



Avaya J100 Series SIP IP Phones Overview and Specifications

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Note

Using a cell, mobile, or GSM phone, or a two-way radio in close proximity to an Avaya IP telephone might cause interference.

Regulatory Statements

Australia Statements

Handset Magnets Statement:

Danger:

The handset receiver contains magnetic devices that can attract small metallic objects. Care should be taken to avoid personal injury.

Industry Canada (IC) Statements

RSS Standards Statement

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions:

1. This device may not cause interference, and
2. This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

1. L'appareil ne doit pas produire de brouillage, et
2. L'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Radio Transmitter Statement

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (EIRP) is not more than that necessary for successful communication.

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Radiation Exposure Statement

This equipment complies with FCC & IC RSS102 radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Cet équipement est conforme aux limites d'exposition aux rayonnements ISED établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps.

This product meets the applicable Innovation, Science and Economic Development Canada technical specifications.

Japan Statements

Class B Statement

This is a Class B product based on the standard of the VCCI Council. If this is used near a radio or television receiver in a domestic environment, it may cause radio interference. Install and use the equipment according to the instruction manual.

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取扱説明書に従って正しい取り扱いをして下さい。 VCCI-B

Denan Power Cord Statement

Danger:

Please be careful of the following while installing the equipment:

- Please only use the connecting cables, power cord, and AC adapters shipped with the equipment or specified by Avaya to be used with the equipment. If you use any other equipment, it may cause failures, malfunctioning, or fire.
- Power cords shipped with this equipment must not be used with any other equipment. In case the above guidelines are not followed, it may lead to death or severe injury.



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México Statement

The operation of this equipment is subject to the following two conditions:

1. It is possible that this equipment or device may not cause harmful interference, and
2. This equipment or device must accept any interference, including interference that may cause undesired operation.

La operación de este equipo está sujeta a las siguientes dos condiciones:

1. Es posible que este equipo o dispositivo no cause interferencia perjudicial y
2. Este equipo o dispositivo debe aceptar cualquier interferencia, incluyendo la que pueda causar su operación no deseada.

Brazil Statement

Este equipamento não tem direito à proteção contra interferência prejudicial e não pode causar interferência em sistemas devidamente autorizados

Power over Ethernet (PoE) Statement

This equipment must be connected to PoE networks without routing to the outside plant.

Taiwan Low Power Radio Waves Radiated Devices Statement

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U.S. Federal Communications Commission (FCC) Statements

Compliance Statement

The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

To comply with the FCC RF exposure compliance requirements, this device and its antenna must not be co-located or operating to conjunction with any other antenna or transmitter.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interferences that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designated to provide reasonable protection against harmful interferences in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interferences to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 8 in or 20 cm between the

radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

ENERGY STAR® compliance statement



As an ENERGY STAR partner, Avaya LLC has determined that this product meets the ENERGY STAR guidelines for energy efficiency. Information on the ENERGY STAR program can be found at www.energystar.gov. ENERGY STAR and the ENERGY STAR mark are registered trademarks owned by the U.S. Environmental Protection Agency.

EU Countries

This device when installed complies with the essential requirements and other relevant provisions of the EMC Directive 2014/30/EU, Safety LV Directive 2014/35/EU, and Radio Equipment Directive 2014/53/EU. A copy of the Declaration may be obtained from <https://support.avaya.com> or Avaya LLC, 350 Mt. Kemble Avenue, Morristown, NJ 07960 USA.

WiFi transmitter

- Frequencies for 2412-2472 MHz, transmit power: < 20 dBm
- Frequencies for 5180-5240 MHz, transmit power: < 20 dBm

BT transmitter

- Frequencies for 2402-2480 MHz, transmit power: < 6.0 dBm

General Safety Warning

- Use only the Avaya approved Limited Power Source power supplies specified for this product.
- Ensure that you:
 - Do not operate the device near water.
 - Do not use the device during a lightning storm.
 - Do not report a gas leak while in the vicinity of the leak.
 - For Accessory Power Supply in Avaya J100 Series IP Phones– Use Only Limited Power Supply Phihong Technology Co. Ltd. Model: PSAC12R-050, Output: 5VDC, 2.4A.

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By using the Avaya device, you agree that Avaya, from time to time, may collect network and device data from your device and may use such data in order to validate your eligibility to use the device.

