includes DTMF transcoding (RFC 2833 to in-band signaling), VAD, Silence Suppression and fax detection
- Acoustic Echo Suppressor may reduce capacity. For more information, contact your AudioCodes sales representative.
- For transcoding capabilities, the 'SBC Performance Profile' (SBCPerformanceProfile) parameter must be configured to **Optimized for Transcoding** (2).

3.3.11.1 Forwarding Session Capacity per Feature without Transcoding

The table below lists the maximum number of concurrent forwarding sessions per feature without using transcoding.

Table 3-26: Mediant 9000 SBC - Forwarding Capacity per Feature

Feature	Max. Sessions	
	Without Hyper-Threading	With Hyper-Threading
Fax Detection	24,000	40,000
AD/AMD/Beep Detection	24,000	39,000
CP Detection	24,000	44,000
Jitter Buffer	2,225	5,000

Notes:

- All figures were calculated for call duration of 100 seconds.
- For fax detection, figures are based on the following assumptions:
  - √ Timeout for fax detection is 10 seconds (default)
  - √ Fax detection is required on both legs of the call
- Figures for Call Progress (CP), AD, AMD, and Beep detection assume that detection is only on one leg of the call (if not, figures will be reduced).

3.3.12 Mediant 9000 Rev. B / 9080 SBC

The maximum number of supported SBC sessions is listed in Section 3.1 on page 63. These SBC sessions also support SRTP and RTCP XR. When DSP capabilities are required, the number of sessions that can use DSP capabilities is reduced, as shown in the table below.

Table 3-27: Mediant 9000 Rev. B / 9080 - Transcoding Capacity per Coder Capability Profile

Session Coders		Max. Sessions	
From Coder Profile	To Coder Profile	Basic	Extended
Profile 1	Profile 1	9,600	6,625
Profile 2	Profile 1	4,400	3,625
Profile 2	Profile 2	2,875	2,500
Profile 1	Profile 2 + AMR-NB / G.722	2,925	2,600
Profile 2	Profile 2 + AMR-NB / G.722	2,150	1,950
Profile 1	Profile 2 + AMR-WB (G.722.2)	950	925
Profile 2	Profile 2 + AMR-WB	850	825
Profile 1	Profile 2 + SILK-NB	2,750	2,500
Profile 2	Profile 2 + SILK-NB	2,050	1,900
Profile 1	Profile 2 + SILK-WB	1,575	1,475
Profile 2	Profile 2 + SILK-WB	1,300	1,250
Profile 1	Profile 2 + Opus-NB	1,700	1,450
Profile 2	Profile 2 + Opus-NB	1,375	1,200
Profile 1	Profile 2 + Opus-WB	1,375	1,200
Profile 2	Profile 2 + Opus-WB	1,175	1,025

Notes:

- *Profile 1:* G.711 at 20ms only, without T.38 support.
- *Profile 2:* G.711, G.726, G.729 (A / AB), G.723.1, T.38.
- *Basic*: Excludes in-band signaling (in voice channel), VAD, Silence Suppression and fax detection.
- *Extended*: Includes DTMF transcoding (RFC 2833 to in-band signaling), VAD, Silence Suppression and fax detection
- Acoustic Echo Suppressor may reduce capacity. For more information, contact your AudioCodes sales representative.
- For transcoding capabilities, the 'SBC Performance Profile' (SBCPerformanceProfile) parameter must be configured to **Optimized for Transcoding** (2).

3.3.12.1 Forwarding Session Capacity per Feature without Transcoding

The table below lists the maximum number of concurrent forwarding sessions per feature without using transcoding.

Table 3-28: Mediant 9000 Rev. B / 9080 SBC - Forwarding Capacity per Feature

Feature	Max. Sessions
Fax Detection	45,000
AD, AMD, and Beep Detection	45,000
CP Detection	45,000
Jitter Buffer	6,000

Notes:

- All figures were calculated for call duration of 100 seconds.
- For fax detection, figures are based on the following assumptions:
  - √ Timeout for fax detection is 10 seconds (default)
  - √ Fax detection is required on both legs of the call
- Figures for Call Progress (CP), AD, AMD, and Beep detection assume that detection is only on one leg of the call (if not, figures will be reduced).

3.3.13 Mediant 9000 / 9000 Rev. B / 9080 SBC with Media Transcoders

Mediant 9000, Mediant 9000 Rev. B, or Mediant 9080 SBC with Media Transcoders allows increasing the number of transcoding sessions by using Media Transcoders. The maximum number of transcoding sessions depends on the following:

- Number of Media Transcoders in the media transcoding cluster. (The cluster can have up to eight Media Transcoders.)
- Cluster operation mode (Best-Effort or Full-HA mode).
- Maximum transcoding sessions. Each transcoding session is weighted as two RTP-RTP sessions without transcoding. Therefore, the number of sessions without transcoding plus the doubled number of sessions with transcoding must be less than the maximum RTP-RTP value specified in the table. As a result, if all sessions are with transcoding, the maximum number of sessions is half the maximum RTP-RTP sessions without transcoding as specified in Table 3-1.

The following table lists maximum transcoding sessions capacity of a single Media Transcoder.

Table 3-29: Single Media Transcoder (MT) - Transcoding Capacity per Profile

Session Coders		Max. Sessions		
From Coder Profile	To Coder Profile	1 x MPM12B	2 x MPM12B	3 x MPM12B
Profile 1	Profile 1	2,875	5,000	5,000
Profile 2	Profile 1	2,300	4,025	5,000
Profile 2	Profile 2	1,800	3,175	4,550

Session Coders		Max. Sessions		
From Coder Profile	**To Coder Profile**	**1 x MPM12B**	**2 x MPM12B**	**3 x MPM12B**
Profile 1	Profile 2 + AMR-NB / G.722	2,000	3,525	5,000
Profile 2	Profile 2 + AMR-NB / G.722	1,625	2,850	4,075
Profile 1	Profile 2 + AMR-WB (G.722.2)	1,425	2,500	3,600
Profile 2	Profile 2 + AMR-WB (G.722.2)	1,225	2,175	3,100
Profile 1	Profile 2 + SILK-NB	1,425	2,500	3,600
Profile 2	Profile 2 + SILK-NB	1,225	2,175	3,100
Profile 1	Profile 2 + SILK-WB	850	1,500	2,150
Profile 2	Profile 2 + SILK-WB	850	1,500	2,150
Profile 1	Profile 2 + Opus-NB	1,050	1,825	2,625
Profile 2	Profile 2 + Opus-NB	950	1,675	2,400
Profile 1	Profile 2 + Opus-WB	750	1,325	1,900
Profile 2	Profile 2 + Opus-WB	650	1,175	1,675

Notes:

- *Profile 1:* G.711 at 20ms only, with In-band signaling (in voice channel) and Silence Suppression (no fax detection or T.38 support).
- *Profile 2:* G.711, G.726, G.729 (A / AB), G.723.1, AMR-NB, T.38 with fax detection, In-band signaling (in voice channel), and Silence Compression.
- Acoustic Echo Suppressor reduces performance by about 30%. For more information, contact your AudioCodes sales representative.
- MPM12B is a Media Processing Module in the Media Transcoder that provides additional DSPs, allowing higher capacity.
- For best cluster efficiency, all Media Transcoders in the Cluster should populate the same number of MPM12Bs.
- The SBC employs load balancing of transcoding sessions among all Media Transcoders in the Cluster. Each Media Transcoder can handle up to 200 calls (transcoded sessions) per second (CPS).

3.3.14 Mediant 9080C SBC

The maximum number of supported SBC sessions is listed in Section 3.1 on page 63. These SBC sessions also support SRTP and RTCP XR. When DSP capabilities are required, the number of sessions that can use DSP capabilities is reduced, as shown in the table below.

Table 3-30: Mediant 9080C SBC - Transcoding Capacity per Coder Capability Profile

Session Coders		Max. Sessions	
From Coder Profile	To Coder Profile	Basic	Extended
Profile 1	Profile 1	10,000	10,000
Profile 2	Profile 1	6,000	5,750
Profile 2	Profile 2	3,850	3,850
Profile 1	Profile 2 + AMR-NB / G.722	4,950	4,825
Profile 2	Profile 2 + AMR-NB / G.722	3,400	3,400
Profile 1	Profile 2 + AMR-WB (G.722.2)	2,250	2,225
Profile 2	Profile 2 + AMR-WB (G.722.2)	1,850	1,850
Profile 1	Profile 2 + SILK-NB	4,950	4,825
Profile 2	Profile 2 + SILK-NB	3,400	3,400
Profile 1	Profile 2 + SILK-WB	2,875	2,825
Profile 2	Profile 2 + SILK-WB	2,250	2,250
Profile 1	Profile 2 + Opus-NB	3,125	3,050
Profile 2	Profile 2 + Opus-NB	2,425	2,425
Profile 1	Profile 2 + Opus-WB	2,700	2,675
Profile 2	Profile 2 + Opus-WB	2,175	2,175

Notes:

- *Profile 1:* G.711 at 20ms only, without T.38 support.
- *Profile 2:* G.711, G.726, G.729 (A / AB), G.723.1, T.38.
- *Basic*: Excludes in-band signaling (in voice channel), VAD, Silence Suppression and fax detection.
- *Extended*: Includes DTMF transcoding (RFC 2833 to in-band signaling), VAD, Silence Suppression and fax detection
- Acoustic Echo Suppressor may reduce capacity. For more information, contact your AudioCodes sales representative.
- For transcoding capabilities, the 'SBC Performance Profile' (SBCPerformanceProfile) parameter must be configured to **Optimized for Transcoding** (2).

3.3.14.1 Forwarding Session Capacity per Feature without Transcoding

The table below lists the maximum number of concurrent forwarding sessions per feature without using transcoding.

