

Avaya G450 Branch Gateway, Release 7.1

Voluntary Product Accessibility Template (VPAT)

The Avaya G450 Branch Gateway can be administered via a graphical user interface or via a text-only command line interface. The responses in this document refer to the command line interface, and assume that the administrator's terminal or terminal emulation software is fully conformant with the statutory requirements of Section 508.

Support Levels

Support Level	Description
Supports	The Avaya G450 Branch Gateway fully meets the letter and intent of the criterion.
Supports with Exceptions/Minor Exceptions	The Avaya G450 Branch Gateway does not fully meet the letter and intent of the criterion, but provides some level of access relative to the criterion.
Supports through Equivalent Facilitation	The Avaya G450 Branch Gateway provides an alternate way to meet the intent of the criterion.
Supports when combined with Compatible Assistive Technology	The Avaya G450 Branch Gateway fully meets the letter and intent of the criterion when used in combination with compatible assistive technology.
Does Not Support	The Avaya G450 Branch Gateway does not meet the letter or intent of the criterion.
Not Applicable	The criterion does not apply.
Not Applicable – Fundamental Alteration Exception Applies	A fundamental alteration of the Avaya G450 Branch Gateway is required to meet the criterion.

Compliance Summary

Criteria	Support Levels
Section 1194.21 Software Applications and Operating Systems	Supports
Section 1194.22 Web-based Intranet and Internet Information and Applications	Not Applicable
Section 1194.23 Telecommunications Products	Supports
Section 1194.24 Video and Multi-media Products	Not Applicable
Section 1194.25 Self-Contained, Closed Products	Not Applicable
Section 1194.26 Desktop and Portable Computers	Not Applicable
Section 1194.31 Functional Performance Criteria	Supports
Section 1194.41 Information, Documentation and Support	Supports

§ 1194.21 Software Applications and Operating Systems

The Avaya G450 Branch Gateway can be administered via a graphical user interface or via a text-only “command line interface.” The information in this document refers to the command line interface.

The Avaya G450 Branch Gateway command line interface is accessed via terminal emulation software that resides on the user's desktop computer. The conformance statements in this document assume that the terminal emulation software is fully conformant with the statutory requirements of Section 508.

<i>Criteria</i>	<i>Support Levels</i>	<i>Remarks and Explanations</i>
1194.21(a) When software is designed to run on a system that has a keyboard, product functions shall be executable from a keyboard where the function itself or the result of performing a function can be discerned textually.	Supports.	The Avaya G450 Branch Gateway command line interface is text-only. All functions are executable from the keyboard. All system responses are presented in standard ASCII text.
1194.21(b) Applications shall not disrupt or disable activated features of other products that are identified as accessibility features, where those features are developed and documented according to industry standards. Applications also shall not disrupt or disable activated features of any operating system that are identified as accessibility features where the application programming interface for those accessibility features has been documented by the manufacturer of the operating system and is available to the product developer.	Supports.	The Avaya G450 Branch Gateway command line interface does not disrupt or disable the accessibility features of operating systems, nor does it disrupt or disable the features or settings of other software applications.
1194.21(c) A well-defined on-screen indication of the current focus shall be provided that moves among interactive interface elements as the input focus changes. The focus shall be programmatically exposed so that assistive technology can track focus and focus changes.	Supports.	The Avaya G450 Branch Gateway command line interface programmatically provides focus and tracking of changes during interactive sessions. The focus is indicated by an informative text prompt that provides the following information: the equipment type (in this case the associated media gateway type, G450), the media gateway number (e.g., 005), and the user's permission level (e.g., super).

