Petitioner's Demonstratives

Netflix, Inc. v. GoTV Streaming, LLC
U.S. Patent No. 8,103,865
IPR2023-00759

August 6, 2024

Instituted Grounds

’865 Patent		
Challenged Claims	**Basis**	**References**
1-20, 31, 34	§ 103	Hariki, Harris
1-20, 31, 34	§ 103	Hariki, Harris, Dees

Pet. at 2; ID at 5, 42.

Disputed Issues

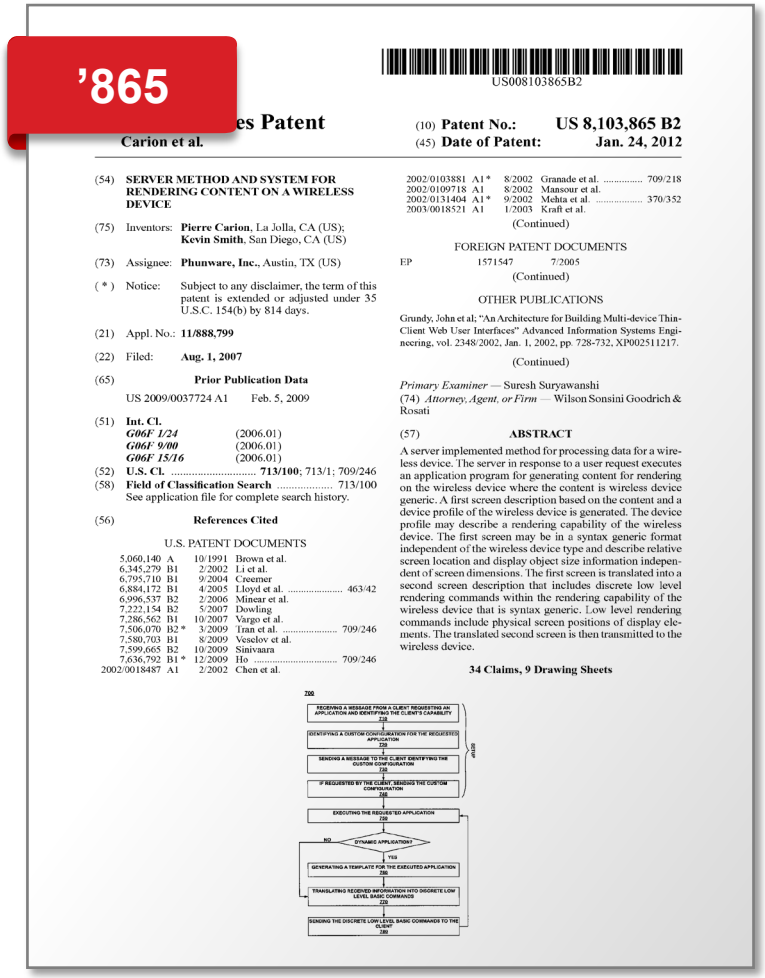
1. Hariki's UI content package is specific to the web server application and is applied to render content in a manner customized to that application

2. Harris teaches elimination of content unsupported by the wireless device

3. Harris's WAX stylesheets include relative screen location and display object size independent of actual screen dimensions

4. A page description that includes an audio rendering command is obvious in view of the prior art

U.S. Patent. No. 8,103,865



’865

US008103865B2

es Patent

Carion et al.

(10) Patent No.: US 8,103,865 B2

(45) Date of Patent: Jan. 24, 2012

(54) SERVER METHOD AND SYSTEM FOR RENDERING CONTENT ON A WIRELESS DEVICE

(75) Inventors: Pierre Carion, La Jolla, CA (US); Kevin Smith, San Diego, CA (US)

(73) Assignee: Phunware, Inc., Austin, TX (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 814 days.

(21) Appl. No.: 11/888,799

(22) Filed: Aug. 1, 2007

(65) Prior Publication Data

US 2009/0037724 A1 Feb. 5, 2009

(51) Int. Cl.
G06F 1/24 (2006.01)
G06F 9/00 (2006.01)
G06F 15/16 (2006.01)

(52) U.S. Cl. 713/100; 713/1; 709/246

(58) Field of Classification Search 713/100
See application file for complete search history.

(56) References Cited

U.S. PATENT DOCUMENTS

5,060,140 A 10/1991 Brown et al.
6,345,279 B1 2/2002 Li et al.
6,795,710 B1 9/2004 Creemer
6,884,172 B1 4/2005 Lloyd et al. 463/42
6,996,537 B2 2/2006 Minear et al.
7,222,154 B2 5/2007 Dowling
7,286,562 B1 10/2007 Vargo et al.
7,506,070 B2 * 3/2009 Iran et al. 709/246
7,580,703 B1 8/2009 Veselov et al.
7,599,665 B2 10/2009 Sinivaara
7,636,792 B1 * 12/2009 Ho 709/246
2002/0018487 A1 2/2002 Chen et al.
2002/0103881 A1 * 8/2002 Granade et al. 709/218
2002/0109718 A1 8/2002 Mansour et al.
2002/0131404 A1 * 9/2002 Mehta et al. 370/352
2003/0018521 A1 1/2003 Kraft et al.
(Continued)

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EP 1571547 7/2005
(Continued)

OTHER PUBLICATIONS

Grundy, John et al; "An Architecture for Building Multi-device Thin-Client Web User Interfaces" Advanced Information Systems Engineering, vol. 2348/2002, Jan. 1, 2002, pp. 728-732, XP002511217.
(Continued)

Primary Examiner — Suresh Suryawanshi
(74) *Attorney, Agent, or Firm* — Wilson Sonsini Goodrich & Rosati

(57) ABSTRACT

A server implemented method for processing data for a wireless device. The server in response to a user request executes an application program for generating content for rendering on the wireless device where the content is wireless device generic. A first screen description based on the content and a device profile of the wireless device is generated. The device profile may describe a rendering capability of the wireless device. The first screen may be in a syntax generic format independent of the wireless device type and describe relative screen location and display object size information independent of screen dimensions. The first screen is translated into a second screen description that includes discrete low level rendering commands within the rendering capability of the wireless device that is syntax generic. Low level rendering commands include physical screen positions of display elements. The translated second screen is then transmitted to the wireless device.

34 Claims, 9 Drawing Sheets

(10) **Patent No.: US 8,103,865 B2**

(54) **SERVER METHOD AND SYSTEM FOR RENDERING CONTENT ON A WIRELESS DEVICE**

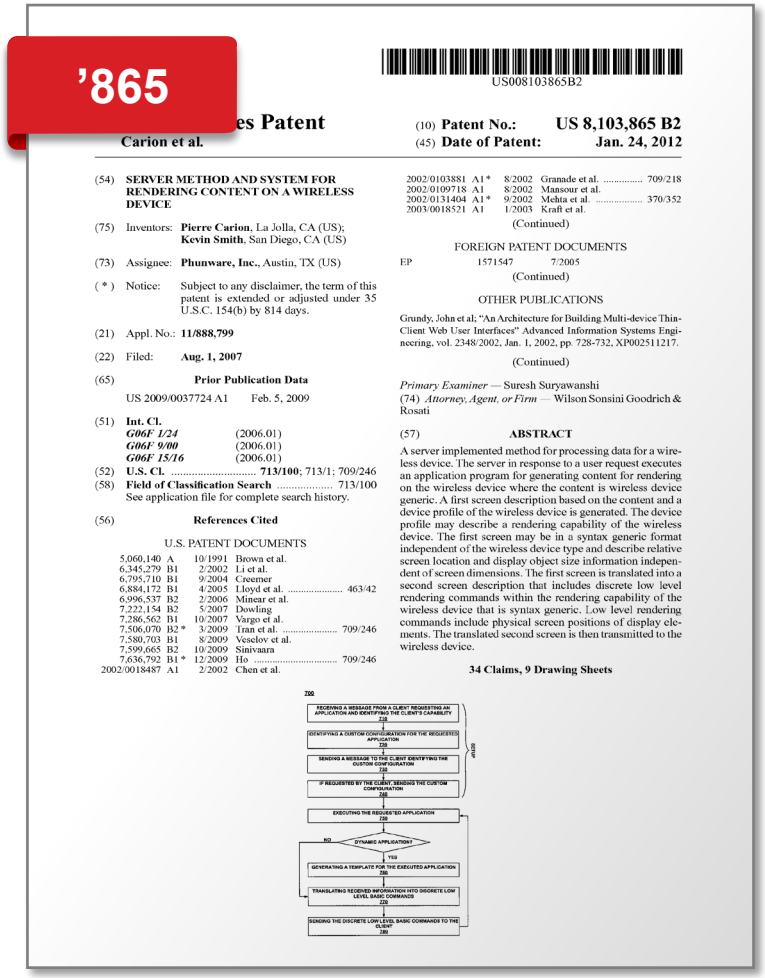
(45) **Date of Patent: Jan. 24, 2012**

The Patent-at-Issue was filed on August 1, 2007 and does not claim priority to an earlier application. Ex. 1001 at (22). As such, the effective priority date is the filing date, and the Patent-at-Issue's patentability should be judged under the pre-AIA statutes.

POPR at 2

EX1001 at (10), (45), (54); Pet. at 9; POPR at 2.

’865 Patent – Problem to be Solved



’865

US008103865B2

es Patent

Carion et al.

