



Avaya™ 4620 IP Telephone

4620 WML Web Browser Frequently
Asked Questions (FAQ)

Issue 1.8
July 24, 2003

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Subject	Avaya™ 4620 IP Telephone	Date	July 24, 2003
	4620 WML Web Browser Frequently Asked Questions (FAQ)	Issue	1.8

Introduction...

The Avaya™ 4620 IP Telephone comes with XML-capable Web browsing software (will be referred to as the 4620 WML Web Browser henceforth). The 4620 Telephone has a 168 pixel-by-132 pixel four-gray scale LCD display. The area of the display available for presenting a WML web page to the user is 168 pixels across by 96 pixels in height, arranged in 6 rows each 16 pixels in height. In addition, the top row will display the web page title (if any) and the bottom row presents up to four softkey labels at one time, each a maximum of 6 characters, that are used for <do> tags.

The data types and other features supported in this browser include:

- WML 1.2 June 2000 (WML 1.3)
- WBMP image format
- HTTP 1.1

The 4620 Web Browser FAQ is a continuously changing document. Please remember to download the latest copy from the web site.

Release Matrix

Release	Date	Comments
1.71	08/12/2002	First release of the 4620 WML Browser.
1.72	12/09/2002	Multilingual display capability added. Bug fixes in the Web Browser Software.
1.73	02/03/03	A patch release for 1.72, No new functionality has been added.
1.8	06/25/03	Added support for WBMP images. Added new WTAI "Add to Speed Dial" functionality. New HTTP USER AGENT string, 3 additional languages added, Enhanced Local Dialing lets you dial directly from the web pages without manipulating dial strings.

Acronyms and Glossary

Item	Definition
Card	A WML card is similar to an HTML page, but WML delivers a set (deck) of closely related cards. The complete WML page comprises a collection of various cards, of which only one is visible on the browser at one time. As each of the cards is labeled by a name and ID, they can be linked together without difficulty. The WML page provider determines the content of the card. The browser determines how this card will be displayed (rendered).
Deck	A deck can be described as a stack of cards. When the browser downloads a WML page, it really is downloading a deck of cards but only one card in the deck is visible at a time.
HTML	HyperText Markup Language. Hyper Text Markup Language is a text-based way of describing data for transmission over the Internet HTML is usually used with larger, color displays.
HTTP	Hypertext Transfer Protocol. Hyper Text Transfer Protocol is a protocol that a web server and a web client use to contact each other and request and deliver files.
LAN	Local Area Network
MIME	Multi-purpose Internet Mail Extensions
SDK	Software Developer's Kit
URL	A URL (Uniform Resource Locator, previously Universal Resource Locator) - is the address of a file (resource) accessible on the Internet
User-agent	The client that initiates a request. These are often browsers, editors, spiders (web-traversing robots), or other end user tools
W3C	The Worldwide Web Consortium, which has become the key standards body for most of the XML-related technologies.
WAP	Wireless Application Protocol is an open global standard for wireless solutions that includes WML.
WBMP	WBMP is a Bitmap graphic format that is required for the integration of graphics into WML pages.
Well formed	An XML document whose tags and data are consistent with XML 1.0 syntax.
WML	Wireless Markup Language is a subset of XML that was developed for WAP. It allows for text display on a device, card and deck organization, navigation and linking, and state management. WML was designed for low-bandwidth, small-display devices. As part of this design, the concept of a deck of cards was utilized. A single WML document (i.e., the elements contained with the <wml> document element) is known as a deck. A single interaction between a user agent and a user is known as a card. Multiple screens (cards) can be downloaded to the client in a single retrieval.
WTAI	Wireless Telephony Application Interface is a set of interfaces that extend the WAE (Wireless Application Environment) to include telephony applications.
XML 1.0	The first standard for XML syntax blessed by the W3C; establishes basic rules for XML data, such as all tags must be closed with a slash (/) like this: <example/> or followed by a closing tag like this: <example>close the tag on your way out</example>.

Documentation, SDK FAQ

DOC_1	Section: DOCUMENTATION
Question	What is the location of the SDK document?
Answer	<p>The 4620 SDK can be found using the following navigation path from http://www.avaya.com</p> <p>Home > Support > Technical Database > Telephone Devices & User Agents > IP Telephones & User Agents > 4600 Series IP Telephones > SDK and Browser Information</p> <p>The document is titled: 4620 SDK Description.</p>

DOC_2	Section: DOCUMENTATION
Question	What are the contents of the SDK Document?
Answer	<p>The 4620 SDK contains the following:</p> <p>This one page overview describes the SDK with URLs for the items below:</p> <ul style="list-style-type: none">• LAN Administration Guide Appendix C - this section discusses all the WML 1.2 tags that are supported as well as how they are rendered on the phone:<ul style="list-style-type: none">○ PDF version○ Zip format• Guide on how to set WAP (WML) MIME types for Microsoft IIS and for Apache so that a customer's server has the capability to handle WML pages<ul style="list-style-type: none">○ PDF Version○ Zip format• Guide on how to write WML code so that a user can create web pages using WTAI click-to-dial and add-to-speed dial functionality.<ul style="list-style-type: none">○ PDF Version○ Zip Format• Guide on how to write WML code so that a user can enter a URL in a text entry area:<ul style="list-style-type: none">○ PDF Version○ ZIP Version• 4620 User's Manual:<ul style="list-style-type: none">○ PDF version○ ZIP format• Sample Home Screen and applications on support.avaya.com: The user has a choice to use the WML pages that are hosted on http://support.avaya.com site or to receive these documents in a zipped form. The URL for the hosted site is pre-configured in the 46xxsettings.txt script file. Directions to use the zipped document can be found in the readme file at this site.<ul style="list-style-type: none">○ WML Hosted site - http://support.avaya.com/elmodocs2/avayaip/4620/home.wml○ Zipped pages - TBD