Table 3-31: Mediant 9080C SBC - Forwarding Capacity per Feature

Feature	Max. Sessions
Fax Detection	87,500
AD, AMD, and Beep Detection	89,100
CP Detection	87,200
Jitter Buffer	12,900

Notes:

- All figures were calculated for call duration of 100 seconds.
- For fax detection, figures are based on the following assumptions:
  - √ Timeout for fax detection is 10 seconds (default)
  - √ Fax detection is required on both legs of the call
- Figures for Call Progress (CP), AD, AMD, and Beep detection assume that detection is only on one leg of the call (if not, figures will be reduced).

3.3.15 Mediant 9030 SBC

The maximum number of supported SBC sessions is listed in Section 3.1 on page 63. These SBC sessions also support SRTP and RTCP XR. When DSP capabilities are required, the number of sessions that can use DSP capabilities is reduced, as shown in the table below.

Table 3-32: Mediant 9030 SBC - Transcoding Capacity per Coder Capability Profile

Session Coders		Max. Sessions	
From Coder Profile	**To Coder Profile**	**Basic**	**Extended**
Profile 1	Profile 1	4,025	2,775
Profile 2	Profile 1	1,825	1,525
Profile 2	Profile 2	1,200	1,050
Profile 1	Profile 2 + AMR-NB / G.722	1,200	1,075
Profile 2	Profile 2 + AMR-NB / G.722	875	825
Profile 1	Profile 2 + AMR-WB (G.722.2)	400	375
Profile 2	Profile 2 + AMR-WB	350	350
Profile 1	Profile 2 + SILK-NB	1,150	1,050
Profile 2	Profile 2 + SILK-NB	850	775
Profile 1	Profile 2 + SILK-WB	650	625
Profile 2	Profile 2 + SILK-WB	525	525
Profile 1	Profile 2 + Opus-NB	700	600
Profile 2	Profile 2 + Opus-NB	575	500
Profile 1	Profile 2 + Opus-WB	575	500
Profile 2	Profile 2 + Opus-WB	475	425

Notes:

- *Profile 1:* G.711 at 20ms only, without T.38 support.
- *Profile 2:* G.711, G.726, G.729 (A / AB), G.723.1, T.38.
- *Basic*: Excludes in-band signaling (in voice channel), VAD, Silence Suppression and fax detection.
- *Extended*: Includes DTMF transcoding (RFC 2833 to in-band signaling), VAD, Silence Suppression and fax detection
- Acoustic Echo Suppressor may reduce capacity. For more information, contact your AudioCodes sales representative.
- For transcoding capabilities, the 'SBC Performance Profile' (SBCPerformanceProfile) parameter must be configured to **Optimized for Transcoding** (2).

3.3.15.1 Forwarding Session Capacity per Feature without Transcoding

The table below lists the maximum number of concurrent forwarding sessions per feature without using transcoding.

Table 3-33: Mediant 9030 SBC - Forwarding Capacity per Feature

Feature	Max. Sessions
Fax Detection	23,000
AD/AMD/Beep Detection	23,000
CP Detection	23,000
Jitter Buffer	3,000

Notes:

- All figures were calculated for call duration of 100 seconds.
- For fax detection, figures are based on the following assumptions:
  - √ Timeout for fax detection is 10 seconds (default)
  - √ Fax detection is required on both legs of the call
- Figures for Call Progress (CP), AD, AMD, and Beep detection assume that detection is only on one leg of the call (if not, figures will be reduced).

3.3.16 Mediant Cloud Edition (CE) SBC

The Media Components (MC) in the media cluster of the Mediant CE must all be of the same instance type: either forwarding-only, or forwarding and transcoding. A maximum of 21 MCs can be used.

3.3.16.1 Mediant CE SBC for AWS EC2

3.3.16.1.1 Forwarding Sessions

The number of concurrent forwarding sessions per MC is shown in the following table.

Table 3-34: Forwarding Capacity per MC Instance Type

MC Instance Type	Max. Forwarding Sessions
m5n.large	3,200
c5.4xlarge	4,000

Note: Forwarding performance was tested in AWS Ireland Region.

3.3.16.1.2 Transcoding Sessions

For transcoding capabilities, the Media Component (MC) must be of the AWS instance type c5.4xlarge. The number of supported transcoding sessions per MC is shown in the following table.

Table 3-35: Transcoding Capacity per c5.4xlarge MC

Session Coders		Max. Sessions	
From Coder Profile	To Coder Profile	Basic	Extended
Profile 1	Profile 1	3,500	2,825
Profile 2	Profile 1	2,375	1,900
Profile 2	Profile 2	1,625	1,425
Profile 1	Profile 2 + AMR-NB / G.722	1,500	1,300
Profile 2	Profile 2 + AMR-NB / G.722	1,150	1,050
Profile 1	Profile 2 + AMR-WB (G.722.2)	475	475
Profile 2	Profile 2 + AMR-WB	425	425
Profile 1	Profile 2 + SILK-NB	1,400	1,250
Profile 2	Profile 2 + SILK-NB	1,100	1,025
Profile 1	Profile 2 + SILK-WB	775	750
Profile 2	Profile 2 + SILK-WB	675	675
Profile 1	Profile 2 + Opus-NB	850	725
Profile 2	Profile 2 + Opus-NB	725	650

Session Coders		Max. Sessions	
From Coder Profile	**To Coder Profile**	**Basic**	**Extended**
Profile 1	Profile 2 + Opus-WB	700	600
Profile 2	Profile 2 + Opus-WB	625	550

Notes:

- *Profile 1:* G.711 at 20ms only, without T.38 support.
- *Profile 2:* G.711, G.726, G.729 (A / AB), G.723.1, T.38.
- *Basic*: Excludes in-band signaling (in voice channel), VAD, Silence Suppression and fax detection.
- *Extended*: Includes DTMF transcoding (RFC 2833 to in-band signaling), VAD, Silence Suppression and fax detection
- Acoustic Echo Suppressor may reduce capacity. For more information, contact your AudioCodes sales representative.

3.3.16.2 Mediant CE SBC for Azure

3.3.16.2.1 Forwarding Sessions

The number of concurrent forwarding sessions per Media Component (MC) is shown in the following table.

Table 3-36: Session Capacity per MC

MC VM Size	Max. Forwarding-Only Sessions	Max. Forwarding & Transcoding Sessions
D2ds_v5	3,000	3,000
D4ds_v5	6,500	5,500
D8ds_v5	12,000	6,000

Note: It's not recommended to exceed 5,000 sessions per MC because of the duration required for processing an MC failover.

3.3.16.2.2 Transcoding Sessions

For transcoding capabilities, the Media Component (MC) must be Azure virtual machine size D2ds_v5, D4ds_v5, or D8ds_v5. The number of supported transcoding sessions per MC is shown in the following table.

Table 3-37: Transcoding Capacity per MC

Session Coders		D2ds_v5		D4ds_v5		D8ds_v5	
From Coder Profile	To Coder Profile	Basic	Extended	Basic	Extended	Basic	Extended
Profile 1	Profile 1	275	175	575	350	1,725	1,100
Profile 2	Profile 1	150	125	300	250	925	750
Profile 2	Profile 2	100	75	200	175	625	550
Profile 1	Profile 2 + AMR-NB / G.722	75	75	175	150	575	500
Profile 2	Profile 2 + AMR-NB / G.722	75	50	150	125	450	400
Profile 1	Profile 2 + AMR-WB (G.722.2)	25	25	50	50	175	175
Profile 2	Profile 2 + AMR-WB	25	25	50	50	175	175
Profile 1	Profile 2 + SILK-NB	75	75	175	150	550	500
Profile 2	Profile 2 + SILK-NB	50	50	125	125	425	400
Profile 1	Profile 2 + SILK-WB	50	50	100	100	300	300
Profile 2	Profile 2 + SILK-WB	25	25	75	75	275	250
Profile 1	Profile 2 + Opus-NB	50	25	100	75	325	275
Profile 2	Profile 2 + Opus-NB	25	25	75	75	275	250

Session Coders		D2ds_v5		D4ds_v5		D8ds_v5	
From Coder Profile	To Coder Profile	Basic	Extended	Basic	Extended	Basic	Extended
Profile 1	Profile 2 + Opus-WB	25	25	75	75	275	225
Profile 2	Profile 2 + Opus-WB	25	25	75	50	250	200

Notes:

- *Profile 1:* G.711 at 20ms only, without T.38 support.
- *Profile 2:* G.711, G.726, G.729 (A / AB), G.723.1, T.38.
- *Basic*: Excludes in-band signaling (in voice channel), VAD, Silence Suppression and fax detection.
- *Extended*: Includes DTMF transcoding (RFC 2833 to in-band signaling), VAD, Silence Suppression and fax detection
- Acoustic Echo Suppressor may reduce capacity. For more information, contact your AudioCodes sales representative.

3.3.16.3 Mediant CE SBC for VMware

The following tables list maximum forwarding and transcoding capacities for Mediant CE SBC running on VMware hypervisor with Hyper-Threading.

Each vCPU refers to a single thread of a physical core. For example, a 4-vCPU virtual machine is allocated by only two physical cores.

Note:

- The profiles below require the following minimum requirements:
  - √ Intel Xeon Scalable Processors or later. The capacity listed in the following table refers to 3.3 GHz all-core Turbo speed. When using different all-core Turbo speed, capacity is increased or decreased accordingly.
  - √ Hyper-Threading is enabled on host.
  - √ VMware ESXi 6.7 or later.
  - √ CPUOverrideHT ini file parameter is configured to 1.
- CPU Affinity is recommended. For more information, refer to the *Installation Manual*.
- For Server Failure redundancy, the maximum active media sessions (before failure) on each server must not exceed 4,000 media sessions.

3.3.16.3.1 Forwarding Sessions

The number of concurrent forwarding sessions per Media Component (MC) is shown in the following table.