(10) Patent No.: US 8,103,865 B2

(45) Date of Patent: Jan. 24, 2012

(54) SERVER METHOD AND SYSTEM FOR RENDERING CONTENT ON A WIRELESS DEVICE

(75) Inventors: Pierre Carion, La Jolla, CA (US); Kevin Smith, San Diego, CA (US)

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G06F 1/24 (2006.01)
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(58) Field of Classification Search 713/100
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6,996,537	B2	2/2006	Minear et al.	
7,222,154	B2	5/2007	Dowling	
7,286,562	B1	10/2007	Vargo et al.	
7,506,070	B2 *	3/2009	Iran et al.	709/246
7,580,703	B1	8/2009	Veselov et al.	
7,599,665	B2	10/2009	Sinivaara	
7,636,792	B1 *	12/2009	Ho	709/246
2002/0018487	A1	2/2002	Chen et al.	
2002/0103881	A1 *	8/2002	Granade et al.	709/218
2002/0109718	A1	8/2002	Mansour et al.	
2002/0131404	A1 *	9/2002	Mehta et al.	370/352
2003/0018521	A1	1/2003	Kraft et al.	

(Continued)

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(Continued)

Primary Examiner — Suresh Suryawanshi
(74) *Attorney, Agent, or Firm* — Wilson Sonsini Goodrich & Rosati

(57) ABSTRACT

A server implemented method for processing data for a wireless device. The server in response to a user request executes an application program for generating content for rendering on the wireless device where the content is wireless device generic. A first screen description based on the content and a device profile of the wireless device is generated. The device profile may describe a rendering capability of the wireless device. The first screen may be in a syntax generic format independent of the wireless device type and describe relative screen location and display object size information independent of screen dimensions. The first screen is translated into a second screen description that includes discrete low level rendering commands within the rendering capability of the wireless device that is syntax generic. Low level rendering commands include physical screen positions of display elements. The translated second screen is then transmitted to the wireless device.

34 Claims, 9 Drawing Sheets

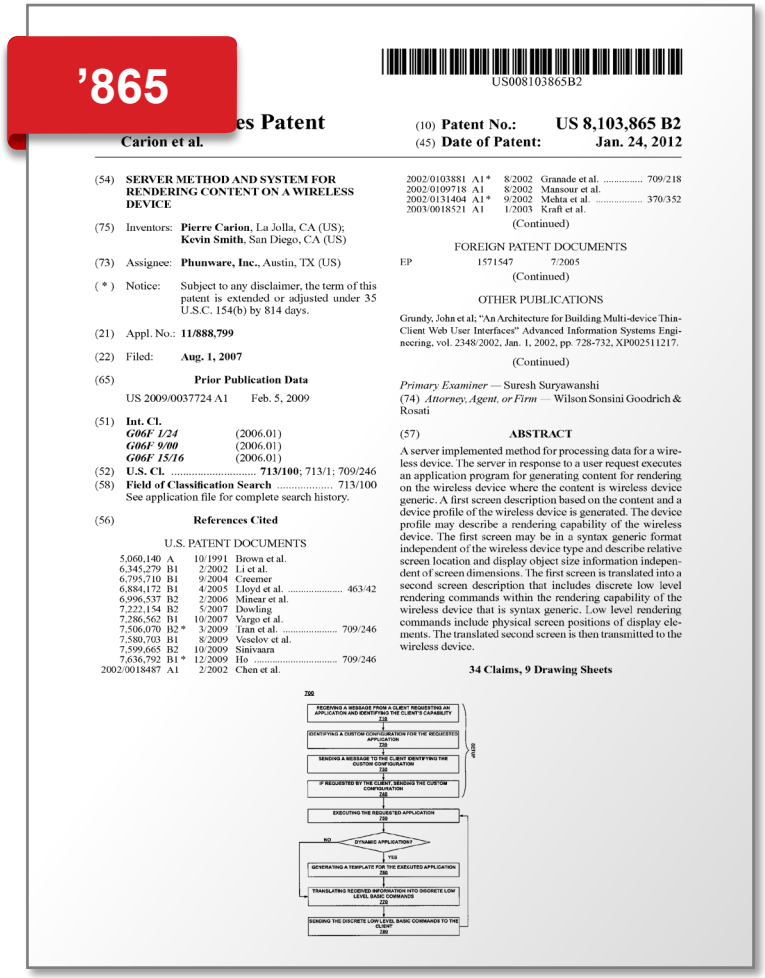
Diverse wireless device platforms required multiple, tailored versions of an application

> Accordingly, a need has arisen to enable software vendors to provide generic applications regardless of the wireless device type, thereby relieving software vendors from having to tailor their applications for each given wireless device type. Moreover, a need has arisen to not only relieve software vendors from tailoring their applications for a given wireless device type but to provide an output that is device specific based on the wireless device attributes where the output is generated from a generic application. Furthermore, it is advantageous to update and patch various applications without a need to access each wireless device individually. It will become apparent to those skilled in the art after reading the detailed description of the present invention that the embodiments of the present invention satisfy the above mentioned needs.

’865 Patent at 2:21-35

EX1001 at 2:21-35; Pet. at 4-8.

Patent's Solution – Generic Application & Custom Configuration



’865

US008103865B2

es Patent

Carion et al.

(10) Patent No.: US 8,103,865 B2

(45) Date of Patent: Jan. 24, 2012

(54) SERVER METHOD AND SYSTEM FOR RENDERING CONTENT ON A WIRELESS DEVICE

(75) Inventors: Pierre Carion, La Jolla, CA (US); Kevin Smith, San Diego, CA (US)

(73) Assignee: Phunware, Inc., Austin, TX (US)

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7,580,703	B1	8/2009	Veselov et al.	
7,599,665	B2	10/2009	Sinivaara	
7,636,792	B1 *	12/2009	Ho	709/246
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2002/0103881	A1 *	8/2002	Granade et al.	709/218
2002/0109718	A1	8/2002	Mansour et al.	
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2003/0018521	A1	1/2003	Kraft et al.	

(Continued)

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EP 1571547 7/2005

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(Continued)

Primary Examiner — Suresh Suryawanshi
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(57) ABSTRACT

A server implemented method for processing data for a wireless device. The server in response to a user request executes an application program for generating content for rendering on the wireless device where the content is wireless device generic. A first screen description based on the content and a device profile of the wireless device is generated. The device profile may describe a rendering capability of the wireless device. The first screen may be in a syntax generic format independent of the wireless device type and describe relative screen location and display object size information independent of screen dimensions. The first screen is translated into a second screen description that includes discrete low level rendering commands within the rendering capability of the wireless device that is syntax generic. Low level rendering commands include physical screen positions of display elements. The translated second screen is then transmitted to the wireless device.

34 Claims, 9 Drawing Sheets

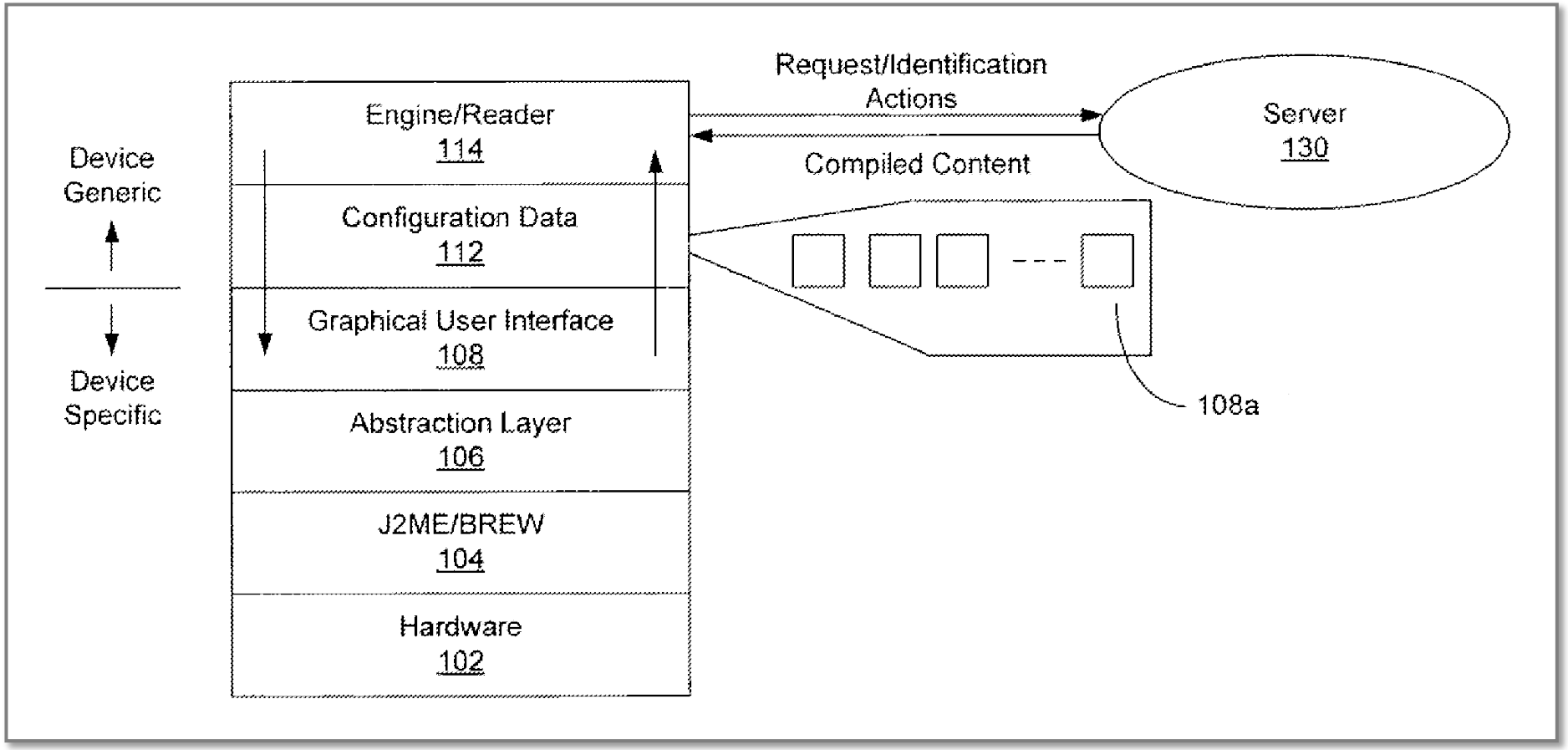
Content compiled by a generic application is used at the client to render a tailored display