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Chapter 1: Introduction

Purpose

This document describes tested product characteristics and capabilities, including feature descriptions, interoperability, performance specifications, security, and licensing requirements.

Intended audience

This document is intended for people who want to gain a high-level understanding of the product features, functions, capacities, and limitations.

Chapter 2: J100 Series IP Phone overview

Avaya J100 Series IP Phones overview

Avaya J100 Series IP Phones provide a range of applications and features for unified communications. The phones leverage the enterprise IP network and eliminate the need of a separate voice network. The phones offer superior audio quality with the amplified handsets and customization with low power requirements in a Session Initiation Protocol (SIP) environment.

Avaya J100 Series IP Phones work with environments to provide a flexible architecture where you can:

- Make conference calls more efficiently and enhance customer interactions with high-quality audio.
- Gain access to information quickly through easy-to-read high-resolution displays.
- Create a survivable, scalable infrastructure that delivers reliable performance and flexible growth as business needs change.
- Increase performance by deploying Gigabit Ethernet within your infrastructure.
- Reduce energy costs by using efficient Power-over-Ethernet (PoE) including sleep mode, which lowers energy consumption significantly.
- Enhance audio quality by using amplified handset mode.

J100 Series IP Phone models

Phone model	Description
J129 IP Phone	A phone with a monochrome display that supports single line call appearance.
J139 IP Phone	A phone with a color display that has four lines/feature/application buttons. The primary display is scrollable that supports up to 96 lines/features/applications.

Table continues...

Phone model	Description
J159 IP Phone	A phone with a Primary color display that has four lines/features/applications buttons. The Primary display is scrollable that supports up to 96 lines/features/applications. A Secondary color display has 6 lines/features/applications buttons. The Secondary display is pageable that supports up to 24 lines/features/applications.
J169 IP Phone	A phone with a grayscale display that supports eight lines/features/applications buttons. The Primary display is scrollable that supports up to 96 lines/features/applications. The phone can also support up to three button modules, each supporting 24 lines/features/applications buttons.
J179 IP Phone	A phone with a color display that supports eight lines/features/applications buttons. The Primary display is scrollable that supports up to 96 lines/features/applications. The phone can also support up to three button modules, each supporting 24 lines/features/applications buttons.
J189 IP Phone	A phone with a Primary color display that supports 10 lines/features/applications buttons. The Primary display is scrollable, supporting up to 96 line/feature/applications. A Secondary color display that supports 6 lines/features/applications buttons. The Secondary display is pageable supporting up to 24 lines/features/applications. The phone can also support up to two button modules, each supporting 24 lines/features/applications buttons.

Hardware specifications

Avaya J100 Series IP Phones support the following hardware specifications:

Device dimensions

The dimensions are with phone stand in high position and wall mount.

Model	Phone stand in high position (Wide x Deep x Tall in mm)	Phone dimensions in wall mount (Wide x Deep x Tall in mm)
J129	156 x 170 x 175	156 x 100 x 198
J139	179 x 170 x 177	179 x 100 x 219
J159	185 x 170 x 224	185 x 100 x 225
J169	187 x 175 x 183	187 x 100 x 225
J179	187 x 175 x 183	187 x 100 x 225
J189	227 x 179 x 199	227 x 100 x 244
JBM24	89 x 175 x 183	89 x 100 x 225
JEM24	115 x 175 x 140	115 x 100 x 175

Display and Call appearances

Model	Display (pixels)	Display type	Call appearances
J129	2.3", 128 x 32	Monochrome	1
J139	2.8", 320 x 240	Color	4
J159	2.8", 320 x 240 primary display 2.4", 240 x 320 secondary display	Color	4 on the primary display 24 on the secondary display
J169	3.5", 320 x 240	Grayscale	8
J179	3.5", 320 x 240	Color	8
J189	5", 800 x 480 primary display 2.4", 240 x 320 secondary display	Color	10 on the primary display 24 on the secondary display
JBM24	3.3", 160 x 320	Grayscale	NA
JEM24	4.3", 272 x 480	Grayscale and color	NA