Table 3-38: Forwarding Capacity per MC Instance Type

MC Instance Type	Max. Sessions
2 vCPUs, 8GB	4,000 (Forwarding Only)
8 vCPUs, 8GB	4,000 (Forwarding and Transcoding)

3.3.16.3.2 Transcoding Sessions

For transcoding capabilities, the Media Component (MC) must be a virtual machine of 8 vCPUs and 8 GB. The number of supported transcoding sessions per MC is shown in the following table.

Note: For transcoding capabilities, the 'Media Component Profile' parameter on all Media Components must be configured to **Transcoding Enabled** (MCProfile = 1).

Table 3-39: Mediant CE SBC on VMware with Hyper-Threading - Transcoding Capacity

Session Coders		Max. Sessions 8 vCPU 8-GB RAM	
From Coder Profile	To Coder Profile	Basic	Extended
Profile 1	Profile 1	1,800	1,175
Profile 1	Profile 2	975	775
Profile 2	Profile 2	675	575
Profile 1	Profile 2 + G.722 / AMR-NB	600	525
Profile 2	Profile 2 + G.722 / AMR-NB	475	425
Profile 1	Profile 2 + AMR-WB	200	175
Profile 2	Profile 2 + AMR-WB	175	175
Profile 1	Profile 2 + SILK-NB	575	525
Profile 2	Profile 2 + SILK-NB	450	425
Profile 1	Profile 2 + SILK-WB	325	300
Profile 2	Profile 2 + SILK-WB	275	275
Profile 1	Profile 2 + Opus-NB	350	300
Profile 2	Profile 2 + Opus-NB	300	275
Profile 1	Profile 2 + Opus-WB	300	250
Profile 2	Profile 2 + Opus-WB	250	225

Notes:

- *Profile 1:* G.711 at 20ms only, without T.38 support.
- *Profile 2:* G.711, G.726, G.729 (A / AB), G.723.1, T.38.
- *Basic*: Excludes in-band signaling (in voice channel), VAD, Silence Suppression and fax detection.
- *Extended*: Includes DTMF transcoding (RFC 2833 to in-band signaling), VAD, Silence Suppression and fax detection
- Acoustic Echo Suppressor may reduce capacity. For more information, contact your AudioCodes sales representative.

3.3.16.4 Mediant CE SBC for GCP

3.3.16.4.1 Forwarding Sessions

The number of concurrent forwarding sessions (RTP-RTP) per Media Component (MC) is shown in the following table.

Table 3-40: Session Capacity per MC

MC VM Size	Max. Forwarding-Only Sessions
n2-standard-2	3,500

3.3.16.4.2 Transcoding Sessions

For transcoding capabilities, the MC should be of the n2-standard-2 or n2_highcpu-8 instance types.

When the transcoding session is at maximum, the total sessions is reduced as shown in the following table.

Table 3-41: Transcoding Sessions per MC

MC VM Size	Max. Forwarding and Transcoding Sessions
n2-standard-2	1,500 (up to 300 transcoding sessions)
n2-highcpu-8	1,600 (up to 1,500 transcoding sessions)

The number of supported transcoding sessions per MC is shown in the following table.

Table 3-42: Transcoding Capacity per MC

Session Coders		n2-standard-2		n2-highcpu-8	
From Coder Profile	To Coder Profile	Basic	Extended	Basic	Extended
Profile 1	Profile 1	300	175	1,500	1,175
Profile 2	Profile 1	150	125	975	775
Profile 2	Profile 2	100	75	675	575

Session Coders		n2-standard-2		n2-highcpu-8	
From Coder Profile	**To Coder Profile**	**Basic**	**Extended**	**Basic**	**Extended**
Profile 1	Profile 2 + AMR-NB / G.722	100	75	625	525
Profile 2	Profile 2 + AMR-NB / G.722	75	50	475	425
Profile 1	Profile 2 + AMR-WB (G.722.2)	25	25	200	175
Profile 2	Profile 2 + AMR-WB	25	25	175	175
Profile 1	Profile 2 + SILK-NB	75	75	575	525
Profile 2	Profile 2 + SILK-NB	75	50	450	425
Profile 1	Profile 2 + SILK-WB	50	50	325	300
Profile 2	Profile 2 + SILK-WB	25	25	275	275
Profile 1	Profile 2 + Opus-NB	50	50	350	300
Profile 2	Profile 2 + Opus-NB	50	25	300	275
Profile 1	Profile 2 + Opus-WB	50	25	300	250
Profile 2	Profile 2 + Opus-WB	25	25	250	225

Notes:

- *Profile 1:* G.711 at 20ms only, without T.38 support.
- *Profile 2:* G.711, G.726, G.729 (A / AB), G.723.1, T.38.
- *Basic*: Excludes in-band signaling (in voice channel), VAD, Silence Suppression and fax detection.
- *Extended*: Includes DTMF transcoding (RFC 2833 to in-band signaling), VAD, Silence Suppression and fax detection
- Acoustic Echo Suppressor may reduce capacity. For more information, contact your AudioCodes sales representative.

3.3.17 Mediant Virtual Edition (VE) SBC

The maximum number of supported SBC sessions is listed in Section 3.1 on page 63. These SBC sessions also support SRTP and RTCP XR. When DSP capabilities are required (DSP Performance Profile), the number of sessions that can use DSP capabilities is reduced, as shown in the tables in this section.

3.3.17.1 Mediant VE SBC for Hypervisors with Hyper-Threading

The following tables list maximum transcoding capacity for Mediant VE SBC running on the following hypervisors with Hyper-Threading: VMware, KVM/OpenStack, and Hyper-V.

Each vCPU refers to a Hyper-Threaded core (logical). For example, a 4-vCPU virtual machine allocates only 2 physical cores.

Note:

- The transcoding profiles below require the following minimum requirements:
  - √ Intel Xeon Scalable Processors or later. The capacity listed in the table below refer to 3.3 GHz all-core Turbo speed. When using different all-core Turbo speed, the capacity is increased or decreased accordingly.
  - √ Hyper-Threading enabled on host.
  - √ VMware Hypervisor:
    - VMware ESXi 6.7 or later. Capacities in table Table 3-1 were achieved using ESXi Version 7.0.3.
    - CPUOverrideHT ini file parameter is configured to 1.
  - √ KVM Hypervisor/OpenStack: Host-Passthrough mode must be used. For more information, refer to the *Installation Manual*.
- CPU Affinity is recommended. For more information, refer to the *Installation Manual*.
- For transcoding capabilities, the 'SBC Performance Profile' (SBCPerformanceProfile) parameter must be configured to Optimized for Transcoding (2).

Table 3-43: Mediant VE SBC on Hypervisors with Hyper-Threading - Transcoding Capacity

Session Coders		Max. Sessions							
		2 vCPU 8-GB RAM		4 vCPU 8-GB RAM (VMware Only)		8 vCPU 16-GB RAM		16 vCPU 16-GB RAM (Not Hyper-V)	
From Coder Profile	To Coder Profile	Basic	Extended	Basic	Extended	Basic	Extended	Basic	Extended
Profile 1	Profile 1	300	200	800	600	1,200	825	2,400	2,400
Profile 1	Profile 2	150	125	500	400	675	550	2,075	1,650
Profile 2	Profile 2	100	100	350	300	475	400	1,425	1,250
Profile 1	Profile 2 + G.722 / AMR-NB	100	75	325	275	425	375	1,300	1,150
Profile 2	Profile 2 + G.722 / AMR-NB	75	75	250	225	325	300	1,000	925

Session Coders		Max. Sessions							
		2 vCPU 8-GB RAM		4 vCPU 8-GB RAM (VMware Only)		8 vCPU 16-GB RAM		16 vCPU 16-GB RAM (Not Hyper-V)	
From Coder Profile	To Coder Profile	Basic	Extended	Basic	Extended	Basic	Extended	Basic	Extended
Profile 1	Profile 2 + AMR-WB	25	25	100	100	125	125	425	400
Profile 2	Profile 2 + AMR-WB	25	25	75	75	125	125	375	375
Profile 1	Profile 2 + SILK-NB	100	75	300	275	400	350	1,225	1,100
Profile 2	Profile 2 + SILK-NB	75	75	225	225	325	300	975	900
Profile 1	Profile 2 + SILK-WB	50	50	175	150	225	200	700	650
Profile 2	Profile 2 + SILK-WB	50	50	150	150	200	200	600	600
Profile 1	Profile 2 + Opus-NB	50	50	175	150	250	200	750	650
Profile 2	Profile 2 + Opus-NB	50	25	150	125	200	175	650	575
Profile 1	Profile 2 + Opus-WB	50	25	150	125	200	175	625	525
Profile 2	Profile 2 + Opus-WB	25	25	125	100	175	150	550	475

Notes:

- *Profile 1:* G.711 at 20ms only, without T.38 support.
- *Profile 2:* G.711, G.726, G.729 (A / AB), G.723.1, T.38.
- *Basic*: Excludes in-band signaling (in voice channel), VAD, Silence Suppression and fax detection.
- *Extended*: Includes DTMF transcoding (RFC 2833 to in-band signaling), VAD, Silence Suppression and fax detection
- Acoustic Echo Suppressor may reduce capacity. For more information, contact your AudioCodes sales representative.

3.3.17.2 Mediant VE SBC for Amazon AWS EC2

The following tables list maximum channel capacity for Mediant VE SBC on the Amazon EC2 platform.

3.3.17.2.1 Transcoding Sessions

Note: For transcoding capabilities, the 'SBC Performance Profile' (SBCPerformanceProfile) parameter must be configured to **Optimized for Transcoding** (2).

