Cisco Accessibility Conformance Report VPAT® Version 2.4

Name of Product/Version: Cisco Industrial Ethernet Switches - all series

Product Description: The Cisco Industrial Ethernet Switches, built to withstand extreme environments, delivers highly secure aggregation and industry-leading convergence and resiliency. These switches can improve uptime, performance, and safety of industrial systems and equipment in factories, utility substations, oil and gas fields, connected cities and more.

Date: June 8, 2021

Contact Information: accessibility@cisco.com
Evaluation Method Used: Manual testing

Summary Table - Voluntary Product Accessibility Template

Standard/Guideline	Included In Report	Remarks and Explanations
Section 508 Chapter 3: Functional Performance Criteria	Included	
Section 508 Chapter 4: Hardware	Included	
Section 508 Chapter 5: Software	Applicable	Refer to Cisco IOS technology VPAT.
W3C WCAG 2.1 Level A and AA for Software application	Applicable	Refer to Cisco IOS technology VPAT.
W3C WCAG 2.1 Level A and AA for Web application	Not Applicable	
Section 508 Chapter 6: Support Documentation and Services	Included	
W3C WCAG 2.1 Level A and AA for Documentation	Included	Where applicable, the WCAG 2.1 table should cover all requirements of WCAG 2.0 that are incorporated by Section 508.

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Last Updated: June 8, 2021

For more information, please contact: accessibility@cisco.com

Section 508 Chapter 3: Functional Performance Criteria – Detail

Criteria	Description	Status	Remarks and Explanations
302.1	Without Vision. Where a visual mode of operation is provided, ICT shall provide at least one mode of operation that does not require user vision.	Supports	
302.2	With Limited Vision. Where a visual mode of operation is provided, ICT shall provide at least one mode of operation that enables users to make use of limited vision.	Supports	
302.3	Without Perception of Color. Where a visual mode of operation is provided, ICT shall provide at least one visual mode of operation that does not require user perception of color.	Supports	
302.4	Without Hearing. Where an audible mode of operation is provided, ICT shall provide at least one mode of operation that does not require user hearing.	Supports	
302.5	With Limited Hearing. Where an audible mode of operation is provided, ICT shall provide at least one mode of operation that enables users to make use of limited hearing.	Supports	
302.6	Without Speech. Where speech is used for input, control, or operation, ICT shall provide at least one mode of operation that does not require user speech.	Supports	
302.7	With Limited Manipulation. Where a manual mode of operation is provided, ICT shall provide at least one mode of operation that does not require fine motor control or simultaneous manual operations.	Supports	
302.8	With Limited Reach and Strength. Where a manual mode of operation is provided, ICT shall provide at least one mode of operation that is operable with limited reach and limited strength.	Supports	
302.9	With Limited Language, Cognitive, and Learning Abilities. ICT shall provide features making its use by individuals with limited cognitive, language, and learning abilities simpler and easier.	Partially Supports	Support for users with limited language, cognitive, and learning abilities is varied and depends on the user's experience.

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Section 508 Chapter 4: Hardware – Detail

Criteria	Description	Status	Remarks and Explanations
402	Closed Functionality	Supports	
402.1	General. ICT with closed functionality shall be operable without requiring the user to attach or install assistive technology other than personal headsets or other audio couplers, and shall conform to 402.	Supports	
402.2	Speech-Output Enabled. ICT with a display screen shall be speech-output enabled for full and independent use by individuals with vision impairments.	Not Applicable	ICT has no display screen.
402.2.1	Information Displayed On-Screen. Speech output shall be provided for all information displayed on-screen.	Not Applicable	ICT has no display screen.
402.2.2	Transactional Outputs. Where transactional outputs are provided, the speech output shall audibly provide all information necessary to verify a transaction.	Not Applicable	Applicable for an ICT which provides transactional data. An example of transaction data is cash withdrawal from an ATM.
402.2.3	Speech Delivery Type and Coordination. Speech output shall be delivered through a mechanism that is readily available to all users, including, but not limited to, an industry standard connector or a telephone handset. Speech shall be recorded or digitized human, or synthesized. Speech output shall be coordinated with information displayed on the screen.	Not Applicable	No instances of speech output.
402.2.4	User Control. Speech output for any single function shall be automatically interrupted when a transaction is selected. Speech output shall be capable of being repeated and paused.	Not Applicable	No instances of speech output features.
402.2.5	Braille Instructions. Where speech output is required by 402.2, braille instructions for initiating the speech mode of operation shall be provided. Braille shall be contracted and shall conform to 36 CFR part 1191, Appendix D, Section 703.3.1	Not Applicable	No instances of speech output features.

