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Teramoto et al.

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(54) **METHOD AND DEVICE FOR FACILITATING EFFICIENT DATA TRANSFER VIA A WIRELESS COMMUNICATION NETWORK**

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WO 95/35002 12/1995

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U.S. Appl. No. 09/343,509.*

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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 756 days.

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(21) Appl. No.: **09/671,012**

(57) **ABSTRACT**

(22) Filed: **Sep. 28, 2000**

(30) **Foreign Application Priority Data**

Sep. 30, 1999 (JP) P 11-280651

(51) **Int. Cl.**⁷ **H04L 12/26**

(52) **U.S. Cl.** **370/252; 370/338; 370/463; 370/469**

(58) **Field of Search** **370/252–253, 370/338, 469, 231–236, 463, 329**

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23 Claims, 16 Drawing Sheets

A wireless network system capable of controlling highly efficient transfer of AV data by an upper application, using information indicating a wireless link condition that varies dynamically is disclosed. In this wireless network system, a wireless terminal and a wire gateway apparatus each store collected wireless link condition information in a descriptor. An upper application on the wireless terminal reads the descriptor at said terminal device and obtains wireless LAN link condition information. The wireless gateway apparatus makes notification to a wireless terminal of a VTR, for example, that actually exists in a 1394 terminal as if it existed as a sub-unit in the local terminal device. The wireless terminal accesses the collected wireless link condition information and selects a AV/C command to be sent to the VTR sub-unit of the wireless gateway apparatus. The wireless terminal transfers the play command for playback to the wireless gateway apparatus. The wireless gateway apparatus transfers the play command to a VTR sub-unit within a terminal on the wired network. In accordance with this action, the VTR sub-unit within the terminal on the wired network starts transfer of AV data.

