Release Notes

AudioCodes SBC and Media Gateway Series

Session Border Controllers Analog & Digital Media Gateways

Latest Release (LR)

Version 7.2

audiocodes

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Notice

Information contained in this document is believed to be accurate and reliable at the time of printing. However, due to ongoing product improvements and revisions, AudioCodes cannot guarantee accuracy of printed 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-28-2024

WEEE EU Directive

Pursuant to the WEEE EU Directive, electronic and electrical waste must not be disposed of with unsorted waste. Please contact your local recycling authority for disposal of this product.

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 Hardware Installation Manual

Document Name
MP-1288 High-Density Analog Media Gateway User's 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 9000 SBC User's Manual
Mediant 9000 SBC Hardware Installation Manual
Mediant SE SBC Installation Manual
Mediant Virtual Edition SBC Installation Manual
Mediant Virtual Edition SBC for Microsoft Azure Installation Manual
Mediant Virtual Edition SBC for Amazon AWS Installation Manual
Mediant VE SBC for Amazon Chime Voice Connector Installation Manual
Mediant CE SBC Installation Manual
Stack Manager for Mediant CE SBC User's Manual
Mediant Software SBC User's Manual

Document Revision Record

LTRT	Description
27715	SRTP capacity update for Mediant 800C
27710	MSRP capacity added
27649	Capacity updated for Proxy Sets and Access List tables
27548	Ver. 7.20A.260.286
27541	New CRMX module (Ver. 7.20A.260.005)
27529	Ver. 7.20A.260.180
27524	Ver. 7.20CO.258.034
27521	Ver. 7.20A.260.110
27515	Ver. 7.20A.260.109; Mediant 800C hybrid capacity updated.
27511	Typos ("DS1_v1" replaced with "DS1_v2")
27505	Feature added (On-Demand SIP-Based Media Recording) to Ver. 7.20A.260.005; MCProfile parameter added to Section Mediant CE SBC for VMware
27498	Updated features for Ver. 7.20A.260.095 - Playing Tone Upon Call Connect
27497	Ver. 7.20A.260.095
27491	Ver. 7.20CO.256.016; SIPREC capacity for Mediant 500/90xx/SE/; registration capacity for Mediant VE/CE
27485	Document for new LR Version 7.20A.260.xxx (LTS document created for 7.20A.258.xxx)

Documentation Feedback

AudioCodes continually strives to produce high quality documentation. If you have any comments (suggestions or errors) regarding this document, please fill out the Documentation Feedback form on our website at https://online.audiocodes.com/documentation-feedback.

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1 Introduction

This document describes the Latest Release (LR) versions for Release 7.2 for AudioCodes' session border controllers (SBC) and media gateways.

Note:

- For Long Term Support (LTS) releases of Version 7.2 (7.20A.258.xxx), refer to the SBC-Gateway Series Release Notes for Long Term Support Versions 7.2. For Release Notes of earlier versions of Release 7.2, contact AudioCodes support:
  - √ **7.20A.001 to 7.20A.204.012:** *LTRT-27340 SBC-Gateway-MSBR Series Release Notes Ver. 7.2*
  - √ **7.20A.204.015 to 7.20A.204.878**: *LTRT-27482 SBC-Gateway Series Release Notes for Long Term Support Versions 7.2*
- 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. You can check for an updated version on AudioCodes website at https://www.audiocodes.com/library/technical-documents.

1.1 Software Revision Record

The following table lists the LR versions for Release 7.2.

Note: The latest software versions can be downloaded from AudioCodes' Services Portal (registered Customers only) at https://services.audiocodes.com.

Table 1-1: Software Revision Record of LR Versions

LR Software Version	Released Date
7.20A.260.286 (7.2.260-3)	18 May 2021
7.20A.260.180 (7.2.260-2)	2 February 2021
7.20CO.258.034	29 December 2020
7.20A.260.110 (7.2.260.1-01)	22 December 2020
7.20A.260.109	8 December 2020
7.20A.260.095	4 November 2020
7.20CO.256.016	22 October 2020
7.20A.260.012	6 August 2020

LR Software Version	Released Date
7.20A.260.007	20 July 2020
7.20A.260.005	1 July 2020

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 7.2

Product	Telephony Interfaces			Ethernet Interfaces	USB	OSN
	FXS/FXO	BRI	E1/T1			
Mediant 500 Gateway & E-SBC	-	-	1/1	4 GE	2	-
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 Gateways & E-SBC	288/0	-	-	2 GE	1	-
Mediant 2600 E-SBC	-	-	-	8 GE	-	-
Mediant 4000 SBC	-	-	-	8 GE	-	-
Mediant 4000B SBC	-	-	-	8 GE	-	√
Mediant 9030 SBC	-	-	-	12 GE	-	-
Mediant 9080 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. B and C) ▪ Mediant 1000B Gateway & E-SBC
Mediant 90xx	▪ Mediant 9000 ▪ Mediant 9000 Rev. B ▪ Mediant 9030 ▪ Mediant 9080
Mediant Software	Software-based products: ▪ Mediant SE SBC ▪ Mediant VE SBC ▪ Mediant CE SBC

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2 Latest Release (LR) Versions

This chapter describes new features, known constraints and resolved constraints of LR versions for Release 7.2.

2.1 Version 7.20

2.1.1 Version 7.20A.260.286

This version includes resolved constraints only.

Note: This version is compatible with AudioCodes One Voice Operations Center (OVOC) Version 8.0.114 and EMS/SEM Version 7.2.3113.

2.1.1.1 Resolved Constraints

This section lists constraints from previous releases that have now been resolved.

Table 2-1: Resolved Constraints in Version 7.20A.260.286

Incident	Description
SBC-26664	The device loses all DTLS resources after about 1,000-1,500 calls. **Applicable Products:** Mediant Software
SBC-27461	The device fails to use the 'tel:' prefix in the Refer-To SIP header for call transfer requests from VoiceAI Connect. (Resolved by new parameter VAICPreserveTelURI.) **Relevant Platform:** Mediant Software

2.1.2 Version 7.20A.260.180

This version includes new features and resolved constraints only.

Note: This version is compatible with AudioCodes One Voice Operations Center (OVOC) Version 7.8.2241 and EMS/SEM Version 7.2.3113.

2.1.2.1 New Features

This section describes the new features introduced in this version.

2.1.2.1.1 CDR for SIPREC Calls

SBC CDRs generated by the device can now be customized to include the new field "Is Recorded", which indicates if the SBC leg was recorded (SIPREC) or not.

Applicable Application: SBC.

Applicable Products: All.

2.1.2.2 Resolved Constraints

This section lists constraints from previous releases that have now been resolved.

Table 2-2: Resolved Constraints in Version 7.20A.260.180

Incident	Description
SBC-24723	The SNMP MIB acPMSBCMediaLegsVal returns negative values. **Applicable Products:** All
SBC-26254	In an HA system, the Redundant device sends the following Syslog messages “HTTPDataPool HMGT is full. Allocated entries=50” and “restEventMsg::Allocate - Failed allocating buffer”. **Applicable Products:** HA
SBC-26258 / SBC-26370	The device runs out of TCP connection resources when FEU=0 (only 160 TCP connections resources instead of 288), causing a registration failure. **Applicable Products:** MP-1288

2.1.3 Version 7.20A.260.110

This version includes resolved constraints only.

Note: This version is compatible with AudioCodes One Voice Operations Center (OVOC) Version 7.8.2241 and EMS/SEM Version 7.2.3113.

2.1.3.1 Resolved Constraints

This section lists constraints from previous releases that have now been resolved.

Table 2-3: Resolved Constraints in Version 7.20A.260.110

Incident	Description
SBC-24957	90% of calls are without voice. **Applicable Products:** All

2.1.4 Version 7.20A.260.109

This version includes resolved constraints only.

Note: This version is compatible with AudioCodes One Voice Operations Center (OVOC) Version 7.8.2241 and EMS/SEM Version 7.2.3113.

2.1.4.1 Resolved Constraints

This section lists constraints from previous releases that have now been resolved.

Table 2-4: Resolved Constraints in Version 7.20A.260.109

Incident	Description
SBC-24679	The device rejects incoming SIP UPDATE requests instead of either sending a re-INVITE to the other leg or terminating it. As a result, the call fails. **Applicable Products:** All
SBC-24733 / SBC-24909 / SBC-25083	The device stops sending Syslog messages. **Applicable Products:** All
SBC-24743	When the device's IP Profile parameter 'SBC Session Expires Mode' is configured to **Transparent** and the device receives a SIP 422 response, it forwards it to the client and doesn't retry the request. **Applicable Products:** All
SBC-24804	The device experiences a CPU overload when the CPUOverrideHT parameter is enabled. **Applicable Products:** median Software
SBC-24836	When the device is installed on Azure, it crashes (resets) with exception reason "CHashMap CIterator". **Applicable Products:** Mediant CE
SBC-24974	The device fails to add Source Tags or Destination Tags to the customized CDR upon call failure due to a bad HTTP server response through Call Setup Rule. **Applicable Products:** All

2.1.5 Version 7.20A.260.095

This version includes new features only.

Note: This version is compatible with AudioCodes One Voice Operations Center (OVOC) Version 7.8.1130 and EMS/SEM Version 7.2.3113.