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402.3	Volume. ICT that delivers sound, including speech output required by 402.2, shall provide volume control and output amplification conforming to 402.3. EXCEPTION: ICT conforming to 412.2 shall not be required	Not Applicable	No instances of sound or speech output features.
402.3.1	to conform to 402.3. Private Listening. Where ICT provides private listening, it shall provide a mode of operation for controlling the volume. Where ICT delivers output by an audio transducer typically held up to the ear, a means for effective magnetic wireless coupling to hearing technologies shall be provided.	Not Applicable	No instances of listening features.
402.3.2	Non-private Listening. Where ICT provides non-private listening, incremental volume control shall be provided with output amplification up to a level of at least 65 dB. A function shall be provided to automatically reset the volume to the default level after every use.	Not Applicable	No instances of listening features.
402.4	Characters on Display Screens. At least one mode of characters displayed on the screen shall be in a sans serif font. Where ICT does not provide a screen enlargement feature, characters shall be 3/16 inch (4.8 mm) high minimum based on the uppercase letter "I". Characters shall contrast with their background with either light characters on a dark background or dark characters on a light background.	Not Applicable	Does not have display screen.
402.5	Characters on Variable Message Signs. Characters on variable message signs shall conform to section 703.7 Variable Message Signs of ICC A117.1-2009 (incorporated by reference, see 702.6.1).	Not Applicable	VARIABLE MESSAGE SIGNS (VMS) are the electronic signs that change information as they show such as gate information in train stations and airports.
403	Biometrics	Not Applicable	No instances of biometric forms of user identification or control.
403.1	General. Where provided, biometrics shall not be the only means for user identification or control.	Not Applicable	
404	Preservation of Information Provided for Accessibility	Supports	

404.1	General. ICT that transmits or converts information or communication shall not remove non-proprietary information provided for accessibility or shall restore it upon delivery.	Supports	
405	Privacy	Not Applicable	ICT does not have display screen.
405.1	General. The same degree of privacy of input and output shall be provided to all individuals. When speech output required by 402.2 is enabled, the screen shall not blank automatically.	Not Applicable	
406	Standard Connections	Supports	
406.1	General. Where data connections used for input and output are provided, at least one of each type of connection shall conform to industry standard non-proprietary formats.	Supports	
407	Operable Parts	Supports	
407.1	General. Where provided, operable parts used in the normal operation of ICT shall conform to 407.	Supports	
407.2	Contrast. Where provided, keys and controls shall contrast visually from background surfaces. Characters and symbols shall contrast visually from background surfaces with either light characters or symbols on a dark background or dark characters or symbols on a light background.	Supports	
407.3.1	Tactilely Discernible. Input controls shall be operable by touch and tactilely discernible without activation.	Supports	
407.3.2	Alphabetic Keys. Where provided, individual alphabetic keys shall be arranged in a QWERTY-based keyboard layout and the "F" and "J" keys shall be tactilely distinct from the other keys.	Not Applicable	ICT does not have keyboard.
407.3.3	Numeric Keys. Where provided, numeric keys shall be arranged in a 12-key ascending or descending keypad layout. The number five key shall be tactilely distinct from the	Not Applicable	ICT does not have keyboard.