In response to the message from the wireless device, the server accesses the requested application by accessing a library of applications. The library of applications contains generic applications that on one level operate regardless of the device type. The requested application is executed on the server. Moreover, the server may identify a custom configuration to be used for the requested application and the device type. The custom configuration is the theme and determines certain graphical appearances of the requested application. In other words, the custom configuration provides the "look and feel" of the content of the requested application. The server may send a message to the wireless device identifying the custom configuration to be used. If the identified custom configuration is present on the wireless device it is used locally, otherwise the identified custom configuration is downloaded from the server to the wireless device. The custom configuration is specific to the display and audio capabilities of the wireless device and is also specific to the wireless device.

’865 Patent at 3:7-25

EX1001 at 3:7-25; Pet. at 4-8.

Patent's Solution – Generic Application & Custom Configuration



'865 Patent at Fig. 1B

EX1001 at Fig. 1B; Pet. at 4-8.

The Patent Claims Well-Known Technology



Bederson
Petitioner's Expert

56. The relationship between "clients" and "servers" is so foundational to the history of computers that it is often used to define the nature of the computing architecture as well as the user experience. The state of the client-side computing

EX1002 at ¶ 56

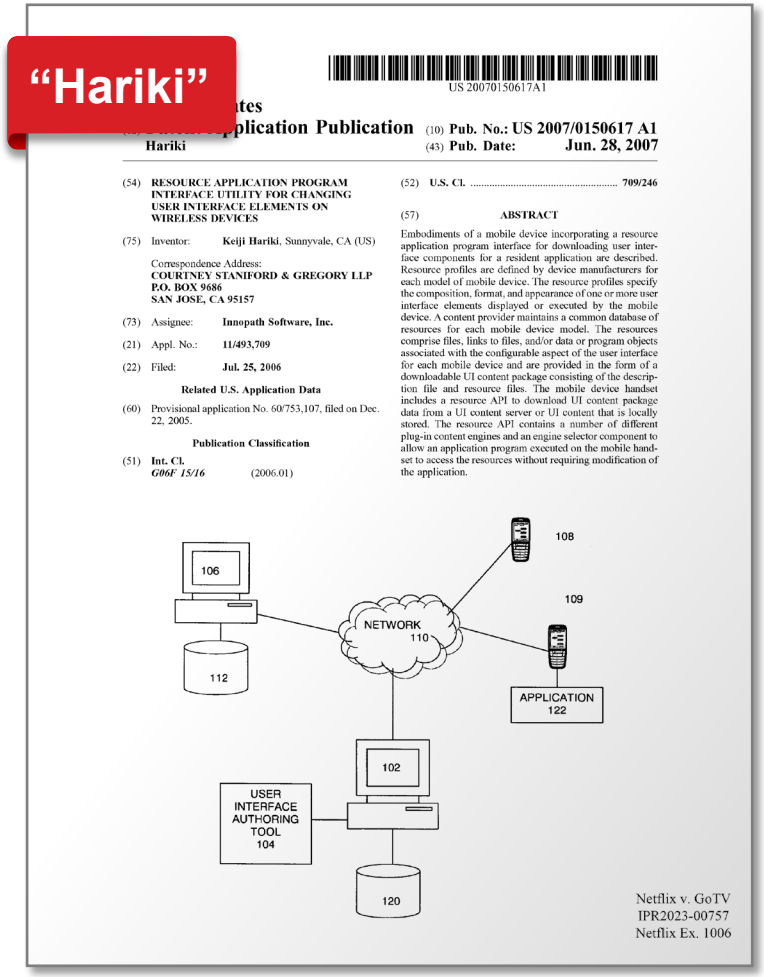
57. *Sinha* also explains that as far back as 1992, it was common to have the GUI of an application displayed on a computer remote from the application. It describes the X Window System that commonly ran on Unix environments which "provides network transparency so that an application displaying a chart on a screen could be running on a local machine or a remote machine thousands of miles away." *Id.*, p. 91.

EX1002 at ¶ 57

EX1002 at ¶¶ 56-57.

U.S. Patent Application Publication No. 2007/0150617 ("Hariki")

"Hariki"



US 20070150617A1

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plication Publication
Hariki

(10) Pub. No.: US 2007/0150617 A1
(43) Pub. Date: Jun. 28, 2007

(54) RESOURCE APPLICATION PROGRAM INTERFACE UTILITY FOR CHANGING USER INTERFACE ELEMENTS ON WIRELESS DEVICES

(75) Inventor: Keiji Hariki, Sunnyvale, CA (US)

Correspondence Address:
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SAN JOSE, CA 95157

(73) Assignee: Innopath Software, Inc.

(21) Appl. No.: 11/493,709

(22) Filed: Jul. 25, 2006

Related U.S. Application Data

(60) Provisional application No. 60/753,107, filed on Dec. 22, 2005.

Publication Classification

(51) Int. Cl.
G06F 15/16 (2006.01)

(52) U.S. Cl. 709/246

(57) ABSTRACT

Embodiments of a mobile device incorporating a resource application program interface for downloading user interface components for a resident application are described. Resource profiles are defined by device manufacturers for each model of mobile device. The resource profiles specify the composition, format, and appearance of one or more user interface elements displayed or executed by the mobile device. A content provider maintains a common database of resources for each mobile device model. The resources comprise files, links to files, and/or data or program objects associated with the configurable aspect of the user interface for each mobile device and are provided in the form of a downloadable UI content package consisting of the description file and resource files. The mobile device handset includes a resource API to download UI content package data from a UI content server or UI content that is locally stored. The resource API contains a number of different plug-in content engines and an engine selector component to allow an application program executed on the mobile handset to access the resources without requiring modification of the application.

Netflix v. GoTV
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Netflix Ex. 1006

(10) **Pub. No.: US 2007/0150617 A1**

(54) **RESOURCE APPLICATION PROGRAM INTERFACE UTILITY FOR CHANGING USER INTERFACE ELEMENTS ON WIRELESS DEVICES**

(43) **Pub. Date: Jun. 28, 2007**

(60) Provisional application No. 60/753,107, filed on Dec. 22, 2005.

EX1005 at (10), (43), (54), (60).