3.3.17.2.1.1 m5n.large

Table 3-44: Mediant VE SBC on m5n.large - Transcoding Capacity

Session Coders		Max. Sessions	
From Coder Profile	To Coder Profile	Basic	Extended
Profile 1	Profile 1	250	150
Profile 2	Profile 1	125	100
Profile 2	Profile 2	75	75
Profile 1	Profile 2 + AMR-NB / G.722	75	75
Profile 2	Profile 2 + AMR-NB / G.722	50	50
Profile 1	Profile 2 + AMR-WB	25	25
Profile 2	Profile 2 + AMR-WB	25	25
Profile 1	Profile 2 + SILK-NB	75	50
Profile 2	Profile 2 + SILK-NB	50	50
Profile 1	Profile 2 + SILK-WB	25	25
Profile 2	Profile 2 + SILK-WB	25	25
Profile 1	Profile 2 + Opus-NB	50	25
Profile 2	Profile 2 + Opus-NB	25	25
Profile 1	Profile 2 + Opus-WB	25	25
Profile 2	Profile 2 + Opus-WB	25	25

Notes:

- *Profile 1:* G.711 at 20ms only, without T.38 support.
- *Profile 2:* G.711, G.726, G.729 (A / AB), G.723.1, T.38.
- *Basic*: Excludes in-band signaling (in voice channel), VAD, Silence Suppression and fax detection.
- *Extended*: Includes DTMF transcoding (RFC 2833 to in-band signaling), VAD, Silence Suppression and fax detection
- Acoustic Echo Suppressor may reduce capacity. For more information, contact your AudioCodes sales representative.

3.3.17.2.1.2 c5n.2xlarge

Table 3-45: Mediant VE SBC on c5n.2xlarge - Transcoding Capacity

Session Coders		Max. Sessions	
From Coder Profile	To Coder Profile	Basic	Extended
Profile 1	Profile 1	1,950	1,275
Profile 2	Profile 1	1,050	850
Profile 2	Profile 2	725	625
Profile 1	Profile 2 + AMR-NB / G.722	675	575
Profile 2	Profile 2 + AMR-NB / G.722	500	475
Profile 1	Profile 2 + AMR-WB	200	200
Profile 2	Profile 2 + AMR-WB	175	175
Profile 1	Profile 2 + SILK-NB	625	550
Profile 2	Profile 2 + SILK-NB	500	450
Profile 1	Profile 2 + SILK-WB	350	325
Profile 2	Profile 2 + SILK-WB	300	300
Profile 1	Profile 2 + Opus-NB	375	325
Profile 2	Profile 2 + Opus-NB	325	300
Profile 1	Profile 2 + Opus-WB	300	275
Profile 2	Profile 2 + Opus-WB	275	250

Notes:

- *Profile 1:* G.711 at 20ms only, without T.38 support.
- *Profile 2:* G.711, G.726, G.729 (A / AB), G.723.1, T.38.
- *Basic*: Excludes in-band signaling (in voice channel), VAD, Silence Suppression and fax detection.
- *Extended*: Includes DTMF transcoding (RFC 2833 to in-band signaling), VAD, Silence Suppression and fax detection
- Acoustic Echo Suppressor may reduce capacity. For more information, contact your AudioCodes sales representative.

3.3.17.2.1.3 c5n.9xlarge

Table 3-46: Mediant VE SBC on c5n.9xlarge - Transcoding Capacity

Session Coders		Max. Sessions	
From Coder Profile	To Coder Profile	Basic	Extended
Profile 1	Profile 1	7,000	6,800
Profile 2	Profile 1	5,725	4,575
Profile 2	Profile 2	3,925	3,450
Profile 1	Profile 2 + AMR-NB / G.722	3,600	3,125
Profile 2	Profile 2 + AMR-NB / G.722	2,775	2,550
Profile 1	Profile 2 + AMR-WB	1,175	1,150
Profile 2	Profile 2 + AMR-WB	1,050	1,000
Profile 1	Profile 2 + SILK-NB	3,400	3,025
Profile 2	Profile 2 + SILK-NB	2,675	2,475
Profile 1	Profile 2 + SILK-WB	1,900	1,800
Profile 2	Profile 2 + SILK-WB	1,650	1,625
Profile 1	Profile 2 + Opus-NB	2,075	1,775
Profile 2	Profile 2 + Opus-NB	1,775	1,600
Profile 1	Profile 2 + Opus-WB	1,725	1,450
Profile 2	Profile 2 + Opus-WB	1,500	1,325

Notes:

- *Profile 1:* G.711 at 20ms only, without T.38 support.
- *Profile 2:* G.711, G.726, G.729 (A / AB), G.723.1, T.38.
- *Basic*: Excludes in-band signaling (in voice channel), VAD, Silence Suppression and fax detection.
- *Extended*: Includes DTMF transcoding (RFC 2833 to in-band signaling), VAD, Silence Suppression and fax detection
- Acoustic Echo Suppressor may reduce capacity. For more information, contact your AudioCodes sales representative.

3.3.17.2.2 Forwarding Session Capacity per Feature without Transcoding

The table below lists the maximum number of concurrent forwarding sessions per feature without using transcoding.

Table 3-47: Mediant VE SBC on Amazon EC2 - Forwarding Capacity per Feature

Feature	Max. Sessions	
	c5.2xlarge	c5.9xlarge
Fax Detection	5,500	7,000
AD/AMD/Beep Detection	5,500	7,000
CP Detection	5,500	7,000
Jitter Buffer	1,800	7,000

Notes:

- All figures were calculated for call duration of 100 seconds.
- For fax detection, figures are based on the following assumptions:
  - √ Timeout for fax detection is 10 seconds (default)
  - √ Fax detection is required on both legs of the call
- Figures for Call Progress (CP), AD, AMD, and Beep detection assume that detection is only on one leg of the call (if not, figures will be reduced).

3.3.17.3 Mediant VE SBC for Azure

The following tables list maximum channel capacity for Mediant VE SBC on the Azure platform.

Table 3-48: Mediant VE SBC on B2ls_v2, D2ds_v5, D4ds_v5, D8ds_v5 - Transcoding Capacity

Session Coders		Max. Sessions							
		B2ls_v2DS1		D2ds_v5		D4ds_v5		D8ds_v5	
From Coder Profile	To Coder Profile	Basic	Extended	Basic	Extended	Basic	Extended	Basic	Extended
Profile 1	Profile 1	120	75	300	175	600	375	1,800	1,175
Profile 2	Profile 1	65	50	150	125	325	250	975	775
Profile 2	Profile 2	45	35	100	75	225	175	675	575
Profile 1	Profile 2 + AMR-NB / G.722	40	35	100	75	200	175	600	525
Profile 2	Profile 2 + AMR-NB / G.722	30	25	75	50	150	125	475	425
Profile 1	Profile 2 + AMR-WB (G.722.2)	10	10	25	25	50	50	200	175
Profile 2	Profile 2 + AMR-WB	10	10	25	25	50	50	175	175
Profile 1	Profile 2 + SILK-NB	35	35	75	75	175	175	575	525
Profile 2	Profile 2 + SILK-NB	30	25	75	50	150	125	450	425
Profile 1	Profile 2 + SILK-WB	20	20	50	50	100	100	325	300
Profile 2	Profile 2 + SILK-WB	15	15	25	25	75	75	275	275
Profile 1	Profile 2 + Opus-NB	20	20	50	50	100	100	350	300
Profile 2	Profile 2 + Opus-NB	20	15	50	25	100	75	300	275
Profile 1	Profile 2 + Opus-WB	20	15	50	25	100	75	300	250
Profile 2	Profile 2 + Opus-WB	15	15	25	25	75	75	250	225

Notes:

- For existing deployments using Azure DS1_v2 virtual machine size, it's recommended to migrate to B2ls_v2 or D2ds_v5.
- *Profile 1:* G.711 at 20ms only, without T.38 support.
- *Profile 2:* G.711, G.726, G.729 (A / AB), G.723.1, T.38.
- *Basic*: Excludes in-band signaling (in voice channel), VAD, Silence Suppression and fax detection.
- *Extended*: Includes DTMF transcoding (RFC 2833 to in-band signaling), VAD, Silence Suppression and fax detection
- Acoustic Echo Suppressor may reduce capacity. For more information, contact your AudioCodes sales representative.
- For transcoding capabilities, the 'SBC Performance Profile' (SBCPerformanceProfile) parameter must be configured to **Optimized for Transcoding** (2).

3.3.17.4 Mediant VE SBC for GCP

The following tables list maximum channel capacity for Mediant VE SBC on the GCP platform.

Table 3-49: Mediant VE SBC on GCP - Transcoding Capacity

Session Coders		n2-standard-2		n2-standard-4		n2-standard-8		n2-highcpu-32	
From Coder Profile	To Coder	Basic	Extended	Basic	Extended	Basic	Extended	Basic	Extended
1	Profile 1	300	200	625	400	1900	1225	3600	3600
2	Profile 1	150	125	325	275	1025	825	3600	3600
2	Profile 2	100	100	225	200	700	625	3350	2925
1	Profile 2 + AMR-NB / G.722	100	75	200	175	650	575	3075	2675
2	Profile 2 + AMR-NB / G.722	75	75	150	150	500	450	2375	2175
1	Profile 2 + AMR-WB	25	25	50	50	200	200	1000	975
2	Profile 2 + AMR-WB	25	25	50	50	175	175	900	875
1	Profile 2 + SILK-NB	100	75	200	175	600	550	2900	2600
2	Profile 2 + SILK-NB	75	75	150	150	475	450	2275	2125
1	Profile 2 + SILK-WB	50	50	100	100	350	325	1650	1550
2	Profile 2 + SILK-WB	50	50	100	100	300	300	1425	1400
1	Profile 2 + Opus-NB	50	50	125	100	375	325	1775	1525

Session Coders		n2-standard-2		n2-standard-4		n2-standard-8		n2-highcpu-32	
From Coder Profile	To Coder	Basic	Extended	Basic	Extended	Basic	Extended	Basic	Extended
2	Profile 2 + Opus-NB	50	25	100	75	325	275	1525	1350
1	Profile 2 + Opus-WB	50	25	100	75	300	250	1475	1250
2	Profile 2 + Opus-WB	25	25	75	75	275	225	1275	1125

Notes:

- *Profile 1:* G.711 at 20ms only, without T.38 support.
- *Profile 2:* G.711, G.726, G.729 (A / AB), G.723.1, T.38.
- *Basic*: Excludes in-band signaling (in voice channel), VAD, Silence Suppression and fax detection.
- *Extended*: Includes DTMF transcoding (RFC 2833 to in-band signaling), VAD, Silence Suppression and fax detection
- Acoustic Echo Suppressor may reduce capacity. For more information, contact your AudioCodes sales representative.
- For transcoding capabilities, the 'SBC Performance Profile' (SBCPerformanceProfile) parameter must be configured to **Optimized for Transcoding** (2).