2.1.5.1 New Features

This section describes the new features introduced in this version.

2.1.5.1.1 Maximum Supported Characters Increase for SIP Caller ID

The device now supports up to 60 characters for caller ID in SIP messages. Caller ID can be present in the following SIP headers: To, From, Contact, Refer, Referred-By, Refer-To, and Record-Route.

Applicable Application: SBC.

Applicable Products: All.

2.1.5.1.2 Additional DTMF Handling Method

The device provides a new DTMF handling method. DTMF digits can be received using the SIP INFO message method even if both peers successfully negotiated using the RFC 2833 method. In other words, both SIP INFO and RFC 2833 is used to detect DTMF digits by the device, but the device forwards the DTMF using RFC 2833 only. This may be useful to resolve scenarios where the device negotiates DTMF as RCF 2833, but sends the DTMF as INFO.

The feature is enabled by a new IP Profile parameter, ReceiveMultipleDTMFMethods.

Applicable Application: SBC.

Applicable Products: All.

2.1.5.1.3 Interval between Auto-Updates Configured in Seconds

The interval that the device waits between each consecutive automatic update that it performs is now configured in seconds (instead of minutes). As a result, the AutoUpdateFrequency parameter (whose units were in minutes) has been replaced by a new parameter, AutoUpdateFrequencySeconds (whose units are in seconds). The value range of this new parameter is 0 (default) to 604,800 seconds.

Note: If the device is upgraded to this version, the old parameter is converted to the new one (if the new one was at default). For example, if in the previous load AutoUpdateFrequency=100 (minutes), after a software update, it is converted to AutoUpdateFreqencySeconds = 6000 (seconds).

Applicable Application: All.

Applicable Products: All.

2.1.5.1.4 SIPREC Call Filtering in CLI

SIPREC calls can now be filtered through the CLI, using the existing `show voip calls` command:

```
show voip calls active siprec
show voip calls active siprec <Session ID>
show voip calls active siprec match <String>
show voip calls history siprec
show voip calls history siprec <Session ID>
show voip calls history siprec match <String>
```

Applicable Application: All.

Applicable Products: All.

2.1.5.1.5 Playing Tone Upon Call Connect

The device can now be configured to play a specific tone (recorded audio message / announcement) upon call connection (after SIP 200 OK), to the called or calling party. When the tone finishes playing, the call is connected and the call parties can begin talking.

This is configured by using a Message Manipulation rule containing a new variable, `PlayToneOnConnect` (`var.call.src|dst.PlayToneOnConnect`) which defines the tone index in the loaded PRT file to play. The rule is then assigned to the call party (IP Group) to which the device must play the tone.

If the device fails to play the tone (due to, for example, the PRT file is not loaded or the tine index doesn't exist), the device can be configured to connect or disconnect the call. This is configured by a new parameter, 'Play Tone on Connect Failure Behavior', which can be set to **Disconnect** (default) or **Ignore** (i.e., connect call).

Applicable Application: SBC.

Applicable Products: All.

2.1.6 Version 7.20A.260.012

This version includes internal changes only.

Note: This version is compatible with AudioCodes One Voice Operations Center (OVOC) Version 7.8.1130 and EMS/SEM Version 7.2.3113.

2.1.7 Version 7.20A.260.007

This version includes new features only.

Note: This version is compatible with AudioCodes One Voice Operations Center (OVOC) Version 7.8.1130 and EMS/SEM Version 7.2.3113.

2.1.7.1 New Features

This section describes the new features introduced in this version.

2.1.7.1.1 Mediant CE Deployment on VMware

Mediant CE can now be deployed in a VMware environment. For capacity, see Section 3.1.

Applicable Application: SBC.

Applicable Products: Mediant CE.

2.1.8 Version 7.20A.260.005

This version includes new features only.

Note: This version is compatible with AudioCodes One Voice Operations Center (OVOC) Version 7.8.1119 and EMS/SEM Version 7.2.3113.

2.1.8.1 New Features

This section describes the new features introduced in this version.

2.1.8.1.1 CDR Customization for Adding SIP Header Information

The device can add any SIP header data, received in dialog-initiating SIP messages (e.g., INVITE) or non-dialog initiating SIP messages (e.g., SIP 200 OK) to the SBC CDR. This is supported by using variables (Var.Call.Src/Dst.UserDefinedN, where *N* is 1 to 5) in Message Manipulation rules and SBC CDR customization. The Message Manipulation rule stores the SIP header and its value in the variable, and the CDR is customized to retrieve this stored information from the variable and add it to the CDR.

The 'Field Type' parameter in the SBC CDR Format table provides new optional values to retrieve this stored information from the Message Manipulation variables and add it to the CDR:

- Var Call User Defined 1
- Var Call User Defined 2
- Var Call User Defined 3
- Var Call User Defined 4
- Var Call User Defined 5

Each of the above fields are associated with the stored value of the variable in the Message Manipulation rule.

This feature is applicable to Call Start, Call Connect and Call End CDRs, and all CDR types except Syslog Media.

If a variable is not added or modified in the Message Manipulation rule, and the CDR is customized to include its stored value, the CDR displays an empty string for the value.

Applicable Application: All.

Applicable Products: All.

2.1.8.1.2 Querying Routing Server or ARM for User Credentials

When the device is configured to authenticate (as a server) incoming SIP dialog message requests (INVITE and REGISTER) from User-type IP Groups, it can now obtain the user's credentials (password) from a third-party routing server or ARM.

When this feature is enabled and the device receives an incoming SIP dialog-initiating request, it sends the new REST API command getCredentials in the Get request to the routing server or ARM. The name of the user whose credentials are requested is obtained from the SIP From header when authenticating an INVITE message, or the To header when authenticating a REGISTER message. The routing server or ARM sends a 200 response to the device containing the password (if the requested user exists). The device sends the

challenge back to the user. The user resends the request with an Authorization header (containing a response to the challenge), and the authentication process continues in the usual manner. If the device doesn't receive a password, it rejects the incoming dialog (SIP 404).

This feature is enabled by configuring the existing IP Group's 'SBC Server Authentication Type' parameter to the new optional value **ARM Authentication**. Note that the Routing server or ARM does not authenticate users, but helps the device to process the SIP Digest authentication by providing the user credentials.

Note that the feature is applicable only if the IP Group of the incoming SIP dialog is configured as follows:

- The 'Authentication Mode' parameter is configured to **SBC as Server**.
- The 'Authentication Method List' is configured for INVITE or REGISTER messages.

Applicable Application: All.

Applicable Products: All.

2.1.8.1.3 DTLS Throughput Improvement

Throughput using the Datagram Transport Layer Security (DTLS) protocol to secure UDP-based traffic has been improved. DTLS is also used for WebRTC and therefore, WebRTC session capacity has been consequently increased, as shown in Session Capacity per Feature.

Applicable Application: SBC.

Applicable Products: Mediant 800; Mediant 2600; Mediant 4000; Mediant 90xx; Mediant Software.

2.1.8.1.4 On-Demand SIP-Based Media Recording

The device supports on-demand SIPREC sessions. It can start or stop recording at any stage of the connected call. This is triggered by the receipt of a SIP INFO message containing AudioCodes' X-AC-Action header with the 'start-siprec' parameter for starting recording, or 'stop-siprec' for stopping a recording session.

Below shows an example of a SIP INFO message that triggers a SIPREC session:

```
INFO sip:alice@pc33.example.com SIP/2.0
Via: SIP/2.0/UDP 192.0.2.2:5060;branch=z9hG4bKnabcdef
To: Bob <sip:bob@example.com>;tag=a6c85cf
From: Alice <sip:alice@example.com>;tag=1928301774
Call-Id: a84b4c76e66710@pc33.example.com
CSeq: 314333 INFO
X-AC-Action: start-siprec;recording-ip-group=SRS
Content-Length: 0
```

Applicable Application: SBC.

Applicable Products: All.

2.1.8.1.5 New Hardware Revision for CRMX Module

The CRMX module, which is housed in the Mediant 1000 E-SBC & Gateway, was updated due to one of its components reaching End-Of-Life (EOL) status. The new CRMX module no longer has a WAN port (which was not used and covered by a metal plate).

The new CRMX module is compatible with Software Version 7.20A.260.005 and later.

Applicable Application: All.

Applicable Products: Mediant 1000.

2.2 Version 7.20CO

This version uses OS Version 8 and available on AWS and Azure.

For upgrading from 7.20A to 7.20CO software version, refer to the following documents:

- *AWS:*
  - Mediant Virtual Edition SBC for AWS Installation Manual Ver. 7.2
  - Mediant Cloud Edition SBC Installation Manual Ver. 7.2
- *Azure:*
  - Mediant Virtual Edition SBC for Microsoft Azure Installation Manual Ver. 7.2
  - Mediant Cloud Edition SBC Installation Manual Ver. 7.2

Note: The name of the software version file (.cmp) for devices with OS Version 8 contains the string "CO" (i.e., 7.20CO…). For devices using earlier OS versions, the file name contains the string "A" (i.e., 7.20A…).

2.2.1 Version 7.20CO.258.034

This version includes new features only.

Note: This version is compatible with AudioCodes One Voice Operations Center (OVOC) Version 7.8.2241 and EMS/SEM Version 7.2.3113.

2.2.1.1 New Features

This section describes the new features introduced in this version.

