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(12) **United States Patent**
Weast

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(45) **Date of Patent: *Nov. 18, 2008**

(54) **VISIBILITY OF UPNP MEDIA RENDERERS AND INITIATING RENDERING VIA FILE SYSTEM USER INTERFACE**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 890 days.

This patent is subject to a terminal disclaimer.

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

(52) **U.S. Cl.** **709/231**; 709/223; 709/219; 709/203

(58) **Field of Classification Search** 709/203, 709/223, 231, 219
See application file for complete search history.

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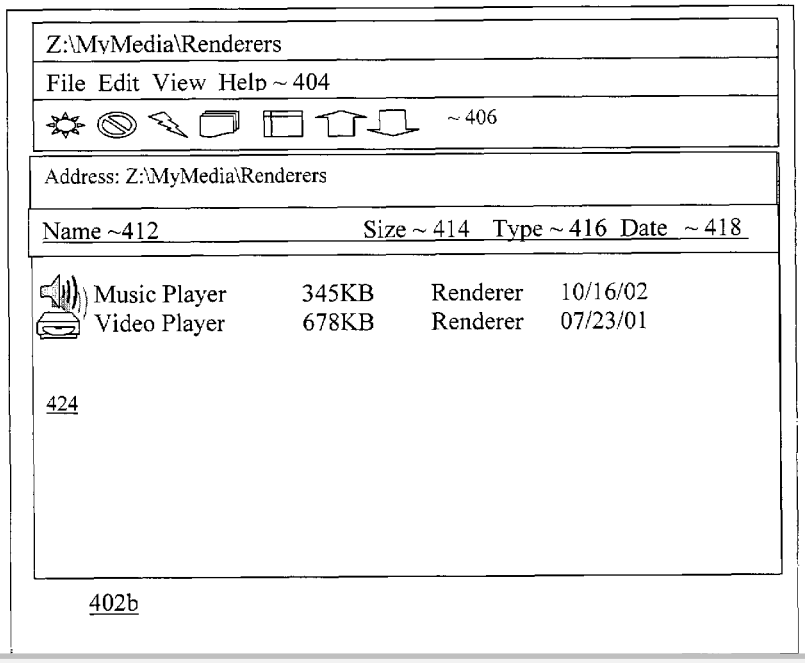
(57) **ABSTRACT**

A computing device is equipped with file system services and media related services that automatically make visible to a user of the computing device, through an user interface of the file system, availability of one or more UPNP media renderers, on discovery of the availability of the one or more UPNP media renderers. In various embodiments, the file system services and the media related services are further equipped to cause a media content to be rendered by a UPNP media renderer, in response to the user dragging and dropping the file system entry corresponding to the media content into the file system entry corresponding to the UPNP media renderer.