	<p>The documents above can all be found on the Avaya Support Center web site, by navigating to our web site as follows:</p> <p>Home > Support > Technical Database > Telephone Devices & User Agents > IP Telephones & User Agents > 4600 Series IP Telephones > SDK and Browser Information</p>
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DOC_3	Section: DOCUMENTATION
Question	Where can I find the hosted site and the zipped file? What does the zip file contain?
Answer	<p>Location of the hosted site is: http://support.avaya.com/elmodocs2/avayaip/4620/home.wml</p> <p>Contents of the ZIP file:</p> <ul style="list-style-type: none"> • WML source pages for the sample launch screen web application <p>Location of the zipped file can be found using the following navigation path from http://www.avaya.com</p> <p>Home > Support > Technical Database > Telephone Devices & User Agents > IP Telephones & User Agents > 4600 IP Telephones > SDK and Browser Information > Avaya 4620 IP Telephone Sample Web pages (zipped format)</p>

DOC_4	Section: DOCUMENTATION
Question	Are there any sample applications or real world applications available for the 4620 WML Web Browser?
Answer	<p>A good example of a real world application is the server based implementation of the corporate LDAP directory application for the 4620 WML Web Browser named the "Avaya 4620 Directory Thin Client Application".</p> <p>This Directory application can be downloaded from: Home > Support > Technical Database > Telephone Devices & User Agents > IP Telephones & User Agents > 4600 Series IP Telephones > Software Downloads</p>

General FAQ, Browser behavior and capabilities...

This section answers basic questions about the 4620 WML Browser and clears the myths and misconceptions.

GEN_1	Section: GENERAL
Question	What version of WML does the 4620 WML Browser support?
Answer	The 4620 WML Browser supports the WML 1.2 (June 2000) release. Sometimes this version of WML is also referred to as WML 1.3

GEN_2	Section: GENERAL
Question	What is the relation between XML and WML?
Answer	WML (Wireless Markup Language) is a markup language based on XML. WML is a XML specification proposed by the Open Mobile Alliance (http://www.wapforum.org/) and follows the XML rules and specifications. WML uses tag pairs and attributes for all language features. Essentially, WML is an XML application.
Comments	Good web site for WML is: http://www.devguru.com/Technologies/wml/quickref/wml_intro.html

GEN_3	Section: GENERAL
Question	Can we call the 4620 WML Browser a XML browser instead of a WML browser?
Answer	Refer above: Since WML is an XML application, the 4620 WML browser is a XML browser that supports WML tags. Avaya supports industry standard WML specifications on the 4620 WML Browser.

GEN_4	Section: GENERAL
Question	In short can you summarize the capabilities of WML?
Answer	WML support six key areas: <ul style="list-style-type: none">• Text presentation and layout - Line breaks, basic text formatting and alignment are supported by WML.• Images - WML supports Wireless Bitmap images and alignment on the screen.• User Input - WML supports choice lists, multilevel choice lists, text entry and task controls.• Cards and decks - User interaction is divided into cards. Navigation is primarily between cards. Decks are related sets of cards and are saved as a single file• Navigation - WML supports the standard Internet URL naming scheme and anchored links, allowing navigation between cards in a deck, between decks, or between other resources on the network such as databases.• State and context management - WML allows for variables to be passed between files. Instead of sending a complete string, variables can be sent and substituted at runtime. The user agent can cache both variables and WML files, minimizing cache hits and server requests. It is also possible to pass variables between different cards in the same deck.

Comments	<p>For a complete list of supported features and tags please refer the "4600 Series IP Telephone R1.8 LAN Administrator's Guide". The document can be found using the following navigation path from http://www.avaya.com</p> <p>Home > Support > Technical Database > Telephone Devices & User Agents > Enterprise Class IP Solutions (ECLIPS) > 4600 Series IP Telephones > Administration & Operation > 4600 Series IP Telephone R1.8 LAN Administrator's Guide</p>
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GEN_5	Section:	GENERAL
Question	What is HDML? Does the 4620 WML Browser support it?	
Answer	<p>HDML (Handheld Device Markup Language) was first proposed in 1997 by Unwired Planet as a standard. Later on, in 1999 along with other industry players, a new organization (wapforum.org) was formed and a new specification, WML, was proposed.</p> <p>In short, both languages have similar programming model and functionality. Major differences are that HDML is not an XML based language and does not have any support for a client side scripting language such as WMLScript.</p> <p>Today, very few phone.com browsers support HDML.</p> <p>The 4620 WML Browser does NOT support HDML.</p>	
Comments	<p>Reference: http://www.allnetdevices.com/developer/tutorials/2000/06/09/hdml_or.html</p>	

GEN_6	Section:	GENERAL
Question	What is difference between HTML and WML? What can I do with HTML that I cannot do with WML? Which one is better?	
Answer	<p>HTML is a specification that was first proposed by w3c org. HTML is not based on an XML specification.</p> <p>WML is an application of XML (Extensible Markup Language), Essentially WML is a stripped down version of syntactically valid HTML with 35 strictly applied semantic tags.</p> <p>HTML has well over 120 tags (three times that of WML) helping to give its characteristically messy ad-hoc nesting syntax. Rules for HTML tag nesting are loose.</p> <p>Extensible Markup Language (XML) presents a solution to the HTML mess. Using XML developers can define their own markup languages by referencing to an external DTD (Document Type Definition). The DTD is a sequence of rules describing the markup language. However this enforces strict rules governing language syntax in stark contrast to HTML.</p> <ul style="list-style-type: none"> • HTML has a comparatively deep and complex nesting structure. • HTML is not well-formed allowing tagsets to remain unclosed. • HTML can display special Unicode characters not recognized in WML. 	