3.3.18 Mediant Server Edition (SE) SBC

Note: Digital signal processing (DSP) is supported only on Mediant SE SBC based on DL360 G10.

The maximum number of supported SBC sessions is listed in Section 3.1 on page 63. These SBC sessions also support SRTP and RTCP XR. When DSP capabilities are required, the number of sessions that can use DSP capabilities is reduced, as shown in the table below.

Table 3-50: Mediant SE SBC (DL360 G10) - Transcoding Capacity per Coder Capability Profile

Session Coders		Max. Sessions	
From Coder Profile	To Coder Profile	Basic	Extended
Profile 1	Profile 1	9,600	6,625
Profile 2	Profile 1	4,400	3,625
Profile 2	Profile 2	2,875	2,500
Profile 1	Profile 2 + AMR-NB / G.722	2,925	2,600
Profile 2	Profile 2 + AMR-NB / G.722	2,150	1,950
Profile 1	Profile 2 + AMR-WB (G.722.2)	950	925
Profile 2	Profile 2 + AMR-WB	850	825
Profile 1	Profile 2 + SILK-NB	2,750	2,500
Profile 2	Profile 2 + SILK-NB	2,050	1,900
Profile 1	Profile 2 + SILK-WB	1,575	1,475
Profile 2	Profile 2 + SILK-WB	1,300	1,250
Profile 1	Profile 2 + Opus-NB	1,700	1,450
Profile 2	Profile 2 + Opus-NB	1,375	1,200
Profile 1	Profile 2 + Opus-WB	1,375	1,200
Profile 2	Profile 2 + Opus-WB	1,175	1,025

Notes:

- *Profile 1:* G.711 at 20ms only, without T.38 support.
- *Profile 2:* G.711, G.726, G.729 (A / AB), G.723.1, T.38.
- *Basic*: Excludes in-band signaling (in voice channel), VAD, Silence Suppression and fax detection.
- *Extended*: Includes DTMF transcoding (RFC 2833 to in-band signaling), VAD, Silence Suppression and fax detection
- Acoustic Echo Suppressor may reduce capacity. For more information, contact your AudioCodes sales representative.
- For transcoding capabilities, the 'SBC Performance Profile' (SBCPerformanceProfile) parameter must be configured to **Optimized for Transcoding** (2).

3.3.18.1 Forwarding Session Capacity per Feature without Transcoding

The table below lists the maximum number of concurrent forwarding sessions per feature without using transcoding.

Table 3-51: Mediant SE SBC (DL360 G10) - Forwarding Capacity per Feature

Feature	Max. Sessions
Fax Detection	45,000
AD/AMD/Beep Detection	45,000
CP Detection	45,000
Jitter Buffer	6,000

Notes:

- All figures were calculated for call duration of 100 seconds.
- For fax detection, figures are based on the following assumptions:
  - √ Timeout for fax detection is 10 seconds (default)
  - √ Fax detection is required on both legs of the call
- Figures for Call Progress (CP), AD, AMD, and Beep detection assume that detection is only on one leg of the call (if not, figures will be reduced).

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4 Configuration Table Capacity

The maximum rows (indices) that can be configured per configuration table is listed in the table below.

Table 4-1: Capacity per Configuration Table

Configuration Table	Mediant 500 / 500L / 800 / 1000B / 3100 MP-1288	Mediant 2600 Mediant 4000B	Mediant 7000 Mediant 90xx Mediant SE	Mediant VE Mediant CE
Accounts	▪ MP-1288: 288 ▪ Mediant 500 / 500L / 800 / 1000: 102 ▪ Mediant 3100: 1,500	625	5,000	▪ 2-32 GB: 1,500 ▪ 64 GB: 5,000
Allowed Audio Coders Groups	10 (20 for Mediant 3100)	20	20	20
Allowed Video Coders Groups	5	5	5	5
Alternative Routing Reasons	20	20	20	20
Bandwidth Profile	486 (1,724 for Mediant 3100)	1,009	1,884	1,884
Call Admission Control Profile	102	1,500	1,500	1,500
Call Admission Control Rule (per Profile)	8	8	8	8
Call Setup Rules	▪ MP-1288 / Mediant 1000/3100: 64 ▪ Mediant 500/500L/800: 100	400	1,000	▪ 2-8 GB: 500 ▪ 16-64 GB: 1,000
Calling Name Manipulation for IP-to-Tel Calls	120	n/a (Gateway only)	n/a (Gateway only)	n/a (Gateway only)
Calling Name Manipulation for Tel-to-IP Calls	120	n/a (Gateway only)	n/a (Gateway only)	n/a (Gateway only)
Char Conversion	40	n/a (Gateway only)	n/a (Gateway only)	n/a (Gateway only)
Charge Codes	25	n/a (Gateway only)	n/a (Gateway only)	n/a (Gateway only)
Classification	102 (1,500 for Mediant 3100)	1,500	1,500	▪ 2 GB: 750 ▪ 3.5-64 GB: 1,500
Coders Groups	11 (21 for Mediant 3100)	21	21	21
Coders Groups > Coders	10 (per Coders Group)	10 (per Coders Group)	10 (per Coders Group)	10 (per Coders Group)

Configuration Table	Mediant 500 / 500L / 800 / 1000B / 3100 MP-1288	Mediant 2600 Mediant 4000B	Mediant 7000 Mediant 90xx Mediant SE	Mediant VE Mediant CE
Cost Groups	10	10	10	10
Custom DNS Servers	n/a	n/a	32 (Mediant SE)	32
Custom MTU	n/a	n/a	16 (Mediant SE)	16
Destination Phone Number Manipulation for IP-to-Tel Calls	120	n/a (Gateway only)	n/a (Gateway only)	n/a (Gateway only)
Destination Phone Number Manipulation for Tel-to-IP Calls	120	n/a (Gateway only)	n/a (Gateway only)	n/a (Gateway only)
DHCP Servers	1	1	1	1
Dial Plan	10 (25 for Mediant 3100)	25	50	50
Dial Plan Rule	2,000 (10,000 for Mediant 3100)	10,000	100,000	▪ < 16 GB: 2,000 ▪ ≥ 16 GB: 100,000
Ethernet Devices	16 (1,024 for Mediant 3100)	1,024	1,024	1,024
External Media Source	1	1	1	1
Firewall	50 (500 for Mediant 3100)	500	500	500
Forward On Busy Trunk Destination	▪ MP-1288: 288 ▪ Mediant 500/500L/800: 100 ▪ Mediant 1000: 240 ▪ Mediant 3100: 512	n/a (Gateway only)	n/a (Gateway only)	n/a (Gateway only)
Gateway CDR Format	128 Syslog; 40 RADIUS (128 for Mediant 3100); 64 Locally Stored & JSON	n/a (Gateway only)	n/a (Gateway only)	n/a (Gateway only)
HA Network Monitor	10	10	10	10
HTTP Directive Sets	30	30	30	30
HTTP Directives	500	500	500	500
HTTP Locations	40	40	120	▪ < 8 GB: 40 ▪ ≥ 8 GB: 120
HTTP Proxy Servers	10	10	40	▪ < 8 GB: 10 ▪ ≥ 8 GB: 40
HTTP Remote Hosts	10 (per Remote Web Service)	10 (per Remote Web Service)	10 (per Remote Web Service)	10 (per Remote Web Service)
IDS Matches	20	20	20	20
IDS Policies	20	20	20	20
IDS Rule	100 (20 per Policy)	100 (20 per Policy)	100 (20 per Policy)	100 (20 per Policy)

Configuration Table	Mediant 500 / 500L / 800 / 1000B / 3100 MP-1288	Mediant 2600 Mediant 4000B	Mediant 7000 Mediant 90xx Mediant SE	Mediant VE Mediant CE
Inbound Manipulations	205 (3,000 for Mediant 3100)	3,000	3,000	3,000
Internal DNS	20	20	20	20
Internal SRV	10	10	10	10
IP Group Set	51 (350 for Mediant 3100)	350	2,500	▪ 2 GB: 40 ▪ 3.5 GB: 500 ▪ 4-16 GB: 750 ▪ 32-64 GB: 2,500
IP Group Set Member (IP Groups per IP Group Set)	10	10	10	10
IP Groups	80 (700 for Mediant 3100)	700	5,000	▪ 2 GB: 80 ▪ 3.5 GB: 1,000 ▪ 4-16 GB: 1,500 ▪ 32-64 GB: 5,000
IP Interfaces	16 1,024 (Mediant 3100)	1,024	1,024	1,024
IP Profiles	▪ MP-1288/Mediant 500/500L/800: 20 ▪ Mediant 1000: 40 ▪ Mediant 3100: 300	300	▪ Mediant 9030: 300 ▪ Mediant 9000/9080 /SE: 1,500	▪ 2 GB: 150 ▪ 5-32 GB: 300 ▪ 64 GB: 1,500 (5,000 if License Key includes VoiceAI Connect)
IP-to-IP Routing	615 (9,000 for Mediant 3100)	9,000	9,000	▪ 2 GB: 4,500 ▪ 3.5-64 GB: 9,000
IP-to-Tel Routing	120 (288 for MP-1288)	n/a (Gateway only)	n/a (Gateway only)	n/a (Gateway only)
LDAP Server Groups	41 (600 for Mediant 3100)	600	600	600
LDAP Servers	82 (1,200 for Mediant 3100)	1,200	1,200	1,200
Local Users	20	20	20	20
Logging Filters	60	60	60	60
Login OAuth Servers	1	1	1	1
Malicious Signature	20	20	20	20
Management Access List	50	50	50	50
Media Realms	12 (1,024 for Mediant 3100)	1,024	1,024	1,024
Media Realms > Media Realm Extension (Total)	▪ MP-1288 / Mediant 500/500L/800: 2 x Max. Media Realms	▪ Mediant 2600: 2 x max. Media Realms	5 x Max. Media Realms	5 x Max. Media Realms