11 Claims, 15 Drawing Sheets



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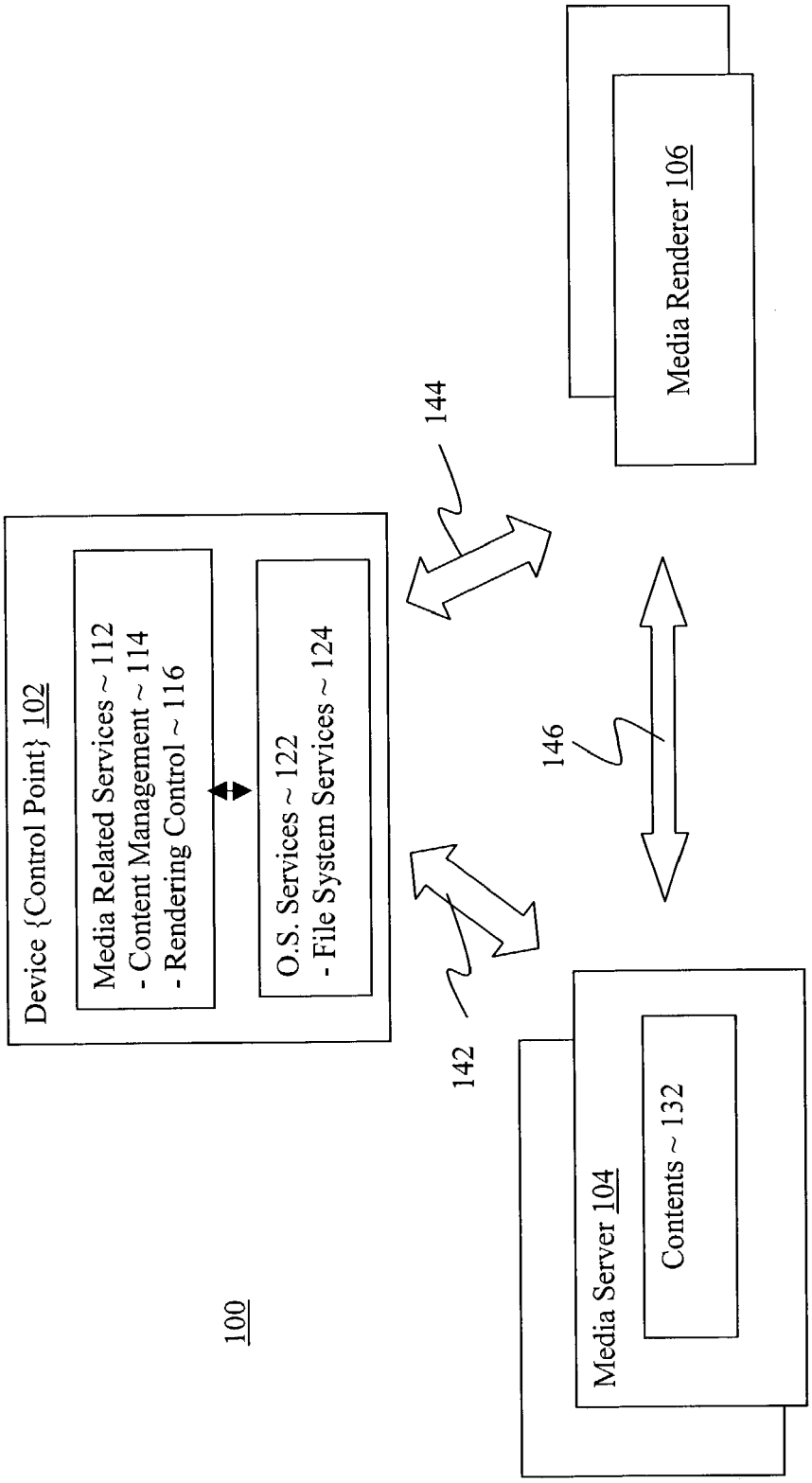

Figure 1

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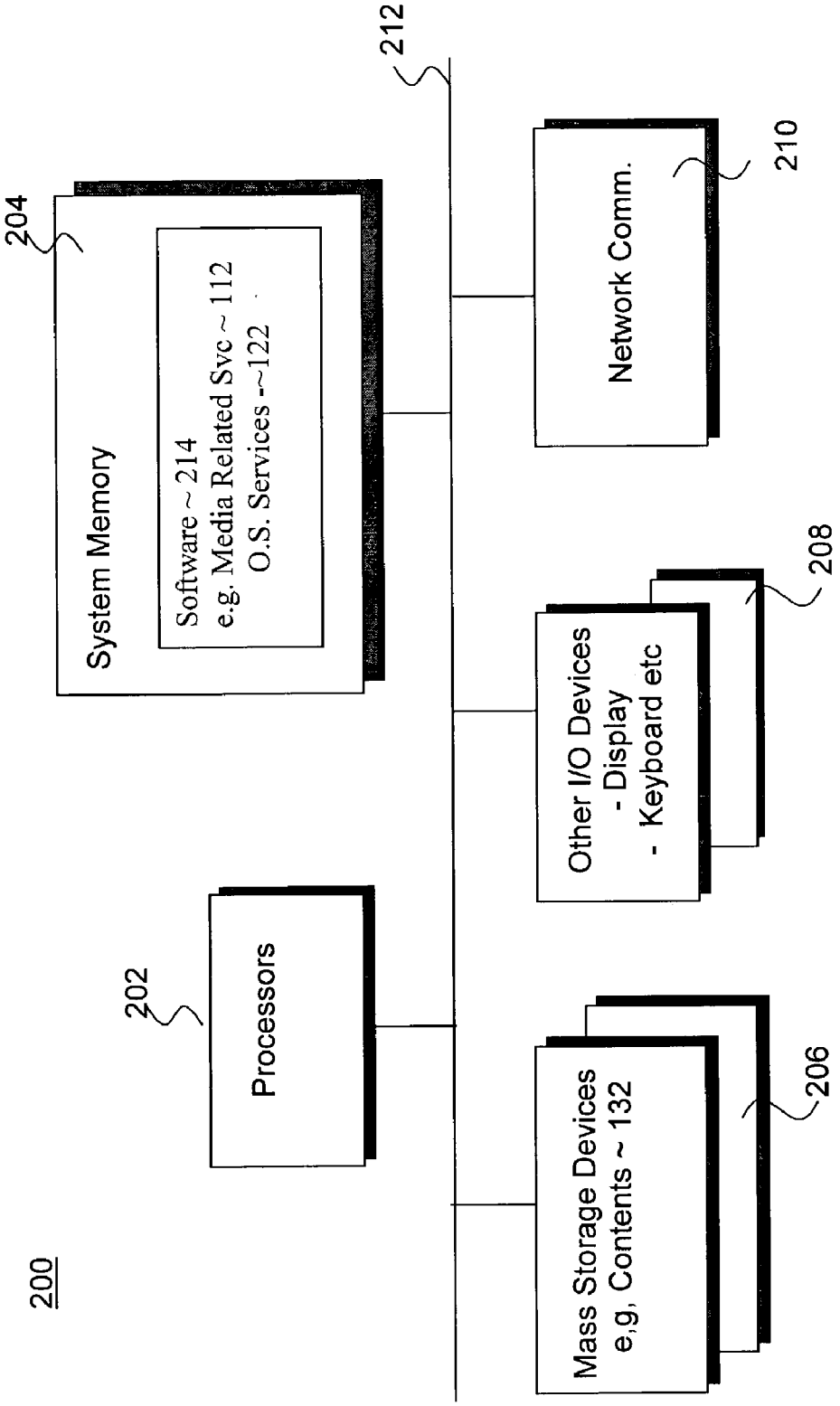