	<ul style="list-style-type: none"> WML tags must all be in lowercase. WML is unforgiving of incorrectly nested tags. <p>HTML and WML also share a lot of features together. The WML set of tags was designed to cover most of the functionality that could be achieved using HTML. The list of functionality includes features such as: Text Presentation and layout, Images, User Input (Form controls such as choice lists, multilevel choice lists, text entry and task controls), Navigation, Hyperlinks etc.</p>
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GEN_7	Section: GENERAL
Question	Does the 4620 WML Browser support WMLScript?
Answer	WMLScript is Not Supported
Comments	WMLScript is a client-side similar to JavaScript. It provides basic programmability that can be used to perform basic text and data manipulation.

GEN_8	Section: GENERAL	
Question	Does the 4620 WML Browser support images?	
Answer	WBMP is supported in 1.8 release.	
Release	1.71	Not Supported
	1.72	Not Supported
	1.73	Not Supported
	1.8	WBMP Supported

GEN_9	Section: GENERAL	
Question	What happens if 4620 WML Browser support comes across a WML page with leading blank spaces before the first line <?xml version="1.0"?>	
Answer	"Although leading spaces before the first line <?xml version = "1.0"?> is invalid and violates the XML specification, many external WAP sites contain this error. (For more details please refer to the XML specs: http://www.w3.org/XML/). The 4620 WML Browser will correctly render pages with this error."	
	Please see below for release specific notes:	
Release	1.71	The browser will display the error "Page cannot be rendered"
	1.72	The browser will display the error "Page cannot be rendered"
	1.73	The browser will display the error "Page cannot be rendered"
	1.8	No Error. The browser will render the page as usual.

GEN_10	Section: GENERAL
Question	Does the 4620 WML Browser cache pages in the browser?
Answer	The 4620 WML Browser will only store the current WML file (or the current deck of cards) in memory. When a user tries to go back in history and if the page corresponds to a different WML page from that corresponding to the one that is displayed on the screen, the 4620 WML Browser will retrieve/fetch a new copy of the page. Any user selection or text entry made by the user will be lost.

GEN_11	Section: GENERAL
Question	How can I setup a standard webserver to serve WML pages for the 4620 WML Browser?
Answer	Refer to documentation on WML Server setup in the SDK. This document can be found using the following navigation path from http://support.avaya.com Home > Support > Technical Database > Telephone Devices & User Agents > Enterprise Class IP Solutions (ECLIPS) > 4600 Series IP Telephones > SDK and Browser Information > WML Server Set-up

GEN_12	Section: GENERAL
Question	How can I setup a standard webserver to serve WBMP pages for the 4620 WML Browser?
Answer	Refer to documentation on WML Server setup in the SDK. This document can be found using the following navigation path from http://support.avaya.com Home > Support > Technical Database > Telephone Devices & User Agents > Enterprise Class IP Solutions (ECLIPS) > 4600 Series IP Telephones > SDK and Browser Information > WML Server Set-up

GEN_13	Section: GENERAL								
Question	What is WTAI (Wireless Telephony Application Interface)? Does the 4620 WML Browser support any WTAI (Wireless Telephony Application Interface) features?								
Answer	The 4620 WML Browser supports "Click to Dial" and "Add to Speed Dial" in the latest release. Please see release table for feature support. A Guide on how to write WML code so that a user can create web pages using WTAI click-to-dial and add-to-speed dial functionality. <ul style="list-style-type: none"> o PDF Version o Zip Format Home > Support > Technical Database > Telephone Devices & User Agents > IP Telephones & User Agents > 4600 Series IP Telephones > SDK and Browser Information > WTAI functionality Tags Reference (Avaya 4620 IP)								
Release	<table border="1"> <tr> <td>1.71</td> <td>Only Supports "Click TO Dial"</td> </tr> <tr> <td>1.72</td> <td>Only Supports "Click TO Dial"</td> </tr> <tr> <td>1.73</td> <td>Only Supports "Click TO Dial"</td> </tr> <tr> <td>1.8</td> <td>Supports "Click TO Dial" and "Add to Speed Dial"</td> </tr> </table>	1.71	Only Supports "Click TO Dial"	1.72	Only Supports "Click TO Dial"	1.73	Only Supports "Click TO Dial"	1.8	Supports "Click TO Dial" and "Add to Speed Dial"
1.71	Only Supports "Click TO Dial"								
1.72	Only Supports "Click TO Dial"								
1.73	Only Supports "Click TO Dial"								
1.8	Supports "Click TO Dial" and "Add to Speed Dial"								
Comments	The Wireless Telephony Applications Interface (WTAI) enables applications to perform typical functions of a telephone with WML (Version 1.2 and higher) or WMLScript. The three common functionalities that the WTAI exposes are <ul style="list-style-type: none"> ❖ Make a Call: "Click to dial": places a phone call through the Web interface ❖ Send DTMF (dtmf): sends a DTMF tone sequence through the voice call. ❖ Add to Phone Book: adds a new phonebook entry ("Add to Speed 								

