Avaya Media Processing Server Releases 3.0, 3.5 and 4.1 Telephone User Interfaces

Voluntary Product Accessibility Template (VPAT)

The Avaya Media Processing Server is a software and hardware platform that provides telephone users with a voice-based natural-language interface to Web applications and/or MPS Developer applications. Despite having been designed as a voice input/output product, the Media Processing Server is able to accept DTMF ("touch tone") responses and is also able to provide Baudot-format prompts for TTY users.

The statements in this document refer to the telephone user interfaces that may be implemented on the Media Processing Server 500 and 1000 platforms, releases 3.0, 3.5 and 4.1.

Support Levels

Support Level	Description
Supports	The Media Processing Server fully meets the letter and intent of the criterion.
Supports with Exceptions/Minor Exceptions	The Media Processing Server 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 Media Processing Server provides an alternate way to meet the intent of the criterion.
Supports when combined with Compatible Assistive Technology	The Media Processing Server fully meets the letter and intent of the criterion when used in combination with compatible assistive technology.
Does Not Support	The Media Processing Server 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 Media Processing Server is required to meet the criterion.

Compliance Summary

Criteria	Support Levels
Section 1194.21 Software Applications and Operating Systems	**Not Applicable**
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**

§ 1194.23 Telecommunications Products

Criteria	*Support Levels*	*Remarks and Explanations*
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	All end-user communication with Avaya Media Processing Server is via standard telephone lines, thereby satisfying the requirement for a non-acoustic connection point for TTYs. With regard to intermixing speech and TTY use, many vendors have stated that this requirement applies only to telephones, and does not apply to products such as the Media Processing Server. By contrast, Avaya believes that the ability to intermix speech and TTY is essential. The reason why is that nearly half of the people who use TTYs do so in a mixed-mode fashion, the most common being people who are hard of hearing but are still able to speak clearly. These individuals often prefer to receive on their TTYs and then speak in response, a process referred to as Voice Carry Over or VCO. For this reason, the Avaya Media Processing Server supports the execution of MPS Developer and VoiceXML applications that allow end-users to respond by voice even when being prompted by TTY text.
1194.23(b) Telecommunications products, which include voice communication functionality, shall support all commonly used cross-manufacturer non-proprietary standard TTY signal protocols.	Supports	The only TTY protocol that the US Access Board presently requires is TIA/EIA 825, commonly referred to as 45.45 baud Baudot signaling. Support for protocols such as 300 baud ASCII and 1200 baud ASCII is not feasible with IVR systems because these protocols require a constant carrier tone to be maintained between devices that are communicating with each other, thereby making it impossible to intermix voice and DTMF signals ("touch tones") with the TTY transmissions. Please note the following guidance: (1) The Avaya Media Processing Server can be configured to use many of the Voice over Internet Protocol (VoIP) voice encoding algorithms supported by the VoiceXML 2.0/2.1 standard. To ensure reliable recording and playback of Baudot TTY signals, a 64 kilobit/second pulse code modulation technique, such as ITU-T Recommendation G.711, must be used. For systems configured for TDM protocols (ISDN, SS7 and CAS), standard T1 and E1 framing is supported. (2) The Avaya Media Processing Server supports SIP telephony integration. If packet loss on the IP network between the Media Processing Server and the end-user exceeds 0.12%, the TTY character error rate may exceed the FCC's suggested limit of one percent. Note that, because WANs typically do not support a packet loss rate of less than 0.12%, IP QSIG trunks are recommended in order to ensure that TTY signals that terminate on remote systems are transported reliably. It is the purchaser's responsibility to ensure that the Media Processing Server is used in conjunction with a robust IP network.

1194.23(c) Voice mail, auto-attendant, and interactive voice response telecommunications systems shall be usable by TTY users with their TTYs.	Supports	In addition to its ability to provide voice prompts, the Avaya Media Processing Server is able to provide 45.45 baud and 50 baud Baudot-format prompts to TTY users. Regardless of whether the prompts are voice or TTY, users may respond by voice or via DTMF "touch tone" key presses. (The Media Processing Server's ability to accept spoken responses, even when prompting in TTY format, can be very helpful to Voice Carry Over or "VCO" users who are unable to hear adequately on a telephone but are nevertheless able to speak clearly.) NOTE: In most cases, the applications that operate on Avaya Media Processing Server platforms are implemented by the owners and managers of the systems, rather than by Avaya. For this reason, even though Avaya provides tools that allow fully conformant applications to be implemented, it will often be the purchaser's responsibility to ensure conformance with this requirement.
1194.23(d) Voice mail, messaging, auto-attendant, and interactive voice response telecommunication 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.	Supports	The Avaya Media Processing Server supports the creation of applications that do not require a response within a time interval. A reason why IVR applications often require a response within a time interval is that, if the application does not disconnect or take other action automatically after a period of user inactivity, it becomes possible for callers to freeze the ports on the system indefinitely. The Avaya Media Processing Server permits time limits to be handled in a flexible, user-friendly manner. Within applications that impose a time limit on users' responses, the time-out interval may be specified within the application, along with the behavior of the system when time is about to expire. System responses that may be specified in the applications include, but are not limited to, providing an alert when the time interval is about to run out and providing sufficient time for the user to indicate more time is required, repeating the menu, and transferring the call automatically to a person who can assist the caller. NOTE: In most cases, the applications that operate on Avaya Media Processing Server platforms are implemented by the owners and managers of the systems, rather than by Avaya. For this reason, even though Avaya provides tools that allow fully conformant applications to be implemented, it will often be the purchaser's responsibility to ensure conformance with this requirement.
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.	Not Applicable	This requirement applies to endpoint devices that are co-located with the user, such as telephones, soft phones, and TTYs. It does not apply to Avaya Media Processing Server. There is no aspect of Avaya Media Processing Server that would interfere with the operation of a conforming endpoint device.