Figure 2

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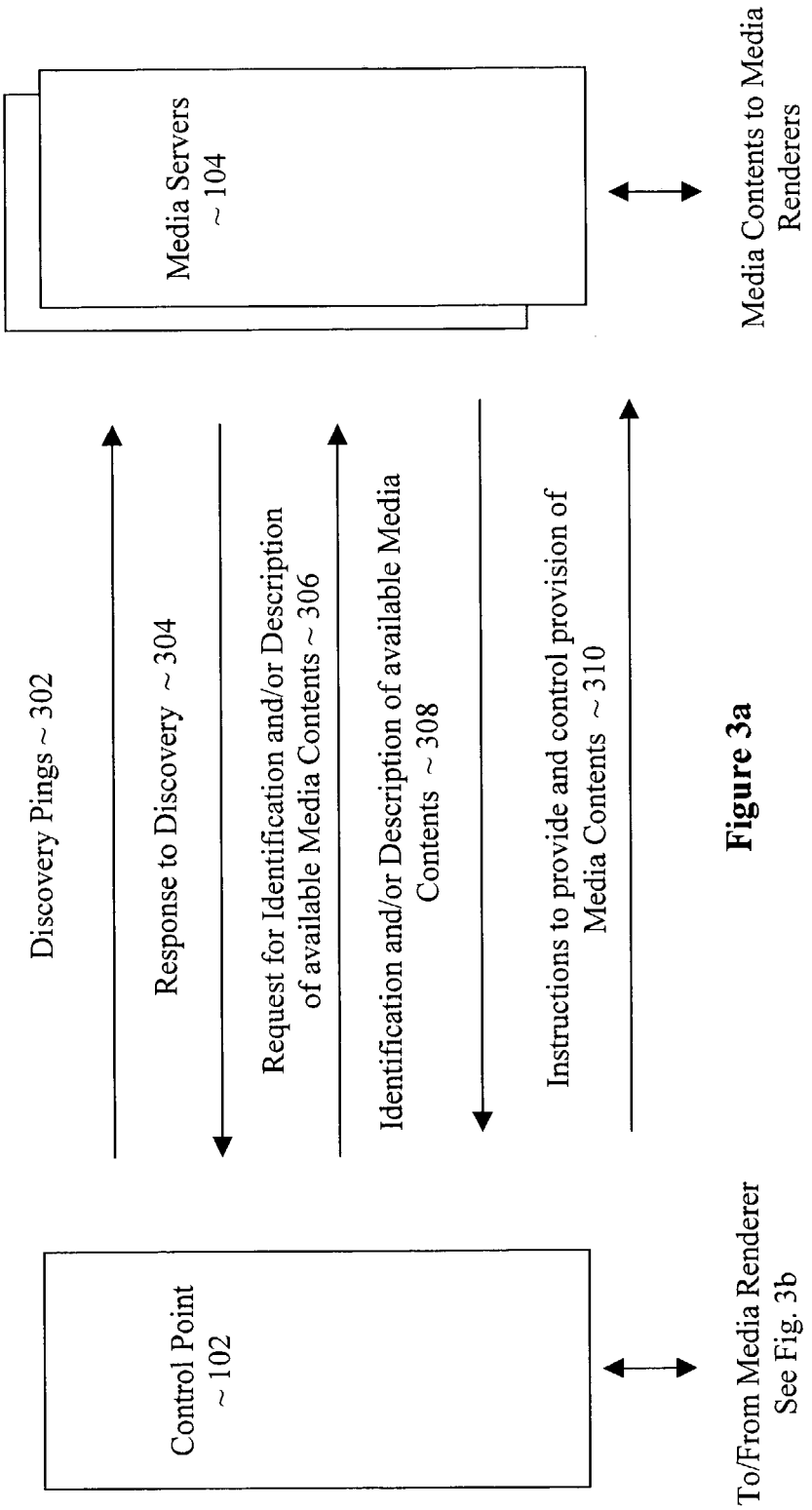