Ethernet, Wi-Fi, and Bluetooth- specifications

Model	Ethernet switch	Wi-Fi support	Bluetooth support
J129	Dual 10/100	Yes, with an optional module	No
J139	Dual 10/100/1000	No	No
J159	Dual 10/100/1000	Yes, with an optional module	Yes, with an optional module
J169	Dual 10/100/1000	No	No
J179	Dual 10/100/1000	Yes, with an optional module	Yes, with an optional module
J189	Dual 10/100/1000	Yes, with an optional module	Yes, with an optional module
JBM24	NA	NA	NA
JEM24	NA	NA	NA

Handset and Headset- specifications

Model	Wired handset (HAC)	Amplified handset mode	Wired headset	Handset adapter
J129	Yes	Yes, with 20dB of gain	No	Yes
J139	Yes	Yes, with 20dB of gain	Yes	Yes

Table continues...

Model	Wired handset (HAC)	Amplified handset mode	Wired headset	Handset adapter
J159	Yes	Yes, with 20dB of gain	Yes	Yes
J169	Yes	Yes, with 20dB of gain	Yes	Yes
J179	Yes	Yes, with 20dB of gain	Yes	Yes
J189	Yes	Yes, with 20dB of gain	Yes	Yes
JBM24	NA	NA	NA	NA
JEM24	NA	NA	NA	NA

Power and USB support

Model	PoE ¹	Optional DC power	USB port
J129	Yes	Yes ²	No
J139	Yes	Yes	No
J159	Yes	Yes	Yes
J169	Yes	Yes	No
J179	Yes	Yes	No
J189	Yes	Yes	Yes
JBM24	NA	NA	No
JEM24	NA	NA	No

Other specifications

Model	Dual color call indicator	Soft keys call control	Expansion module capable
J129	0	3	No
J139	4	4	No
J159	4	4	No
J169	8	4	Yes, 3 modules
J179	8	4	Yes, 3 modules
J189	10	4	Yes, 2 modules
JBM24	0	NA	NA
JEM24	24	NA	NA

¹ PoE can be supplied from one of the following:

- Data switch
- in-line PoE injector

² Optional DC power is available in J129D03A and later hardware models. J129D01A and J129D02A do not support optional DC power.

Chapter 3: Feature description

Feature description

Avaya J100 Series IP Phones offers the following features:

- Easy to use interface
- Easy customization
- Support for Gigabit Ethernet
- Boost employee productivity
- Support for button module

Chapter 4: Performance specifications

Power specifications

You can power Avaya J100 Series IP Phones using Power over Ethernet (PoE) or an Avaya 5V DC power adapter. While using a power adapter, disable PoE on the Ethernet connection. You must purchase the power adapter separately.

Avaya J100 Series IP Phones are ENERGY STAR® compliant.

The following table provides the LLDP power measurement of the phones, adjuncts, and peripherals.

Phone model	Avaya standard power measurements (in Watts)			Energy Star (in Watts)
	Conservation	Typical	Maximum	Standby
J129	1.26	1.31	1.64	1.04
J139	1.40	1.67	2.24	1.55
J159	1.75	2.32	3.03	2.04
J169	1.72	1.84	2.34	1.85
J179	1.74	2.10	2.71	1.85
J189	2.32	2.91	3.93	1.92
JBM24	0.19	0.69	1.35	NA
JEM24	1.70	1.90	2.00	NA
Wi-Fi/BT module	0.90	0.90	0.90	NA
USB device (PoE slide switch in L position)	0.5	0.5	0.5	NA
USB device (PoE slide switch in H position)	1.25	1.25	1.25	NA

The power requirements of the phone vary depending on the connected peripherals. The following table provides the correlation between the connected peripherals and power requirements.

Phone model	PoE Class
-------------	-----------

Table continues...