1194.21(d) Sufficient information about a user interface element including the identity, operation and state of the element shall be available to assistive technology. When an image represents a program element, the information conveyed by the image must also be available in text.	Supports	The Avaya G450 Branch Gateway command line interface does not use images to convey information. All information is presented as standard ASCII text.
1194.21(e) When bitmap images are used to identify controls, status indicators, or other programmatic elements, the meaning assigned to those images shall be consistent throughout an application's performance.	Supports	The Avaya G450 Branch Gateway command line interface does not use bitmap images or other graphical representations. All information is presented as standard ASCII text.
1194.21(f) Textual information shall be provided through operating system functions for displaying text. The minimum information that shall be made available is text content, text input caret location, and text attributes.	Supports	The Avaya G450 Branch Gateway command line interface presents all information as standard ASCII text. The prompt at the input caret location displays the following information: the equipment type (in this case the associated media gateway type, G450), the media gateway number (e.g., 005), and the user's permission level (e.g., super).
1194.21(g) Applications shall not override user selected contrast and color selections and other individual display attributes.	Supports	The Avaya G450 Branch Gateway command line interface is text-only. The color and contrast settings are controlled by the user's terminal emulation software.
1194.21(h) When animation is displayed, the information shall be displayable in at least one non-animated presentation mode at the option of the user.	Not applicable.	The Avaya G450 Branch Gateway command line interface is text-only. There is no animation.
1194.21(i) Color coding shall not be used as the only means of conveying information, indicating an action, prompting a response, or distinguishing a visual element.	Not applicable.	The Avaya G450 Branch Gateway command line interface does not use color coding.
1194.21(j) When a product permits a user to adjust color and contrast settings, a variety of color selections capable of producing a range of contrast levels shall be provided.	Not applicable.	The Avaya G450 Branch Gateway command line interface is text-only. The color and contrast settings are controlled by the user's terminal emulation software.
1194.21(k) Software shall not use flashing or blinking text, objects, or other elements having a flash or blink frequency greater than 2 Hz and lower than 55 Hz.	Supports	The Avaya G450 Branch Gateway command line interface does not present text, objects, or elements that flash or blink. The blink rate of the cursor is controlled by the user's terminal emulation software.

1194.21(I) When electronic forms are used, the form shall allow people using assistive technology to access the information, field elements, and functionality required for completion and submission of the form, including all directions and cues.	Not applicable.	The Avaya G450 Branch Gateway command line interface does not use electronic forms.
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§ 1194.23 Telecommunications Products

<i>Criteria</i>	<i>Support Levels</i>	<i>Remarks and Explanations</i>
1194.23(a) Telecommunications products or systems which provide a function allowing voice communication and which do not themselves provide a TTY functionality shall provide a standard non-acoustic connection point for TTYs. Microphones shall be capable of being turned on and off to allow the user to intermix speech with TTY use.	Supports.	The Avaya G450 Branch Gateway has industry standard RJ-11 analog ports that permit direct connection of standard TTY devices. There is no aspect of the G450 that would disrupt the ability of a microphone-equipped device to support the intermixing of speech and TTY use.
1194.23(b) Telecommunications products, which include voice communication functionality, shall support all commonly used cross-manufacturer non-proprietary standard TTY signal protocols.	Supports.	<p>When communicating with other Avaya systems, the Avaya G450 Branch Gateway encodes analog 45.45 baud Baudot TTY signals (the TTY format most commonly used in the US) and 50 baud Baudot signals (a format commonly used outside of the US in countries such as Australia, Ireland, and the UK) as redundant data packets that, in essence, contain descriptions of the tones rather than the tones themselves. The encoding format for these descriptive packets conforms to RFC-2833, an international standard for the transmission of audio tones on IP networks. The receiving systems use these descriptions to reconstruct the original analog TTY signals. Independent testing has verified that this approach provides reliable transport of TTY signals with packet loss rates up to 10%, even when G.729 compression is being used on the audio channels. (These are network conditions so poor that <i>voice</i> communication is difficult.)</p> <p>A mechanism commonly used by other vendors is to transport the TTY signals within IP networks as uncompressed G.711 audio packets. In addition to the approach described in the previous paragraph, the G450 also supports an Avaya-only G.711 “pass-through” approach similar to that used by others. Specifically, when used in pass-through mode, the firmware of the G450 detects the audio tones that indicate the type of device being used (FAX, modem, or TTY)</p>

		<p>and then uses G.711 to encode and transport the signals over the IP network. Pass-through also supports an RFC2198 redundancy option that allows a packet to carry a redundant payload from the previous packet along with the current payload. Note that pass-through mode provides higher quality transmission when endpoints are synchronized to the same clock source. Note also that some text telephony modem protocols such as 300 baud and 1200 baud ASCII, as well as the non-Baudot V.18 protocols commonly used outside the US, are not supported by the approach described in the previous paragraph, but are supported by the G450 pass-through mechanism.</p> <p>In cases where modem, FAX, and TTY tones are not detected correctly due to the use of older and/or non standard equipment, the system administrator can configure an analog station specifically to be modem, FAX, or TTY by setting the "XoIP Endpoint Type" field to the corresponding value in the station form. Calls to and from this station will enter pass-through immediately without requiring the detection of a tone.</p> <p>Interoperability with non-Avaya equipment is supported when signals are encoded in G.711 voice mode, with all proprietary mechanisms set to OFF on the system administrator's "ip-codec set" form.</p>
<p>1194.23(c) Voice mail, auto-attendant, and interactive voice response telecommunications systems shall be usable by TTY users with their TTYs.</p>	<p>Supports.</p>	<p>The Avaya G450 Branch Gateway's automated attendant feature supports the presentation of TTY menus and announcements. The G450 does not have an inherent voicemail or IVR capability. (Please note that extensive TTY support is provided by the Avaya voicemail and IVR platforms that would be used in conjunction with the G450).</p>