	other keys. Where the ICT provides an alphabetic overlay on numeric keys, the relationships between letters and digits shall conform to ITU-T Recommendation E.161		
407.4	Key Repeat. Where a keyboard with key repeat is provided, the delay before the key repeat feature is activated shall be fixed at, or adjustable to, 2 seconds minimum.	Not Applicable	ICT does not have keyboard.
407.5	Timed Response. Where a timed response is required, the user shall be alerted visually, as well as by touch or sound, and shall be given the opportunity to indicate that more time is needed.	Not Applicable	None of the features require timed response.
407.6	Operation. At least one mode of operation shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist. The force required to activate operable parts shall be 5 pounds (22.2 N) maximum.	Supports	
407.7	Tickets, Fare Cards, and Keycards. Where tickets, fare cards, or keycards are provided, they shall have an orientation that is tactilely discernible if orientation is important to further use of the ticket, fare card, or keycard.	Not Applicable	ICT does not provide electronic pass cards and/or identification badges.
407.8.1	Vertical Reference Plane. Operable parts shall be positioned for a side reach or a forward reach determined with respect to a vertical reference plane. The vertical reference plane shall be located in conformance to 407.8.2 or 407.8.3.	Supports	
407.3.3	Numeric Keys. Where provided, numeric keys shall be arranged in a 12-key ascending or descending keypad layout. The number five key shall be tactilely distinct from the other keys. Where the ICT provides an alphabetic overlay on numeric keys, the relationships between letters and digits shall conform to ITU-T Recommendation E.161	Not Applicable	ICT does not have keyboard.
407.8.1.1	Vertical Plane for Side Reach. Where a side reach is provided, the vertical reference plane shall be 48 inches (1220 mm) long minimum.	Supports	
407.8.1.2	Vertical Plane for Forward Reach. Where a forward reach is provided, the vertical reference plane shall be 30 inches (760 mm) long minimum.	Supports	

407.8.2	Side Reach. Operable parts of ICT providing a side reach shall conform to 407.8.2.1 or 407.8.2.2. The vertical reference plane shall be centered on the operable part and placed at the leading edge of the maximum protrusion of the ICT within the length of the vertical reference plane. Where a side reach requires a reach over a portion of the ICT, the height of that portion of the ICT shall be 34 inches (865 mm) maximum.	Supports
407.8.2.1	Unobstructed Side Reach. Where the operable part is located 10 inches (255 mm) or less beyond the vertical reference plane, the operable part shall be 48 inches (1220 mm) high maximum and 15 inches (380 mm) high minimum above the floor.	Supports
407.8.2.2	Obstructed Side Reach. Where the operable part is located more than 10 inches (255 mm), but not more than 24 inches (610 mm), beyond the vertical reference plane, the height of the operable part shall be 46 inches (1170 mm) high maximum and 15 inches (380 mm) high minimum above the floor. The operable part shall not be located more than 24 inches (610 mm) beyond the vertical reference plane.	Supports
407.8.3	Forward Reach. Operable parts of ICT providing a forward reach shall conform to 407.8.3.1 or 407.8.3.2. The vertical reference plane shall be centered, and intersect with, the operable part. Where a forward reach allows a reach over a portion of the ICT, the height of that portion of the ICT shall be 34 inches (865 mm) maximum.	Supports
407.8.3.1	Unobstructed Forward Reach. Where the operable part is located at the leading edge of the maximum protrusion within the length of the vertical reference plane of the ICT, the operable part shall be 48 inches (1220 mm) high maximum and 15 inches (380 mm) high minimum above the floor.	Supports
407.8.3.2	Obstructed Forward Reach. Where the operable part is located beyond the leading edge of the maximum protrusion within the length of the vertical reference plane, the operable part shall conform to 407.8.3.2. The maximum allowable	Supports