	Dial"
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GEN_14	Section: GENERAL
Question	What is "Enhanced Local Dialing"?
Answer	<p>A new feature in 1.8 release called "Enhanced Local Dialing" can be administered in the settings script file (46xxsettings.txt).</p> <p>With Enhanced Local Dialing, you can set values such as the country code, the international access code, the extension length within your organization, the outside line access code, the long distance access code, and the length of the national telephone number.</p> <p>By setting these values, the phone/browser will automatically add the necessary dial prefixes to the phone number it encounters in the WTAI dial link on any web page.</p> <p>For more information on "Enhanced Local Dialing" or how to set the values, please see the 4600 Series IP Telephone R1.8 LAN Admin Guide, which can be downloaded as follows:</p> <ul style="list-style-type: none"> o PDF version o Zip format <p>Home > Support > Technical Database > Telephone Devices & User Agents > Enterprise Class IP Solutions (ECLIPS) > 4600 Series IP Telephones > Administration & Operation > 4600 Series IP Telephone R1.8 LAN Administrator's Guide</p>
Release	1.8 Supports "Enhanced Local Dialing"

GEN_15	Section: GENERAL
Question	I clicked on a "Clicked to Dial" link but the phone gives me intercept tone?
Answer	Check the administration of your Enhanced Local Dialing feature

GEN_16	Section: GENERAL
Question	Can I store personal bookmarks on the 4620 WML Browser?
Answer	Bookmarks cannot be stored on the phone itself. Writing a simple server based application, you can implement a solution where users store bookmarks on a database on the server and the user then simply retrieves them by going to the web page.

GEN_17	Section: GENERAL
Question	Does the 4620 WML Browser support cookies?
Answer	Cookies are not supported on the 4620 WML Browser.

GEN_18	Section: GENERAL
Question	Does the 4620 WML Browser support sessions and session variables?
Answer	A browser handles "Session" and "Session variables" by storing temporary cookies. Since cookies are not supported on the 4620 WML Browser, sessions and session variables are not supported.

GEN_19	Section:	GENERAL
Question	Can I change the font or the size of a font displayed on the 4620 WML Browser?	
Answer	It is not possible to change the typeface itself on the browser. Also there is no WML tag specifically to do this.	

Scripts, Common WEB Related values..

SCRIPT_1	Section: SCRIPTS
Question	What is the right format to set variables in the settings file?
Answer	<p>The proper way to set a variable in a script is: SET variable value</p> <p>The following are invalid: SET variable=value AND variable=value</p> <p>These variables are set in the 46xxsettings.txt file.</p> <p>The 46xxupgrade.scr file contains lines that instruct the 4620 to download the settings file on bootup. The 46xxupgrade.scr file should not be edited.</p>

SCRIPT_2	Section: SCRIPTS												
Question	What are the values needed for the 4620 WML Browser in the settings file?												
Answer	<table border="1"> <thead> <tr> <th>System Value <u>Name</u></th> <th>Default <u>Value</u></th> </tr> </thead> <tbody> <tr> <td>WMLCODING</td> <td>"ASCII"</td> </tr> <tr> <td>WMLEXCEPT</td> <td>"" (null string)</td> </tr> <tr> <td>WMLHOME</td> <td>"" (null string)</td> </tr> <tr> <td>WMLPORT</td> <td>"8000"</td> </tr> <tr> <td>WMLPROXY</td> <td>"" (null string)</td> </tr> </tbody> </table> <ul style="list-style-type: none"> • The 4620 will not display the Web label on the softkey if the system value WMLHOME is null. • An HTTP proxy server is not used if WMLPROXY is null, or if WMLPROXY cannot be resolved into a valid IP address. • The HTTP proxy server is used for all web transactions if WMLPROXY is resolved into a valid IP address and WMLEXCEPT is null, • If WMLEXCEPT is not null, the HTTP proxy server is only used for URLs whose domains are not on the WMLEXCEPT list. A list of IP addresses or an ip address with a wild card can be set here. For example: SET WMLEXCEPT 1.2.* ,1.3.* • WMLCODING stands for the optional Web application Coding Scheme, and is the "alphabet" used for encoding text queries to the server. • WMLEXCEPT stands for Web application HTTP proxy server exception domains (domains for which the proxy server will not be used), which is a list of one or more domains, separated by commas without any intervening spaces (up to 127 total ASCII characters, including commas). • WMLHOME stands for the URL of the home page for the Web application. • WMLPORT stands for the TCP port number used for the HTTP proxy server. • WMLPROXY stands for the IP address, in dotted-decimal or DNS 	System Value <u>Name</u>	Default <u>Value</u>	WMLCODING	"ASCII"	WMLEXCEPT	"" (null string)	WMLHOME	"" (null string)	WMLPORT	"8000"	WMLPROXY	"" (null string)
System Value <u>Name</u>	Default <u>Value</u>												
WMLCODING	"ASCII"												
WMLEXCEPT	"" (null string)												
WMLHOME	"" (null string)												
WMLPORT	"8000"												
WMLPROXY	"" (null string)												

	name format, of an HTTP proxy server. If the web pages accessed by the 4620 are completely on the customer's intranet, WMLPROXY, WMLPORT and WMLEXCEPT need not be set. If WMLPROXY is null, the values of WMLPORT and WMLEXCEPT do not matter.
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SCRIPT_3	Section: SCRIPTS
Question	How do I create a customized 46xxsettings.txt script file for the 4620 and other IP Telephones?
Question	Is there an application or wizard available to create customized script files for 4620 Web/WML settings?
Answer	<p>Yes, the Avaya 46xx Settings Script Wizard is available to automate this task.</p> <p>Avaya 46xx Settings Script Wizard is a PC-based (Windows) software tool designed to help customer administrators create 46xxsettings.txt files tailored for their specific environments and preferences. The settings script wizard can also load any previous software release script files (46xxsettings.scr) and will retrieve the settings/values of the variables.</p> <p>This application can be downloaded from our support site from the following web page at:</p> <p>Home > Support > Technical Database > Telephone Devices & User Agents > Enterprise Class IP Solutions (ECLIPS) > 4600 Series IP Telephones > Software Downloads > 4620/4630 Settings Wizard for Release 1.8</p>

Technical Details, WML Issues...

