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McMahon et al.

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(54) **MOBILE ELECTRONIC DEVICE HAVING A HOST PROCESSOR SYSTEM CAPABLE OF DYNAMICALLY CANGING TASKS PERFORMED BY A COPROCESSOR IN THE DEVICE**

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(22) Filed: **Dec. 22, 1997**

(51) **Int. Cl.**
G06F 9/30 (2006.01)

(52) **U.S. Cl.**
USPC **712/34**

(58) **Field of Classification Search**
USPC ..... 712/32, 33, 35, 34, 38, 29, 39, 31; 717/1, 717/2, 3, 4, 5; 707/36, 39, 227, 501, 503, 707/509, 104.1, 103.1, 27, 28, 103 Y, 103 X; 709/208, 227, 201, 218, 315, 316, 317, 332, 709/321; 713/191, 188; 775/222; 716/16, 716/17
See application file for complete search history.

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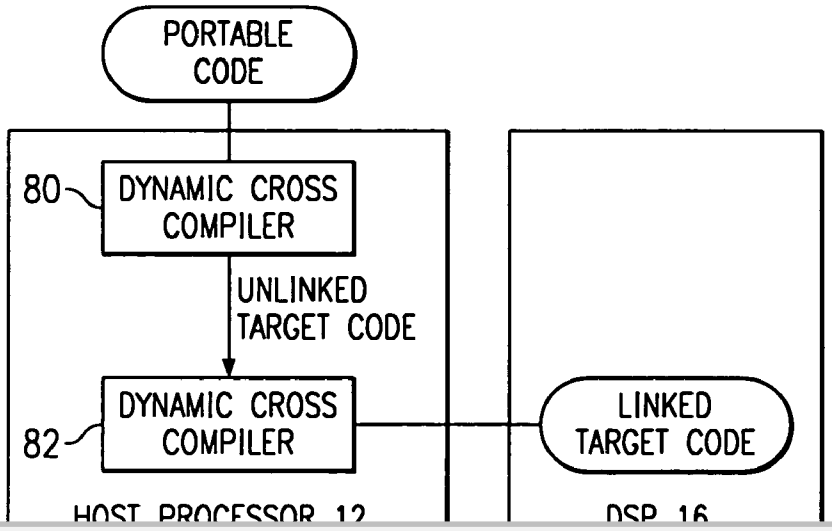
(57) **ABSTRACT**

A wireless data platform comprises a plurality of processors. Channels of communication are set up between processors such that they may communicate information as tasks are performed. A dynamic cross compiler executed on one processor compiles code into native processing code for another processor. A dynamic cross linker links the compiled code for other processor. Native code may also be downloaded to the platform through use of a JAVA Bean (or other language type) which encapsulates the native code. The JAVA Bean can be encrypted and digitally signed for security purposes.