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.	Supports with Minor Exceptions	Avaya Media Processing Server conforms to this requirement, within the limitations of the VoiceXML 2.0/2.1 standard and to the extent feasible with equipment that is not co-located with the user. The voice prompts provided by Avaya Media Processing Server can consist of pre-recorded speech or can be generated by text-to-speech software. The VoiceXML 2.0/2.1 standard and MPS Developer applications utilized by the Media Processing Server do not support audio gain adjustments of pre-recorded speech. Conformance with this requirement can be achieved by creating and storing multiple versions of each speech recording, encoded at different amplitude levels. Alternatively, the amplitude of text-to-speech audio output can be modified in the Speech Synthesis Markup Language (SSML). The available user-adjustable amplitude range (i.e., the lowest user-selectable amplitude versus the highest user-selectable amplitude) is determined by the third party speech technology that is used. NOTE: None of the commonly accepted standards for voice communication between telephones and associated back-office equipment (such as IVR systems) has 20 dB of amplitude headroom available. Under typical conditions, the maximum additional gain in the output of back-office systems, without introducing unacceptable levels of distortion, is approximately 10 dB. For this reason, users who require low-distortion amplitude increases of more than 10 dB above the nominal level should rely on their endpoint devices (e.g., their telephones), rather than the Media Processing Server, to provide this gain.
1194.23(g) If a telecommunication 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.	Supports	All user-adjustable audio characteristics on Avaya Media Processing Server systems can be programmed in the application layer to reset automatically to their default values when the user hangs up.
1194.23(h) Where a telecommunication 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.	Not Applicable	This requirement applies to transducer-equipped endpoint devices, such as telephone handsets and headsets. It does not apply to the Avaya Media Processing Server. There is no aspect of the Avaya Media Processing Server that would interfere with the operation of a conforming endpoint device.
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.	Not Applicable	This requirement applies to transducer-equipped endpoint devices, such as telephone handsets and headsets. It does not apply to the Avaya Media Processing Server. There is no aspect of the Avaya Media Processing Server that would interfere with the operation of a conforming endpoint device.

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.	Supports	The manner in which the Avaya Media Processing Server conforms to this requirement is described in the response to 1194.23(b).
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.	Not Applicable	This requirement applies to endpoint devices that are co-located with the user, such as telephones, soft phones, and TTYs. It does not apply to the Avaya Media Processing Server. There is no aspect of Avaya Media Processing Server that would interfere with the operation of a conforming endpoint device.
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.	Not Applicable	This requirement applies to endpoint devices that are co-located with the user, such as telephones, soft phones, and TTYs. It does not apply to the Avaya Media Processing Server. There is no aspect of Avaya Media Processing Server that would interfere with the operation of a conforming endpoint device.
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.	Not Applicable	This requirement applies to endpoint devices that are co-located with the user, such as telephones, soft phones, and TTYs. It does not apply to the Avaya Media Processing Server. There is no aspect of Avaya Media Processing Server that would interfere with the operation of a conforming endpoint device.
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.	Not Applicable	This requirement applies to endpoint devices that are co-located with the user, such as telephones, soft phones, and TTYs. It does not apply to the Avaya Media Processing Server. There is no aspect of Avaya Media Processing Server that would interfere with the operation of a conforming endpoint device.

§ 1194.31 Functional Performance Criteria

Criteria	*Support Levels*	*Remarks and Explanations*
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	The Avaya Media Processing Server supports a telephone user interface that is operable without user vision.
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 Media Processing Server supports a telephone user interface that is operable without user vision.
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	The Avaya Media Processing Server support for users of TTYs is described in the Remarks and Explanations for 1194.23(a), 1194.23(b), and 1194.23(c).
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	The Avaya Media Processing Server support for users of TTYs is described in the Remarks and Explanations for 1194.23(a), 1194.23(b), and 1194.23(c). Support for users who require enhanced audio is described in the Remarks and Explanations for 1194.23(f).
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	In most cases, the applications that operate on Avaya Media Processing Server platforms are implemented by the owners and managers of the systems, rather than by Avaya. For this reason, even though Avaya provides tools that allow fully conformant applications to be implemented, it will often be the purchaser's responsibility to ensure conformance with this requirement. (Typically, this is achieved by allowing DTMF “touch tone” key presses whenever user input is required.)
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	Avaya Media Processing Server supports the creation of applications that do not require fine motor control skills or simultaneous actions. Applications that operate on Avaya Media Processing Server can be developed to support single DTMF entries as well as natural language speech input.

§ 1194.41 Information, Documentation and Support

Criteria	*Support Levels*	*Remarks and Explanations*
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	Avaya's point-of-contact for accessibility-related issues: Dr. Paul R. Michaelis Voice: 303-538-4101 TTY: 303-538-3740 prmichaelis-at-avaya.com

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Updated October 10, 2013