TECH_1	Section: TECHNICAL	
Question	How can I uniquely identify/detect the 4620 WML Browser?	
Answer	Please see release table for specifics: This user-agent string is set as part of the HTTP header field "User-Agent".	
Release	1.71	4620_IP_Phone_Web_Browser/0.1 libwww/unknown
	1.72	4620_IP_Phone_Web_Browser/0.1 libwww/unknown
	1.73	4620_IP_Phone_Web_Browser/0.1 libwww/unknown
	1.8	The 4620 WML Web Browser can be identified using the following user agent string "AVAYA/IGEN/v1.8+(4620x)/0.1 " Where: Avaya : Company Name IGEN : Product Family Name v1.8 : Firmware version no 4620 : Set Type x : Reserved Extensions 0.1 : Minor Version Number

TECH_2	Section: TECHNICAL	
Question	What encoding does the 4620 WML Browser support?	
Answer	The 4620 WML Web Browser supports US_ASCII encoding of the WML file	

TECH_3	Section: TECHNICAL	
Question	What happens if I try to browse a page that has not been encoded in US_ASCII?	
Answer	The 4620 WML Browser will display the page to the best of its ability. Some characters may not be "renderable".	

TECH_4	Section: TECHNICAL	
Question	I see the "AVAYA" label on one of the softkey labels even though I have specified a label for the softkey?	
Answer	The 4620 WML Browser will use the "AVAYA" softkey label for a <do> tag if it finds an unknown <do> tag. A <do> tag is considered an UNKNOWN type if the type attribute for the <do> tag is missing or the type attribute specified by the author does not correspond to one of the acceptable types as specified in the WML 1.3 specs. (Remember WML files are case sensitive and type attributes must be in lower case).	

TECH_5	Section: TECHNICAL	
Question	How does the 4620 WML Browser handle long softkey labels?	
Answer	Please see release specifics below	

Release	1.71	Do labels rendered in the soft key label area get truncated on the LEFT and RIGHT when the label is too long to fit.
	1.72	Do labels rendered in the soft key label area get truncated on the RIGHT when the label is too long to fit.
	1.73	Do labels rendered in the soft key label area get truncated on the RIGHT when the label is too long to fit.
	1.8	Do labels rendered in the soft key label area get truncated on the RIGHT when the label is too long to fit.

TECH_6	Section: TECHNICAL	
Question	Does the 4620 WML Browser support WML variables?	
Answer	Please see release table for specifics:	
Release	1.71	Yes. Only supports the format \$(variable_name).
	1.72	Yes. Only supports the format \$(variable_name).
	1.73	Yes. Only supports the format \$(variable_name).
	1.8	Yes. Supports both \$ variable_name and the \$(variable_name) format.

TECH_7	Section: TECHNICAL	
Question	What is the size limit on a WML file?	
Answer	<p>No specific size limit. However there may be performance issues that a user might see with larger WML files.</p> <p>There is a character limit between a single <p> ... </p> tag that exists as specified below. If the number of characters increases beyond this limit, the browser will display a "Page cannot be rendered" error even for a valid WML page</p>	
Release	1.71	256 characters
	1.72	1024 characters
	1.73	1024 characters
	1.8	1024 characters

TECH_8	Section: TECHNICAL	
Question	What form methods are supported in the 4620 WML Browser?	
Answer	The "get" method is supported. Form method "post" is not supported in this release. The 4620 WML Web Browser will beep and display the following message "method not supported" on the top line for a post action.	

Image support (WBMP Issues...)

TECH_9	Section: TECHNICAL	
Question	What is the memory size limit on a WBMP image?	
Answer	A cache of at least 32 Kbytes will be maintained in volatile memory for image files. Any image greater than 32 Kbytes will be truncated. If many images are contained on a card and the total memory for the collection of images is greater than 32 Kbytes, only 32Kbytes of images will be rendered. At the point when 32Kbytes of memory is exhausted, all remaining images will be rendered as alt tags. For example, if 10 images of 10 Kbytes each are contained on a card, the first 3 images will be rendered in total, and the alt tag of the remaining image will be presented.	
Release	1.8	32 Kb max

TECH_10	Section: TECHNICAL	
Question	Is there a limit on the no of WBMP images per WML file?	
Answer	Yes. In the 1.8 release, a maximum number of 10 images up to the memory limit of 32 KB will be retrieved per WML file. For all other images, the alt tag will be presented.	
Release	1.8	10 images

TECH_11	Section: TECHNICAL	
Question	What is the physical size limit on a WBMP image?	
Answer	<p>A "1" pixel padding is added on all four sides to the image.</p> <p>With this padding the maximum width of an image is 150 pixels (152 - 2 pixels). The maximum height is 96 lines (1534 pixels=1536-2). Images greater than the maximums will be truncated.</p> <p>Also for an image to fit in a line the max height can be 14 pixels (16-2 pixels)</p>	

Troubleshooting...