46 Claims, 3 Drawing Sheets



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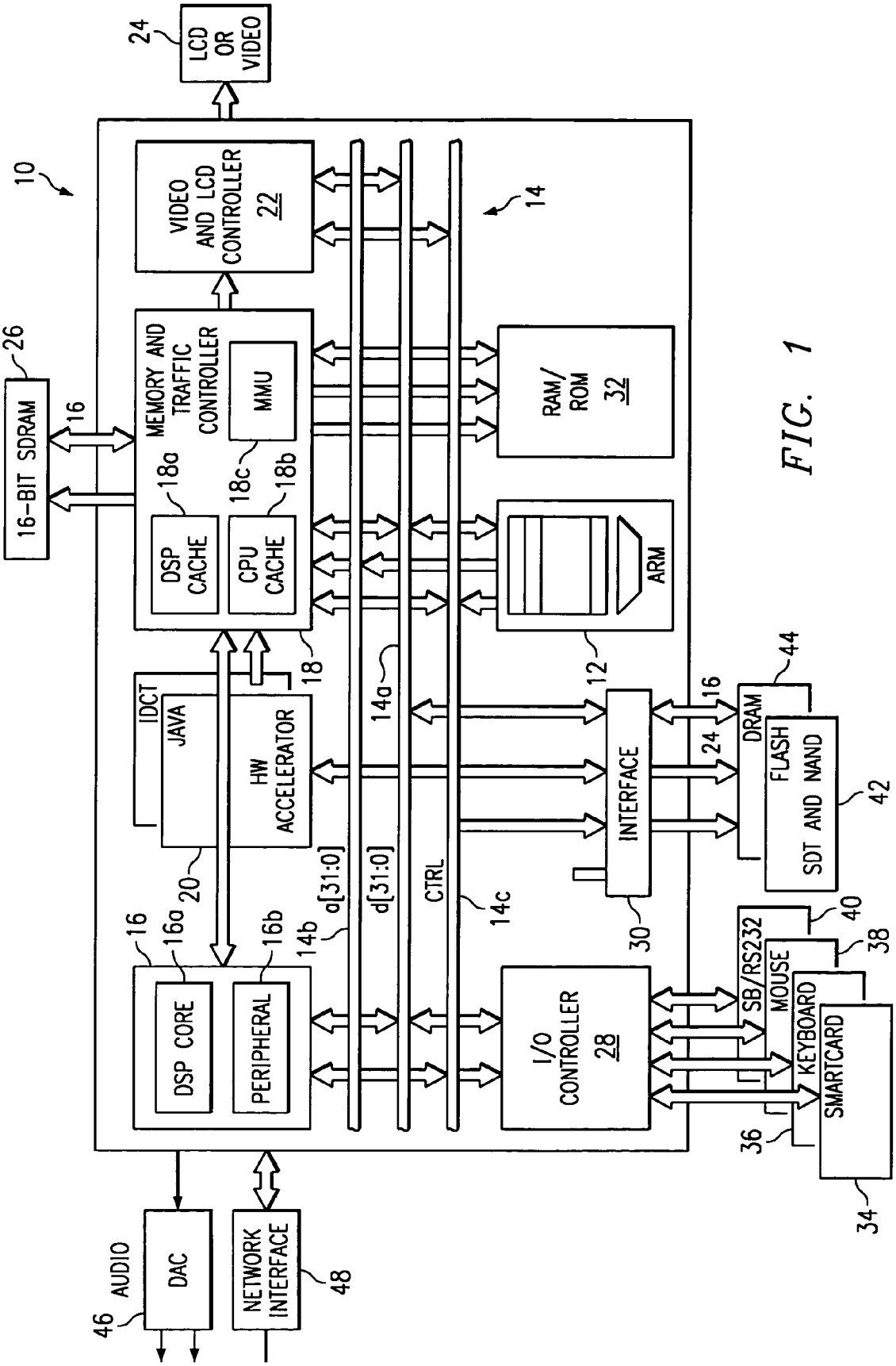

