



Section 508 Conformance Audit
Voluntary Product Accessibility Template
Dell™ Projector S320

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Section 508 Evaluation Template

This Voluntary Product Accessibility Template (VPAT) provides guidance on the accessibility characteristics of the **Dell™ Projector S320** as of **October 18, 2012**.

Name of Product: Dell™ Projector S320

The current version of the **Dell™ Projector S320** was tested for conformance with Section 508 of the Rehabilitation Act, specifically, the Access Board's Technical Requirements. This product was tested as of **October 18, 2012** is only valid for the version and date it was tested.

VPAT™ Summary Table
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| VPAT Summary | Total Standards | Total Applicable Standard | Supports | Exceptions |
|---|------------------------|----------------------------------|-----------------|-------------------|
| Section 1194.21 Software Applications and Operating Systems | 12 | 12 | 10 | 2 |
| Section 1194.22 Web-based Internet Information and Applications | 16 | 7 | 2 | 5 |
| Section 1194.23 Telecommunications Products | 14 | 3 | 3 | 0 |
| Section 1194.24 Video and Multi-media Products | 5 | 0 | 0 | 0 |
| Section 1194.25 Self-Contained, Closed Products | 13 | 10 | 9 | 1 |
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**Section 1194.21 Software Applications and Operating Systems --
Detail
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| Criteria | Supporting Features | Remarks and explanations |
|--|----------------------------|--|
| (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 on-screen display (OSD) utility is controlled by tactilely discernible buttons. The web management interface is keyboard operable. |
| (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 projector and OSD do not disrupt or disable accessibility features of attached products, e.g., Microsoft Windows PC. |
| (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 OSD has a clear on-screen focus. The web management interface has a clear on-screen focus and assistive technology can track the focus. The projector only displays images from the device to which it is attached. |
| (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 | Supports with Exceptions | The projector only displays images from the device to which it is attached. The web interface does not provide explicit labeling for form fields. |

element, the information conveyed by the image must also be available in text.

(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 OSD bitmap images used to identify controls, status indicators, or programmatic elements are consistent and maintain their meanings.

(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 projector only displays images and/or text from the device to which it is attached.

The web interface uses the accessing web browser to display text using operating system functions.

(g) Applications shall not override user selected contrast and color selections and other individual display attributes.

Supports

OSD does not override user selected contrast and color selections and other individual display attributes when the projector is connected to a device, and displaying for that device.

The web interface does not override user selectable display attributes.

(h) When animation is displayed, the information shall be displayable in at least one non-animated presentation mode at the option of the user.

Supports

No animation is displayed by OSD and the web management interface.

(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.

Supports

Color coding is not used as the only means of conveying information in OSD and the web management interface.

(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.

Supports

OSD allows users to adjust color and contrast settings.

(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

Flashing and blinking do not occur in the prohibited range.

| | | |
|---|---------------------------------|---|
| <p>(l) 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 57submission of the form, including all directions and cues.</p> | <p>Supports with Exceptions</p> | <p>The web interface contains form fields which are keyboard accessible</p> <p>The form fields are not explicitly labeled for assistive technology.</p> |
|---|---------------------------------|---|

**Section 1194.22 Web-based Internet information and applications --
Detail
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| Criteria | Supporting Features | Remarks and explanations |
|---|---------------------------------|---|
| <p>(a) A text equivalent for every non-text element shall be provided (e.g., via "alt", "longdesc", or in element content).</p> | <p>Not Applicable</p> | <p>Graphics are not present</p> |
| <p>(b) Equivalent alternatives for any multimedia presentation shall be synchronized with the presentation.</p> | <p>Not Applicable</p> | <p>Multimedia is not present.</p> |
| <p>(c) Web pages shall be designed so that all information conveyed with color is also available without color, for example from context or markup.</p> | <p>Supports</p> | <p>Color coding is not used as the sole means of conveying information.</p> |
| <p>(d) Documents shall be organized so they are readable without requiring an associated style sheet.</p> | <p>Supports with Exceptions</p> | <p>The web pages can be read without style sheets.</p> <p>The headings do not have heading markup and are not conveyed to assistive technology.</p> |
| <p>(e) Redundant text links shall be provided for each active region of a server-side image map.</p> | <p>Not Applicable</p> | <p>Server-side image maps are not present.</p> |
| <p>(f) Client-side image maps shall be provided instead of server-side image maps except where the regions cannot be defined with an available geometric shape.</p> | <p>Not Applicable</p> | <p>Server and client-side image maps are not used.</p> |