2.2.1.1.1 Increased Capacity for Mediant VE/CE on AWS

The device provides increased capacity due to the upgrade to OS Version 8. For capacity, see Section 3.1.

Applicable Application: SBC.

Applicable Products: Mediant VE/CE on AWS.

2.2.2 Version 7.20CO.256.016

This version includes new features only.

Note: This version is compatible with AudioCodes One Voice Operations Center (OVOC) Version 7.8.2241 and EMS/SEM Version 7.2.3113.

2.2.2.1 New Features

This section describes the new features introduced in this version.

2.2.2.1.1 Increased Capacity for Mediant VE/CE on Azure

The device provides increased capacity due to the upgrade to OS Version 8. For capacity, see Section 3.1.

For upgrading from 7.20A to 7.20CO software version, refer to the following documents:

- Mediant Virtual Edition SBC for Microsoft Azure Installation Manual Ver. 7.2
- Mediant Cloud Edition SBC Installation Manual Ver. 7.2

Applicable Application: SBC.

Applicable Products: Mediant VE/CE on Azure.

3 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 800A		60	200	Hybrid	60	60	GW & Transcoding: Table 3-8 SBC Only: Table 3-7
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-Only	192	140	GW: Tables Table 3-11, Table 3-12, Table 3-13
MP-1288		588	350	Hybrid	588	438	Transcoding: n/a GW: Table 3-15
				SBC-Only	300	300	
				GW-Only	288	288	
Mediant 2600		600	8,000	SBC-Only	600	600	Transcoding: Table 3-16
Mediant 4000		5,000	20,000	SBC-Only	5,000	3,000	Transcoding: Table 3-17
Mediant 4000B		5,000	20,000	SBC-Only	5,000	5,000	Transcoding: Table 3-19
Mediant 9000	Hyper-Threading (HT) Disabled	24,000	180,000	SBC-Only	16,000	16,000	Transcoding: Table 3-21
		24,000	0	SBC-Only	24,000	16,000	Transcoding: Table 3-21
	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 3-21
	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 3-23
	SRTP Performance Profile	70,000	0	SBC-Only	70,000	40,000	Transcoding: n/a
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 3-26

Product			Signaling Capacity		Media Sessions			
			SIP Sessions	Registered Users	Session Type	RTP	SRTP	Detailed Media Capabilities
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 3-23
	SRTP Performance Profile		70,000	0	SBC-Only	70,000	40,000	Transcoding: n/a
Mediant 9000 with Media Transcoders (MT-type)			24,000	180,000	SBC-Only	24,000	16,000	Transcoding: Table 3-25
Mediant 9000 Rev. B with Media Transcoders (MT-type)			60,000	200,000	SBC-Only	60,000	40,000	Transcoding: Table 3-25
Mediant 9080 with Media Transcoders (MT-type)			60,000	200,000	SBC-Only	60,000	40,000	Transcoding: Table 3-25
Mediant CE	AWS / EC2 7.20A (OS Version: 6)		40,000	0	SBC-Only	40,000	40,000	Forwarding: Table 3-28 Transcoding: Table 3-29
			20,000	100,000	SBC-Only	20,000	20,000	
	AWS / EC2 7.20CO (OS Version: 8)		50,000	100,000	SBC-Only	50,000	50,000	Forwarding: Table 3-30 Transcoding: Table 3-31
	Azure 7.20A (OS Version: 6)		10,000	50,000	SBC-Only	10,000	10,000	Forwarding: Table 3-32 Transcoding: Table 3-33
	Azure 7.20CO (OS Version: 8)		36,000	75,000	SBC-Only	36,000	32,000	Forwarding: Table 3-34 Transcoding: Table 3-35
	VMware		1,000	10,000	SBC-Only	1,000	1,000	Transcoding: Table 3-36
Mediant VE	VMware	1 vCPU 2-GB RAM	250	1,000	SBC-Only	250	250	Transcoding: n/a
		1/2/4 vCPU 8-GB RAM (legacy)	3,000	15,000	SBC-Only	3,000	2,000	1 vCPU (Forwarding Only) 2 vCPU (Transcoding: Table 3-38) 4 vCPU (Transcoding: Table 3-40)
		4/8 vCPU 16-GB RAM (legacy)	9,000	75,000	SBC-Only	6,000	5,000	4 vCPU (Forwarding Only) 8 vCPU (Transcoding: Table 3-42)
		4 vCPU 8-GB RAM (recommended)	3,000	15,000	SBC-Only	3,000	2,000	Transcoding: Table 3-37
		8 vCPU 16-GB RAM (recommended)	9,000	75,000	SBC-Only	6,000	5,000	Transcoding: Table 3-37
		16 vCPU 16-GB RAM (recommended)	9,000	75,000	SBC-Only	6,000	5,000	Transcoding: Table 3-37
	OpenStack KVM	1 vCPU 2-GB RAM	250	1,000	SBC-Only	250	250	Transcoding: n/a
		1/2/4 vCPU 8-GB RAM	1,800	9,000	SBC-Only	1,800	1,400	1 vCPU (Forwarding Only) 2 vCPU (Transcoding: Table 3-38) 4 vCPU (Transcoding: Table 3-40)
		4/8 vCPU 16-GB RAM	4,000	75,000	SBC-Only	2,700	2,700	Transcoding: Table 3-42
		8 vCPU 32-GB RAM SR-IOV Intel NICs	24,000	75,000	SBC-Only	24,000	10,000	Transcoding: n/a

Product			Signaling Capacity		Media Sessions			
			SIP Sessions	Registered Users	Session Type	RTP	SRTP	Detailed Media Capabilities
	Hyper-V	1 vCPU 2-GB RAM	250	1,000	SBC-Only	250	250	Transcoding: n/a
		1/2/4 vCPU 4-GB RAM	900	10,000	SBC-Only	600	600	1 vCPU (Forwarding Only) 2 vCPU (Transcoding: Table 3-52) 4 vCPU (Transcoding: Table 3-54)
	Azure 7.20**A** (OS Version: 6)	DS1_v2	400	1,000	SBC-Only	400	400	Transcoding: Table 3-50
		DS2_v2	500	15,000	SBC-Only	500	500	Transcoding: Table 3-50
		DS3_v2	600	50,000	SBC-Only	600	600	Transcoding: Table 3-50
	Azure 7.20CO (OS Version: 8)	DS1_v2	600	1,000	SBC-Only	600	500	Transcoding: n/a
			300	1,000	SBC-Only	300	300	Transcoding: Table 3-50
		DS2_v2	1200	15,000	SBC-Only	1200	800	Transcoding: n/a
			900	15,000	SBC-Only	900	600	Transcoding: Table 3-51
		DS3_v2	1700	50,000	SBC-Only	1700	1600	Transcoding: n/a
			1100	50,000	SBC-Only	1100	800	Transcoding: Table 3-51
		DS4_v2	1800	75,000	SBC-Only	1800	1600	Transcoding: n/a
			1600	75,000	SBC-Only	1600	1600	Transcoding: Table 3-51
	AWS / EC2 (OS Version: 6)	r4.large	3,200	20,000	SBC-Only	3,200	3,200	Transcoding: n/a
		c4.2xlarge	2,000	75,000	SBC-Only	2,000	2,000	Transcoding: Table 3-44
		c4.8xlarge	3,200	75,000	SBC-Only	3,200	3,200	Transcoding: Table 3-45
	AWS / EC2 (OS Version: 8)	m5.large	6,000	20,000	SBC-Only	6,000	5,500	Transcoding: n/a
		c5.2xlarge	5,500	75,000	SBC-Only	5,500	5,000	Transcoding: Table 3-47

Product			Signaling Capacity		Media Sessions			
			SIP Sessions	Registered Users	Session Type	RTP	SRTP	Detailed Media Capabilities
		c5.9xlarge	7,000	75,000	SBC-Only	7,000	6,000	Transcoding: Table 3-48b
Mediant VE with Media Transcoders	OpenStack KVM	8 vCPU 64-GB RAM SR-IOV Intel NICs	24,000	75,000	SBC-Only	24,000	12,000	MT-type (Transcoding: Table 3-56) vMT-type (Transcoding: Table 3-57)
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 3-58
		SRTP Performance Profile	70,000	0	SBC-Only	70,000	40,000	Transcoding: n/a

Notes:

- The figures listed in the table are accurate at the time of publication of this document. However, these figures may change due to a later software update. For the latest figures, 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 above the maximum media sessions, the rest of the 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 (for SBC sessions) or TDM-RTP (for 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 SBC 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 SBC and using one media session resource.
  - √ A gateway session (i.e. TDM-RTP or TDM-SRTP) is also considered as a media session for the calculation of media sessions. In other words, the maximum Media Sessions specified in the table refer to the sum of Gateway and SBC sessions.

- √ In case of direct media (i.e., Anti-tromboning / Non-Media Anchoring), where only SIP signaling traverses the SBC 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 leg G.729, one signaling resource, one media session resource, and one transcoding session resource is used.