TROUB_1	Section: TROUBLESHOOT
Question	I do not see the "Web" sofkey on the phone screen?
Answer	The "Web" softkey only appears if there is a WMLHOME defined in the 46xxsettings.scr file or the 46xxsettings.txt file. If the WMLHOME parameter is missing or empty then the "Web" softkey does not appear on the screen.
Comments	If the WMLHOME setting is valid, check to see that the TFTP server is running.

TROUB_2	Section: TROUBLESHOOT
Question	After reboot, I clicked on the "Web" softkey and I get the "Page cannot be rendered" error:
Answer	<ul style="list-style-type: none"> • Check to see WMLHOME is a valid WML file • Check to see that WMLPROXY setting is correct • Check to see WMLPORT is the correct port • Check to see DNSSRV is set to a valid DNS server <p>For a better dependency table please see Appendix D.</p>

TROUB_3	Section: TROUBLESHOOT
Question	After reboot, I clicked on the "Web" softkey and I get the "400: Bad Request" error:
Answer	<ul style="list-style-type: none"> • Check to see WMLHOME value is a valid url <p>For example: Set WMLHOME http:// will generate the above error</p>

TROUB_4	Section: TROUBLESHOOT
Question	After reboot, I clicked on the "Web" softkey and I get the "404: Not Found" error:
Answer	<ul style="list-style-type: none"> • Check to see if the WMLHOME url page exists on the server

TROUB_5	Section: TROUBLESHOOT
Question	I can view a WML page on a cell phone WML browser but the 4620 WML Browser gives me the error "Page cannot be rendered"?
Answer	<p>This problem has been fixed in release 1.8. Please upgrade to a 1.8 or a later release.</p> <p>Also see GEN_9 for more information.</p>

TROUB_6	Section: TROUBLESHOOT
Question	The browser displays "Loading..." on the top line and does not do anything?
Answer	<p>You are running an older version of the 4620 application software and should upgrade to the latest version.</p> <p>Release 1.71 version did not implement time outs for HTTP requests. As a result network congestion and or network delays, the request may</p>

	cause the browser to hang and require the phone to be reset. This was fixed in Release 1.72.
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Appendix A: Read me file contents for Version 1.71

Avaya recommends upgrading to the latest release. Please check the support.avaya.com website for the latest release. The latest software release can be downloaded from the <http://www.avaya.com> web site using the following navigation path:

[Home](#) > [Support](#) > [Technical Database](#) > [Telephones and End User Devices](#) > [IP Telephony/Enterprise Class IP Solutions \(ECLIPS\)](#) > [4600 Series IP Telephones](#) > [Software Downloads](#)

Please Note: The following section only describes the read me file contents for the 4620 WML Web Browser. For the complete read me file contents, please check the release documentation.

4620 WML Web Browser:

The 4620 WML Web Browser can be identified using the following user agent string "4620_IP_Phone_Web_Browser/0.1 libwww/unknown"

This useragent string is set as part of the HTTP header field "User-Agent".

Known Issues:

- 1 General
 - 1.1 There is no timeout for HTTP requests. As a result network congestion and or network delays, the request may cause the browser to hang.
 - 1.2 WMLEXCEPT: is not supported in this release
 - 1.3 When internet access requires proxy authentication credentials and a Web request results in a HTTP 302 error (redirection to an alternate URL) the 4620 WML Web Browser displays the proxy authentication login screen
 - 1.4 Run time variable substitution is not supported for the following tags and attributes:
 - 1.4.1 "title" attribute of the <card> tag
 - 1.4.2 "label" attribute for the <do> tag
 - 1.4.3 "title" attribute of the <select> tag
 - 1.4.4 "ivalue" attribute of the <select> tag
 - 1.4.5 "title" attribute of the <optgroup> tag
 - 1.4.6 "title" attribute of the <option> tag
 - 1.4.7 "title" attribute of the <input> tag
 - 1.4.8 "alt" attribute of the <image> tag
 - 1.4.9 "title" attribute of the <anchor> tag
 - 1.4.10 "title" attribute of the <a> tag
 - 1.5 The 4620 WML Web Browser only supports US_ASCII encoding of the WML file
 - 1.6 The 4620 WML browser does no cache any web pages. Hence every request to a web page is a new one.

- 1.7 If the user goes off-hook while in text entry mode in the 4620 WML browser application, the text entry mode will be lost. And the user will not recover it once the user goes back on-hook. Afterwards the text entry mode will not work properly.
 - 1.8 Pressing refresh, Home or Phone/Exit button when the proxy authentication screen is displayed will lead to an unstable state
- 2 HTTP bugs
 - 2.1 Form method "post" is not supported in this release. The 4620 WML Web Browser will beep and display the following message "method not supported" on the top line for a post action.
 - 2.2 HTTP header variables:
 - 2.2.1 The 4620 WML Web browser does not send the charsets supported by the browser. The HTTP header field "Accept-Charset" is not sent in the header of the HTTP request.
- 3 WML tag bugs
 - 3.1 <meta> tag is not supported. For a detailed list please refer xyz document
 - 3.2 <refresh> tag implementation in a WML page may lead to instability problems
- 4 Parsing Bugs
 - 4.1 The 4620 WML Web Browser does not support soft-hyphen and space character entities in a WML file
 - 4.2 The 4620 WML Web Browser does not support the use of & in a URL. This results in a parsing error and the following error message "Page cannot be rendered" is displayed on the top line.
- 5 Graphics:
 - 5.1.1 Do labels rendered in the soft key label area get truncated on the left and right when the label is too long to fit.
 - 5.1.2 The align attribute for <input> is not supported and all <input> tags are defaulted to LEFT
 - 5.1.3 Text entry in a password input box is in clear text

Appendix B: Read me file contents for Version 1.72

Avaya recommends upgrading to the latest release. Please check the support.avaya.com website for the latest release. The latest software release can be downloaded from the <http://www.avaya.com> web site using the following navigation path:

[Home](#) > [Support](#) > [Technical Database](#) > [Telephones and End User Devices](#) > [IP Telephony/Enterprise Class IP Solutions \(ECLIPS\)](#) > [4600 Series IP Telephones](#) > [Software Downloads](#)

Please Note: The following section only describes the read me file contents for the 4620 WML Web Browser. For the complete read me file contents, please check the release documentation.