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| <p>(g) Row and column headers shall be identified for data tables.</p> | <p>Does Not Support</p> | <p>Headers of data tables are not identified with HTML markup for assistive technology.</p> |
| <p>(h) Markup shall be used to associate data cells and header cells for data tables that have two or more logical levels of row or column headers.</p> | <p>Not Applicable</p> | <p>Data tables with multiple levels are not used.</p> |
| <p>(i) Frames shall be titled with text that facilitates frame identification and navigation</p> | <p>Does Not Support</p> | <p>Frames are not titled.</p> |
| <p>(j) Pages shall be designed to avoid causing the screen to flicker with a frequency greater than 2 Hz and lower than 55 Hz.</p> | <p>Supports</p> | <p>Flickering does not occur in the prohibited range.</p> |
| <p>(k) A text-only page, with equivalent information or functionality, shall be provided to make a web site comply with the provisions of this part, when compliance cannot be accomplished in any other way. The content of the text-only page shall be updated whenever the primary page changes.</p> | <p>Not Applicable</p> | <p>A text-only page is not applicable for displaying an interactive web application.</p> |
| <p>(l) When pages utilize scripting languages to display content, or to create interface elements, the information provided by the script shall be identified with functional text that can be read by Assistive Technology.</p> | <p>Not Applicable</p> | <p>Client-side scripting is not used to display user interface elements.</p> |
| <p>(m) When a web page requires that an applet, plug-in or other application be present on the client system to interpret page content, the page must provide a link to a plug-in or applet that complies with §1194.21(a) through (l).</p> | <p>Not Applicable</p> | <p>Applets and plug-ins are not required.</p> |
| <p>(n) When electronic forms are designed to be completed on-line, the form shall allow people using Assistive Technology to access the information, field elements, and functionality</p> | <p>Supports with Exceptions</p> | <p>Form fields are keyboard accessible. Form fields are not explicitly labeled.</p> |

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| required for completion and submission of the form, including all directions and cues. | | |
| (o) A method shall be provided that permits users to skip repetitive navigation links. | Supports with Exceptions | The menu links are inside a frame, thus frame skipping keystrokes may be used in some cases. A skip navigation link or landmark is not provided. |
| (p) When a timed response is required, the user shall be alerted and given sufficient time to indicate more time is required. | Not Applicable | A timed response is not required by the web application. |

Note to 1194.22: The Board interprets paragraphs (a) through (k) of this section as consistent with the following priority 1 Checkpoints of the Web Content Accessibility Guidelines 1.0 (WCAG 1.0) (May 5 1999) published by the Web Accessibility Initiative of the World Wide Web Consortium: Paragraph (a) - 1.1, (b) - 1.4, (c) - 2.1, (d) - 6.1, (e) - 1.2, (f) - 9.1, (g) - 5.1, (h) - 5.2, (i) - 12.1, (j) - 7.1, (k) - 11.4.