- Capacity of the Cloud Resilience Package (CRP) application is listed under "Registered Users".
- Capacity of the Lync Analog Device (LAD) application is listed under "Media Sessions".
- **MP-1288:** The maximum number of media and signaling sessions is the summation 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 summation of the maximum 150 RTP-to-SRTP (SBC) sessions and the maximum 288 TDM-SRTP (Gateway) sessions.
- Hyper-Threading (HT) is disabled by default on Mediant 9000 with 1G ports only. To enable HT, please refer to the *Mediant 9000 SBC Installation Manual*.
- Media Transcoding Cluster (MTC) feature is not supported by Mediant 9030 SBC.
- **Mediant 90xx SBC and Mediant VE 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 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 SRTP-RTP sessions is also effected 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.
- **Mediant 9030:** The SRTP Performance Profile is recommended for this product.
- **Mediant VE SBC with vMT-type Media Transcoder:** The host running the vMT virtual machine requires the following configuration:
  - √ At least 2.8 GHz CPU with Intel® AVX support
  - √ SR-IOV enabled NICs
  - √ KVM environment
  - √ 8 hyper-threaded vCPUs should be allocated to the vMT virtual machine (4 physical cores)
  - √ 4-GB RAM should be allocated to the vMT virtual machine
- **Mediant VE SBC and vMT-type Media Transcoder:** Codec-transcoding functionality is supported only on Intel CPUs with AVX enhancement. In addition, AVX support must be reflected on the vCPU of the SBC virtual machine.
- **Mediant VE SBC with Media Transcoder Cluster** is currently supported only on the OpenStack KVM hypervisor.

- **Mediant VE SBC for VMware:** The recommended profiles are applicable to when Intel Xeon Scalable Processors and Hyper-Threading are used. These profiles provide about the same capacity as the legacy profiles, but with only half of the physical vCPUs as each vCPU refers to a Hyper-Threaded core (logical). For example, a 4-vCPU virtual machine allocates only 2 physical cores. For minimum requirements, see Section 3.3.14.1 on page 65.
- **Mediant CE:** Based on the following instances:
  - √ AWS (OS version: 6):
    - Signaling Components (SC): r4.2xlarge
    - Media Components (MC) - forwarding only: r4.large
    - Media Components (MC) - forwarding and transcoding: c4.4xlarge
  - √ AWS (OS version: 8):
    - SC: m5.2xlarge
    - MC - forwarding only: m5.large
    - MC - forwarding and transcoding: c5.4xlarge
  - √ Azure:
    - SC: DS3_v2 (up to 50K users) or DS4_v2 (up to 75K users)
    - MC - forwarding only: DS2_v2, DS3_v2 or DS4_v2
    - MC - forwarding and transcoding: DS2_v2, DS3_v2, or DS4_v2
  - √ VMware:
    - SC: 4-vCPU (Hyper-Threaded), 16-GB RAM
    - MC - forwarding and transcoding: 8-vCPU (Hyper-Threaded), 8-GB RAM
- **Mediant SE:** 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 Session Capacity per Feature

The table below lists capacity per feature, per product.

Table 3-2: Feature Capacity per Product

Product	Max. Concurrent WebRTC Sessions (see Note #3)		Max. One-Voice Resiliency (OVR) Users	Max. Concurrent SIPREC Sessions (see Note #4)	Max. Concurrent MSRP Sessions
	Click-to-Call	Registered Agents			
MP-1288	-	-	-	150	100
Mediant 500	-	-	-	125	100
Mediant 500L	-	-	-	30	100
Mediant 800B	100	100	100	200	100
Mediant 800C	100	100	150	200	100
Mediant 1000B	-	-	50	-	100
Mediant 2600	600	600	-	300	100
Mediant 4000B / Mediant 4000	1,000	1,000	-	2,500	100
Mediant 9000	5,000	16,000	-	▪ **With Hyper-Threading:** 20,000 ▪ **Without Hyper-Threading:** 12,000	100
Mediant 9030	5,000	16,000	-	15,000	100
Mediant 9080	8,000	25,000	-	20,000	100
Mediant SE (see Note #1)	5,000	25,000	-	12,000	100
Mediant VE (see Note #2)	5,000	5,000	2,000	12,000	100
Mediant CE (see Note #2)	5,000	5,000	-	20,000	100

Note:

1. Using the approved SE server specifications with an Intel Xeon Gold 6126 processor. For the specifications, please contact AudioCodes.
2. The maximum number of WebRTC sessions cannot be higher than the number of SRTP sessions, as indicated in Table 3-1. Therefore, the actual maximum number of concurrent WebRTC sessions per deployment environment will be the lower of these numbers.
3. The capacity figures assume that a TLS key size of 2048-bit is used for the WebSocket and DTLS negotiation,
4. The capacity figures for SIPREC assume 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.

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.

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

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	30/24	√	-	-	220/226
	26/24	√	√	-	224/226
	26/24	√	√	√	224/226

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.

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

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 800A/B Gateway & E-SBC

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

3.3.3.1.1 Non-Hybrid (SBC) Capacity

Table 3-7: Mediant 800A/B 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	Mediant 800A	Mediant 800B
		Opus-NB	Opus-WB	AMR-NB / G.722	AMR-WB (G.722.2)	SILK-NB / iLBC	SILK-WB				
SBC	n/a	-	-	-	-	-	-	57	48	60	250
	n/a	-	-	√	-	-	-	51	42	60	250
	n/a	-	-	-	-	√	-	39	33	60	250
	n/a	-	-	-	√	-	-	36	30	60	250
	n/a	-	-	-	-	-	√	27	24	60	250
	n/a	√	-	-	-	-	-	27	24	60	250
	n/a	-	√	-	-	-	-	21	21	60	250

Note: "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).

3.3.3.1.2 Hybrid (with Gateway) Capacity

Table 3-8: Mediant 800A/B 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		Mediant 800A	Mediant 800B
		AMR-NB / G.722	AMR-WB (G.722.2)	SILK-NB	SILK-WB	Opus-NB	Opus-WB	V.150.1					
2 x E1/T1	60/48	-	-	-	-	-	-	-	3/15	2/13	-	0/12	190/202
2 x T1	48	-	-	-	-	-	-	√	11	9	-	12	202
1 x E1/T1 8 x FXS/FXO Mix	38/32	-	-	-	-	-	-	-	22/28	18/22	-	22/28	212/218
	38/32	-	-	√	-	-	-	-	8/12	7/11	-	22/28	212/218
1 x E1/T1	30/24	-	-	√	-	-		√	14/18	12/16	-	30/36	220/226
1 x E1 4 x BRI	38	-	-	-	-	-	-	-	22	18	-	22	212
1 x E1& 4 x FXS	34	-	-	-	-	-	-	-	26	21	-	26	216
2 x E1 4 x FXS	64	-	-	-	-	-	-	-	0	0	-	0	186
4 x BRI 4 x FXS 4 x FXO	16	-	-	-	-	-	-	-	5	4	-	44	234
8 x BRI 4 x FXS	20	-	-	-	-	-	-	-	1	1	-	40	230
8 x BRI	16	-	-	-	-	-	-	-	5	4	-	44	234
12 x FXS	12	-	-	√	-	-	-	√	3	3	-	48	238
4 x FXS 8 x FXO	12	-	-	√	-	-	-	-	3	3	-	48	238
8 x FXS 4 x FXO	12	-	-	√	-	-	-	-	3	3	-	48	238
4 x BRI 4 x FXS	12	-	-	√	-	-	-	-	3	3	-	48	238
4 x FXS 4 x FXO	8	-	-	-	-	-	-	-	7	5	6	52	242
	8	-	-	√	-	-	-	-	6	6	-	52	242
4 x BRI	8	-	-	-	-	-	-	-	7	5	6	52	242
	8	-	-	√	-	-	-	-	6	6	-	52	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		Mediant 800A	Mediant 800B
		AMR-NB / G.722	AMR-WB (G.722.2)	SILK-NB	SILK-WB	Opus-NB	Opus-WB	V.150.1					
1/2/3 x BRI	2/4/6	-	-	-	-	-	-	-	17/15/14	14/13/11	-	58/56/54	248/246/244
	2/4/6	-	-	√	-	-	-	-	11/10/8	10/8/7	-	58/56/54	248/246/244
4 x FXS or 4 x FXO	4	-	-	√	-	-	-	√	10	8	-	56	246
	4	√	-	-	-	-	-	-	12	10	4	56	246
	4	-	-	√	-	-	-	-	6	6	4	56	246
	4	-	√	√	-	-	-	-	4	4	4	56	246
	4	-	√	√	√	-	-	-	3	3	4	56	246
	4	-	-	-	-	√	-	-	1	0	4	56	246
	4	-	-	-	-	-	√	-	0	0	3	56	246
FXS, FXO, and/or BRI, but not in use	0	-	-	-	-	-	-	-	19	16	-	60	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) 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.
- V.150.1 is supported only for the US Department of Defense (DoD).
- *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	
	Opus-NB	Opus-WB	AMR-NB / G.722	AMR-WB (G.722.2)	SILK-NB / iLBC	SILK-WB			
SBC	-	-	-	-	-	-	114	96	400
	-	-	√	-	-	-	102	84	400
	-	-	-	-	√	-	78	66	400
	-	-	-	√	-	-	72	60	400
	-	-	-	-	-	√	54	48	400
	√	-	-	-	-	-	54	48	400
	-	√	-	-	-	-	42	42	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).

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	2025	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) 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.
- V.150.1 is supported only for the US Department of Defense (DoD).
- *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 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 3-15: 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.