J129	<ul style="list-style-type: none"> IEEE 802.3af PoE Class 1 device.
J139	<ul style="list-style-type: none"> IEEE 802.3af PoE, Class 1 device.
J159	<ul style="list-style-type: none"> IEEE 802.3af PoE Class 1, PoE Slide switch in L position, without a wireless module and USB device with parameter USB power value set to either 0, 1 or 3. IEEE 802.3af PoE Class 2, PoE Slide switch in H position, with a wireless module, USB device, or a wireless module together with USB device.
J169	<ul style="list-style-type: none"> IEEE 802.3af PoE Class 1 without a button module. IEEE 802.3af PoE Class 2 with a button module.
J179	<ul style="list-style-type: none"> IEEE 802.3af PoE Class 1 without a wireless module or a button module. IEEE 802.3af PoE Class 2 for one or more button modules, a wireless module, or a wireless module together with one or more button modules. <p>* Note: Use Avaya 5V DC power adapter if you simultaneously connect a wireless module along with one or more button modules of any model.</p>
J189	<ul style="list-style-type: none"> IEEE 802.3af PoE Class 2, PoE slide switch in the L position with a wireless module. IEEE 802.3af PoE Class 3, PoE slide switch in the H position, one JEM24 module supported with USB Type A and Type C port shared power limited to 900mA. Two JEM24 with USB Type A and Type C port shared power limited to 500mA.

Port and switch

Avaya J100 Series IP Phones supports the following ports and switches:

Port and switch	J129	J139	J159	J169	J179	J189
USB	No	No	Yes	No	No	Yes, 1 Type-A and 1 Type-C
PC port	Yes	Yes	Yes	Yes	Yes	Yes
Headset jack	No	Yes	Yes	Yes	Yes	Yes

Table continues...

Port and switch	J129	J139	J159	J169	J179	J189
Button module interface	No	No	No	Yes	Yes	Yes
DC Adapter interface	Yes ³	Yes	Yes	Yes	Yes	Yes
Wired Ethernet interface	10/100 Mbps	10/100/1000 Mbps	10/100/1000 Mbps	10/100/1000 Mbps	10/100/1000 Mbps	10/100/1000 Mbps
Secondary wired Ethernet interface	10/100 Mbps	10/100/1000 Mbps	10/100/1000 Mbps	10/100/1000 Mbps	10/100/1000 Mbps	10/100/1000 Mbps
Wireless Ethernet interface	Optional module	No	Optional module	No	Optional module	Optional module
PoE switch	No	No	Yes	No	No	Yes

Supported codecs

Avaya J100 Series IP Phones supports the following codecs:

Models	J129	J139	J159	J169	J179	J189
Codecs	<ul style="list-style-type: none"> • G.711a • G.711μ • G.729 • G.729a • G.729ab • G.726 • G722 • OPUS 	<ul style="list-style-type: none"> • G.711a • G.711μ • G.729 • G.729a • G.729ab • G.726 • G722 • OPUS 	<ul style="list-style-type: none"> • G.711a • G.711μ • G.729 • G.729a • G.729ab • G.726 • G722 • OPUS 	<ul style="list-style-type: none"> • G.711a • G.711μ • G.729 • G.729a • G.729ab • G.726 • G722 • OPUS 	<ul style="list-style-type: none"> • G.711a • G.711μ • G.729 • G.729a • G.729ab • G.726 • G722 • OPUS 	<ul style="list-style-type: none"> • G.711a • G.711μ • G.729 • G.729a • G.729ab • G.726 • G722 • OPUS • OPUS Superwideband and

*** Note:**

Codecs support packet loss concealment, jitter buffer where applicable. Full duplex acoustic echo cancellation is active on all transducers

³ Available in J129D03A and later hardware models. J129D01A and J129D02A do not support this interface.

Chapter 5: Environmental specification

Altitude and air pressure

Avaya J100 Series IP Phones function normally at altitudes from sea level to 10,000 feet and can withstand a pressure of 15.2 to 9.4 psia.

Temperature and humidity

Storage environment specifications

All Avaya J100 Series IP Phones work in a temperature range from 40 to 120 degrees Fahrenheit or 4 to 49 degrees Celsius.

Extreme temperature specifications

All Avaya J100 Series IP Phones work normally after being soaked for at least 6 hours each in a non-operational state at -40 degree Fahrenheit and any relative humidity, at 90 degree Fahrenheit and 90% relative humidity, and at 150 degrees Fahrenheit and 15% relative humidity. The deskphones can function normally after up to three hours of recovery time at ambient conditions following each stress.

Temperature and humidity specifications

All Avaya J100 Series IP Phones function normally after a recovery time of up to three hours at ambient conditions when cycled through the following temperature and non-condensing humidity conditions three times: 30 minutes at 150 degree Fahrenheit and 15 percent relative humidity, followed by 30 minutes at 90 degrees Fahrenheit and 90 percent relative humidity, followed by 30 minutes at -40 degrees F and any convenient humidity.