	forward reach to an operable part shall be 25 inches (635 mm).		
407.8.3.2.1	Operable Part Height for ICT with Obstructed Forward Reach. The height of the operable part shall conform to - For operable part height of 48 inches (1220 mm) maximum, reach depth is Less than 20 inches (510 mm) - For operable part height of 44 inches (1120 mm) maximum, reach depth is 20 inches (510 mm) to 25 inches (635 mm)	Supports	
407.8.3.2.2	Knee and Toe Space under ICT with Obstructed Forward Reach. Knee and toe space under ICT shall be 27 inches (685 mm) high minimum, 25 inches (635 mm) deep maximum, and 30 inches (760 mm) wide minimum and shall be clear of obstructions.	Supports	
408	Display Screens	Not Applicable	ICT does not have display screen.
408.1	General. Where provided, display screens shall conform to 408.	Not Applicable	ICT does not have display screen.
408.2	Visibility. Where stationary ICT provides one or more display screens, at least one of each type of display screen shall be visible from a point located 40 inches (1015 mm) above the floor space where the display screen is viewed.	Not Applicable	ICT does not have display screen.
408.3	Flashing. Where ICT emits lights in flashes, there shall be no more than three flashes in any one-second period.	Supports	LED lights blink during different states and meets this requirement.
409	Status Indicators	Supports	
409.1	General. Where provided, status indicators shall be discernible visually and by touch or sound.	Supports	ICT has on/off power switch which is discernible visually and by touch.
410	Color Coding	Supports	
410.1	General. Where provided, color coding shall not be used as the only means of conveying information, indicating an action, prompting a response, or distinguishing a visual element.	Supports	

411	Audible Signals	Not Applicable	No instances of audio features.
411.1	General. Where provided, audible signals or cues shall not be used as the only means of conveying information, indicating an action, or prompting a response.	Not Applicable	
412	ICT with Two-Way Voice Communication	Not Applicable	ICT does not provide two-way voice communication.
412.1	General. ICT that provides two-way voice communication shall conform to 412.	Not Applicable	
412.2	Volume Gain. ICT that provides two-way voice communication shall conform to 412.2.1 or 412.2.2.	Not Applicable	
412.2.1	Volume Gain for Wireline Telephones. Volume gain conforming to 47 CFR 68.317 shall be provided on analog and digital wireline telephones.	Not Applicable	
412.2.2	Volume Gain for Non-Wireline ICT. A method for increasing volume shall be provided for non-wireline ICT.	Not Applicable	
412.3	Interference Reduction and Magnetic Coupling. Where ICT delivers output by a handset or other type of audio transducer that is typically held up to the ear, ICT shall reduce interference with hearing technologies and provide a means for effective magnetic wireless coupling in conformance with 412.3.1 or 412.3.2.	Not Applicable	
412.3.1	Wireless Handsets. ICT in the form of wireless handsets shall conform to ANSI/IEEE C63.19-2011	Not Applicable	
412.3.2	Wireline Handsets. ICT in the form of wireline handsets, including cordless handsets, shall conform to TIA-1083-B	Not Applicable	
412.4	Digital Encoding of Speech. ICT in IP-based networks shall transmit and receive speech that is digitally encoded in the manner specified by ITU-T Recommendation G.722.2 (incorporated by reference, see 702.7.2) or IETF RFC 6716	Not Applicable	
412.5	Real-Time Text Functionality	Not Applicable	
412.6	Caller ID. Where provided, caller identification and similar telecommunications functions shall be visible and audible.	Not Applicable	

412.7	Video Communication. Where ICT provides real-time video functionality, the quality of the video shall be sufficient to support communication using sign language.	Not Applicable	
412.8	Legacy TTY Support. ICT equipment or systems with two- way voice communication that do not themselves provide TTY functionality shall conform to 412.8.	Not Applicable	
412.8.1	TTY Connectability. ICT shall include a standard non-acoustic connection point for TTYs.	Not Applicable	
412.8.2	Voice and Hearing Carry Over. ICT shall provide a microphone capable of being turned on and off to allow the user to intermix speech with TTY use.	Not Applicable	
412.8.3	Signal Compatibility. ICT shall support all commonly used cross-manufacturer non-proprietary standard TTY signal protocols where the system interoperates with the Public Switched Telephone Network (PSTN).	Not Applicable	
412.8.4	Voice Mail and Other Messaging Systems. Where provided, voice mail, auto-attendant, interactive voice response, and caller identification systems shall be usable with a TTY.	Not Applicable	This requirement applies only to voice mail, auto-attendant, and interactive voice response systems.
413	Closed Caption Processing Technologies	Not Applicable	ICT does not have multimedia content (synchronized media).
413.1.1	Decoding and Display of Closed Captions. Players and displays shall decode closed caption data and support display of captions.	Not Applicable	
413.1.2	Pass-Through of Closed Caption Data. Cabling and ancillary equipment shall pass through caption data.	Not Applicable	
414	Audio Description Processing Technologies	Not Applicable	ICT does not have multimedia content (synchronized media).
414.1	General. Where ICT displays or processes video with synchronized audio, ICT shall provide audio description processing technology conforming to 414.1.1 or 414.1.2.	Not Applicable	
414.1.1	Digital Television Tuners. Digital television tuners shall provide audio description processing that conforms to ATSC A/53 Digital Television Standard, Part 5 (2014) (incorporated by reference, see 702.2.1). Digital television tuners shall provide processing of audio description when encoded as a	Not Applicable	