4620 WML Web Browser:

The 4620 WML Web Browser can be identified using the following user agent string "4620_IP_Phone_Web_Browser/0.1 libwww/unknown"

This useragent string is set as part of the HTTP header field "User-Agent".

Known Issues:

- 1 General
 - 1.1 WML Web Browser Application: The parameter WMLEXCEPT (described in the LAN Administrators Guide available for download at support.avaya.com) works with IP addresses, but not with DNS names. If this parameter is needed, set it with IP addresses in the 46xxsettings.scr file, i.e. SET WMLEXCEPT 123.456.789.123
 - 1.2 The 4620 WML Web Browser only supports US_ASCII encoding of the WML file
 - 1.3 The 4620 WML browser does no cache any web pages. Hence every request to a web page is a new one.
- 2 HTTP bugs
 - 2.1 Form method "post" is not supported in this release. The 4620 WML Web Browser will beep and display the following message "method not supported" on the top line for a post action.
 - 2.2 HTTP header variables:
 - 2.3 The 4620 WML Web browser does not send the charsets supported by the browser.
 - 2.4 The HTTP header field "Accept-Charset" is not sent in the header of the HTTP request.
- 3 WML tag bugs
 - 3.1 <meta> tag is not supported. For a detailed list please refer xyz document
- 4 Parsing Bugs
 - 4.1 The 4620 WML Web Browser does not support soft-hyphen and space character entities in a WML file

- 4.2 The 4620 WML Web Browser does not support the use of & in a URL. This results in a parsing error and the following error message "Page cannot be rendered" is displayed on the top line.
- 5 Graphics:
 - 5.1 The align attribute for <input> is not supported and all <input> tags are defaulted to LEFT
 - 5.2 Text entry in a password input box is in clear text
- 6 Others:
 - 6.1 WML Web Browser Application: <input> tag: emptyok attribute behavior is switched. In this release false permits empty values, while true forbids empty values.
 - 6.2 WML Web Browser Application: <p> tag: There is a 1024 character limit between <p> and </p>
 - 6.3 WML Web Browser Application: WML Variables: the \$var_name format is not supported. All WML variables must be in the form \$(var_name)

Appendix C: Read me file contents for Version 1.73

Avaya recommends upgrading to the latest release. Please check the support.avaya.com website for the latest release. The latest software release can be downloaded from the <http://www.avaya.com> web site using the following navigation path:

[Home](#) > [Support](#) > [Technical Database](#) > [Telephones and End User Devices](#) > [IP Telephony/Enterprise Class IP Solutions \(ECLIPS\)](#) > [4600 Series IP Telephones](#) > [Software Downloads](#)

Please Note: The following section only describes the read me file contents for the 4620 WML Web Browser. For the complete read me file contents, please check the release documentation.

4620 WML Web Browser:

The 4620 WML Web Browser can be identified using the following user agent string "4620_IP_Phone_Web_Browser/0.1 libwww/unknown"

This user agent string is set as part of the HTTP header field "User-Agent".

Known Issues:

- 1 General
 - 1.1 WML Web Browser Application: The parameter WMLEXCEPT (described in the LAN Administrators Guide available for download at support.avaya.com) works with IP addresses, but not with DNS names. If this parameter is needed, set it with IP addresses in the 46xxsettings.scr file, i.e. SET WMLEXCEPT 123.456.789.123
 - 1.2 The 4620 WML Web Browser only supports US_ASCII encoding of the WML file
 - 1.3 The 4620 WML browser does no cache any web pages. Hence every request to a web page is a new one.
- 2 HTTP bugs
 - 2.1 Form method "post" is not supported in this release. The 4620 WML Web Browser will beep and display the following message "method not supported" on the top line for a post action.
- 3 HTTP header variables:
 - 3.1 The 4620 WML Web browser does not send the charsets supported by the browser.
 - 3.2 The HTTP header field "Accept-Charset" is not sent in the header of the HTTP request.
- 4 WML tag bugs
 - 4.1 <meta> tag is not supported. For a detailed list please refer xyz document
- 5 Parsing Bugs
 - 5.1 The 4620 WML Web Browser does not support soft-hyphen and space character entities in a WML file

- 5.2 The 4620 WML Web Browser does not support the use of & in a URL. This results in a parsing error and the following error message "Page cannot be rendered" is displayed on the top line.
- 6 Graphics:
 - 6.1 The align attribute for <input> is not supported and all <input> tags are defaulted to LEFT
 - 6.2 Text entry in a password input box is in clear text
- 7 Others:
 - 7.1 WML Web Browser Application: <input> tag: emptyok attribute behavior is switched. In this release false permits empty values, while true forbids empty values.
 - 7.2 WML Web Browser Application: <p> tag: There is a 1024 character limit between <p> and </p>
 - 7.3 WML Web Browser Application: WML Variables: the \$var_name format is not supported. All WML variables must be in the form \$(var_name)

Appendix D: Read me file contents for Version 1.8

Avaya recommends upgrading to the latest release. Please check the support.avaya.com website for the latest release. The latest software release can be downloaded from the <http://www.avaya.com> web site using the following navigation path:

[Home](#) > [Support](#) > [Technical Database](#) > [Telephones and End User Devices](#) > [IP Telephony/Enterprise Class IP Solutions \(ECLIPS\)](#) > [4600 Series IP Telephones](#) > [Software Downloads](#)

Please Note: The following section only describes the read me file contents for the 4620 WML Web Browser. For the complete read me file contents, please check the release documentation.