Normal operating specification

All Avaya J100 Series IP Phones function normally in the environment where temperatures are between 40 degrees Fahrenheit and relative humidities are between 5 percent and 95 percent, except that above 84 degree Fahrenheit, the maximum relative humidity is limited to that corresponding to a specific (absolute) humidity of 168 grains of water vapor per pound (lbm) of dry air. For example, 34 percent relative humidity at 120 degrees Fahrenheit, assuming an atmospheric pressure of 14.7 psia. The deskphones are allowed up to 30 minutes to stabilize at each temperature tested.

Design for Environment Guidelines and specifications

All Avaya J100 Series IP Phones conform to the Design for Environment Guidelines and Requirements [8.1-5] as clarified below.

DFE Guidelines for Energy Efficient Products (Section 2): All Avaya J100 Series IP Phones do not require a cooling fan.

DFE Guidelines for Products Containing Batteries (Section 3): All Avaya J100 Series IP Phones do not contain batteries.

DFE Guidelines for Designing Plastic Parts (Section 4): All Avaya J100 Series IP Phones plastic parts are not coated (Section 4.4). Note: Section 4.4 of the Design for Environment Guidelines and Requirements specifies that plastic parts are not to be painted. However some deskphones might have been painted.

All Avaya J100 Series IP Phones housing and handset surfaces are textured (Section 4.5).

All Avaya J100 Series IP Phones plastic parts do not use resins containing:

- PVC (Section 4.7.1.2)
- Brominated flame retardants: polybrominated biphenyl, polybrominated biphenyl oxide (PBBO, also called polybrominated biphenyl ether (PBBE), polybrominated diphenyl oxide (PBDO) and polybrominated diphenyl ether (PBDE)), bromomethane and halothane (Sections 4.7.1.3, 4.9.1 and Appendix A)
- Halogenated flame retardants (Section 4.9.2)
- Heavy metal additives: lead, cadmium, chromium and mercury (Sections 4.7.1.4 and 4.9.3).
- All Avaya J100 Series IP Phones plastic parts weighing more than 25 grams are marked with ISO-compliant resin codes (Section 4.8). DFE Guidelines for Designing Printed Wiring Boards (Section 5):
- All Avaya J100 Series IP Phones do not contain lead (Section 5.3). All IP telephones do not use components containing mercury (Section 5.7.2).
- DFE Guideline for Waste Electrical and Electronic Equipment (WEEE) (Section 6.5.1). See also section [8.4-6].

Regulatory compliance

Country	Regulatory compliance
USA	<ul style="list-style-type: none"> • EMC: FCC Part 15 Class B EMC Report • Telecom: FCC Part 68 (HAC hearing-aid compatibility) and Volume Control Report • RF: FCC Part 15C and SAR • Safety: UL (UL 60950-1 current edition)

Table continues...

Country	Regulatory compliance
European Union (EU)	<ul style="list-style-type: none"> • EMC: EN 55032: 2012 Emissions Class B • EMC: EN 55024: 2010 Immunity • EN 61000-3-2: 2014 Harmonics • EN 61000-3-3: 2013 Voltage Fluctuations • Safety: IEC / EN 60950-1: 2006+A2 CB Scheme • RF EN 300 328 EN 301 893. EN 301 489-17, EN 5066 Human Exposure (SAR) • Environmental: WEEE and RoHS / lead free compliance • CE marking
Canada	<ul style="list-style-type: none"> • EMC: ICES-003 Class B • RF: RS-247, SAR • Telecom: CS-03 • Safety: UL (CSA-C22.2 No. 60950-1-07)
Japan	<ul style="list-style-type: none"> • EMC: VCCI Class B • Telecom: JATE • RF: TELEC • Safety: IEC / EN 60950-1: 2006+A1 CB Scheme • Label: with VCCI and JATE mark
Brazil	<ul style="list-style-type: none"> • Safety: RES. 238 • EMC: RES. 237 and RES. 442 Reports Class B • RF: applicable RES • Telecom: RES 529 • ANATEL Listing
Korea	<ul style="list-style-type: none"> • EMC KN22 Emissions Class B • EMC KN24 Immunity • RF: KC • Safety: MIC • Telecom: MIC • KCC Listed
Australia	<ul style="list-style-type: none"> • EMC: EN 55022: 2010 Emissions Class B • Safety: IEC / EN 60950-1: 2006+A12 CB Scheme • Telecom AS/ACIF S004 • RCM

Table continues...