3.3.6 Mediant 2600 E-SBC

The maximum number of supported SBC sessions is shown in Section 3.1 on page 27. 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 3-16: 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.

3.3.7 Mediant 4000 SBC

The maximum number of supported SBC sessions is listed in Section 3.1 on page 27. 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 3-17: 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.

3.3.7.1 Forwarding Session Capacity per Feature without Transcoding

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

Table 3-18: 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).

3.3.8 Mediant 4000B SBC

The maximum number of supported SBC sessions is listed in Section 3.1 on page 27. 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 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
Profile 2	Profile 2 + SILK-NB	350	1,050	1,400	2,500	3,600

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 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.

3.3.8.1 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 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).

3.3.9 Mediant 9000 SBC

The maximum number of supported SBC sessions is listed in Section 3.1 on page 27. 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 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.

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 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).

3.3.10 Mediant 9000 Rev. B / 9080 SBC

The maximum number of supported SBC sessions is listed in Section 3.1 on page 27. 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 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.

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 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).

3.3.11 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 3-25: 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

Session Coders		Max. Sessions		
From Coder Profile	**To Coder Profile**	**1 x MPM12B**	**2 x MPM12B**	**3 x MPM12B**
Profile 2	Profile 2	1,800	3,175	4,550
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).

3.3.12 Mediant 9030 SBC

The maximum number of supported SBC sessions is listed in Section 3.1 on page 27. 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 3-26: 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.

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 3-27: 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).

3.3.13 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.

3.3.13.1 Mediant CE SBC for AWS EC2 using OS Version: 6

3.3.13.1.1 Forwarding Sessions

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

Table 3-28: Forwarding Capacity per MC Instance Type

MC Instance Type	Max. Forwarding Sessions
r4.large	3,200
c4.4xlarge	3,200

Note: Forwarding performance was tested in AWS Ireland Region.

3.3.13.1.2 Transcoding Sessions

For transcoding capabilities, the Media Component (MC) must be of the AWS instance type c4.4xlarge. The number of supported transcoding sessions per MC is shown in the following table.

Table 3-29: Transcoding Capacity per c4.4xlarge MC

Session Coders		Max. Sessions	
From Coder Profile	To Coder Profile	Basic	Extended
Profile 1	Profile 1	3,200	2,425
Profile 2	Profile 1	1,325	1,050
Profile 2	Profile 2	800	675
Profile 1	Profile 2 + AMR-NB / G.722	1,300	1,000
Profile 2	Profile 2 + AMR-NB / G.722	750	650
Profile 1	Profile 2 + AMR-WB (G.722.2)	375	350
Profile 2	Profile 2 + AMR-WB	300	275
Profile 1	Profile 2 + SILK-NB	1,050	900
Profile 2	Profile 2 + SILK-NB	675	600
Profile 1	Profile 2 + SILK-WB	625	575
Profile 2	Profile 2 + SILK-WB	450	450
Profile 1	Profile 2 + Opus-NB	650	550

Session Coders		Max. Sessions	
From Coder Profile	To Coder Profile	Basic	Extended
Profile 2	Profile 2 + Opus-NB	475	425
Profile 1	Profile 2 + Opus-WB	500	425
Profile 2	Profile 2 + Opus-WB	375	350

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.

3.3.13.2 Mediant CE SBC for AWS EC2 using OS Version: 8

3.3.13.2.1Forwarding Sessions

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

Table 3-30: Forwarding Capacity per MC Instance Type

MC Instance Type	Max. Forwarding Sessions
m5.large	6,000
c5.4xlarge	4,000

Note: Forwarding performance was tested in AWS Ireland Region.

3.3.13.2.2Transcoding 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 3-31: Transcoding Capacity per c5.4xlarge MC

Session Coders		Max. Sessions	
From Coder Profile	**To Coder Profile**	**Basic**	**Extended**
Profile 1	Profile 1	4000	2825
Profile 2	Profile 1	2375	1900
Profile 2	Profile 2	1625	1425
Profile 1	Profile 2 + AMR-NB / G.722	1500	1300
Profile 2	Profile 2 + AMR-NB / G.722	1150	1050
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	1400	1250
Profile 2	Profile 2 + SILK-NB	1100	1025
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
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.

3.3.13.3 Mediant CE SBC for Azure using OS Version: 6

3.3.13.3.1 Forwarding Sessions

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

Table 3-32: Forwarding Capacity per MC

MC VM Size	Max. Forwarding Sessions
DS3_v2	475

3.3.13.3.2 Transcoding Sessions

For transcoding capabilities, the Media Component (MC) must be of the Azure DS3_v2 virtual machine size. The number of supported transcoding sessions per MC is shown in the following table.

Table 3-33: Transcoding Capacity per DS3_v2 MC

Session Coders		Max. Sessions	
From Coder Profile	To Coder Profile	Basic	Extended
Profile 1	Profile 1	475	475
Profile 2	Profile 1	350	275
Profile 2	Profile 2	225	175
Profile 1	Profile 2 + AMR-NB / G.722	400	325
Profile 2	Profile 2 + AMR-NB / G.722	250	200
Profile 1	Profile 2 + AMR-WB (G.722.2)	125	100
Profile 2	Profile 2 + AMR-WB	100	75
Profile 1	Profile 2 + SILK-NB	300	275
Profile 2	Profile 2 + SILK-NB	200	175
Profile 1	Profile 2 + SILK-WB	175	150
Profile 2	Profile 2 + SILK-WB	125	125
Profile 1	Profile 2 + Opus-NB	200	150
Profile 2	Profile 2 + Opus-NB	125	125
Profile 1	Profile 2 + Opus-WB	150	125
Profile 2	Profile 2 + Opus-WB	100	100

3.3.13.4 Mediant CE SBC for Azure using OS Version: 8

3.3.13.4.1 Forwarding Sessions

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

Table 3-34: Forwarding Capacity per MC

MC VM Size	Max. Forwarding Sessions
DS2_v2	1200
DS3_v2	1700
DS4_v2	1800

3.3.13.4.2 Transcoding Sessions

For transcoding capabilities, the Media Component (MC) must be of the Azure DS2_v2 / DS3_v2 / DS4_v2 virtual machine size. The number of supported transcoding sessions per MC is shown in the following table.

Table 3-35: Transcoding Capacity per MC

Session Coders		DS2_v2		DS3_v2		DS4_v2	
From Coder Profile	To Coder Profile	Basic	Extended	Basic	Extended	Basic	Extended
Profile 1	Profile 1	175	175	575	575	1,175	1,175
Profile 2	Profile 1	100	100	325	300	675	600
Profile 2	Profile 2	75	50	225	200	450	400
Profile 1	Profile 2 + AMR-NB / G.722	100	100	325	300	675	600
Profile 2	Profile 2 + AMR-NB / G.722	75	50	225	200	450	400
Profile 1	Profile 2 + AMR-WB (G.722.2)	25	25	100	100	225	200
Profile 2	Profile 2 + AMR-WB	25	25	75	75	175	175
Profile 1	Profile 2 + SILK-NB	100	75	300	250	600	525
Profile 2	Profile 2 + SILK-NB	50	50	200	175	400	375
Profile 1	Profile 2 + SILK-WB	50	50	175	150	350	325
Profile 2	Profile 2 + SILK-WB	25	25	125	125	275	275
Profile 1	Profile 2 + Opus-NB	50	50	175	175	375	350
Profile 2	Profile 2 + Opus-NB	25	25	125	125	275	275
Profile 1	Profile 2 + Opus-WB	25	25	125	125	275	250
Profile 2	Profile 2 + Opus-WB	25	25	100	100	225	225

3.3.13.5 Mediant CE SBC for VMware

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

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

Note:

- The recommended profiles 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, the capacity is increased or decreased accordingly.
  - √ Hyper-Threading enabled on host.
  - √ VMware ESXi 6.5 or later.
  - √ CPUOverrideHT ini file parameter is configured to 1.
- CPU Affinity is recommended. For more information, refer to the *Installation Manual*.
- For transcoding capabilities, the 'Media Component Profile' parameter on all Media Components must be configured to **Transcoding Enabled** (MCProfile = 1).

Table 3-36: 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 + SILK-NB	575	525
Profile 2	Profile 2 + SILK-NB	450	425
Profile 1	Profile 2 + AMR-WB	200	175
Profile 2	Profile 2 + AMR-WB	175	175
Profile 1	Profile 2 + G.722 / AMR-NB	625	525
Profile 2	Profile 2 + G.722 / AMR-NB	475	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

3.3.14 Mediant Virtual Edition (VE) SBC

The maximum number of supported SBC sessions is listed in Section 3.1 on page 27. 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.

3.3.14.1 Mediant VE SBC for VMware Hypervisors with Hyper-Threading

The following tables list maximum transcoding capacity for Mediant VE SBC running on VMware hypervisor with Hyper-Threading.