Configuration Table	Mediant 500 / 500L / 800 / 1000B / 3100 MP-1288	Mediant 2600 Mediant 4000B	Mediant 7000 Mediant 90xx Mediant SE	Mediant VE Mediant CE
	▪ Mediant 3100: 5 x Max. Media Realms	▪ Mediant 4000B: 5 x max. Media Realms		
Media Realms > Media Realm Extension (Per Media Realm)	▪ MP-1288 / Mediant 500/500L/800: 2 ▪ Mediant 3100: 5	5	5	5
Message Conditions	82 (1,200 for Mediant 3100)	1,200	1,200	1,200
Message Manipulations (Total)	▪ MP-1288 / Mediant 500/500L/800: 100 ▪ Mediant 1000: 200 ▪ Mediant 3100: 500	500	5,000	▪ 2-8 GB: 750 ▪ 16 GB: 1,000 ▪ 32-64 GB: 5,000
Message Manipulation Sets	▪ MP-1288 / Mediant 1000: 20 ▪ Mediant 500/500L/800: 30 ▪ Mediant 3100: 50	50	1,000	▪ 2-4 GB: 50 ▪ 8-16 GB: 100 ▪ 32-64 GB: 1,000
Message Policies	20	20	20	20
NAT Translation	32	32	256	▪ 2 GB: 32 ▪ 4-64 GB: 256
OAuth Servers	6	6	6	6
Outbound Manipulations	205 (3,000 for Mediant 3100)	3,000	3,000	3,000
OVOC Services	1	1	1	1
Phone Contexts	20	n/a (Gateway only)	n/a (Gateway only)	n/a (Gateway only)
Pre-Parsing Manipulation Rules	30	30	30	30
Pre-Parsing Manipulation Sets	10	10	10	10
Proxy Sets	80 (700 for Mediant 3100)	700	5,000	▪ 2 GB: 80 ▪ 3.5 GB: 1,000 ▪ 4-16 GB: 1,500 ▪ 32-64 GB: 5,000
Proxy Sets > **Proxy Address** (per Proxy Set)	10	10	50	▪ 2 GB: 10 ▪ 3.5 GB: 10 ▪ 8-16 GB: 10 ▪ 32-64 GB: 50
Proxy Sets > **Proxy Address** (DNS-resolved IP addresses per Proxy Set)	15	15	50	▪ 2 GB: 15 ▪ 3.5 GB: 15 ▪ 8-16 GB: 50 ▪ 32-64 GB: 50

Configuration Table	Mediant 500 / 500L / 800 / 1000B / 3100 MP-1288	Mediant 2600 Mediant 4000B	Mediant 7000 Mediant 90xx Mediant SE	Mediant VE Mediant CE
Proxy Sets > **Proxy Address** (DNS-resolved IP addresses for all Proxy Sets combined)	500	2,100	20,000	▪ 2 GB: 500 ▪ 3.5 GB: 3,000 ▪ 4 GB: 4,500 ▪ 8-16 GB: 6,000 (20,000 for VAIC feature) ▪ 32-64 GB: 20,000
QoS Mapping	64	64	64	64
Quality of Experience Color Rules	256	256	256	256
Quality of Experience Profile	256	256	256	256
Quality Of Service Rules	510 (3,500 for Mediant 3100)	3,500	7,500	7,500
RADIUS Servers	3	3	3	3
Reasons for IP-to-Tel Alternative Routing	10	n/a (Gateway only)	n/a (Gateway only)	n/a (Gateway only)
Reasons for Tel-to-IP Alternative Routing	10	n/a (Gateway only)	n/a (Gateway only)	n/a (Gateway only)
Redirect Number IP-to-Tel	20	n/a (Gateway only)	n/a (Gateway only)	n/a (Gateway only)
Redirect Number Tel-to-IP	20	n/a (Gateway only)	n/a (Gateway only)	n/a (Gateway only)
Release Cause ISDN->ISDN	10	n/a (Gateway only)	n/a (Gateway only)	n/a (Gateway only)
Release Cause Mapping from ISDN to SIP	12	n/a (Gateway only)	n/a (Gateway only)	n/a (Gateway only)
Release Cause Mapping from SIP to ISDN	12	n/a (Gateway only)	n/a (Gateway only)	n/a (Gateway only)
Remote Media Subnet	5	5	5	5
Remote Web Services	7	7	7	7
Routing Policies (SBC)	20 (600 for Mediant 3100)	600	600	▪ 2 GB: 20 ▪ 3.5 GB: 70 ▪ 4 GB: 100 ▪ 8 GB: 200 ▪ 16 GB: 400

Configuration Table	Mediant 500 / 500L / 800 / 1000B / 3100 MP-1288	Mediant 2600 Mediant 4000B	Mediant 7000 Mediant 90xx Mediant SE	Mediant VE Mediant CE
				▪ 32-64 GB: 600
Routing Policies (Gateway)	1	n/a (Gateway only)	n/a (Gateway only)	n/a (Gateway only)
RTP-Only	n/a	n/a	3,000 (Mediant SE)	3,000
SBC CDR Format	128 Syslog; 40 RADIUS (128 for Mediant 3100); 64 Locally Stored & JSON	128 (Syslog); 128 (RADIUS); 64 (Locally Stored & JSON)	128 (Syslog); 128 (RADIUS); 64 (Locally Stored & JSON)	128 (Syslog); 128 (RADIUS); 64 (Locally Stored & JSON)
SBC User Information	▪ Mediant 500: 1,600 ▪ Mediant 500L/800: 2,000 ▪ Mediant 1000: 800 ▪ Mediant 3100: 20,000 ▪ MP-1288: 350	20,000	50,000	▪ 2 GB: 1,000 ▪ 3-4 GB: 3,000 ▪ 8 GB: 20,000 ▪ 16-64 GB: 50,000
	Note: The device limits the maximum number of users that can use a TLS connection:			
	▪ Mediant 500: 300 ▪ Mediant 500L: 100 ▪ Mediant 800: 300 ▪ Mediant 1000: 300 ▪ Mediant 3100: 6,000 ▪ MP-1288: 350	1,000	25,000	▪ 2 GB: 100 ▪ 3 GB: 500 ▪ 4 GB: 5,000 ▪ 8-16 GB: 6,000 ▪ 32 GB: 16,000 ▪ 64 GB: 25,000
SIP Interfaces	80 (1,200 for Mediant 3100)	700	1,200	▪ 2 GB: 40 ▪ 3 GB: 200 ▪ 4 GB: 400 ▪ 8 GB: 800 ▪ 16 GB: 1,200 ▪ 32-64 GB: 1,200
SIP Recording Rules	30	30	50	50
SNI-to-TLS Mapping	12 (15 for Mediant 1000; 100 for Mediant 3100)	100	100	100
SNMP Trap Destinations	5	5	5	5
SNMP Trusted Managers	5	5	5	5
SNMPv3 Users	10	10	10	10
Source Phone Number Manipulation for IP-to-Tel Calls	120	n/a (Gateway only)	n/a (Gateway only)	n/a (Gateway only)
Source Phone Number Manipulation for Tel-to-IP Calls	120	n/a (Gateway only)	n/a (Gateway only)	n/a (Gateway only)

Configuration Table	Mediant 500 / 500L / 800 / 1000B / 3100 MP-1288	Mediant 2600 Mediant 4000B	Mediant 7000 Mediant 90xx Mediant SE	Mediant VE Mediant CE
SRDs	20 (600 for Mediant 3100)	600	600	▪ 2 GB: 20 ▪ 3.5 GB: 70 ▪ 4 GB: 100 ▪ 8 GB: 200 ▪ 16 GB: 400 ▪ 32-64 GB: 600
SSH Interfaces	16	16	16	16
Static Routes	30	30	30	30
Supplementary Services	100	n/a (Gateway only)	n/a (Gateway only)	n/a (Gateway only)
Syslog Servers	4	4	4	4
TCP/UDP Proxy Servers	10	10	10	10
Tel Profiles	9 (40 for Mediant 3100)	n/a (Gateway only)	n/a (Gateway only)	n/a (Gateway only)
Tel-to-IP Routing	180	n/a (Gateway only)	n/a (Gateway only)	n/a (Gateway only)
Telnet Interfaces	16	16	16	16
Test Call Rules	5 (default)	5 (default)	5 (default)	5 (default)
Time Band	70 (21 per Cost Group)	70 (21 per Cost Group)	70 (21 per Cost Group)	70 (21 per Cost Group)
TLS Contexts	▪ MP-1288 / Mediant 500/500L/800: 12 ▪ Mediant 1000: 15 ▪ Mediant 3100: 100	100	100	100
Tone Index	50	n/a (Gateway only)	n/a (Gateway only)	n/a (Gateway only)
Trunk Group	▪ MP-1288: 288 ▪ Mediant 500/500L/800: 24 ▪ Mediant 1000: 240 ▪ Mediant 3100: 512	n/a (Gateway only)	n/a (Gateway only)	n/a (Gateway only)
Trunk Group Settings	▪ MP-1288: 289 ▪ Mediant 500/500L/800: 101 ▪ Mediant 1000: 241 ▪ Mediant 3100: 512	n/a (Gateway only)	n/a (Gateway only)	n/a (Gateway only)
Upstream Groups	10	10	10	10
Upstream Hosts	50 (5 per Upstream Group)	50 (5 per Upstream Group)	50 (5 per Upstream Group)	50 (5 per Upstream Group)

Configuration Table	Mediant 500 / 500L / 800 / 1000B / 3100 MP-1288	Mediant 2600 Mediant 4000B	Mediant 7000 Mediant 90xx Mediant SE	Mediant VE Mediant CE
Weak Passwords List	150	150	150	150
Web Interfaces	20	20	20	20

5 Supported SIP Standards

This section lists SIP RFCs and standards supported by the device.