Overview of Hariki

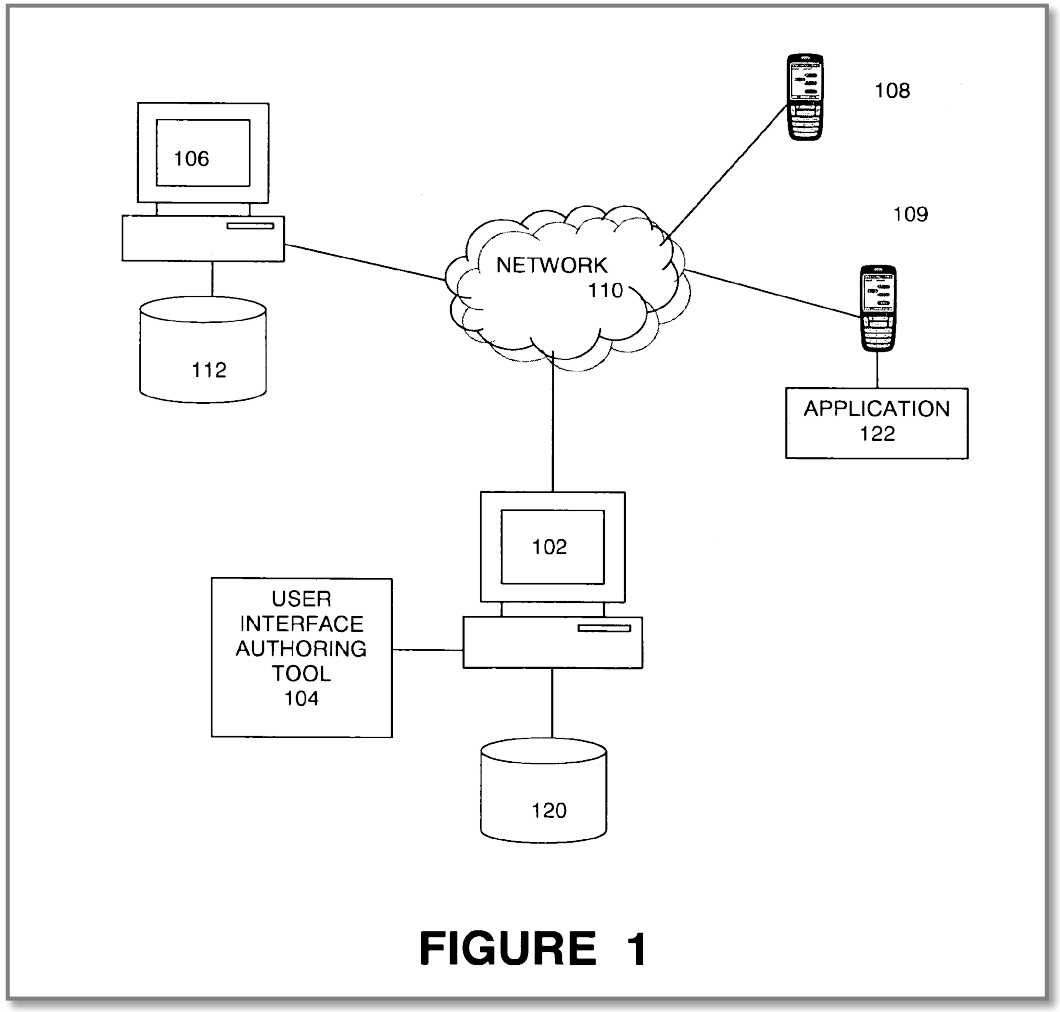


FIGURE 1

- Hariki discloses a user interface authoring tool 104 and a resource application programming interface (API) on a mobile device

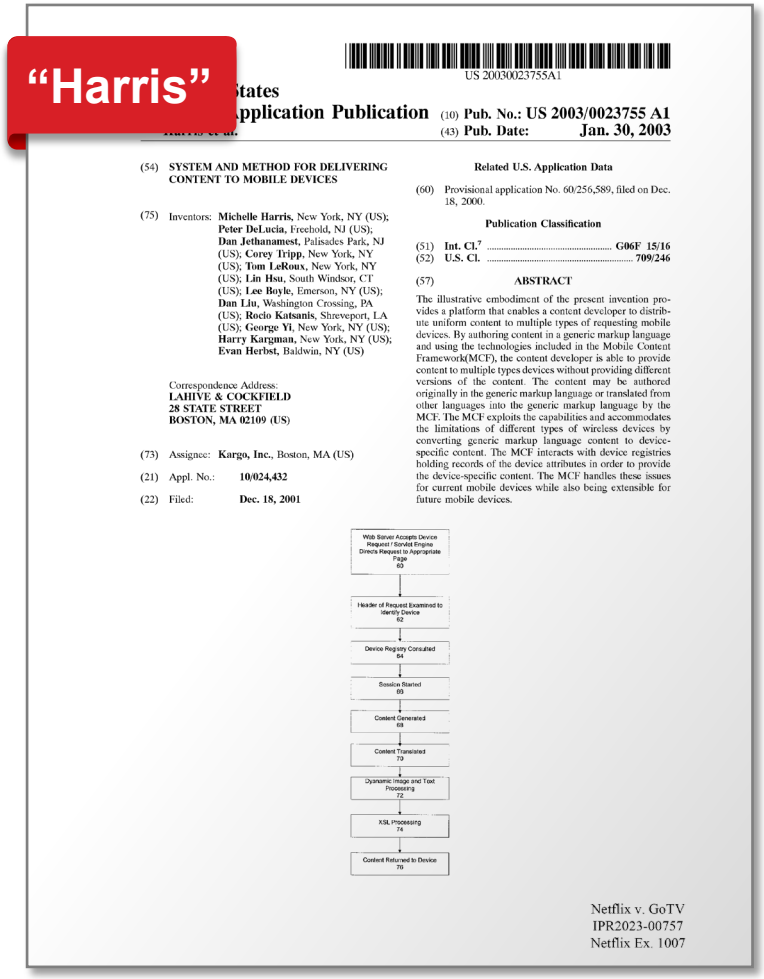
- Server 102 “can be a World-Wide Web (WWW) server that stores data in the form of web pages and transmits these pages as Hypertext Markup Language (HTML) files over the Internet 110.”

Hariki at ¶¶ 20, 21, 24

EX1005 at Fig. 1, ¶¶ 20, 21, 24; Pet. at 10-12.

U.S. Patent Application Publication No. 2003/0023755 (“Harris”)

“Harris”



US 20030023755A1

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pplication Publication (10) Pub. No.: US 2003/0023755 A1
(43) Pub. Date: Jan. 30, 2003

(54) SYSTEM AND METHOD FOR DELIVERING CONTENT TO MOBILE DEVICES

(75) Inventors: **Michelle Harris**, New York, NY (US); **Peter DeLucia**, Freehold, NJ (US); **Dan Jethanamest**, Palisades Park, NJ (US); **Corey Tripp**, New York, NY (US); **Tom LeRoux**, New York, NY (US); **Lin Hsu**, South Windsor, CT (US); **Lee Boyle**, Emerson, NY (US); **Dan Liu**, Washington Crossing, PA (US); **Rocio Katsanis**, Shreveport, LA (US); **George Yi**, New York, NY (US); **Harry Kargman**, New York, NY (US); **Evan Herbst**, Baldwin, NY (US)

Correspondence Address:
LAHIVE & COCKFIELD
28 STATE STREET
BOSTON, MA 02109 (US)

(73) Assignee: **Kargo, Inc.**, Boston, MA (US)

(21) Appl. No.: **10/024,432**

(22) Filed: **Dec. 18, 2001**

Related U.S. Application Data

(60) Provisional application No. 60/256,589, filed on Dec. 18, 2000.

Publication Classification

(51) **Int. Cl.**[7] **G06F 15/16**
(52) **U.S. Cl.** **709/246**

(57) **ABSTRACT**

The illustrative embodiment of the present invention provides a platform that enables a content developer to distribute uniform content to multiple types of requesting mobile devices. By authoring content in a generic markup language and using the technologies included in the Mobile Content Framework(MCF), the content developer is able to provide content to multiple types devices without providing different versions of the content. The content may be authored originally in the generic markup language or translated from other languages into the generic markup language by the MCF. The MCF exploits the capabilities and accommodates the limitations of different types of wireless devices by converting generic markup language content to device-specific content. The MCF interacts with device registries holding records of the device attributes in order to provide the device-specific content. The MCF handles these issues for current mobile devices while also being extensible for future mobile devices.

Netflix v. GoTV
IPR2023-00757
Netflix Ex. 1007

(10) **Pub. No.: US 2003/0023755 A1**

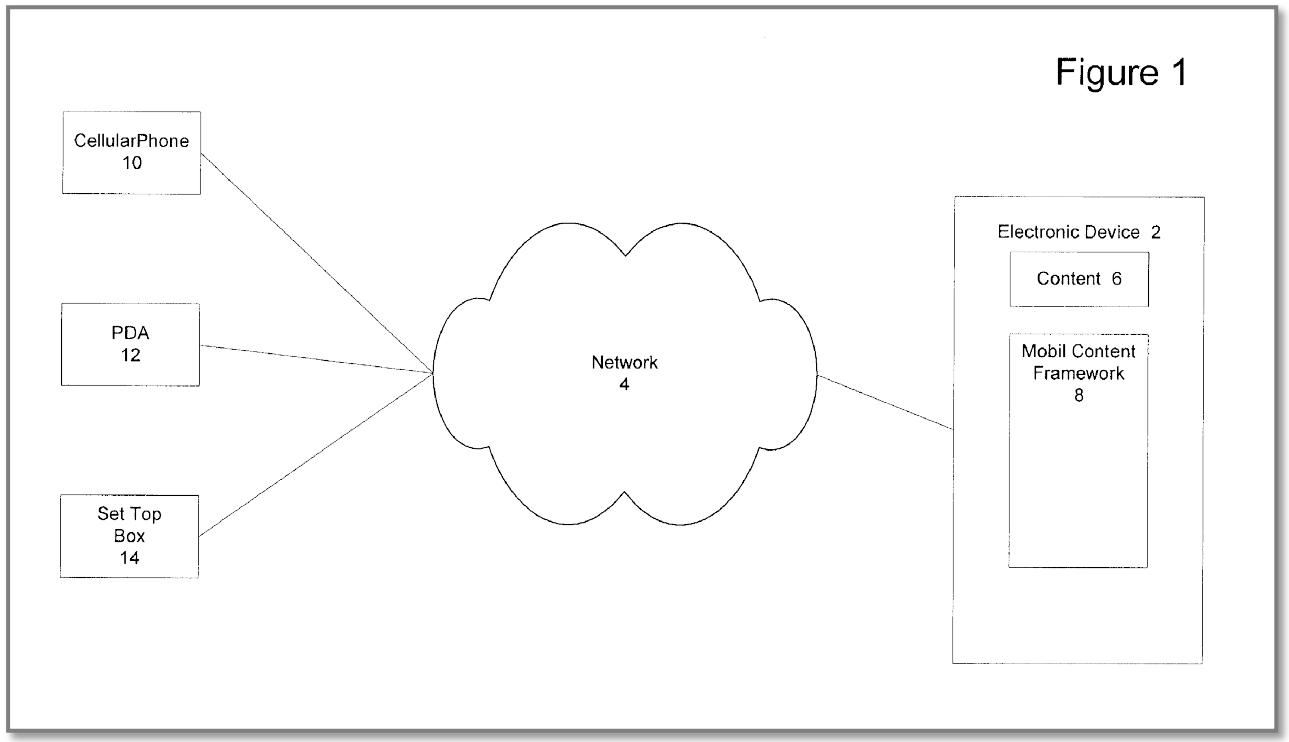
(54) **SYSTEM AND METHOD FOR DELIVERING CONTENT TO MOBILE DEVICES**

(43) **Pub. Date: Jan. 30, 2003**

(60) Provisional application No. 60/256,589, filed on Dec. 18, 2000.