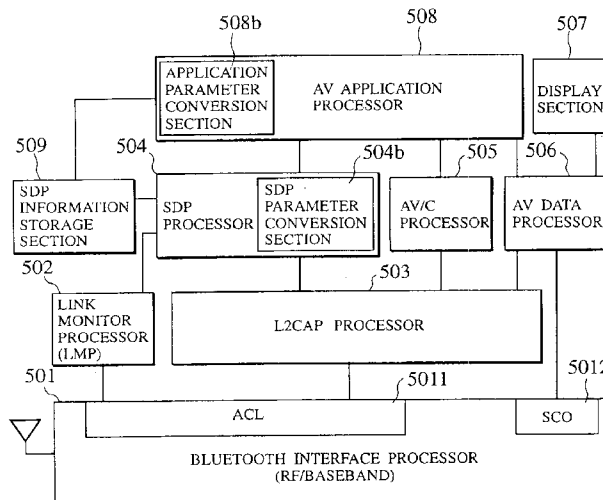


FIG. 1

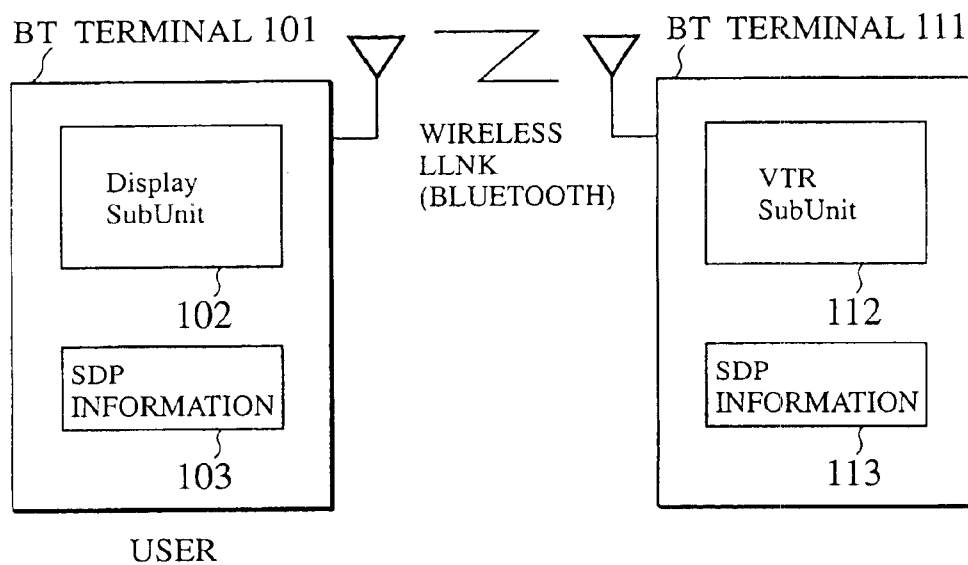


FIG.2