Figure 3a

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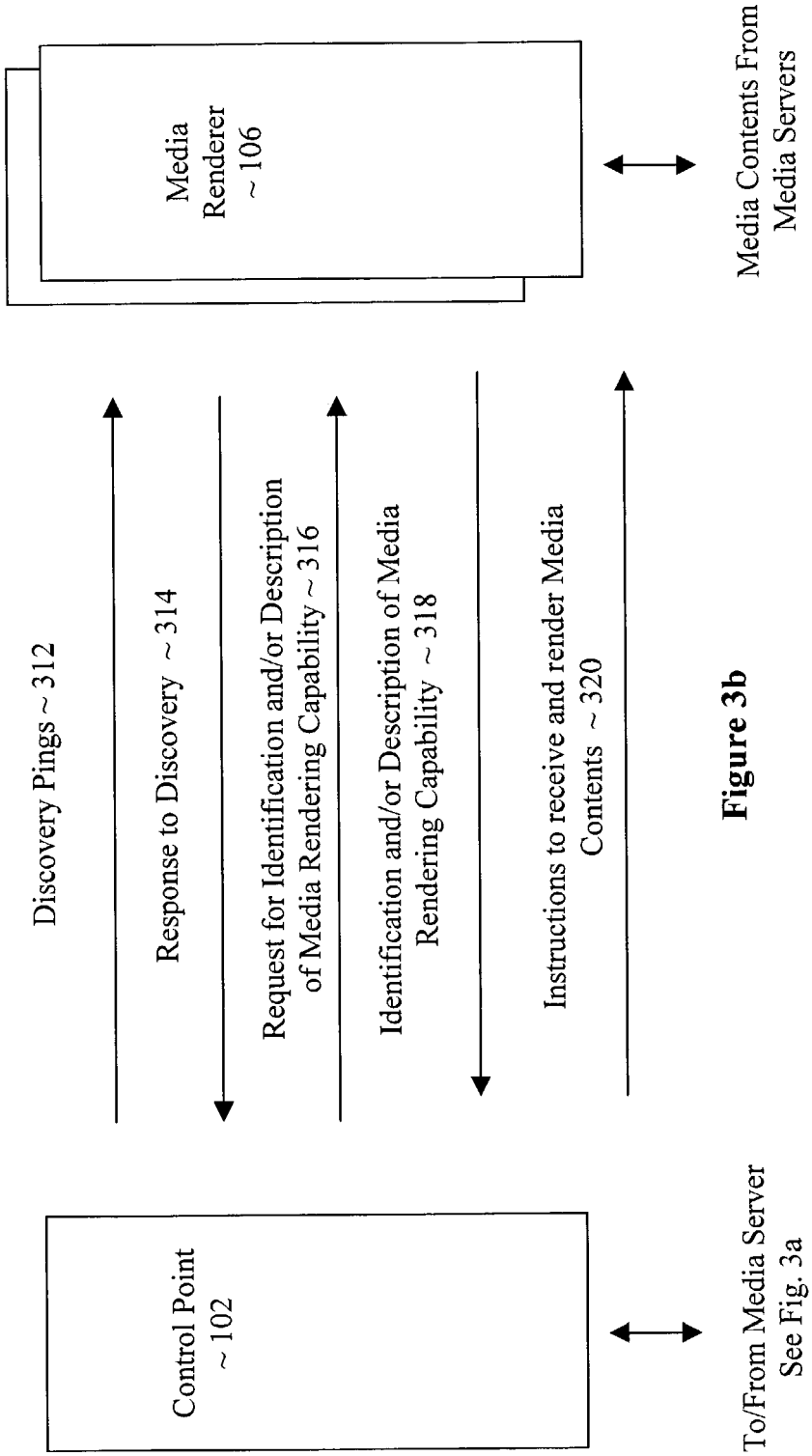

Figure 3b

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