EX1006 at (10), (43), (54), (60).

Overview of Harris



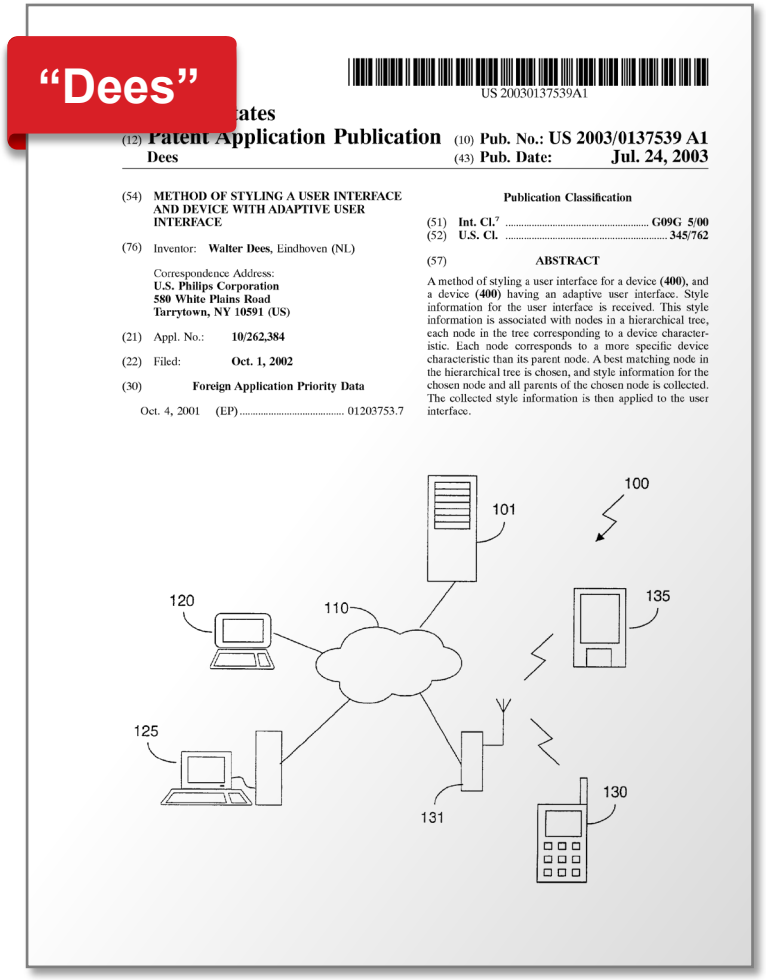
- Harris discloses delivery of content to multiple mobile devices using different device protocols
- MCF content is "tailored to take into account the limited resources of certain devices such as mobile devices"
- "Content is first translated into WAX from the original language of the content provider, … and then converted into a device appropriate language for a requesting mobile device," such as HTML

Harris at ¶¶ 7, 14-15

EX1005 at Fig. 1, ¶¶ 7, 14-15; Pet. at 12-15.

U.S. Patent Application Publication No. 2003/0137539 (“Dees”)

“Dees”



US 20030137539A1

(12) Patent Application Publication (10) Pub. No.: US 2003/0137539 A1
Dees (43) Pub. Date: Jul. 24, 2003

(54) METHOD OF STYLING A USER INTERFACE AND DEVICE WITH ADAPTIVE USER INTERFACE

(76) Inventor: Walter Dees, Eindhoven (NL)

Correspondence Address:
U.S. Philips Corporation
580 White Plains Road
Tarrytown, NY 10591 (US)

(21) Appl. No.: 10/262,384

(22) Filed: Oct. 1, 2002

(30) Foreign Application Priority Data

Oct. 4, 2001 (EP) 01203753.7

Publication Classification

(51) Int. Cl.[7] G09G 5/00
(52) U.S. Cl. 345/762

(57) ABSTRACT

A method of styling a user interface for a device (400), and a device (400) having an adaptive user interface. Style information for the user interface is received. This style information is associated with nodes in a hierarchical tree, each node in the tree corresponding to a device characteristic. Each node corresponds to a more specific device characteristic than its parent node. A best matching node in the hierarchical tree is chosen, and style information for the chosen node and all parents of the chosen node is collected. The collected style information is then applied to the user interface.

(10) **Pub. No.: US 2003/0137539 A1**

(54) **METHOD OF STYLING A USER INTERFACE AND DEVICE WITH ADAPTIVE USER INTERFACE**

(43) **Pub. Date: Jul. 24, 2003**

EX1007 at (10), (43), (54).

Overview of Dees

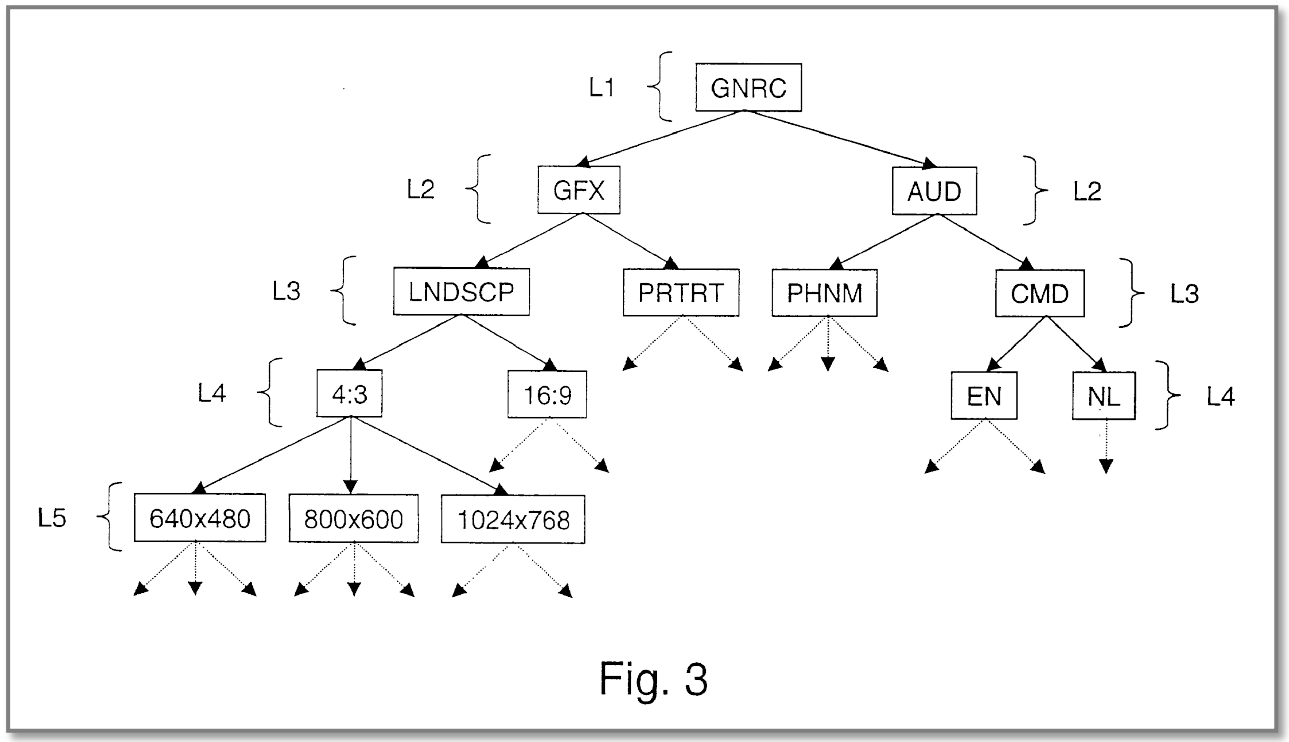


Fig. 3

- Discloses a modular UI styling method using a hierarchical tree of style information

- Styling can be applied by navigating the tree according to device characteristics

Dees at ¶¶ 11-13

EX1007 at Fig. 3, ¶¶ 11-13; Pet. at 16-18.

Custom Configuration Specific to an Application

1 Hariki/Harris Discloses an Application on the Server

Hariki/Harris teaches a web server running on server 102 to provide web pages, such as Harris's translated WAX, to a client

[0021] As shown in system **100**, a server computer **102** operated by the service provider or a third party vendor is a content provider server computer that provides content data, application programs, diagnostic tools, program components, or any other content or executable objects to the mobile device **108**. The content provider computer can be a World-Wide Web (WWW) server that stores data in the form of web pages and transmits these pages as Hypertext Markup Language (HTML) files over the Internet **110** to the mobile devices **108** and **109**, or other client computer on the network. For example, server **102** can executes a web server process to serve web pages over network **110**. For this embodiment, one or more of the mobile devices runs a web browser program to access the web pages served by server computer **102** and any other available content provider or supplemental server, such as computer **106**.