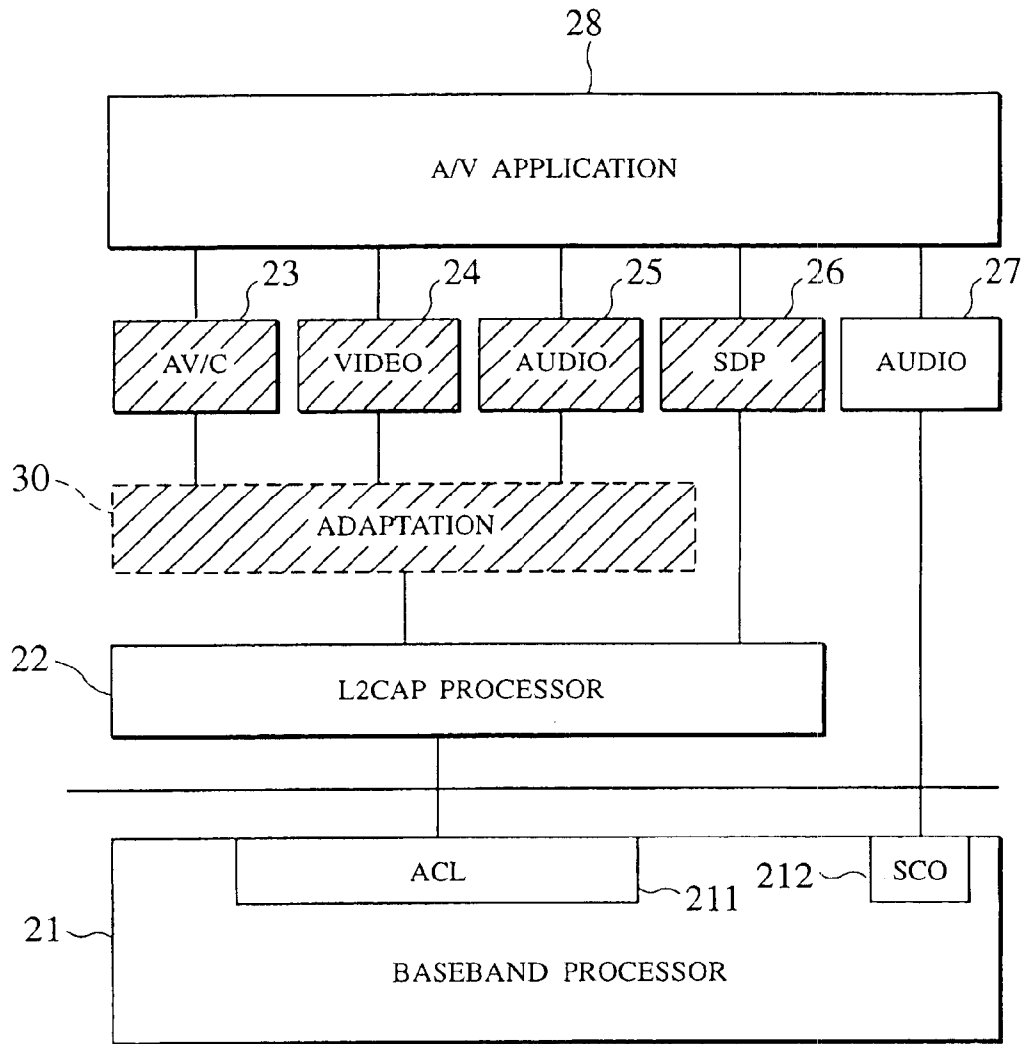


FIG.3

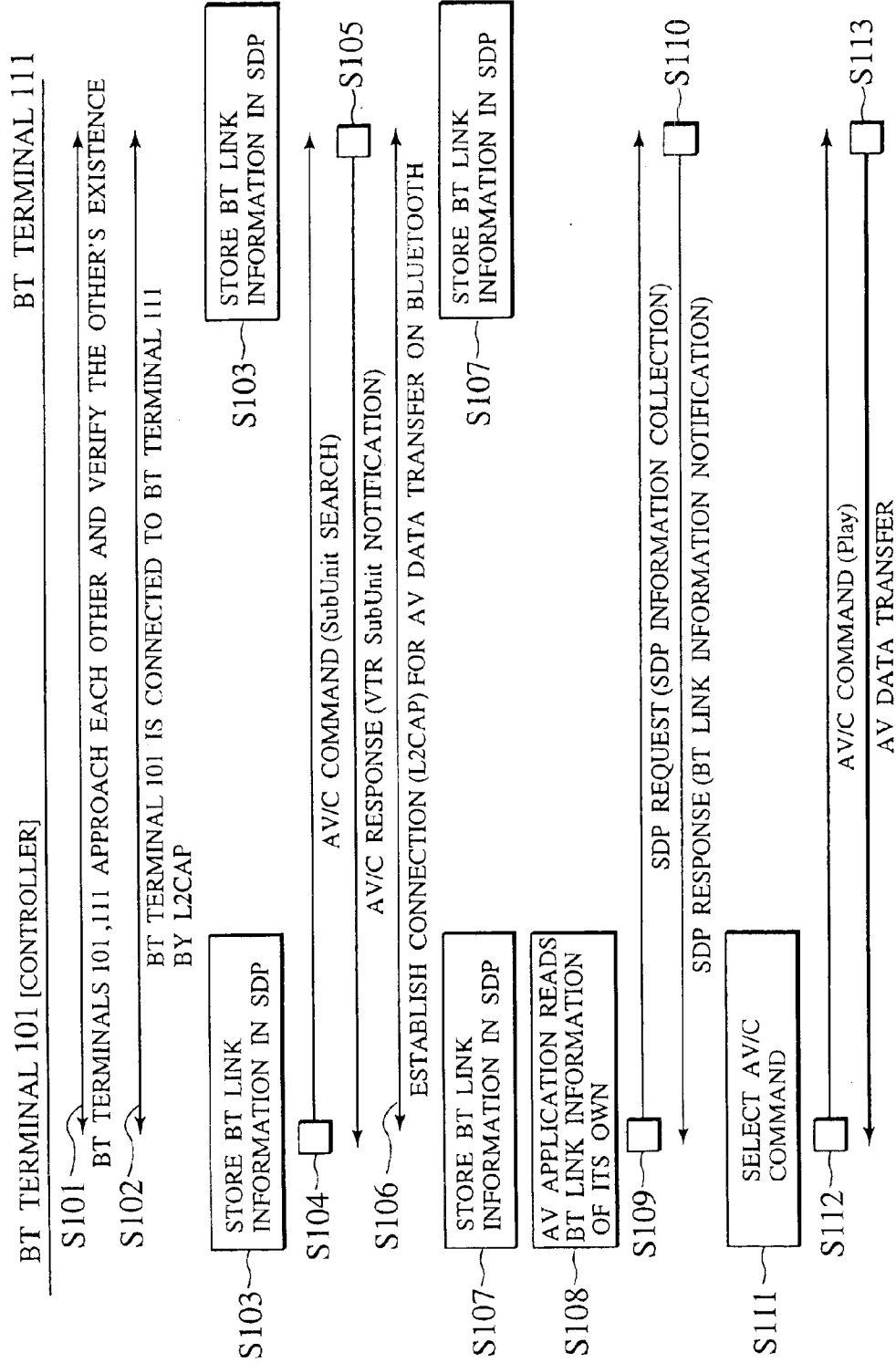