	Visually Impaired (VI) associated audio service that is provided as a complete program mix containing audio description according to the ATSC A/53 standard.		
414.1.2	Other ICT. ICT other than digital television tuners shall provide audio description processing.	Not Applicable	
415	User Controls for Captions and Audio Descriptions	Not Applicable	ICT does not have multimedia content (synchronized media).
415.1	General. Where ICT displays video with synchronized audio, ICT shall provide user controls for closed captions and audio descriptions conforming to 415.1.	Not Applicable	
415.1.1	Caption Controls. Where ICT provides operable parts for volume control, ICT shall also provide operable parts for caption selection.	Not Applicable	
415.1.2	Audio Description Controls. Where ICT provides operable parts for program selection, ICT shall also provide operable parts for the selection of audio description.	Not Applicable	

Section 508 Chapter 6: Support Documentation and Services – Detail

Criteria	Description	Status	Remarks and Explanations
602.2	Accessibility and Compatibility Features. Documentation shall list and explain how to use the accessibility and compatibility features required by Chapters 4 and 5. Documentation shall include accessibility features that are built-in and accessibility features that provide compatibility with assistive technology.	Does Not Support	The documentation does not provide a list of accessibility and compatibility features.
602.3	Electronic Support Documentation. Documentation in electronic format, including Web-based self-service support, shall conform to Level A and Level AA Success Criteria and Conformance Requirements in WCAG 2.0.	Partially Supports	The WCAG 2.1 table should cover all requirements of WCAG 2.0. See "WCAG 2.1 Level A and AA" table for more information.
602.4	Alternate Formats for Non-Electronic Support Documentation. Where support documentation is only provided in non-electronic formats, alternate formats usable by individuals with disabilities shall be provided upon request.	Supports	
603.2	Information on Accessibility and Compatibility Features. ICT support services shall include information on the accessibility and compatibility features required by 602.2.	Supports	Contact Cisco accessibility team via email, accessibility@cisco.com for more information.
603.3	Accommodation of Communication Needs. Support services shall be provided directly to the user or through a referral to a point of contact. Such ICT support services shall accommodate the communication needs of individuals with disabilities.	Supports	Cisco conforms through equal facilitation. Customers may reach Cisco Technical Assistance Center (TAC) via Phone, Email or Web Form. All cases open through email or web are opened as Priority 3 cases. All Priority 1 or Priority 2 case can only be opened via the telephone. TTY users must call the Text Relay Service (TRS) by dialing 711 or their state Video Relay Service (VRS) and have the TRS agent contact Cisco TAC via voice.

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W3C WCAG 2.1 Level A and AA for Documentation - Detail