Hariki at ¶ 21

[0024] The process by which the illustrative embodiment of the present invention provides customized content to requesting mobile devices is depicted in **FIG. 3**. The process begins when an electronic device, such as a web server accepts a connection and an HTTP request from a mobile device and the servlet engine directs the request to the appropriate page or servlet destined to generate WAX (step **60**). In one embodiment, the servlet engine supports the Java Servlet 2.2 specification. The headers of the HTTP request are examined by the MCF **8** in order to determine the type

* * *

preferences. User preferences may include interface choices, key mappings, key behavior, functionality, the amount of information to be rendered, language and location. WAX is translated into a language the requesting device can understand. The stylesheet determined earlier (step **62**) is used to perform the translation. The customized content is then returned to requesting device (step **76**).

Harris at ¶ 24

EX1005 at ¶ 21; EX1006 at ¶ 24; Pet. at 22-29; Reply at 7-11.

1 Custom Configuration Is Applied to the Content, Not the Application

Claim 1 requires that the custom configuration is used to present content on the mobile device but does not operate on the application itself

1. A server implemented method for processing data for a wireless device, comprising:

receiving from the wireless device a request for an application program, said request including an indication of a type of the wireless device;

executing, in response to receiving said request, said application program to generate a wireless device generic template including a plurality of content items;

sending a custom configuration to the wireless device, said custom configuration being specific to said application program;

generating a page description based on said wireless device generic template and a capability of the wireless device, said page description having at least one discrete low level rendering command that is within said rendering capability of said wireless device but that is of a syntax that is wireless device generic; and

sending said page description to the wireless device such that the wireless device is capable of presenting at least one content item from said plurality of content items using both said page description and said custom configuration.

EX1001 at cl. 1; ID at 22-23; Reply at 7-11.

6 Custom Configuration Is Applied to the Content, Not the Application



Pet. at 4-8; Reply at 2-5.

1 Custom Configuration Is Applied to the Content through Rendering Blocks

Experts agree that the custom configuration arrives separately on the client device to support customization of the compiled content



Lipoff
PO's Expert

"in order to practice the claim as it's written, the custom configuration needs to be there before the application starts sending content to the rendering blocks."

Lipoff Dep. at 23:12-16



Bederson
Petitioner's Expert

"[Content provider] would understand [] that the UI skin would be sent to a client along with content such as HTML content from a server, and those things together would support the customization of that HTML content."

Bederson Dep. at 63:11-16

EX1033 at 23:12-16; EX2014 at 63:11-16; ID at 22; Reply at 7-11.

1 Custom Configuration is Specific to the Application

Page description and a custom configuration from the server are used by the client device to present content

At step **640**, the wireless device receives compiled content generated in part from execution of the requested application by the server. It is appreciated that the compiled content may include basic commands that are expressed in a syntax that is generic to the wireless device but where the parameters of the basic commands are based on the wireless device capability.

'865 Patent at 18:57-62

At step **650**, the wireless device uses a graphical user interface to generate renderable content based on the received compiled content and the custom configuration. In one embodiment, content is rendered by processing the compiled content using the reader and by issuing commands from the reader to rendering blocks of the graphical user interface based on the rendering commands of the compiled content. Accordingly, at step **660**, the content is rendered by the wireless device.

'865 Patent at 18:63-19:4

EX1001 at 18:57-19:4; Reply at 2-4.

1 Claim 1 Dictates the Role of the Custom Configuration

The custom configuration supports rendering of the application content within the capabilities of the mobile device

Type of device informs way its capabilities will impact ***what*** content can be displayed

1. A server implemented method for processing data for a wireless device, comprising:

receiving from the wireless device a request for an application program, said request including an indication of a type of the wireless device;

executing, in response to receiving said request, said application program to generate a wireless device generic template including a plurality of content items;

sending a custom configuration to the wireless device, said custom configuration being specific to said application program;

generating a page description based on said wireless device generic template and a capability of the wireless device, said page description having at least one discrete low level rendering command that is within said rendering capability of said wireless device but that is of a syntax that is wireless device generic; and

sending said page description to the wireless device such that the wireless device is capable of presenting at least one content item from said plurality of content items using both said page description and said custom configuration.

Type of device informs way its capabilities will impact ***how*** content can be displayed

'865 Patent, cl. 1

EX1001 at cl. 1; Reply at 2-4.

1 Specification Confirms the Relationship in the Claims

The custom configuration is a bridge between the application and the rendering capabilities of the mobile device

> downloaded from the server to the wireless device. The custom configuration is specific to the display and audio capabilities of the wireless device and is also specific to the wireless device.

'865 Patent at 3:22-25

EX1001 at 3:22-25; Reply at 2-4.

1 Custom Configuration Works in Concert with the Application

Custom configuration allows the application content to be rendered properly within the confines of the mobile device capabilities

> *Id.* Accordingly, it follows that the custom configuration must be specific to the server application in that it supports rendering of the page description based on the wireless device capabilities. This is evident to from the claim language as written.

Reply at 3

Reply at 2-4.

1 Hariki Teaches a UI Skin "Specific to" the Web Server Application

The relationship is a commonsense conclusion when the same provider supplies both the web application content and the configuration

[0024] In one embodiment, server computer **102** is operated by a content provider that can generate a customized user interface for a plurality of different makes and types of mobile devices, such as cell phones **108** and **109**. For purposes of discussion, the customized user interface is referred to as a "UI skin." In general, UI skins allow a user to customize the "look and feel" or application program environment of a device by altering display and/or sound output aspects of the device, such as backgrounds, title bars, buttons, alert sounds, and so on. Some programs make automatic skin changes for a user when the user starts the program or uses certain parts of the program; alternatively UI skins can be downloaded by the user and installed on the mobile device to alter the default UI or permanently change the UI of the device. UI skins may be developed by third party vendors, device manufacturers, application writers, and so on. In general, different categories of UI skins can be developed for different types of mobile devices and different makes of mobile devices.

Hariki at ¶ 24

EX1005 at ¶ 24; Pet. at 29-31; Reply at 9-11.

1 ’865 Patent and Hariki Share the Same Objective

component. As discussed above, the configuration data may be used to customize the appearance of the requested application and represents programming and stored content of the graphical user interface **108**. In other words, configuration data may be a set of low level instructions for preprogramming a plurality of rendering blocks **108***a* of the graphical user interface to operate and render data (e.g., “look”) a certain way. For example, configuration data **112** may be used

’865 Patent at 7:59-66

blocks of the wireless device. The custom configuration customizes the look and feel of the content displayed on the wireless device from execution of the requested application.

’865 Patent at 18:41-43

[0008] What is needed, therefore, is a mobile device UI configuration system that allows a UI skin package content provider to easily generate a new UI resource file for new or different mobile devices, and make these UI skin packages available for download and installation on user mobile devices.

[0009] What is further needed is a mobile device configuration system that allows modification of mobile device user interfaces or application programs without modification of the application programs themselves.

Hariki at ¶¶ 8-9

EX1001 at 7:59-66, 18:41-43; EX1005 at ¶¶ 8-9; Pet. at 4-8; Reply at 8-9 & n.1.

1 Custom Configuration Need Not Be "Created for" the Application

Specification does not teach a mandatory one-to-one relationship – there would be no optionality, no selection, and no versions

interface including a plurality of rendering blocks. A custom configuration may be used to customize the appearance of content generated by a requested application rendered on the rendering blocks. In other words, a custom configuration may

'865 Patent at 2:54-57

server. Moreover, the server may identify a custom configuration to be used for the requested application and the device type. The custom configuration is the theme and determines certain graphical appearances of the requested application. In other words, the custom configuration provides the "look and feel" of the content of the requested application. The server

'865 Patent at 3:12-17

In one embodiment, the message identifying the custom configuration may indicate a version of the custom configuration selected for use with the requested application. The

'865 Patent at 11:64-66

EX1001 at 2:54-57, 3:12-17; 11:64-66; Reply at 2-4.

Harris Teaches Elimination of Content Unsupported by the Wireless Device

2 Claim Limitations 12(e) and 12(f)

Despite the Board's reasoning in the Institution Decision, PO maintains multiple points of dispute

eliminate, using said device profile, at least one content item from

said plurality of content items from said wireless device generic template to define a device specific template associated with the wireless device,

said at least one content item being unsupported by the wireless device;

'865 Patent at cl. 12

EX1001 at cl. 12; Pet. at 61-63; ID at 38-40; POR at 34-50; Reply at 11-16.