5.1 Supported SIP RFCs

The table below lists the supported RFCs.

Table 5-1: Supported RFCs

RFC	Description	Gateway	SBC
RFC 5246	The Transport Layer Security (TLS) Protocol Version 1.2	√	√
RFC 2806	URLs for Telephone Calls	√	√
draft-choudhuri-sip-info-digit-00	SIP INFO method for DTMF digit transport and collection	√	√
draft-ietf-bfcpbis-rfc4583bis-12	Session Description Protocol (SDP) Format for Binary Floor Control Protocol (BFCP) Streams	×	√ (forwarded transparently)
draft-ietf-sip-connect-reuse-06	Connection Reuse in SIP	√	√
draft-ietf-sipping-cc-transfer-05	Call Transfer	√	√
draft-ietf-sipping-realtimefax-01	SIP Support for Real-time Fax: Call Flow Examples	√	√ (forwarded transparently)
draft-ietf-sip-privacy-04.txt	SIP Extensions for Network-Asserted Caller Identity using Remote-Party-ID header	√	√
draft-johnston-sipping-cc-uui-04	Transporting User to User Information for Call Centers using SIP	√	√ (forwarded transparently)
draft-levy-sip-diversion-08	Diversion Indication in SIP	√	√
draft-mahy-iptel-cpc-06	The Calling Party's Category tel URI Parameter	√	√ (forwarded transparently)
draft-mahy-sipping-signaled-digits-01	Signaled Telephony Events in the Session Initiation Protocol	√	√
draft-sandbakken-dispatch-bfcp-udp-03	Revision of the Binary Floor Control Protocol (BFCP) for use over an unreliable transport	×	√ (forwarded transparently)
ECMA-355, ISO/IEC 22535	QSIG tunneling	√	√ (forwarded transparently)
RFC 2327	SDP	√	√
RFC 2617	HTTP Authentication: Basic and Digest Access Authentication	√	√
RFC 2782	A DNS RR for specifying the location of services	√	√

RFC	Description	Gateway	SBC
RFC 2833	Telephone event	√	√
RFC 2976	SIP INFO Method	√	√
RFC 3261	SIP	√	√
RFC 3262	Reliability of Provisional Responses	√	√
RFC 3263	Locating SIP Servers	√	√
RFC 3264	Offer/Answer Model	√	√
RFC 3265	(SIP)-Specific Event Notification	√	√
RFC 3310	Hypertext Transfer Protocol (HTTP) Digest Authentication Using Authentication and Key Agreement (AKA)	√	×
RFC 3311	UPDATE Method	√	√
RFC 3323	Privacy Mechanism	√	√
RFC 3325	Private Extensions to the SIP for Asserted Identity within Trusted Networks	√	√
RFC 3326	Reason header	√	√ (forwarded transparently)
RFC 3327	Extension Header Field for Registering Non-Adjacent Contacts	√	×
RFC 3361	DHCP Option for SIP Servers	√	×
RFC 3362	Real-time Facsimile (T.38) - image/t38 MIME Sub-type Registration	√	√
RFC 3372	SIP-T	√	√ (forwarded transparently)
RFC 3389	RTP Payload for Comfort Noise	√	√ (forwarded transparently)
RFC 3420	Internet Media Type message/sipfrag	√	√
RFC 3455	P-Associated-URI	√	√ (using user info \ account)
RFC 3489	STUN - Simple Traversal of UDP	√	√
RFC 3515	Refer Method	√	√
RFC 3550	RTP: A Transport Protocol for Real-Time Applications	√	√
RFC 3578	Interworking of ISDN overlap signalling to SIP	√	×
RFC 3581	Symmetric Response Routing - rport	√	√
RFC 3605	RTCP attribute in SDP	√	√ (forwarded transparently)
RFC 3608	SIP Extension Header Field for Service Route Discovery During Registration	√	×
RFC 3611	RTCP-XR	√	√
RFC 3665	SIP Basic Call Flow Examples	√	√

RFC	Description	Gateway	SBC
RFC 3666	SIP to PSTN Call Flows	√	√ (forwarded transparently)
RFC 3680	A SIP Event Package for Registration (IMS)	√	×
RFC 3711	The Secure Real-time Transport Protocol (SRTP)	√	√
RFC 3725	Third Party Call Control	√	√
RFC 3824	Using E.164 numbers with SIP (ENUM)	√	√
RFC 3842	MWI	√	√
RFC 3891	"Replaces" Header	√	√
RFC 3892	The SIP Referred-By Mechanism	√	√
RFC 3903	SIP Extension for Event State Publication	√	√
RFC 3911	The SIP Join Header	Partial	×
RFC 3960	Early Media and Ringing Tone Generation in SIP	Partial	√
RFC 3966	The tel URI for Telephone Numbers	√	√
RFC 4028	Session Timers in the Session Initiation Protocol	√	√
RFC 4040	RTP payload format for a 64 kbit/s transparent call - Clearmode	√	√ (forwarded transparently)
RFC 4117	Transcoding Services Invocation	√	×
RFC 4168	The Stream Control Transfer Protocol (SCTP) as a Transport for SIP	×	√
RFC 4235	Dialog Event Package	Partial	Partial
RFC 4240	Basic Network Media Services with SIP - NetAnn	√	√ (forwarded transparently)
RFC 4244	An Extension to SIP for Request History Information	√	√
RFC 4320	Actions Addressing Identified Issues with SIP Non-INVITE Transaction	√	√
RFC 4321	Problems Identified Associated with SIP Non-INVITE Transaction	√	√
RFC 4411	Extending SIP Reason Header for Preemption Events	√	√ (forwarded transparently)
RFC 4412	Communications Resource Priority for SIP	√	√ (forwarded transparently)
RFC 4458	SIP URIs for Applications such as Voicemail and Interactive Voice Response	√	√ (forwarded transparently)
RFC 4475	SIP Torture Test Messages	√	√
RFC 4497 or ISO/IEC 17343	Interworking between SIP and QSIG	√	√ (forwarded transparently)
RFC 4566	Session Description Protocol	√	√

RFC	Description	Gateway	SBC
RFC 4568	SDP Security Descriptions for Media Streams for SRTP	√	√
RFC 4582	The Binary Floor Control Protocol (BFCP)	×	√ (forwarded transparently)
RFC 4715	Interworking of ISDN Sub Address to sip isub parameter	√	√ (forwarded transparently)
RFC 4730	A SIP Event Package for Key Press Stimulus (KPML)	Partial	×
RFC 4733	RTP Payload for DTMF Digits	√	√
RFC 4904	Representing trunk groups in tel/sip URIs	√	√ (forwarded transparently)
RFC 4960	Stream Control Transmission Protocol	×	√
RFC 4961	Symmetric RTP and RTCP for NAT	√	√
RFC 4975	The Message Session Relay Protocol (MSRP)	×	√
RFC 5022	Media Server Control Markup Language (MSCML)	√	×
RFC 5079	Rejecting Anonymous Requests in SIP	√	√
RFC 5627	Obtaining and Using Globally Routable User Agent (UA) URIs (GRUU) in SIP	√	√ (forwarded transparently)
RFC 5628	Registration Event Package Extension for GRUU	√	×
RFC 5806	Diversion Header, same as draft-levy-sip-diversion-08	√	√
RFC 5853	Requirements from SIP / SBC Deployments	-	√
RFC 6035	SIP Package for Voice Quality Reporting Event, using sip PUBLISH	√	√
RFC 6135	An Alternative Connection Model for the Message Session Relay Protocol (MSRP)	×	√
RFC 6140	Registration for Multiple Phone Numbers in the Session Initiation Protocol (SIP)	√	√
RFC 6337	Session Initiation Protocol (SIP) Usage of the Offer/Answer Model	-	√
RFC 6341	Use Cases and Requirements for SIP-Based Media Recording (Session Recording Protocol - draft-ietf-siprec-protocol-02, and Architecture - draft-ietf-siprec-architecture-03)	√	√
RFC 6442	Location Conveyance for the Session Initiation Protocol	-	√
RFC 7245	An Architecture for Media Recording Using the Session Initiation Protocol	√	√
RFC 7261	Offer/Answer Considerations for G723 Annex A and G729 Annex B	√	√

RFC	Description	Gateway	SBC
RFC 7865	Session Initiation Protocol (SIP) Recording Metadata	√	√
RFC 7866	Session Recording Protocol	√	√
RFC 8068	Session Initiation Protocol (SIP) Recording Call Flows	√	√

5.2 SIP Message Compliancy

The SIP device complies with RFC 3261, as shown in the following subsections.