<p>1194.23(d) Voice mail, messaging, auto-attendant, and interactive voice response telecommunications systems that require a response from a user within a time interval, shall give an alert when the time interval is about to run out, and shall provide sufficient time for the user to indicate more time is required.</p>	<p>Supports.</p>	<p>The time-out period and behavior of the Avaya G450 Branch Gateway's automated attendant feature is controlled by the associated Avaya Communication Manager server. The G450 does not have an inherent voicemail or IVR capability. (Please note that the Avaya voicemail and IVR platforms that would be used in conjunction with the G450 conform to this requirement).</p>
<p>1194.23(e) Where provided, caller identification and similar telecommunications functions shall also be available for users of TTYs, and for users who cannot see displays.</p>	<p>Not applicable. (This requirement applies to endpoint devices that are co-located with the user, such as telephones and TTYs. It does not apply to the Avaya G450 Branch Gateway.)</p>	<p>There is no aspect of the Avaya G450 Branch Gateway that would interfere with the conformance of a properly equipped endpoint device.</p>
<p>1194.23(f) For transmitted voice signals, telecommunications products shall provide a gain adjustable up to a minimum of 20 dB. For incremental volume control, at least one intermediate step of 12 dB of gain shall be provided.</p>	<p>Not applicable. (This requirement applies to endpoint devices that are co-located with the user, such as telephones and TTYs. It does not apply to the Avaya G450 Branch Gateway.)</p>	<p>There is no aspect of the Avaya G450 Branch Gateway that would interfere with the conformance of a properly equipped endpoint device.</p>
<p>1194.23(g) If the telecommunications product allows a user to adjust the receive volume, a function shall be provided to automatically reset the volume to the default level after every use.</p>	<p>Not applicable. (This requirement applies to endpoint devices that are co-located with the user, such as telephones and TTYs. It does not apply to the Avaya G450 Branch Gateway.)</p>	<p>There is no aspect of the Avaya G450 Branch Gateway that would interfere with the conformance of a properly equipped endpoint device.</p>
<p>1194.23(h) Where a telecommunications product delivers output by an audio transducer which is normally held up to the ear, a means for effective magnetic wireless coupling to hearing technologies shall be provided.</p>	<p>Not applicable. (This requirement applies to endpoint devices that are co-located with the user, such as telephones and TTYs. It does not apply to the Avaya G450 Branch Gateway.)</p>	<p>There is no aspect of the Avaya G450 Branch Gateway that would interfere with the conformance of a properly equipped endpoint device.</p>
<p>1194.23(i) Interference to hearing technologies (including hearing aids, cochlear implants, and assistive listening devices) shall be reduced to the lowest possible level that allows a user of hearing technologies to utilize the telecommunications product.</p>	<p>Not applicable. (This requirement applies to endpoint devices that are co-located with the user, such as telephones and TTYs. It does not apply to the Avaya G450 Branch Gateway.)</p>	<p>There is no aspect of the Avaya G450 Branch Gateway that would interfere with the conformance of a properly equipped endpoint device.</p>