2 PO's Construction Would Bar Substitution or Selection of Content

The only pertinent question is whether the original content remains wholly in place after the step

> eliminate, using said device profile, at least one content item from said plurality of content items from said wireless device generic template to define a device specific template associated with the wireless device, said at least one content item being unsupported by the wireless device;

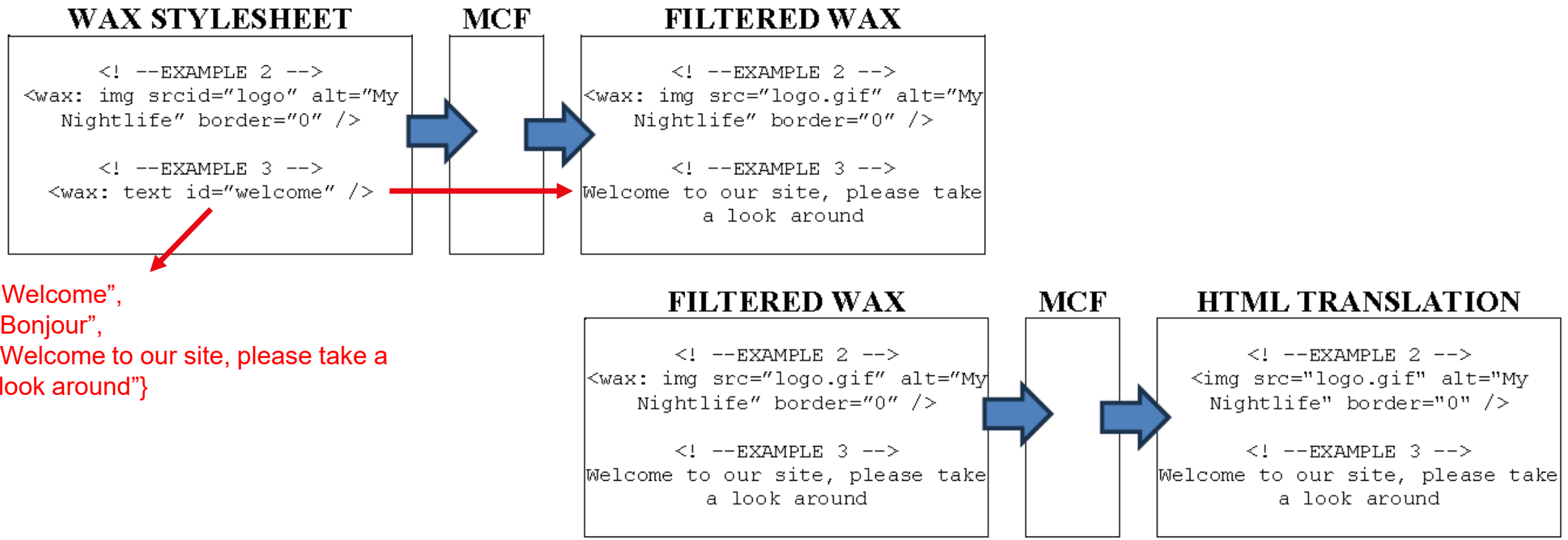
'865 Patent at cl. 12

- No construction is needed, as the dispute is not whether "eliminate" means "remove"
- PO suggests that "elimination" requires a permanent void in the template
- There is no basis in the claim to prevent subsequent addition or modification

EX1001 at cl. 12; Pet. at 61-63; ID at 38-40; POR at 27-28, 41-46; Reply at 11-16.

2 Harris's Translation Process from WAX to HTML Teaches Claim 12(e)

Content in the WAX Stylesheet is eliminated and replaced according to mobile device capabilities



Lipoff Dec. at ¶¶ 141-42 (excerpted and annotated in red)

EX2005 at ¶¶ 141-42; POR at 44; Reply at 11-16.

2 Harris's Translation Process from WAX to HTML Teaches Claim 12(e) & 12(f)

Selecting appropriate content means discarding unsupported content

[0030] Example 1 shows the abstract nature of WAX. The <wax:button> element is displayed as a "soft-key" for WAP devices, but as a "link" for devices which understand only HTML. Examples 2 and 3 illustrate WAX's Dynamic Item Processing feature. In Example 1 the text "logo" is placed into the srcid attribute instead of the URL to the actual image. The text "logo" is used to index into a set of rules to determine the best image to display for the specific device. For example, the framework may determine that "logo.gif" is the best image for the given device or possibly that "logo-nok7100.wbmp" is the best image. WAX itself does not determine the "physical image" to display, only the "logical" image. Example 3 illustrates the same principal, but with text. The id "welcome" may be translated to "Bonjour" for users who specify French as their preferred language or possibly "Welcome to our site, please take a look around!" for wireless devices, having a larger display. Example 4 shows how Java code may be inserted directly into the WAX. In this case, a Java Server Page renders the WAX content, although WAX can be generated by many different web technologies like ASP or Perl CGI.

Harris at ¶ 30

[0034] Once a WAX stream has been generated, it is fed into the translation engine. First, the stream of WAX enters into a set of filters that alter many of the "logical" tags into "physical" tags. Then, WAX content is translated using any number of translation sheets. The stream can then be filtered through another level of processing in order to accommodate device requirements such as character encoding.

Harris at ¶ 34

EX1006 at ¶¶ 30, 34; EX2005 at ¶ 140; Pet. at 61-63; Reply at 11-16.

2 PO Also Tries to Limit the Scope of the Term "Content"

PO's argument that "content" can only refer to material that was "meant for display" ignores the '865 patent

PO:

> 65:15–24). The indexes "id='welcome'" and "srcid='logo'" are not meant for display on the wireless device and asking whether a device "supports" the indexes makes no sense. It only makes sense to ask if the wireless device supports the actual "content items," the image and text that the indexes reference. *See* Ex. 1006 [0030].

PO Sur-Reply at 15

PO Sur-Reply at 15; EX1001 at 12:31-52.

2 PO Also Tries to Limit the Scope of the Term "Content"

PO's argument that "content" can only refer to material that was "meant for display" ignores the '865 patent

Content includes identification of material to be displayed

'865:

It is appreciated that the server **230** in response to a request from the client **210** may send the requested content to the client **210**. For example, the server **230** may send a custom configuration description, an application, a loading animation description that may be a static text, a static image, an animated image and the like. For static text, the content of the text may be provided, for a static image the identification of the image and its version number may be provided and for an animated image the identification of the image, the number of frames and the delay between frames may be provided. It is appreciated that the server in response to the request from the client sends the version number of the requested resource, which may be cached by the client.

'865 Patent at 12:31-43

It is appreciated that any image regardless of the context (e.g., configuration data, loading animation, etc.) may be identified by its identification number and its corresponding version number. In one embodiment, the client may store as many images as it can in a LRU (least recently used) cache to avoid wasting bandwidth in asking for images. Each time an image is sent from the server, the version number may be changed to clear the image in client's cache and ask the server for a new one.

'865 Patent at 12:44-52

PO Sur-Reply at 15; EX1001 at 12:31-52.

Relative Screen Location and Display Object Size Independent of Actual Screen Dimensions

3 Claims 2 and 13 Implicate the Wireless Device Generic Template

PO's counterarguments incorrectly focus on post-page description generation

executing, in response to receiving said request, said application program to generate a wireless device generic template including a plurality of content items;

sending a custom configuration to the wireless device, said custom configuration being specific to said application program;

generating a page description based on said wireless device generic template and a capability of the wireless device, said page description having at least one discrete low level rendering command that is within said rendering capability of said wireless device but that is of a syntax that is wireless device generic; and

sending said page description to the wireless device such that the wireless device is capable of presenting at least one content item from said plurality of content items using both said page description and said custom configuration.

2. The method of claim **1**, wherein said wireless device generic template includes relative screen location and display object size information and is independent of screen dimensions of the wireless device.

'865 Patent at cls. 1, 2

Harris's WAX stylesheet does not account for device specific capabilities

Device capabilities are considered during WAX translation, so the WAX stylesheet is screen independent

Harris teaches the limitations of claims 2 and 13

EX1001 at cls. 1, 2, 12, 13; Pet. at 43-44, 64; Reply at 16-18.

3 Harris's "Center" Tag Is A Device-Independent Screen Location

The "center" tag provides relative alignment regardless of screen dimensions prior to translation or rendering

[0029] Samples of WAX which illustrate some of the basic features are listed below:

```
<?xml version=" 1. 0" encoding="utf-8"?>
<wax:wax xmlns:wax="http://www.kargo.corn/wax" version="O.9">
    <wax:doc version="1.0">
        <wax:title>NY Nightlife</wax:title>
        <wax:block id="splash">
            <! --EXAMPLE 1 -->
            <wax : button href="index?a=rnain"
            keytype="accept" type="go" labelid="enter" />
            <wax:p align="center">
```

Harris at ¶ 29

EX1006 at ¶ 29; Pet. at 43-44, 64; Reply at 16-18.

3 Harris's 'Date Chooser' Teaches Device Independent Object Size

Harris's Date Chooser could not be rendered in two different sizes unless it was device independent in the WAX stylesheet

[0018] The WAX language may be dynamically translated to a requesting device's native language. The MCF 8 dynamically translates WAX into other markup languages using XML-based technologies. Content is translated from WAX to languages like WML, HDML and HTML. The content is not only translated into a specific language appropriate for the device, but also (unlike traditional XSL stylesheets) is tailored based upon the attributes of the requesting device. The attributes may involve device features, memory, storage capacity, communication speed, type of operating system, and other attributes related to the device. Some devices require their own special translation rules. For example, a WAX "Date-Chooser" renders one way on the limited screen sizes of mobile phones (possibly through a series of WML decks and another way on a PDA (all on one screen). WAX tags that are attached to content

Harris at ¶ 18

EX1006 at ¶ 18; Pet. at 43-44, 64; Reply at 16-18.