**Section 1194.23 Telecommunications Products – Detail
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| Criteria | Supporting Features | Remarks and explanations |
|--|----------------------------|---|
| (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. | Not Applicable | Not a Telecommunications Product. Does not provide voice communication functionality. |
| (b) Telecommunications products which include voice communication functionality shall support all commonly used cross-manufacturer non-proprietary standard TTY signal protocols. | Not Applicable | Not a Telecommunications Product. Does not provide voice communication functionality. |

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| <p>(c) Voice mail, auto-attendant, and interactive voice response telecommunications systems shall be usable by TTY users with their TTYs.</p> | <p>Not Applicable</p> | <p>Not a Telecommunications Product. Does not contain Voice mail, auto-attendant, and interactive voice response telecommunications systems.</p> |
| <p>(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>Not Applicable</p> | <p>Not a Telecommunications Product. Does not contain Voice mail, auto-attendant, and interactive voice response telecommunications systems.</p> |
| <p>(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</p> | <p>Not a Telecommunications Product. Does not contain telecommunications functionality such as caller ID.</p> |
| <p>(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</p> | <p>Not a Telecommunications Product. Does not transmit voice signals.</p> |
| <p>(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</p> | <p>Not a Telecommunications Product</p> |
| <p>(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</p> | <p>Not a Telecommunications Product. Does not deliver audio output.</p> |
| <p>(i) Interference to hearing technologies (including hearing aids, cochlear implants, and assistive listening devices) shall be reduced to the lowest possible</p> | <p>Not Applicable</p> | <p>Not a Telecommunications Product.</p> |

level that allows a user of hearing technologies to utilize the telecommunications product.

(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.

Not Applicable

Not a Telecommunications Product.

(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.

Supports

Controls and keys are tactilely discernible without activating the controls or keys.

(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.

Supports

Controls and keys are operable with one hand and do not require tight grasping, pinching, or twisting of the wrist.

The force required to activate controls and keys is less than 5LBS.

(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

No key repeat.

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| <p>(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>Supports</p> | <p>The status of all locking or toggle control or keys is visually discernible, and discernible through sound (a tone is played at power up and power down, and the fans on the projector).</p> |
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**Section 1194.24 Video and Multi-media Products – Detail
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| Criteria | Supporting Features | Remarks and explanations |
|---|-----------------------|---|
| <p>(a) All analog television displays 13 inches and larger, and computer equipment that includes analog television receiver or display circuitry, shall be equipped with caption decoder circuitry which appropriately receives, decodes, and displays closed captions from broadcast, cable, videotape, and DVD signals. As soon as practicable, but not later than July 1, 2002, widescreen digital television (DTV) displays measuring at least 7.8 inches vertically, DTV sets with conventional displays measuring at least 13 inches vertically, and stand-alone DTV tuners, whether or not they are marketed with display screens, and computer equipment that includes DTV receiver or display circuitry, shall be equipped with caption decoder circuitry which appropriately receives, decodes, and displays closed captions from broadcast, cable, videotape, and DVD signals.</p> | <p>Not Applicable</p> | <p>This product is not a Video or Multi-Media Product. Does not have analog television receiver or display circuitry.</p> |
| <p>(b) Television tuners, including tuner cards for use in computers, shall be equipped with secondary audio program playback circuitry.</p> | <p>Not Applicable</p> | <p>This product is not a Video or Multi-Media Product. Does not have tuner capabilities.</p> |

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| <p>(c) All training and informational video and multimedia productions which support the agency's mission, regardless of format, that contain speech or other audio information necessary for the comprehension of the content, shall be open or closed captioned.</p> | <p>Not Applicable</p> | <p>This product is not a Video or Multi-Media Product. This product contains no user required multimedia presentations.</p> |
| <p>(d) All training and informational video and multimedia productions which support the agency's mission, regardless of format, that contain visual information necessary for the comprehension of the content, shall be audio described.</p> | <p>Not Applicable</p> | <p>This product is not a Video or Multi-Media Product. This product contains no user required multimedia presentations.</p> |
| <p>(e) Display or presentation of alternate text presentation or audio descriptions shall be user-selectable unless permanent.</p> | <p>Not Applicable</p> | <p>Displays image from device to which it is attached.</p> |