<p>1194.23(j) Products that transmit or conduct information or communication, shall pass through cross-manufacturer, non-proprietary, industry-standard codes, translation protocols, formats or other information necessary to provide the information or communication in a usable format. Technologies which use encoding, signal compression, format transformation, or similar techniques shall not remove information needed for access or shall restore it upon delivery.</p>	<p>Supports.</p>	<p>The manner in which the Avaya G450 Branch Gateway supports the reliable transmission of cross-manufacturer, non-proprietary, industry-standard codes, translation protocols, formats, and other non-voice information is described in the response to 1194.23(b).</p>
<p>1194.23(k)(1) Products which have mechanically operated controls or keys shall comply with the following: Controls and Keys shall be tactilely discernible without activating the controls or keys.</p>	<p>Not applicable. (This requirement applies to endpoint devices that are co-located with the user, such as telephones and TTYs. It does not apply to the Avaya G450 Branch Gateway.)</p>	<p>There is no aspect of the Avaya G450 Branch Gateway that would interfere with the conformance of a properly equipped endpoint device.</p>
<p>1194.23(k)(2) Products which have mechanically operated controls or keys shall comply with the following: Controls and Keys shall be operable with one hand and shall not require tight grasping, pinching, twisting of the wrist. The force required to activate controls and keys shall be 5 lbs. (22.2N) maximum.</p>	<p>Not applicable. (This requirement applies to endpoint devices that are co-located with the user, such as telephones and TTYs. It does not apply to the Avaya G450 Branch Gateway.)</p>	<p>There is no aspect of the Avaya G450 Branch Gateway that would interfere with the conformance of a properly equipped endpoint device.</p>
<p>1194.23(k)(3) Products which have mechanically operated controls or keys shall comply with the following: If key repeat is supported, the delay before repeat shall be adjustable to at least 2 seconds. Key repeat rate shall be adjustable to 2 seconds per character.</p>	<p>Not applicable. (This requirement applies to endpoint devices that are co-located with the user, such as telephones and TTYs. It does not apply to the Avaya G450 Branch Gateway.)</p>	<p>There is no aspect of the Avaya G450 Branch Gateway that would interfere with the conformance of a properly equipped endpoint device.</p>
<p>1194.23(k)(4) Products which have mechanically operated controls or keys shall comply with the following: The status of all locking or toggle controls or keys shall be visually discernible, and discernible either through touch or sound.</p>	<p>Not applicable. (This requirement applies to endpoint devices that are co-located with the user, such as telephones and TTYs. It does not apply to the Avaya G450 Branch Gateway.)</p>	<p>There is no aspect of the Avaya G450 Branch Gateway that would interfere with the conformance of a properly equipped endpoint device.</p>

§ 1194.31 Functional Performance Criteria

<i>Criteria</i>	<i>Support Levels</i>	<i>Remarks and Explanations</i>
1194.31(a) At least one mode of operation and information retrieval that does not require user vision shall be provided, or support for assistive technology used by people who are blind or visually impaired shall be provided.	Supports.	<p>The manner in which the Avaya G450 Branch Gateway command line administrative interface supports users who are blind or visually impaired is documented in the responses to § 1194.21 “Software Applications and Operating Systems.”</p> <p>The Avaya G450 Branch Gateway does not have a visual interface or function that is accessed by end users.</p>
1194.31(b) At least one mode of operation and information retrieval that does not require visual acuity greater than 20/70 shall be provided in audio and enlarged print output working together or independently, or support for assistive technology used by people who are visually impaired shall be provided.	Supports.	The Avaya G450 Branch Gateway command line administrative interface is text-only. The ability to change the size, color, and font of the text is dependent on the administrator’s terminal emulation software.
1194.31(c) At least one mode of operation and information retrieval that does not require user hearing shall be provided, or support for assistive technology used by people who are deaf or hard of hearing shall be provided.	Supports.	<p>The Avaya G450 Branch Gateway command line administrative interface does not have an audio component.</p> <p>The manner in which the Avaya G450 Branch Gateway automated attendant function supports end users who are deaf or hard of hearing is documented in the response to 1194.23(c).</p>
1194.31(d) Where audio information is important for the use of a product, at least one mode of operation and information retrieval shall be provided in an enhanced auditory fashion, or support for assistive hearing devices shall be provided.	Supports.	<p>The Avaya G450 Branch Gateway command line administrative interface does not have an audio component.</p> <p>The manner in which the Avaya G450 Branch Gateway automated attendant function supports end users who are deaf or hard of hearing is documented in the response to 1194.23(c).</p>
1194.31(e) At least one mode of operation and information retrieval that does not require user speech shall be provided, or support for assistive technology used by people with disabilities shall be provided.	Supports.	No mode of operation or information retrieval in the Avaya G450 Branch Gateway requires user speech.

1194.31(f) At least one mode of operation and information retrieval that does not require fine motor control or simultaneous actions and that is operable with limited reach and strength shall be provided.	Supports	No mode of operation or information retrieval in the Avaya G450 Branch Gateway requires fine motor control or simultaneous actions. Operability with limited reach and strength is dependent on the user's terminal.
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§ 1194.41 Information, Documentation and Support

<i>Criteria</i>	<i>Support Levels</i>	<i>Remarks and Explanations</i>
1194.41(a) Product support documentation provided to end-users shall be made available in alternate formats upon request, at no additional charge	Supports	Will provide upon request.
1194.41(b) End-users shall have access to a description of the accessibility and compatibility features of products in alternate formats or alternate methods upon request, at no additional charge.	Supports	Will provide upon request.
1194.41(c) Support services for products shall accommodate the communication needs of end-users with disabilities.	Supports	Contact Avaya Support for accessibility-related issues.

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