The Combined Disclosures Teach Audio Rendering Commands

4 Hariki/Harris Teaches the Audio Rendering Commands of Claims 8 and 19

Hariki's UI skin configures rendering blocks to render display and audio content

[0024] In one embodiment, server computer **102** is operated by a content provider that can generate a customized user interface for a plurality of different makes and types of mobile devices, such as cell phones **108** and **109**. For purposes of discussion, the customized user interface is referred to as a "UI skin." In general, UI skins allow a user to customize the "look and feel" or application program environment of a device by altering display and/or sound output aspects of the device, such as backgrounds, title bars, buttons, alert sounds, and so on. Some programs make automatic skin changes for a user when the user starts the program or uses certain parts of the program; alternatively UI skins can be downloaded by the user and installed on the mobile device to alter the default UI or permanently change the UI of the device. UI skins may be developed by third party vendors, device manufacturers, application writers, and so on. In general, different categories of UI skins can be developed for different types of mobile devices and different makes of mobile devices.

Hariki at ¶ 24

[0031] A common resource depot **202** contains resources, such as those denoted resource A, resource B, and resource C. The resources comprise files, links to files, and/or data or program objects associated with the configurable aspect of the user interface for each mobile device. Thus each resource (also referred to as a "resource file") in resource depot **202** represents a file, location, directory, link, document, or similar object that contains or references information or data elements pertaining to the aspects of the mobile device that can be configured or customized. All of the pertinent information relating to a mobile device is stored in a resource file, and all of the resource files for the possible different mobile device types are stored in a common resource depot **202**. The resource files can contain various types of data objects relating to the user interface elements of the mobile devices, such as image files, sound files, screen layouts, icons, movies, and so on. The common resource depot **202** can be implemented as a database stored in a data store **120** maintained by the content provider **102** or a data store **112** maintained by a separate server **106**.

Hariki at ¶ 31

EX1005 ¶¶ 24, 31; Pet. at 50-51; Reply at 18.

4 Hariki/Harris Teaches the Audio Rendering Commands of Claims 8 and 19

Harris's WAX translation process looks to the rendering capabilities of the mobile device

WAX content from WAX and device stylesheets. *See* VIII.A.1.e. It is my opinion that *Harris* further discloses that "in the translation process, elements (or tags) in the WAX file are translated to be rendered in different ways, specific to the mobile device. For example, "[t]he <wax:button> element is displayed as a 'soft-key' for WAP devices, but as a 'link' for devices which understand only HTML." *Harris*, ¶30. Accordingly, it is my opinion that *Harris* discloses a display rendering

Bederson Dec. at ¶ 198 (citing Harris at ¶ 30)

[0030] Example 1 shows the abstract nature of WAX. The <wax:button> element is displayed as a "soft-key" for WAP devices, but as a "link" for devices which understand only HTML. Examples 2 and 3 illustrate WAX's Dynamic Item Processing feature. In Example 1 the text "logo" is placed into the srcid attribute instead of the URL to the actual image. The text "logo" is used to index into a set of rules to determine the best image to display for the specific device. For example, the framework may determine that "logo.gif" is the best image for the given device or possibly that "logo-nok7100.wbmp" is the best image. WAX itself does not determine the "physical image" to display, only the "logical" image. Example 3 illustrates the same principal, but with text. The id "welcome" may be translated to "Bonjour" for users who specify French as their preferred language or possibly "Welcome to our site, please take a look around!" for wireless devices, having a larger display. Example 4 shows how Java code may be inserted directly into the WAX. In this case, a Java Server Page renders the WAX content, although WAX can be generated by many different web technologies like ASP or Perl CGI.

EX1002 ¶ 198; EX1006 ¶ 30; Pet. at 50-51; Reply at 18.

4 Hariki/Harris Teaches the Audio Rendering Commands of Claims 8 and 19

POSITAs would understand that the combined disclosures teach including an HTML audio rendering command for a configured audio block

> icons, movies, and so on." *Id.*, 31. Accordingly, it is my opinion that *Hariki* discloses that renderable content comprises audio content. It is also my opinion that to render audio content, an audio rendering command is required.
>
> 200. Therefore, it is my opinion that the *Hariki-Harris* combination discloses display and audio rendering commands.

Bederson Dec. at ¶¶ 199-200

EX1002 ¶¶ 199-200; Pet. at 50-51; Reply at 18.

’865 Patent, Claim 1

1. A server implemented method for processing data for a wireless device, comprising:

receiving from the wireless device a request for an application program, said request including an indication of a type of the wireless device;

executing, in response to receiving said request, said application program to generate a wireless device generic template including a plurality of content items;

sending a custom configuration to the wireless device, said custom configuration being specific to said application program;

generating a page description based on said wireless device generic template and a capability of the wireless device, said page description having at least one discrete low level rendering command that is within said rendering capability of said wireless device but that is of a syntax that is wireless device generic; and

sending said page description to the wireless device such that the wireless device is capable of presenting at least one content item from said plurality of content items using both said page description and said custom configuration.

’865 Patent, Claim 2

2. The method of claim **1**, wherein said wireless device generic template includes relative screen location and display object size information and is independent of screen dimensions of the wireless device.

’865 Patent, Claim 3

3. The method of claim 1, wherein said wireless device generic template is substantially compliant with extensible markup language (XML) syntax.

’865 Patent, Claim 4

4. The method of claim **1**, wherein said at least one discrete low level rendering command of said page description is operable to be executed by a plurality of rendering blocks of a graphical user interface of the wireless device.

’865 Patent, Claim 5

5. The method of claim **4**, wherein said at least one discrete low level rendering command includes a physical screen position of a display element of said at least one content item.

’865 Patent, Claim 6

6. The method of claim **4**, wherein said at least one discrete low level rendering command includes:

a specification of a location and a size of a screen area; and

an identification of a rendering block from said plurality of rendering blocks of said graphical user interface to operate within said screen area.

’865 Patent, Claim 7

7. The method of claim **6**, wherein said at least one discrete low level rendering command includes parameters associated with said rendering block from said plurality of rendering blocks.

’865 Patent, Claim 8

8. The method of claim **1**, wherein said page description includes at least one display rendering command and at least one audio rendering command.

’865 Patent, Claim 9

9. The method of claim **1**, wherein said application program is wireless device generic and said wireless device generic template is a wireless device generic page description

’865 Patent, Claim 10

10. The method of claim **1**, wherein the wireless device is operable to configure a plurality of rendering blocks of a graphical user interface based on said custom configuration.

’865 Patent, Claim 11

11. The method of claim **1**, wherein said server stores a plurality of device profiles, said method further comprises:

identifying a device profile from said plurality of device profiles associated with the wireless device based on said type of said wireless device.

’865 Patent, Claim 12

12. A non-transitory processor-readable medium storing code representing instructions to cause a processor to:

receive a request for an application program from a wireless device, said request including an indication of a type of the wireless device;

execute said application program to generate a wireless device generic template including a plurality of content items;

request, using said indication of said type of the wireless device, a device profile from a library of device profiles, said device profile providing an indication of a rendering capability of the wireless device;

eliminate, using said device profile, at least one content item from said plurality of content items from said wireless device generic template to define a device specific template associated with the wireless device, said at least one content item being unsupported by the wireless device;

translate said device specific template into a page description having at least one discrete low level rendering command that is within said rendering capability of the wireless device but that is of a syntax that is wireless device generic; and

send said page description to the wireless device.

’865 Patent, Claim 13

13. The non-transitory processor-readable medium of claim **12**, wherein said wireless device generic template contains relative screen location and display object size information independent of screen dimensions of the wireless device.

’865 Patent, Claim 14

14. The non-transitory processor-readable medium of claim **12**, wherein said wireless device generic template is substantially compliant with extensible markup language (XML) syntax.

’865 Patent, Claim 15

15. The non-transitory processor-readable medium of claim **12**, wherein said at least one discrete low level rendering command of said page description is operable to be executed by a plurality of rendering blocks of a graphical user interface of the wireless device.

’865 Patent, Claim 16

16. The non-transitory processor-readable medium of claim **15**, wherein said at least one discrete low level rendering command includes a physical screen position of a display element of a content item from the plurality of content items.

’865 Patent, Claim 17

17. The non-transitory processor-readable medium of claim **15**, wherein said at least one discrete low level rendering command includes:

a specification of a location and a size of a screen area; and

an identification of a rendering block from said plurality of rendering blocks of said graphical user interface.

’865 Patent, Claim 18

18. The non-transitory processor-readable medium of claim **17**, wherein said at least one discrete low level rendering command includes at least one parameter associated with said rendering block from said plurality of rendering blocks.

’865 Patent, Claim 19

19. The non-transitory processor-readable medium of claim **12**, wherein said page description includes at least one display rendering command and at least one audio rendering command.

’865 Patent, Claim 20

20. The non-transitory processor-readable medium of claim **12**, further comprising code representing instructions to cause said processor to: send, in response to said request, a custom configuration to said wireless device, the wireless device is operable to configure a plurality of rendering blocks of graphical user interface based on said custom configuration.

’865 Patent, Claim 31

31. The method of claim **1**, wherein the sending the custom configuration to the wireless device is in response to receiving an indication from the wireless device that the custom configuration is not stored at the wireless device.

’865 Patent, Claim 34

34. The non-transitory processor-readable medium of claim **12**, further comprising code representing instructions to cause the processor to:

send a custom configuration to the wireless device, said custom configuration being specific to said application program, the wireless device operable to present a content item from said plurality of content items using said page description and said custom configuration.