**Section 1194.25 Self-Contained, Closed Products – Detail
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| Criteria | Supporting Features | Remarks and explanations |
|---|---------------------------------|---|
| <p>(a) Self-contained products shall be usable by people with disabilities without requiring an end-user to attach Assistive Technology to the product. Personal headsets for private listening are not Assistive Technology.</p> | <p>Supports with Exceptions</p> | <p>The On Screen Display (OSD) utility is firmware that is housed within the projector. The OSD is designed to be used by selecting the buttons on the front of the projector or remote control. There is no audio feedback for blind users.</p> <p>The projector has a web-based control panel which provides access to a subset of features of the on-screen display utility.</p> |
| <p>(b) When a timed response is required, the user shall be alerted and given sufficient time to indicate more time is required.</p> | <p>Supports</p> | <p>The on-screen menu displays for a certain length of time. The time limit is user adjustable and provides sufficient time for navigating the menu.</p> |
| <p>(c) Where a product utilizes touchscreens or contact-sensitive controls, an input method shall be provided that complies with</p> | <p>Supports</p> | <p>Touchscreens and touch sensitive controls are not used. Controls and keys are tactilely discernible without activating the controls or keys.</p> |

§1194.23 (k) (1) through (4).

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| | | <p>Controls and keys are operable with one hand and do not require tight grasping, pinching, or twisting of the wrist.</p> <p>The force required to activate controls and keys is less than 5LBS.</p> <p>No key repeat.</p> <p>The status of all locking or toggle control or keys is visually discernible, and discernible either through touch or sound. (The fan is audible when the projector is powered on).</p> |
| <p>(d) When biometric forms of user identification or control are used, an alternative form of identification or activation, which does not require the user to possess particular biological characteristics, shall also be provided.</p> | <p>Not Applicable</p> | <p>No biometric forms used for user identification or control.</p> |
| <p>(e) When products provide auditory output, the audio signal shall be provided at a standard signal level through an industry standard connector that will allow for private listening. The product must provide the ability to interrupt, pause, and restart the audio at any time.</p> | <p>Not Applicable</p> | <p>The projector does not support audio output in its operation.</p> <p>Note: It does serve as a pass-through for other audio devices.</p> |
| <p>(f) When products deliver voice output in a public area, incremental volume control shall be provided with output amplification up to a level of at least 65 dB. Where the ambient noise level of the environment is above 45 dB, a volume gain of at least 20 dB above the ambient level shall be user selectable. A function shall be provided to automatically reset the volume to the default level after every use.</p> | <p>Not Applicable</p> | <p>The projector does not provide voice output as part of its operation.</p> |
| <p>(g) Color coding shall not be used as the only means of conveying information, indicating an action, prompting a response,</p> | <p>Supports</p> | <p>Color coding is not used as the sole means of conveying information.</p> |

or distinguishing a visual element.

(h) When a product permits a user to adjust color and contrast settings, a range of color selections capable of producing a variety of contrast levels shall be provided.

Supports

OSD allows users to adjust color and contrast settings.

(i) Products shall be designed to avoid causing the screen to flicker with a frequency greater than 2 Hz and lower than 55 Hz.

Supports

Flickering does not occur in the prohibited range.

(j) (1) Products which are freestanding, non-portable, and intended to be used in one location and which have operable controls shall comply with the following: The position of any operable control shall be determined with respect to a vertical plane, which is 48 inches in length, centered on the operable control, and at the maximum protrusion of the product within the 48 inch length on products which are freestanding, non-portable, and intended to be used in one location and which have operable controls.

Supports

The position of operable controls, with respect to a vertical plane, is 48 inches in length, centered on the operable control and at the maximum protrusion of the product within the 48 inch length.

(j)(2) Products which are freestanding, non-portable, and intended to be used in one location and which have operable controls shall comply with the following: Where any operable control is 10 inches or less behind the reference plane, the height shall be 54 inches maximum and 15 inches minimum above the floor.

Supports

Controls are between 15" and 54" from the floor and are within 10" of the reference plane.

