

to a target-URL for content appropriate for a particular user is described in the copending application, and need not be repeated herein. The skilled artisan can easily extend the rules disclosed therein to support the device based routing feature of the present invention.

[0044] The target-URL returned by the resolution server normally redirects the sending device, either device **200** or proxy server **201**, to the content server **206**. In the case of a WAP compliant cell phone, however, having the proxy server perform the redirection means that the cell phone's mini-browser will not know of the redirection. Thus, when the cell phone device **200** receives the content, it would think the content had come from the server specified by the lookup URL, i.e. the resolution server **205**, not the content server **206** specified by the target URL. If the returned content includes a relative URL or image reference, the device **200** will issue a request to the resolution server **205**, not the content server **206**. Therefore, the redirection to the content server **206** is not performed by the proxy server **201**. Instead, at step **311**, a data stream is returned to the WAP device **200** that includes the target-URL hyperlink along with an auto-click code to force the device **200** at step **312** to automatically make the request to the content server **206**. If the device is directly connected to the Internet, that device is redirected at step **309** to the content server **206**. Finally, the content is downloaded to the device **200** at step **310**.

[0045] In addition to the functionality described above, the system of the present invention supports the demographic reporting, obfuscation/de-obfuscation of the UID, and profiled routing features disclosed in the copending application. In addition, the device based routing feature of the present invention can also be included with the invention of the copending application. The linkage client software disclosed in the copending application can easily be modified to include a device indicator field in the data stream transmitted to the routing server. This enables the routing server to select a URL template appropriate for the display device.

[0046] One application of profiled routing is the ability to streamline registration for cell-based services. Where there are user-specific parameters such as presentation language, a user registering for a service via a linkage code could have profile information passed from the user database **214** into the service registration process. This would potentially allow the registration form to be pre-populated with the user's information, thus allowing the user to simply confirm the information, rather than having to laboriously enter it.

[0047] In many cases, a cell phone user, because of the sparse nature of the WML or HDML display as compared with an HTML form, or because the user is preoccupied with another task, may not want to actually download content directly to her cell phone upon entering a linkage code, but may wish to save the linkage code for subsequent retrieval by a personal computer that supports HTML. In another aspect of the invention, a registered user can store linkage codes on a list server for subsequent retrieval. Referring now to FIG. 4, by using a simple WML or HDML form **401** on the cell phone **400**, a linkage code is entered into field **408** in the form **401** via the keypad **403**, and then submitted via a store button **409** over the wireless network **404** and Internet **405** to a list server **406**, where it would be stored. The wireless transactions pass on the user's UID, so the system can use this to indicate which list the code should be

added to. Later, when the user sits down at his or her PC **407**, he or she can log into the server **406**, and download the accumulated stored codes to the PC **407**, just as if they had used the linkage client software. A user does not even need a PC—he or she could retrieve the codes via a WebTV, video game console (the newest generation of video game consoles apparently have browsers and modems built in) or any other device that has an embedded browser. The user's login/password can be used as the authentication means, and can be tied to their UID via the registration process.

[0048] By using the stored linkage code list service described herein, a user can download stored linkage codes lists to a client device anywhere in the world. The user can even upload linkage codes from a desktop client to the list server, then download them onto any other client device, such as a laptop computer via the web.

[0049] The system of the present invention is currently implemented on a Windows NT platform, although the system can be adapted to operate on other operating systems, such as Unix or Linux, or the Macintosh. The registration, routing and resolution servers are currently implemented as stand-alone programs, written in C++, that run as services under Windows NT, and the URL-assembly server is currently implemented as a component of the routing server. Other implementations are, of course possible, and the servers could be implemented as ISAPI DLLs running on a web server that communicate with a Microsoft SQL database server via ODBC, as CGI programs or as Java servlets. The routing server can also be implemented as a stand-alone program. Although these components have been described as if they are physically distinct machines, the skilled artisan will understand that they can be distinct processes running on the same machine.

[0050] The system of the invention is not limited to the embodiment disclosed herein. It will be immediately apparent to those skilled in the art that variations and modifications to the disclosed embodiment are possible without departing from the spirit and scope of the present invention. The invention is defined by the appended claims.

What is claimed is:

1. A method of accessing a primary content file with a client device comprising the steps of:

- (a) inputting into the client device a linkage code comprising a routing identification code and an item identification code;
- (b) transmitting from the client device to a URL-assembly server a data stream comprising the linkage code;
- (c) extracting by the URL-assembly server the routing identification code from the data stream;
- (d) obtaining by the URL-assembly server a URL template associated with the routing identification code, the URL template comprising the name of a resolution server and at least one parameter field to be completed by the URL-assembly server;
- (e) completing at the URL-assembly server the URL template by filling in the at least one parameter field;
- (f) sending the completed URL template to the resolution server named therein as a primary content URL request;