Environmental specification

Country	Regulatory compliance
New Zealand	<ul style="list-style-type: none"> • EMC: EN 55022: 2010 Emissions Class B • Safety: IEC / EN 60950-1: 2006+A1 CB Scheme • Telecom PTC 220 Report • PTC Listing
China	<ul style="list-style-type: none"> • China Safety GB4943.1-2011 • China EMC GB 9254-2008 • China RoHS and China RoHS labeling– Electronics Industry Standard of the People’s Republic of China specification SJ/T11364-2006.
Mexico	<ul style="list-style-type: none"> • RF: NOM / IEFTEL • Safety NOM
Russia	<ul style="list-style-type: none"> • EAC

Chapter 6: Dial plan

Dial plan

You can create a dial plan for and Avaya J100 Series IP Phones using the following characters.

Character	Description
Digits 0 through 9	Specific dialpad digits.
Asterisk (*)	The dialpad character asterisk (*).
Pound (#)	The dialpad character #, but only if it is the first character in the dialed string.
x	Any dialpad digit from 0 to 9.
Z or z	Present dial tone to the user. For example, for Feature Access Code (FAC) entry.
Brackets ([])	Any one character within the brackets is a valid match for a dial plan string.
Minus (-)	Any one digit between the bounds within the brackets, inclusive, is a match.
Plus (+)	The character before plus (+) may be repeated 0 or more additional times, for a valid match.
Pipe ()	If there are multiple valid dial plan elements, each one is separated from the next by an OR symbol.
(" ")	If the dial plan text string begins or ends with an OR symbol, that symbol is ignored.

Dialable characters

Characters that a user would put in a dial string. These are different from the dial plan elements.

Character	Description
Comma (,)	A comma (,) creates a 1.5-second pause between the digits that are sent. Do not use a comma (,) as the first character in the string.
Pound (#)	Can either be the first dialed element used in a FAC or TAC or the last character which is an end of dial string indication.
Asterisk (*)	Can either be the 1st dialed element used in a FAC or TAC.

Chapter 7: Security

Security overview

Avaya J100 Series IP Phones support the following security features:

- HTTP authentication for backup and restore operations.
- 256-bit Advanced Encryption Standard (AES-256) media encryption.
- Supports FIPS 140-2 cryptographic algorithms for application, processes, and users.
- Supports control to switch between FIPS and non-FIPS mode.
- Supports Public Key Infrastructure (PKI) for users that use third-party certificates for all Avaya services including database.
- Supports Certificate Revocation List (CRL) and On Line Certificate Status Protocol (OCSP) for public key management.
- Supports SRTP/SRTCP and TLS v1.2.
- Secure call indicator provided by Avaya Aura® Platform 7.0.
- Compliance with IETF RFC 1948 *Defending Against Sequence Number Attacks, May 1996, 14 by S. Bellovin* .
- Support Transport Layer Security (TLS) to establish a secure connection to an HTTP server on which the upgrade and settings files reside.

SSH

Avaya Services uses Secure Shell (SSH) protocol to remotely connect to Avaya J100 Series IP Phones to monitor, diagnose, or debug phone performance. The Avaya J100 Series IP Phones support SSHv2 only. SSHv1 is disabled.

TLS

Avaya J100 Series IP Phones supports Transport Layer Security (TLS) to enhance the security of your HTTP environment. The deskphones support HTTP and HTTPS authentication for backup and restore operations.

Avaya SBC

You can use Avaya J100 Series IP Phones SIP with Avaya Session Border Controller for Enterprise (SBCE) to provide support for remote workers. The SBCE gives remotely located SIP users access to the internal enterprise Unified Communications (UC) network by implementing comprehensive UC security features. These features include sophisticated firewall/NAT traversal, encryption, user authentication, and session and endpoint call policy enforcement.

EAP-TLS

Avaya J100 Series IP Phones supports Extensible Authentication Protocol-Transport Layer Security (EAP-TLS) mode of authentication. The call server supports EAP-TLS as specified in RFC 2716 if an identity certificate is present in the deskphone.