Criteria	Description	Status	Remarks and Explanations
1.1.1 (A)	Non-text Content	Partially Supports	Some images do not have meaningful alternative text.
1.2.1 (A)	Audio-only and Video-only (Prerecorded)	Not Applicable	There is no pre-recorded audio-only or video-only content.
1.2.2 (A)	Captions (Prerecorded)	Not Applicable	There is no pre-recorded audio or video content.
1.2.3 (A)	Audio Description or Media Alternative (Prerecorded)	Not Applicable	There is no pre-recorded audio or video content.
1.2.4 (AA)	Captions (Live)	Not Applicable	There is no live audio or video content.
1.2.5 (AA)	Audio Description (Prerecorded)	Not Applicable	There is no pre-recorded audio or video content.
1.3.1 (A)	Info and Relationships	Partially Supports	Some data tables are not fully supported with screen reader.
1.3.2 (A)	Meaningful Sequence	Supports	
1.3.3 (A)	Sensory Characteristics	Supports	
1.3.4 (AA)	Orientation	Supports	
1.3.5 (AA)	Identify Input Purpose	Supports	
1.4.1 (A)	Use of Color	Supports	
1.4.2 (A)	Audio Control	Supports	
1.4.3 (AA)	Contrast (Minimum)	Supports	
1.4.4 (AA)	Resize Text	Supports	
1.4.5 (AA)	Images of Text	Supports	
1.4.10 (AA)	Reflow	Supports	
1.4.11 (AA)	Non-text Contrast	Supports	
1.4.12 (AA)	Text Spacing	Supports	
1.4.13 (AA)	Content on Hover or Focus	Supports	
2.1.1 (A)	Keyboard	Supports	
2.1.2 (A)	No Keyboard Trap	Supports	
2.1.4 (A)	Character Key Shortcuts	Not Applicable	There is no character key shortcut implemented for documentation.
2.2.1 (A)	Timing Adjustable	Supports	
2.2.2 (A)	Pause, Stop, Hide	Supports	

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2.3.1 (A)	Three Flashes or Below Threshold	Supports	
2.4.1 (A)	Bypass Blocks	Supports	
2.4.2 (A)	Page Titled	Supports	
2.4.3 (A)	Focus Order	Partially Supports	Some elements do not meaningful focus order.
2.4.4 (A)	Link Purpose (In Context)	Supports	
2.4.5 (AA)	Multiple Ways	Supports	
2.4.6 (AA)	Headings and Labels	Partially Supports	Some headings do not convey logical hierarchy.
2.4.7 (AA)	Focus Visible	Partially Supports	Some elements do not have visible focus.
2.5.1 (A)	Pointer Gestures	Supports	
2.5.2 (A)	Pointer Cancellation	Supports	
2.5.3 (A)	Label in Name	Supports	
2.5.4 (A)	Motion Actuation	Supports	
3.1.1 (A)	Language of Page	Supports	
3.1.2 (AA)	Language of Parts	Not Applicable	There are no multiple languages phrases on a page.
3.2.1 (A)	On Focus	Supports	
3.2.2 (A)	On Input	Supports	
3.2.3 (AA)	Consistent Navigation	Supports	
3.2.4 (AA)	Consistent Identification	Supports	
3.3.1 (A)	Error Identification	Supports	
3.3.2 (A)	Labels or Instructions	Supports	
3.3.3 (AA)	Error Suggestion	Supports	
3.3.4 (AA)	Error Prevention (Legal, Financial, Data)	Supports	
4.1.1 (A)	Parsing	Partially Supports	Some elements do not have unique ID on a page.
4.1.2 (A)	Name, Role, Value	Partially Supports	Some widgets do not have a corrected Name and Role.
4.1.3 (AA)	Status Messages	Not Applicable	There is no status message used for documentation.

Supporting Feature (Status) Terminology

The result of "Accessibility Testing" assists in the determination of the Supporting Features.

Supporting Features or Status	Description
Supports	Use this language when you determine the product fully meets the intent of the criteria or meets with equivalent facilitation. If the product meets equivalent facilitation, please document it in the "Remarks and Explanations" column.
Partially Supports	Use this language when you determine the product does not fully meet the intent of the criteria, but provides some level of access relative to the criteria. Please document the exception in the "Remarks and Explanations" column.
Does Not Support	Use this language when you determine the product does not meet the intent of the criteria. Please document the reason in the "Remarks and Explanations" column.
Not Applicable	Use this language when you determine that the criteria do not apply to the specific product. For example, many web applications do not have video content the "Not Applicable" can be used. Please state, "The application does not have any video content" in the "Remarks and Explanations" column.
Not Evaluated	Use this language when the product has not been evaluated.

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