(j)(3) Products which are freestanding, non-portable, and intended to be used in one location and which have operable controls shall comply with the following: Where any operable

Supports

Projector controls are between 10 inches and 24 inches from the reference plane (front-most of the machine). Controls are between 15" and 46" from the floor.

control is more than 10 inches and not more than 24 inches behind the reference plane, the height shall be 46 inches maximum and 15 inches minimum above the floor.

(j)(4) Products which are freestanding, non-portable, and intended to be used in one location and which have operable controls shall comply with the following: Operable controls shall not be more than 24 inches behind the reference plane.

Supports

Controls are not more than 24 inches behind the reference plane.

**Section 1194.26 Desktop and Portable Computers – Detail
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| Criteria | Supporting Features | Remarks and explanations |
|---|---------------------|---|
| (a) All mechanically operated controls and keys shall comply with §1194.23 (k) (1) through (4). | Supports | Controls and keys are tactilely discernible without activating the controls or keys. |
| (b) If a product utilizes touchscreens or touch-operated controls, an input method shall be provided that complies with §1194.23 (k) (1) through (4). | Supports | Controls and keys are operable with one hand and do not require tight grasping, pinching, or twisting of the wrist. |
| | | The force required to activate controls and keys is less than 5LBS. |
| | | No key repeat. |
| | | The status of all locking or toggle control or keys is visually discernible, and discernible either through touch or sound. (The fan is audible and a tone is played when the projector is powered on). |
| | | Controls and keys are tactilely discernible without activating the controls or keys. |
| | | Controls and keys are operable with one hand and do not require tight grasping, pinching, or twisting of the wrist. |
| | | The force required to activate controls and keys is less than 5LBS. |

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| | | No key repeat. The status of all locking or toggle control or keys is visually discernible, and discernible either through touch or sound. (The fan is audible and a tone is played when the projector is powered on). |
| (c) When biometric forms of user identification or control are used, an alternative form of identification or activation, which does not require the user to possess particular biological characteristics, shall also be provided. | Not Applicable | No biometric forms used for user identification or control. |
| (d) Where provided, at least one of each type of expansion slots, ports and connectors shall comply with publicly available industry standards | Supports | Expansion slots, ports and connectors do comply with publicly available industry standards. |

**Section 1194.31 Functional Performance Criteria – Detail
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| Criteria | Supporting Features | Remarks and explanations |
|---|----------------------------|--|
| (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 with Exceptions | The projector is equipped with an on-board web interface and is accessible over a network. The web interface contains some of the features of the on-screen display utility. The web interface can be used by screen reader users. The web interface does contain some Section 508 exceptions such as form fields are not explicitly labeled. |
| (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 | Supports | The projector can be used by users with a visual acuity of 20/70. |

used by people who are visually impaired shall be provided.

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| (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 | Does not require user hearing. |
| (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 | Does not require user hearing. |
| (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 | Does not require user speech. |
| (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 | Fine motor control and simultaneous actions are not required. Controls and keys can be operated with limited reach and strength. |

**Section 1194.41 Information, Documentation and Support – Detail
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| Criteria | Supporting Features | Remarks and explanations |
|--|----------------------------|---|
| (a) Product support documentation provided to end-users shall be made available in alternate formats upon request, at no additional charge | Supports | Alternative forms of access to product support documentation in alternative formats are currently available by contacting Dell Customer and Technical Support: http://support.dell.com at no additional charge to the end user. |
| (b) End-users shall have access | Supports | Alternative forms of access to descriptions |

to a description of the accessibility and compatibility features of products in alternate formats or alternate methods upon request, at no additional charge.

(c) Support services for products shall accommodate the communication needs of end-users with disabilities.

Supports

of the accessibility and compatibility features in alternative formats are currently available via Dell Customer Support and Technical Support Services: <http://support.dell.com> at no additional charge to the end user.

Dell Provides support for Technical Support via Online Chat, Telephone and E-mail.

Dell has a dedicated TTY line available.

Alternative forms of access to documentation and customer service does allow for information to be given, conveyed, or read to individuals in need of more detailed information on product details.