SCEP

Avaya J100 Series IP Phones supports Simple Certificate Enrollment Protocol (SCEP) to provide an identity certificate for use with certificate-based VPN authentication methods. The 802.1x EAP-TLS method also uses the identity certificate for authentication. When you use TLS with HTTPS, you can use the identity certificate to:

- Authenticate the deskphone
- Save the agent greetings
- Perform a backup or restore

Avaya J100 Series IP Phones supports Media Encryption (SRTP) and uses built-in Avaya certificates for trust management. You can apply SCEP to your VPN operations or to standard enterprise network operations.

802.1X Supplicant operation

Avaya J100 Series IP Phones supports Supplicant operation and Extensible Authentication Protocol (EAP).

Virus malware related attacks

Deskphones are delivered free from known viruses, worms, and other malware. Products are built in an environment that is free from known viruses, worms, and other malware. The "gold" version of a product is built on a machine that is known to be clean. For example, built from a known source or the operating system version is taken from the manufacturer's source.

JITC certification

For products sold into the U.S. and Canadian Government and sector, Joint Interoperability Test Command (JITC) certification is a mandatory requirement. Based on the operating system and the capabilities of the product, each product must adhere to the respective standard specified at <http://iase.disa.mil/stigs/checklist/index.html>.

Verification of JITC functionality includes execution of the scripts for the respective operating system on the product. The scripts are specified at <http://iase.disa.mil/stigs/SRR/index.html>.

All Avaya J100 Series IP Phones are JITC certified.

Port utilization

For the latest and most accurate information about ports and protocols that Avaya J100 Series IP Phones utilizes, see [Port Matrix](#). On the Web page, select the required link under Avaya one-X® Deskphone.

Chapter 8: Related resources

Documentation

See the following related documents at <http://support.avaya.com>:

Title	Use this document to:	Audience
Overview		
<i>Avaya Aura® Session Manager Overview and Specification</i>	See characteristics and capabilities, including feature descriptions, interoperability, performance specifications, security, and licensing requirements of the Avaya Aura® Session Manager.	People who want to gain a high-level understanding of the Avaya Aura® Session Manager features, functions, capacities, and limitations.
<i>Avaya Aura® Communication Manager Feature Description and Implementation</i>	See characteristics and capabilities, including feature descriptions, interoperability, performance specifications, security, and licensing requirements of the Avaya Aura® Communication Manager.	People who want to gain a high-level understanding of the Avaya Aura® Communication Manager features, functions, capacities, and limitations.
<i>Avaya IP Office™ Platform Feature Description</i>	See information about the feature descriptions.	People who perform system administration tasks.
<i>Avaya IP Office™ Platform Solution Description</i>	See information about how the products and services interoperate with this solution.	People who want to gain a high-level understanding of the IP Office features, functions, capacities, and limitations.
Implementing		
<i>Deploying Avaya Aura® Session Manager</i>	See the installation procedures and initial administration information for Avaya Aura® Session Manager.	People who install, configure, and verify Avaya Aura® Session Manager on Avaya Aura® System Platform.

Table continues...

Related resources

Title	Use this document to:	Audience
<i>Upgrading Avaya Aura® Session Manager</i>	See upgrading checklists and procedures.	People who perform upgrades of Avaya Aura® Session Manager.
<i>Deploying Avaya Aura® System Manager on System Platform</i>	See the installation procedures and initial administration information for Avaya Aura® System Manager.	People who install, configure, and verify Avaya Aura® System Manager on Avaya Aura® System Platform at a customer site.
<i>IP Office SIP Telephone Installation Notes</i>	See the installation procedures and initial administration information for IP Office SIP telephone devices.	People who install, configure and verify SIP telephone devices on IP Office.
Administering		
<i>Administering Avaya Aura® Session Manager</i>	See information about performing Avaya Aura® Session Manager administration tasks, including how to use management tools, how to manage data and security, and how to perform periodic maintenance tasks.	People who perform Avaya Aura® Session Manager system administration tasks.
<i>Administering Avaya Aura® System Manager</i>	See information about performing Avaya Aura® System Manager administration tasks, including how to use management tools, how to manage data and security, and how to perform periodic maintenance tasks.	People who perform Avaya Aura® System Manager administration tasks.
<i>Administering Avaya IP Office™ Platform with Manager</i>	See information about short code configurations for the feature list	People who need to access IP Office features using short codes.
<i>Administering Avaya IP Office™ Platform with Web Manager</i>	See information about IP Office Web Manager administration tasks, including how to use the management tool, how to manage data and security, and how to perform maintenance tasks.	People who perform IP Office Web Manager administration tasks.
Maintaining		
<i>Maintaining Avaya Aura® Session Manager</i>	See information about the maintenance tasks for Avaya Aura® Session Manager.	People who maintain Avaya Aura® Session Manager.
<i>Troubleshooting Avaya Aura® Session Manager</i>	See information for troubleshooting Avaya Aura® Session Manager, resolving alarms, replacing hardware, alarm codes, and event ID descriptions.	People who troubleshoot Avaya Aura® Session Manager.