5.2.1 SIP Functions

The device supports the following SIP Functions:

Table 5-2: Supported SIP Functions

Function	Comments
User Agent Client (UAC)	-
User Agent Server (UAS)	-
Proxy Server	The device supports working with third-party Proxy Servers such as Nortel CS1K/CS2K, Avaya, Microsoft OCS, Alcatel, 3Com, BroadSoft, Snom, Cisco and many others
Redirect Server	The device supports working with third-party Redirection servers
Registrar Server	The device supports working with third-party Registration servers

5.2.2 SIP Methods

The device supports the following SIP Methods:

Table 5-3: Supported SIP Methods

Method	Comments
ACK	-
BYE	-
CANCEL	-
INFO	-
INVITE	-
MESSAGE	Supported only by the SBC application and send only
NOTIFY	-
OPTIONS	-
PRACK	-
PUBLISH	Send only
REFER	Inside and outside of a dialog
REGISTER	Send only for Gateway application; send and receive for SBC application
SUBSCRIBE	-
UPDATE	-

5.2.3 SIP Headers

The device supports the following SIP headers:

Table 5-4: Supported SIP Headers

SIP Header	SIP Header
Accept	Proxy- Authenticate
Accept–Encoding	Proxy- Authorization
Alert-Info	Proxy- Require
Allow	Prack
Also	Reason
Asserted-Identity	Record- Route
Authorization	Refer-To
Call-ID	Referred-By
Call-Info	Replaces
Contact	Require
Content-Disposition	Remote-Party-ID
Content-Encoding	Response- Key
Content-Length	Retry-After
Content-Type	Route
Cseq	Rseq
Date	Session-Expires
Diversion	Server
Expires	Service-Route
Fax	SIP-If-Match
From	Subject
History-Info	Supported
Join	Target-Dialog
Max-Forwards	Timestamp
Messages-Waiting	To
MIN-SE	Unsupported
P-Associated-URI	User- Agent
P-Asserted-Identity	Via
P-Charging-Vector	Voicemail
P-Preferred-Identity	Warning
Priority	WWW- Authenticate
Privacy	-

Note: The following SIP headers are not supported:

- Encryption
- Organization

5.2.4 SDP Fields

The device supports the following SDP fields:

Table 5-5: Supported SDP Fields

SDP Field	Name
v=	Protocol version number
o=	Owner/creator and session identifier
a=	Attribute information
c=	Connection information
d=	Digit
m=	Media name and transport address
s=	Session information
t=	Time alive header
b=	Bandwidth header
u=	URI description header
e=	Email address header
i=	Session info header
p=	Phone number header
y=	Year

5.2.5 SIP Responses

The device supports the following SIP responses:

Table 5-6: Supported SIP Responses

Response Type		Comments
1xx Response (Information Responses)		
100	Trying	The device generates this response upon receiving a Proceeding message from ISDN or immediately after placing a call for CAS signaling.
180	Ringing	The device generates this response for an incoming INVITE message. Upon receiving this response, the device waits for a 200 OK response.
181	Call is Being Forwarded	The device doesn't generate these responses. However, the device does receive them. The device processes these responses the same way that it processes the 100 Trying response.
182	Queued	The device generates this response in Call Waiting service. When the SIP device receives a 182 response, it plays a special waiting Ringback tone to the telephone side.

Response Type		Comments
183	Session Progress	The device generates this response if the Early Media feature is enabled and if the device plays a Ringback tone to IP
2xx Response (Successful Responses)		
200	OK	
202	Accepted	
204	No Notification	
3xx Response (Redirection Responses)		
300	Multiple Choice	The device responds with an ACK, and then resends the request to the first new address in the contact list.
301	Moved Permanently	The device responds with an ACK, and then resends the request to the new address.
302	Moved Temporarily	The device generates this response when call forward is used to redirect the call to another destination. If such a response is received, the calling device initiates an INVITE message to the new destination.
305	Use Proxy	The device responds with an ACK, and then resends the request to a new address.
380	Alternate Service	The device responds with an ACK, and then resends the request to a new address.
4xx Response (Client Failure Responses)		
400	Bad Request	The device doesn't generate this response. Upon receipt of this message and before a 200 OK has been received, the device responds with an ACK and disconnects the call.
401	Unauthorized	Authentication support for Basic and Digest. Upon receipt of this message, the device issues a new request according to the scheme received on this response.
402	Payment Required	The device doesn't generate this response. Upon receipt of this message and before a 200 OK has been received, the device responds with an ACK and disconnects the call.
403	Forbidden	The device doesn't generate this response. Upon receipt of this message and before a 200 OK has been received, the device responds with an ACK and disconnects the call.
404	Not Found	The device generates this response if it is unable to locate the callee. Upon receiving this response, the device notifies the User with a Reorder Tone.
405	Method Not Allowed	The device doesn't generate this response. Upon receipt of this message and before a 200 OK has been received, the device responds with an ACK and disconnects the call.
406	Not Acceptable	The device doesn't generate this response. Upon receipt of this message and before a 200 OK has been received, the device responds with an ACK and disconnects the call.
407	Proxy Authentication Required	Authentication support for Basic and Digest. Upon receipt of this message, the device issues a new request according to the scheme received on this response.

Response Type		Comments
408	Request Timeout	The device generates this response if the no-answer timer expires. Upon receipt of this message and before a 200 OK has been received, the device responds with an ACK and disconnects the call.
409	Conflict	The device doesn't generate this response. Upon receipt of this message and before a 200 OK has been received, the device responds with an ACK and disconnects the call.
410	Gone	The device doesn't generate this response. Upon receipt of this message and before a 200 OK has been received, the device responds with an ACK and disconnects the call.
411	Length Required	The device doesn't generate this response. Upon receipt of this message and before a 200 OK has been received, the device responds with an ACK and disconnects the call.
413	Request Entity Too Large	The device doesn't generate this response. Upon receipt of this message and before a 200 OK has been received, the device responds with an ACK and disconnects the call.
415	Unsupported Media	If the device receives a 415 Unsupported Media response, it notifies the User with a Reorder Tone. The device generates this response in case of SDP mismatch.
420	Bad Extension	The device doesn't generate this response. Upon receipt of this message and before a 200 OK has been received, the device responds with an ACK and disconnects the call.
423	Interval Too Brief	The device does not generate this response. Upon receipt of this message the device uses the value received in the Min-Expires header as the registration time.
424	Bad Location Information	The device doesn't generate this response. Upon receipt of this message and before a 200 OK has been received, the device responds with an ACK and disconnects the call.
428	Use Identity Header	The device doesn't generate this response. Upon receipt of this message and before a 200 OK has been received, the device responds with an ACK and disconnects the call.
429	Provide Referrer Identity	The device doesn't generate this response. Upon receipt of this message and before a 200 OK has been received, the device responds with an ACK and disconnects the call.
433	Anonymity Disallowed	If the device receives a 433 Anonymity Disallowed, it sends a DISCONNECT message to the PSTN with a cause value of 21 (Call Rejected). In addition, the device can be configured, using the Release Reason Mapping, to generate a 433 response when any cause is received from the PSTN side.
436	Bad Identity Info	The device doesn't generate this response. Upon receipt of this message and before a 200 OK has been received, the device responds with an ACK and disconnects the call.
437	Unsupported Credential	The device doesn't generate this response. Upon receipt of this message and before a 200 OK has been received, the device responds with an ACK and disconnects the call.
438	Invalid Identity Header	The device doesn't generate this response. Upon receipt of this message and before a 200 OK has been received, the device responds with an ACK and disconnects the call.

Response Type		Comments
439	First Hop Lacks Outbound Support	The device doesn't generate this response. Upon receipt of this message and before a 200 OK has been received, the device responds with an ACK and disconnects the call.
440	Max-Breadth Exceeded	The device doesn't generate this response. Upon receipt of this message and before a 200 OK has been received, the device responds with an ACK and disconnects the call.
470	Consent Needed	The device doesn't generate this response. Upon receipt of this message and before a 200 OK has been received, the device responds with an ACK and disconnects the call.
480	Temporarily Unavailable	If the device receives this response, it notifies the User with a Reorder Tone. This response is issued if there is no response from remote.
481	Call Leg/Transaction Does Not Exist	The device doesn't generate this response. Upon receipt of this message and before a 200 OK has been received, the device responds with an ACK and disconnects the call.
482	Loop Detected	The device doesn't generate this response. Upon receipt of this message and before a 200 OK has been received, the device responds with an ACK and disconnects the call.
483	Too Many Hops	The device doesn't generate this response. Upon receipt of this message and before a 200 OK has been received, the device responds with an ACK and disconnects the call.
484	Address Incomplete	The device doesn't generate this response. Upon receipt of this message and before a 200 OK has been received, the device responds with an ACK and disconnects the call.
485	Ambiguous	The device doesn't generate this response. Upon receipt of this message and before a 200 OK has been received, the device responds with an ACK and disconnects the call.
486	Busy Here	The SIP device generates this response if the called party is off-hook and the call cannot be presented as a call waiting call. Upon receipt of this response, the device notifies the User and generates a busy tone.
487	Request Canceled	This response indicates that the initial request is terminated with a BYE or CANCEL request.
488	Not Acceptable	The device doesn't generate this response. Upon receipt of this message and before a 200 OK has been received, the device responds with an ACK and disconnects the call.
491	Request Pending	When acting as a UAS: the device sent a re-INVITE on an established session and is still in progress. If it receives a re-INVITE on the same dialog, it returns this response to the received INVITE. When acting as a UAC: If the device receives this response to a re-INVITE, it starts a timer. After the timer expires, the UAC tries to send the re-INVITE again.
5xx Response (Server Failure Responses)		
500	Internal Server Error	Upon receipt of any of these responses, the device releases the call, sending an appropriate release cause to the PSTN side. The device

Response Type		Comments
501	Not Implemented	generates a 5xx response according to the PSTN release cause coming from the PSTN.
502	Bad gateway	
503	Service Unavailable	
504	Gateway Timeout	
505	Version Not Supported	
6xx Response (Global Responses)		
600	Busy Everywhere	Upon receipt of any of these responses, the device releases the call, sending an appropriate release cause to the PSTN side.
603	Decline	
604	Does Not Exist Anywhere	
606	Not Acceptable	

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