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

Note:

- The recommended profiles 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 ESXi 6.5 or later
  - √ CPUOverrideHT ini file parameter is configured to 1
- 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 3-37: Mediant VE SBC on VMware with Hyper-Threading - Transcoding Capacity

Session Coders		Max. Sessions					
		4 vCPU 8-GB RAM		8 vCPU 16-GB RAM		16 vCPU 16-GB RAM	
From Coder Profile	To Coder Profile	Basic	Extended	Basic	Extended	Basic	Extended
Profile 1	Profile 1	950	600	1275	825	3,825	2,475
Profile 1	Profile 2	500	400	675	550	2,075	1,650
Profile 2	Profile 2	350	300	475	400	1,425	1,250
Profile 1	Profile 2 + SILK-NB	300	275	400	350	1,225	1,100
Profile 2	Profile 2 + SILK-NB	225	225	325	300	975	900
Profile 1	Profile 2 + AMR-WB	100	100	125	125	425	400
Profile 2	Profile 2 + AMR-WB	75	75	125	125	375	375
Profile 1	Profile 2 + G.722 / AMR-NB	325	275	425	375	1,300	1,150
Profile 2	Profile 2 + G.722 / AMR-NB	250	225	325	300	1,000	925

Session Coders		Max. Sessions					
		4 vCPU 8-GB RAM		8 vCPU 16-GB RAM		16 vCPU 16-GB RAM	
From Coder Profile	To Coder Profile	Basic	Extended	Basic	Extended	Basic	Extended
Profile 1	Profile 2 + SILK-WB	175	150	225	200	700	650
Profile 2	Profile 2 + SILK-WB	150	150	200	200	600	600
Profile 1	Profile 2 + Opus-NB	175	150	250	200	750	650
Profile 2	Profile 2 + Opus-NB	150	125	200	175	650	575
Profile 1	Profile 2 + Opus-WB	150	125	200	175	625	525
Profile 2	Profile 2 + Opus-WB	125	100	175	150	550	475

3.3.14.2 Mediant VE SBC for OpenStack and VMware Hypervisors

The following tables list maximum channel capacity for Mediant VE SBC 2.8 GHz running on OpenStack or VMware hypervisors.

3.3.14.2.1 Two-vCPU Mediant VE SBC

The following table lists maximum channel capacity for the 2-vCPU (1 vCPU reserved for DSP) Mediant VE SBC.

Table 3-38: 2-vCPU Mediant VE SBC on OpenStack/VMware - Transcoding Capacity

Session Coders		Max. Sessions	
From Coder Profile	To Coder Profile	Basic	Extended
Profile 1	Profile 1	300	250
Profile 2	Profile 1	150	125
Profile 2	Profile 2	100	75
Profile 1	Profile 2 + AMR-NB / G.722	150	125
Profile 2	Profile 2 + AMR-NB / G.722	100	75
Profile 1	Profile 2 + AMR-WB (G.722.2)	50	25
Profile 2	Profile 2 + AMR-WB (G.722.2)	25	25
Profile 1	Profile 2 + SILK-NB	125	100
Profile 2	Profile 2 + SILK-NB	75	75
Profile 1	Profile 2 + SILK-WB	75	75
Profile 2	Profile 2 + SILK-WB	50	50
Profile 1	Profile 2 + Opus-NB	75	75
Profile 2	Profile 2 + Opus-NB	50	50
Profile 1	Profile 2 + Opus-WB	50	50
Profile 2	Profile 2 + Opus-WB	50	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.

3.3.14.2.1.1 Forwarding Session Capacity per Feature without Transcoding

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

Table 3-39: 2-vCPU Mediant VE SBC on OpenStack/VMware - Forwarding Capacity per Feature

Feature	Max. Sessions
Fax Detection	2,400
AD/AMD/Beep Detection	2,400
CP Detection	2,400
Jitter Buffer	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).

3.3.14.2.2Four-vCPU Mediant VE SBC

The following table lists maximum channel capacity for the 4-vCPU (3 vCPUs reserved for DSP) Mediant VE SBC.

Table 3-40: 4-vCPU Mediant VE SBC on OpenStack/VMware - Transcoding Capacity

Session Coders		Max. Sessions	
From Coder Profile	**To Coder Profile**	**Basic**	**Extended**
Profile 1	Profile 1	900	750
Profile 2	Profile 1	450	375
Profile 2	Profile 2	300	250
Profile 1	Profile 2 + AMR-NB / G.722	450	375
Profile 2	Profile 2 + AMR-NB / G.722	300	250
Profile 1	Profile 2 + AMR-WB	150	125
Profile 2	Profile 2 + AMR-WB	125	100
Profile 1	Profile 2 + SILK-NB	375	350
Profile 2	Profile 2 + SILK-NB	250	225
Profile 1	Profile 2 + SILK-WB	225	225
Profile 2	Profile 2 + SILK-WB	175	175
Profile 1	Profile 2 + Opus-NB	250	225
Profile 2	Profile 2 + Opus-NB	175	175
Profile 1	Profile 2 + Opus-WB	175	175
Profile 2	Profile 2 + Opus-WB	150	125

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.

3.3.14.2.2.1 Forwarding Session Capacity per Feature without Transcoding

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

Table 3-41: 4-vCPU Mediant VE SBC on OpenStack/VMware - Forwarding Capacity per Feature

Feature	Max. Sessions
Fax Detection	7,200
AD/AMD/Beep Detection	7,200
CP Detection	7,200
Jitter Buffer	650

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).

3.3.14.2.3Eight-vCPU Mediant VE SBC

The following table lists maximum channel capacity for the 8-vCPU (4 vCPUs reserved for DSP) Mediant VE SBC.

Table 3-42: 8-vCPU Mediant VE SBC on OpenStack/VMware - Transcoding Capacity

Session Coders		Max. Sessions	
From Coder Profile	To Coder Profile	Basic	Extended
Profile 1	Profile 1	1,200	1,000
Profile 2	Profile 1	600	525
Profile 2	Profile 2	400	350
Profile 1	Profile 2 + AMR-NB / G.722	600	525
Profile 2	Profile 2 + AMR-NB / G.722	400	350
Profile 1	Profile 2 + AMR-WB	200	175
Profile 2	Profile 2 + AMR-WB	150	150
Profile 1	Profile 2 + SILK-NB	500	475
Profile 2	Profile 2 + SILK-NB	350	325
Profile 1	Profile 2 + SILK-WB	300	300
Profile 2	Profile 2 + SILK-WB	250	225

Session Coders		Max. Sessions	
From Coder Profile	To Coder Profile	Basic	Extended
Profile 1	Profile 2 + Opus-NB	325	300
Profile 2	Profile 2 + Opus-NB	250	225
Profile 1	Profile 2 + Opus-WB	250	225
Profile 2	Profile 2 + Opus-WB	200	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.

3.3.14.2.3.1 Forwarding Session Capacity per Feature without Transcoding

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

Table 3-43: 8-vCPU Mediant VE SBC on OpenStack/VMware - Forwarding Capacity per Feature

Feature	Max. Sessions
Fax Detection	9,600
AD/AMD/Beep Detection	9,600
CP Detection	9,600
Jitter Buffer	875

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).

3.3.14.3 Mediant VE SBC for Amazon AWS EC2 using OS Version: 6

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

Table 3-44: Mediant VE SBC on c4.2xlarge - Transcoding Capacity

Session Coders		Max. Sessions	
From Coder Profile	To Coder Profile	Basic	Extended
Profile 1	Profile 1	1,524	1,164
Profile 2	Profile 1	750	618
Profile 2	Profile 2	498	420
Profile 1	Profile 2 + AMR-NB / G.722	570	492
Profile 2	Profile 2 + AMR-NB / G.722	408	354
Profile 1	Profile 2 + AMR-WB	180	174
Profile 2	Profile 2 + AMR-WB	162	156
Profile 1	Profile 2 + SILK-NB	486	438
Profile 2	Profile 2 + SILK-NB	366	324
Profile 1	Profile 2 + SILK-WB	288	270
Profile 2	Profile 2 + SILK-WB	240	222
Profile 1	Profile 2 + Opus-NB	312	276
Profile 2	Profile 2 + Opus-NB	258	228
Profile 1	Profile 2 + Opus-WB	228	216
Profile 2	Profile 2 + Opus-WB	198	186

Table 3-45: Mediant VE SBC on c4.8xlarge - Transcoding Capacity

Session Coders		Max. Sessions	
From Coder Profile	To Coder Profile	Basic	Extended
Profile 1	Profile 1	3,200	3,200
Profile 2	Profile 1	3,200	3,200
Profile 2	Profile 2	2,650	2,225
Profile 1	Profile 2 + AMR-NB / G.722	3,025	2,600
Profile 2	Profile 2 + AMR-NB / G.722	2,175	1,875
Profile 1	Profile 2 + AMR-WB	950	925
Profile 2	Profile 2 + AMR-WB	850	825
Profile 1	Profile 2 + SILK-NB	2,575	2,325
Profile 2	Profile 2 + SILK-NB	1,950	1,725

Session Coders		Max. Sessions	
From Coder Profile	To Coder Profile	Basic	Extended
Profile 1	Profile 2 + SILK-WB	1,525	1,425
Profile 2	Profile 2 + SILK-WB	1,275	1,175
Profile 1	Profile 2 + Opus-NB	1,650	1,450
Profile 2	Profile 2 + Opus-NB	1,375	1,200
Profile 1	Profile 2 + Opus-WB	1,200	1,150
Profile 2	Profile 2 + Opus-WB	1,050	975

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.