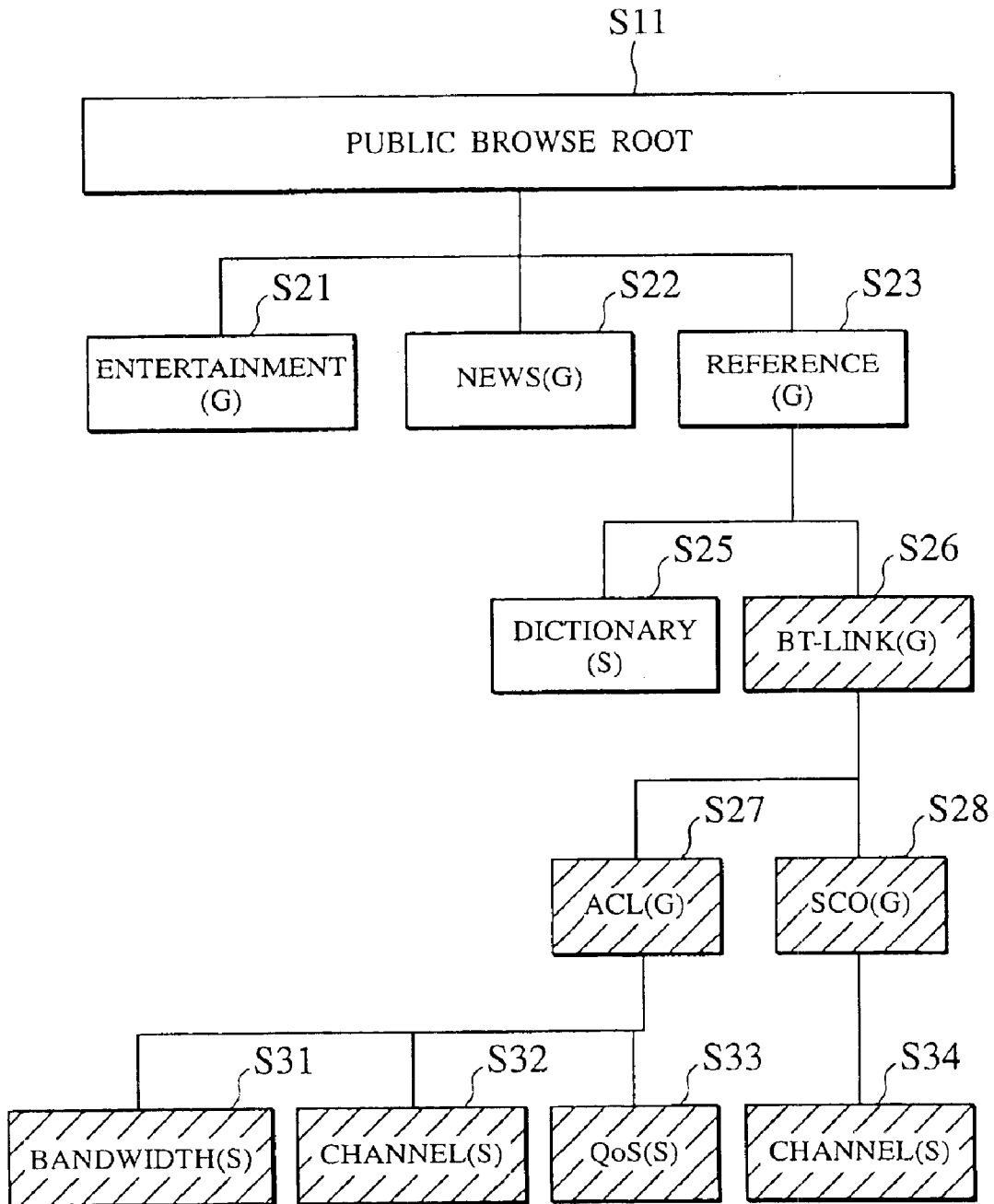


FIG.4



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