4620 WML Web Browser:

The 4620 WML Web Browser can be identified using the following user agent string "AVAYA/IGEN/v1.8+(4620x)/0.1 "

Where:

Avaya : Company Name
IGEN : Product Family Name
v1.8 : Firmware version no
4620 : Set Type
x : Reserved Extensions
0.1 : Minor Version Number

This user agent string is set as part of the HTTP header field "User-Agent".

1 New Features:

- 1.1 Support of images (WBMPs) on the web application.
- 1.2 Support of WTAI "add to phonebook" tag. Dialable phone numbers on web pages can now be added directly to speed dial.
- 1.3 A new LDAP middleware application available for download at <http://support.avaya.com>. This application allows the 4620 to access an LDAP database server through the web application.
- 1.4 A new, simple language selection screen with three new languages; Dutch, German and Portuguese bringing the total up to eight plus English.
- 1.5 Enhanced local dialing lets you dial directly from web pages and incoming call logs.

2 General

- 2.1 WML Web Browser Application: The parameter WMLEXCEPT (described in the LAN Administrators Guide available for download at support.avaya.com) works with IP addresses, but not with DNS names. If this parameter is needed, set it with IP addresses in the 46xxsettings.scr file, i.e. SET WMLEXCEPT 123.456.789.123
- 2.2 The 4620 WML Web Browser only supports US_ASCII encoding of the WML file

- 2.3 The 4620 WML browser does not cache any web pages. Hence every request to a web page is a new one.
- 2.4 WML Web Browser Application: <p> tag: There is a 1024 character limit between <p> and </p>
- 3 HTTP bugs
 - 3.1 Form method "post" is not supported in this release. The 4620 WML Web Browser will beep and display the following message "method not supported" on the top line for a post action.
- 4 HTTP header variables:
 - 4.1 The 4620 WML Web browser does not send the charsets supported by the browser.
 - 4.2 The HTTP header field "Accept-Charset" is not sent in the header of the HTTP request.
- 5 WML tag bugs
 - 5.1 <meta> tag is not supported. For a detailed list please refer xyz document
- 6 Parsing Bugs
 - 6.1 The 4620 WML Web Browser does not support soft-hyphen and space character entities in a WML file
 - 6.2 The 4620 WML Web Browser does not support the use of & in a URL. This results in a parsing error and the following error message "Page cannot be rendered" is displayed on the top line.
- 7 Graphics:
 - 7.1 The align attribute for <input> is not supported and all <input> tags are defaulted to LEFT

Appendix D: Script Variables Dependencies and common error conditions

NO	Variable	Co-Factors	Behavior/Error Msg.
1.	SET WMLHOME	none	Web' is not displayed
2.	SET WMLHOME <spaces>	none	Web' is not displayed
3.	SET WMLHOME http://	none	400: Bad Request
4.	SET WMLHOME http://	<ul style="list-style-type: none"> WMLPROXY is set to invalid server 	Page cannot be rendered
5.	SET WMLHOME <valid site but invalid page>	none	404: Not Found
6.	SET WMLHOME <valid WML intranet site>	<ul style="list-style-type: none"> WMLPROXY is set to invalid server 	<ul style="list-style-type: none"> Will be able to get to sites inside the proxy server but will generate 'Page cannot be rendered' error on sites outside the proxy.
7.	SET WMLHOME <valid WML intranet site>	<ul style="list-style-type: none"> DNSRVR is set to invalid server 	<ul style="list-style-type: none"> Web works for intranet sites only (takes long time) 'Page cannot be rendered' error on sites outside the proxy
8.	SET WMLHOME <valid WML intranet site>	<ul style="list-style-type: none"> WMLXCEPT is true WMLPROXY is false 	<ul style="list-style-type: none"> Will be able to get to sites inside the proxy server but will generate and, 'Page cannot be rendered' error on sites outside the proxy.
9.	SET WMLHOME <valid WML internet site>	<ul style="list-style-type: none"> WMLPROXY is set to invalid server 	Page cannot be rendered
10.	SET WMLHOME <valid WML intranet site>	<ul style="list-style-type: none"> WMLPORT is set to invalid port WMLPROXY is set to valid server WMLXCEPT is not present 	Page cannot be rendered
11.	SET WMLHOME <valid WML intranet site>	<ul style="list-style-type: none"> WMLPORT is set to invalid port WMLPROXY is set to valid server WMLXCEPT is present 	Page cannot be rendered
12.	SET WMLHOME <valid WML intranet site>	<ul style="list-style-type: none"> WMLPORT is set to invalid port WMLPROXY is set to valid server WMLXCEPT is present 	Page cannot be rendered
13.	SET WMLHOME <valid WML internet site>	<ul style="list-style-type: none"> DNSRVR is set to invalid server 	Page cannot be rendered