3.3.14.3.1.1 Forwarding Session Capacity per Feature without Transcoding

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

Table 3-46: Mediant VE SBC on Amazon EC2 - Forwarding Capacity per Feature

Feature	Max. Sessions	
	c4.2xlarge	c4.8xlarge
Fax Detection	2,000	3,200
AD/AMD/Beep Detection	2,000	3,200
CP Detection	2,000	3,200
Jitter Buffer	650	3,200

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).

3.3.14.4 Mediant VE SBC for Amazon AWS EC2 using OS Version: 8

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

Table 3-47: Mediant VE SBC on c5.2xlarge - Transcoding Capacity

Session Coders		Max. Sessions	
From Coder Profile	To Coder Profile	Basic	Extended
Profile 1	Profile 1	1950	1275
Profile 2	Profile 1	1050	850
Profile 2	Profile 2	725	625
Profile 1	Profile 2 + AMR-NB / G.722	625	550
Profile 2	Profile 2 + AMR-NB / G.722	500	450
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

Table 3-48: Mediant VE SBC on c5.9xlarge - Transcoding Capacity

Session Coders		Max. Sessions	
From Coder Profile	To Coder Profile	Basic	Extended
Profile 1	Profile 1	7000	6815
Profile 2	Profile 1	5725	4575
Profile 2	Profile 2	3935	3455
Profile 1	Profile 2 + AMR-NB / G.722	3615	3135
Profile 2	Profile 2 + AMR-NB / G.722	2780	2560
Profile 1	Profile 2 + AMR-WB	1180	1150
Profile 2	Profile 2 + AMR-WB	1055	1020

Session Coders		Max. Sessions	
From Coder Profile	**To Coder Profile**	**Basic**	**Extended**
Profile 1	Profile 2 + SILK-NB	3420	3040
Profile 2	Profile 2 + SILK-NB	2685	2495
Profile 1	Profile 2 + SILK-WB	1920	1820
Profile 2	Profile 2 + SILK-WB	1660	1630
Profile 1	Profile 2 + Opus-NB	2080	1790
Profile 2	Profile 2 + Opus-NB	1790	1600
Profile 1	Profile 2 + Opus-WB	1725	1470
Profile 2	Profile 2 + Opus-WB	1500	1340

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.

3.3.14.4.1 Forwarding Session Capacity per Feature without Transcoding

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

Table 3-49: 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).

3.3.14.5 Mediant VE SBC for Azure (OS Version: 6)

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

Table 3-50: Mediant VE SBC on DS1_v2, DS2_v2 & DS3_v2 - Transcoding Capacity

Session Coders		Max. Sessions			
		DS1_v2 and DS2_v2		DS3_v2	
From Coder Profile	To Coder Profile	Basic	Extended	Basic	Extended
Profile 1	Profile 1	275	200	600	600
Profile 2	Profile 1	125	75	350	275
Profile 2	Profile 2	75	50	225	175
Profile 1	Profile 2 + AMR-NB / G.722	125	100	400	325
Profile 2	Profile 2 + AMR-NB / G.722	75	50	250	200
Profile 1	Profile 2 + AMR-WB (G.722.2)	25	25	125	100
Profile 2	Profile 2 + AMR-WB	25	25	100	75
Profile 1	Profile 2 + SILK-NB	100	75	300	275
Profile 2	Profile 2 + SILK-NB	50	50	200	175
Profile 1	Profile 2 + SILK-WB	50	50	175	150
Profile 2	Profile 2 + SILK-WB	50	50	125	125
Profile 1	Profile 2 + Opus-NB	75	50	200	150
Profile 2	Profile 2 + Opus-NB	50	25	125	125
Profile 1	Profile 2 + Opus-WB	50	25	150	125
Profile 2	Profile 2 + Opus-WB	25	25	100	100

3.3.14.6 Mediant VE SBC for Azure (OS Version: 8)

The following tables list maximum channel capacity for Mediant VE SBC on the Azure platform, when using OS Version 8.

Table 3-51: Mediant VE SBC on DS1_v2, DS2_v2, DS3_ v2 & DS4_v2 - Transcoding Capacity

Session Coders		Max. Sessions					
		DS1_v2 and DS2_v2		DS3_v2		DS4_v2	
From Coder Profile	To Coder Profile	Basic	Extended	Basic	Extended	Basic	Extended
Profile 1	Profile 1	200	200	625	625	1,025	1,025
Profile 2	Profile 1	100	100	350	300	600	525
Profile 2	Profile 2	75	50	225	200	400	350
Profile 1	Profile 2 + AMR-NB / G.722	100	100	350	300	600	525
Profile 2	Profile 2 + AMR-NB / G.722	75	50	225	200	400	350
Profile 1	Profile 2 + AMR-WB (G.722.2)	25	25	100	100	200	175
Profile 2	Profile 2 + AMR-WB	25	25	100	75	150	150
Profile 1	Profile 2 + SILK-NB	100	75	300	275	525	475
Profile 2	Profile 2 + SILK-NB	50	50	200	200	350	325
Profile 1	Profile 2 + SILK-WB	50	50	175	175	300	300
Profile 2	Profile 2 + SILK-WB	50	25	150	125	250	225
Profile 1	Profile 2 + Opus-NB	50	50	200	175	325	300
Profile 2	Profile 2 + Opus-NB	50	25	150	125	250	225
Profile 1	Profile 2 + Opus-WB	50	25	150	125	250	225
Profile 2	Profile 2 + Opus-WB	25	25	125	100	200	175

3.3.14.7 Mediant VE SBC for Hyper-V Hypervisor

The following tables lists maximum channel capacity for Mediant VE SBC 2.1 GHz running on Hyper-V hypervisor.

3.3.14.7.1 Two-vCPU Mediant VE SBC

The following table lists maximum channel capacity for the 2-vCPU (1 vCPU reserved for DSP) Mediant VE SBC.

Table 3-52: 2-vCPU Mediant VE SBC on Hyper-V - Transcoding Capacity

Session Coders		Max. Sessions	
From Coder Profile	**To Coder Profile**	**Basic**	**Extended**
Profile 1	Profile 1	225	175
Profile 2	Profile 1	100	100
Profile 2	Profile 2	75	50
Profile 1	Profile 2 + AMR-NB / G.722	100	75
Profile 2	Profile 2 + AMR-NB / G.722	75	50
Profile 1	Profile 2 + AMR-WB	25	25
Profile 2	Profile 2 + AMR-WB	25	25
Profile 1	Profile 2 + SILK-NB	75	75
Profile 2	Profile 2 + SILK-NB	50	50
Profile 1	Profile 2 + SILK-WB	50	50
Profile 2	Profile 2 + SILK-WB	25	25
Profile 1	Profile 2 + Opus-NB	50	50
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.

3.3.14.7.1.1 Forwarding Session Capacity per Feature without Transcoding

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

Table 3-53: 2-vCPU Mediant VE SBC on Hyper-V - Forwarding Capacity per Feature

Feature	Max. Sessions
Fax Detection	1,800
AD/AMD/Beep Detection	1,800
CP Detection	1,800
Jitter Buffer	150

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).

3.3.14.7.2 Four-vCPU Mediant VE SBC

The following table lists maximum channel capacity for the 4-vCPU (3 vCPUs reserved for DSP) Mediant VE SBC.

Table 3-54: 4-vCPU Mediant VE SBC on Hyper-V - Transcoding Capacity

Session Coders		Max. Sessions	
From Coder Profile	To Coder Profile	Basic	Extended
Profile 1	Profile 1	600	550
Profile 2	Profile 1	325	300
Profile 2	Profile 2	225	200
Profile 1	Profile 2 + AMR-NB / G.722	325	275
Profile 2	Profile 2 + AMR-NB / G.722	225	200
Profile 1	Profile 2 + AMR-WB	100	100
Profile 2	Profile 2 + AMR-WB	75	75
Profile 1	Profile 2 + SILK-NB	275	250
Profile 2	Profile 2 + SILK-NB	200	175
Profile 1	Profile 2 + SILK-WB	175	150
Profile 2	Profile 2 + SILK-WB	125	125

Session Coders		Max. Sessions	
From Coder Profile	To Coder Profile	Basic	Extended
Profile 1	Profile 2 + Opus-NB	175	150
Profile 2	Profile 2 + Opus-NB	125	125
Profile 1	Profile 2 + Opus-WB	125	125
Profile 2	Profile 2 + Opus-WB	100	100

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.

3.3.14.7.2.1 Forwarding Session Capacity per Feature without Transcoding

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

Table 3-55: 4-vCPU Mediant VE SBC on Hyper-V - Forwarding Capacity per Feature

Feature	Max. Sessions
Fax Detection	5,400
AD/AMD/Beep Detection	5,400
CP Detection	5,400
Jitter Buffer	500

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).