Table continues...

Title	Use this document to:	Audience
<i>Using IP Office System Status</i>	See information about the maintenance tasks for System Status Application.	People who maintain System Status Application.
<i>Using IP Office System Monitor</i>	See information about the maintenance tasks for SysMonitor.	People who maintain SysMonitor.

Finding documents on the Avaya Support website

Procedure

1. Go to <https://support.avaya.com>.
2. To log in, click **Sign In** at the top of the screen and then enter your login credentials when prompted.
3. Click **Product Support > Documents**.
4. In **Search Product**, start typing the product name and then select the appropriate product from the list displayed.
5. In **Select Release**, select the appropriate release number.
This field is not available if there is only one release for the product.
6. **(Optional)** In **Enter Keyword**, type keywords for your search.
7. From the **Select Content Type** list, select one or more content types.
For example, if you only want to see user guides, click **User Guides** in the **Select Content Type** list.
8. Click  to display the search results.

Avaya Documentation Center navigation

For many programs, the latest customer documentation is available on the Avaya Documentation Center website at <https://documentation.avaya.com>. Some functionality is only available when you log in to the Avaya Documentation Center. The available functionality depends on your role.

Important:

If the documentation you are looking for is not available on the Avaya Documentation Center, you can find it on the [Avaya Support website](#).

While navigating through the Documentation Center, you can click the **Avaya Documentation Center** logo at the top of the screen to return to the home page anytime. On the Avaya Documentation Center, you can do the following:

- Click **Avaya Links** in the top menu bar to access other Avaya websites, including the Avaya Support website.
- Click **Languages** () in the top menu bar to change the display language and view localized documents.

- In the **Search Documentation** field, search for keywords and click **Filter** to filter by solution category, product, or user role.
You can select multiple items in each filter category. For example, you can select a product and multiple user roles.
- Click **Library** in the top menu bar to access the complete library of documents. Use the filtering options to refine your results.
- After performing a search or accessing the library, you can sort content on the search results page. When you find the item you want to view, click it to open it.
- Use the table of contents in a document for navigation. You can also click < or > next to the document title to navigate to the previous topic or the next topic.
- Click **Share** (↗) to share a topic by email or copy the URL.
- Download a PDF of the current topic in a document, the topic and its subtopics, or the entire document.
- Print the section you are viewing.
- Add content to a collection by clicking **Add to My Topics** (📁). You can add the topic and its subtopics or add the entire publication.
- View the topics in your collections. To access your collections, click your name in the top menu bar and then click **My Topics**.

You can do the following:

- Create, rename, and delete a collection.
 - Set a collection as the default or favorite collection.
 - Save a PDF of the selected content in a collection and download it to your computer.
 - Share content in a collection with others through email.
 - Receive collections that others have shared with you.
- Click **Watch** (👁) to add a topic to your watchlist so you are notified when the content is updated or removed.
 - View and manage your watchlist by clicking **Watchlist** from the top menu with your name.

You can do the following:

- Enable **Email notifications** to receive email alerts.
 - Unwatch the selected content or all topics.
- Send feedback for a topic.

Support

Go to the Avaya Support website at <https://support.avaya.com> for the most up-to-date documentation, product notices, and knowledge articles. You can also search for release notes,

downloads, and resolutions to issues. Use the online service request system to create a service request. Chat with live agents to get answers to questions, or request an agent to connect you to a support team if an issue requires additional expertise.

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