3.3.14.8 Mediant VE SBC with Media Transcoders

Mediant VE SBC with Virtual Media Transcoders allows increasing the number of transcoding sessions by using Media Transcoders. The maximum number of transcoding sessions depends on the following:

- The number of Media Transcoders in the media transcoding cluster.
- The cluster operation mode (Best-Effort or Full-HA mode).
- The maximum transcoding sessions that the Mediant VE SBC can perform. 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 session capacity of a single MT-type Media Transcoder:

Table 3-56: Mediant VE SBC with Single 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
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	1325	1900
Profile 2	Profile 2 + Opus-WB	650	1175	1675

The following table lists maximum transcoding session capacity of a single vMT-type Media Transcoder:

Table 3-57: Single vMT - Transcoding Capacity per Profile

Session Coders		Max. Sessions	
From Coder Profile	**To Coder Profile**	**Basic**	**Extended**
Profile 1	Profile 1	1,600	1,225
Profile 2	Profile 1	775	650
Profile 2	Profile 2	525	425
Profile 1	Profile 2 + AMR-NB / G.722	575	500
Profile 2	Profile 2 + AMR-NB / G.722	425	350
Profile 1	Profile 2 + AMR-WB	175	175
Profile 2	Profile 2 + AMR-WB	150	150
Profile 1	Profile 2 + SILK-NB	500	450
Profile 2	Profile 2 + SILK-NB	375	325
Profile 1	Profile 2 + SILK-WB	300	275
Profile 2	Profile 2 + SILK-WB	250	225
Profile 1	Profile 2 + Opus-NB	300	275
Profile 2	Profile 2 + Opus-NB	250	225
Profile 1	Profile 2 + Opus-WB	225	200
Profile 2	Profile 2 + Opus-WB	200	175

3.3.15 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 27. 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 3-58: 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.

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 3-59: 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).

3.4 Capacity per Configuration Table

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

Table 3-60: Capacity per Configuration Table

Configuration Table	MP-1288 / Mediant 500 / 500L / 800 / 1000B	Mediant 2600 / 4000B	Mediant 90xx / SE	Mediant VE / CE
Access List	50	50	50	50
Accounts	102	625	1,500	1,500
Additional Management Interfaces	16	64	64	64
Allowed Audio Coders Groups	10	20	20	20
Allowed Video Coders Groups	4	4	4	4
Alternative Routing Reasons	20	20	20	20
Bandwidth Profile	486	1,009	1,884	1,884
Call Admission Control Profile	102	625	1,500	1,500
Call Admission Control Rule (per Profile)	8	8	8	8
Call Setup Rules	64	64	64	64
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	625	1,500	▪ 2 GB: 750 ▪ 3.5-64 GB: 1,500
Coder Groups	11	21	21	21
Cost Groups	10	10	10	10
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	50	50
Dial Plan Rule	2,000	10,000	100,000	▪ < 16 GB: 2,000 ▪ > 16 GB: 100,000

Configuration Table	MP-1288 / Mediant 500 / 500L / 800 / 1000B	Mediant 2600 / 4000B	Mediant 90xx / SE	Mediant VE / CE
Ethernet Devices	16	1,024	1,024	1,024
External Media Source	1	1	1	1
Firewall	50	500	500	500
Forward On Busy Trunk Destination		n/a (Gateway only)	n/a (Gateway only)	n/a (Gateway only)
Gateway CDR Format	128 (Syslog); 40 (RADIUS); 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	40	40
HTTP Proxy Servers	10	10	10	10
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)
Inbound Manipulations	205	1,250	3,000	3,000
Internal DNS	20	20	20	20
Internal SRV	10	10	10	10
IP Group Set	51	312	750	▪ 2 GB: 40 ▪ 3.5 GB: 500 ▪ 4-16 GB: 750 ▪ 32-64 GB: 2,500
IP Groups	80	700	5,000	▪ 2 GB: 80 ▪ 3.5 GB: 1,000 ▪ 4-16 GB: 1,500 ▪ 32-64 GB: 5,000
IP Interfaces	12	1,024	1,024	1,024
IP Profiles	20 (MP-1288 / Mediant 500/L / Mediant 800); 40 (Mediant 1000)	125	300	▪ 2 GB: 150 ▪ 3.5-64 GB: 300
IP-to-IP Routing	615	3,750	9,000	▪ 2 GB: 4500 ▪ 3.5-64 GB: 9,000
IP-to-Tel Routing	120	n/a (Gateway only)	n/a (Gateway only)	n/a (Gateway only)
LDAP Server Groups	41	250	600	600
LDAP Servers	82	500	1,200	1,200

Configuration Table	MP-1288 / Mediant 500 / 500L / 800 / 1000B	Mediant 2600 / 4000B	Mediant 90xx / SE	Mediant VE / CE
Local Users	20	20	20	20
Logging Filters	60	60	60	60
Malicious Signature	30	30	30	30
Media Realm Extension	2 x Max. Media Realms (MP-1288, Mediant 500, Mediant 500L, Mediant 800 Only)	2 x Max. Media Realms (Mediant 2600) 5 x Max. Media Realms (Mediant 4000B)	5 x Max. Media Realms	5 x Max. Media Realms
Media Realms	12	1,024	1,024	1,024
Message Conditions	82	500	1,200	1,200
Message Manipulations	100 (MP-1288 / Mediant 500/L / Mediant 800); 200 (Mediant 1000)	500	500	500
Message Policies	20	20	20	20
NAT Translation	32	32	32	32
Outbound Manipulations	205	1,250	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	10 (per Set)	10 (per Set)	10 (per Set)	10 (per Set)
Pre-Parsing Manipulation Sets	10	10	10	10
Proxy Sets	102	625	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
Proxy Sets > Proxy Address (total DNS-resolved IP addresses for all Proxy Sets combined)	80	700	10,000	▪ 2 GB: 160 ▪ 3.5 GB: 2,000 ▪ 4 GB: 3,000 ▪ 8-16 GB: 3,000 ▪ 32-64 GB: 10,000
QoS Mapping	64	64	64	64

Configuration Table	MP-1288 / Mediant 500 / 500L / 800 / 1000B	Mediant 2600 / 4000B	Mediant 90xx / SE	Mediant VE / CE
Quality of Experience Color Rules	256	256	256	256
Quality of Experience Profile	256	256	256	256
Quality Of Service Rules	510	3,125	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	20 (SBC)	280	600	▪ 2 GB: 20 ▪ 3.5 GB: 70 ▪ 4 GB: 100 ▪ 8 GB: 200 ▪ 16 GB: 400 ▪ 32-64 GB: 600
Routing Policies	1 (Gateway)	n/a (Gateway only)	n/a (Gateway only)	n/a (Gateway only)
SBC CDR Format	128 (Syslog); 40 (RADIUS); 64 (Locally Stored & JSON)	128 (Syslog); 40 (RADIUS); 64 (Locally Stored & JSON)	128 (Syslog); 128 (RADIUS); 64 (Locally Stored & JSON)	128 (Syslog); 128 (RADIUS); 64 (Locally Stored & JSON)
SIP Interfaces	82	500	1,200	▪ 2 GB: 600 ▪ 3.5-64 GB: 1,200
SIP Recording Rules	30	30	30	30
SNMP Trap Destinations	5	5	5	5
SNMP Trusted Managers	5	5	5	5
SNMPv3 Users	10	10	10	10

Configuration Table	MP-1288 / Mediant 500 / 500L / 800 / 1000B	Mediant 2600 / 4000B	Mediant 90xx / SE	Mediant VE / CE
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)
SRDs	20	280	600	▪ 2 GB: 20 ▪ 3.5 GB: 70 ▪ 4 GB: 100 ▪ 8 GB: 200 ▪ 16 GB: 400 ▪ 32-64 GB: 600
Static Routes	30	30	30	30
Supplementary Services	100	n/a (Gateway only)	n/a (Gateway only)	n/a (Gateway only)
TCP/UDP Proxy Servers	10	10	10	10
Tel Profiles	9	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)
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	12 (15 for Mediant 1000)	100	100	100
Tone Index	50	n/a (Gateway only)	n/a (Gateway only)	n/a (Gateway only)
Trunk Group	288 (MP-1288); 24 (Mediant 500/L; Mediant 800); 240 (Mediant 1000)	n/a (Gateway only)	n/a (Gateway only)	n/a (Gateway only)
Trunk Group Settings	289 (MP-1288); 101 (Mediant 500/L; Mediant 800); 241 (Mediant 1000)	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)

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4 Supported SIP Standards

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

4.1 Supported SIP RFCs

The table below lists the supported RFCs.

Table 4-1: Supported RFCs

RFC	Description	Gateway	SBC
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 2833	Telephone event	√	√
RFC 2976	SIP INFO Method	√	√
RFC 3261	SIP	√	√

RFC	Description	Gateway	SBC
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 3666	SIP to PSTN Call Flows	√	√ (forwarded transparently)
RFC 3680	A SIP Event Package for Registration (IMS)	√	×

RFC	Description	Gateway	SBC
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 4568	SDP Security Descriptions for Media Streams for SRTP	√	√
RFC 4582	The Binary Floor Control Protocol (BFCP)	×	√ (forwarded transparently)

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

4.2 SIP Message Compliancy

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

4.2.1 SIP Functions

The device supports the following SIP Functions:

Table 4-2: 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

4.2.2 SIP Methods

The device supports the following SIP Methods:

Table 4-3: 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	-

4.2.3 SIP Headers

The device supports the following SIP headers:

Table 4-4: 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

4.2.4 SDP Fields

The device supports the following SDP fields:

Table 4-5: 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

4.2.5 SIP Responses

The device supports the following SIP responses:

Table 4-6: 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.

Response Type		Comments
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.
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.

Response Type		Comments
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.
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.

Response Type		Comments
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.
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.

Response Type		Comments
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 generates a 5xx response according to the PSTN release cause coming from the PSTN.
501	Not Implemented	
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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Document #: LTRT-27715