FIG. 1

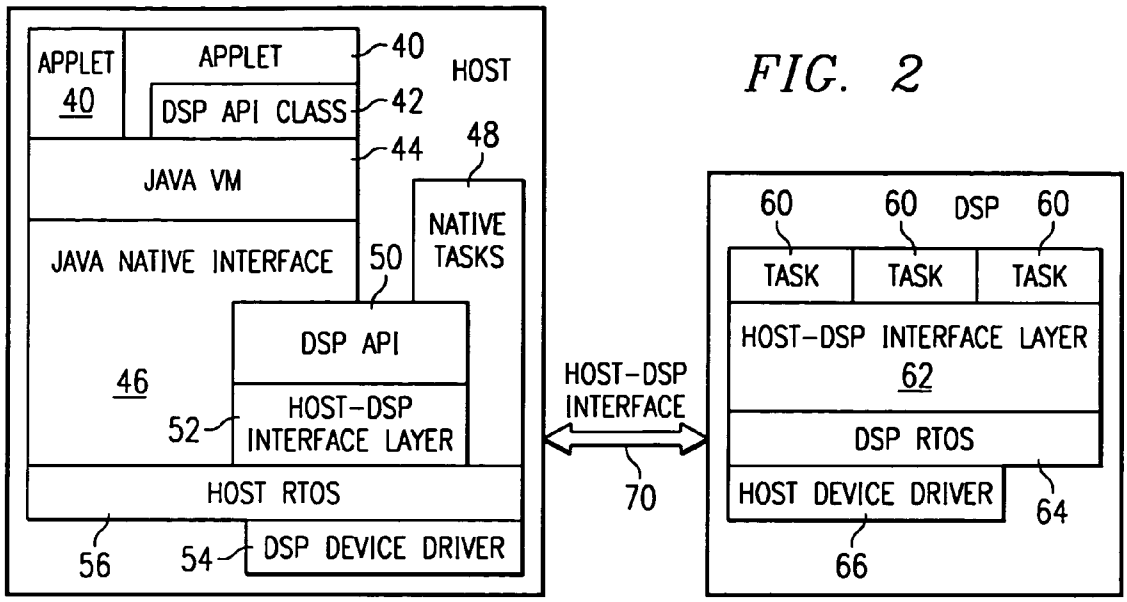

FIG. 2

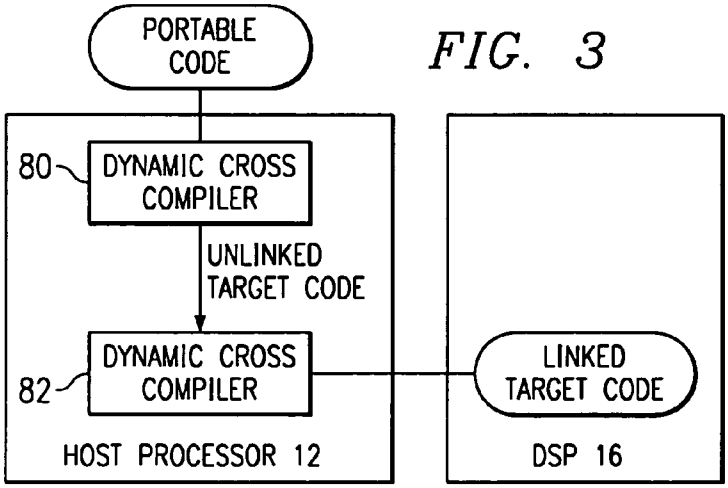

FIG. 3

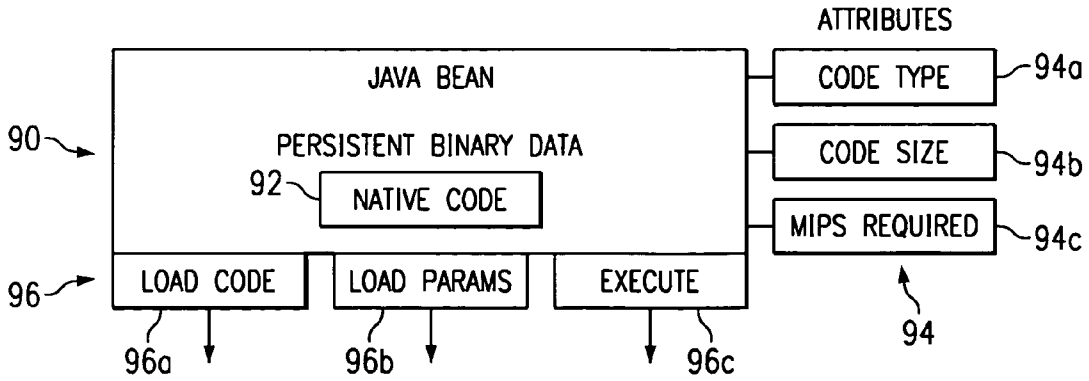

FIG. 4

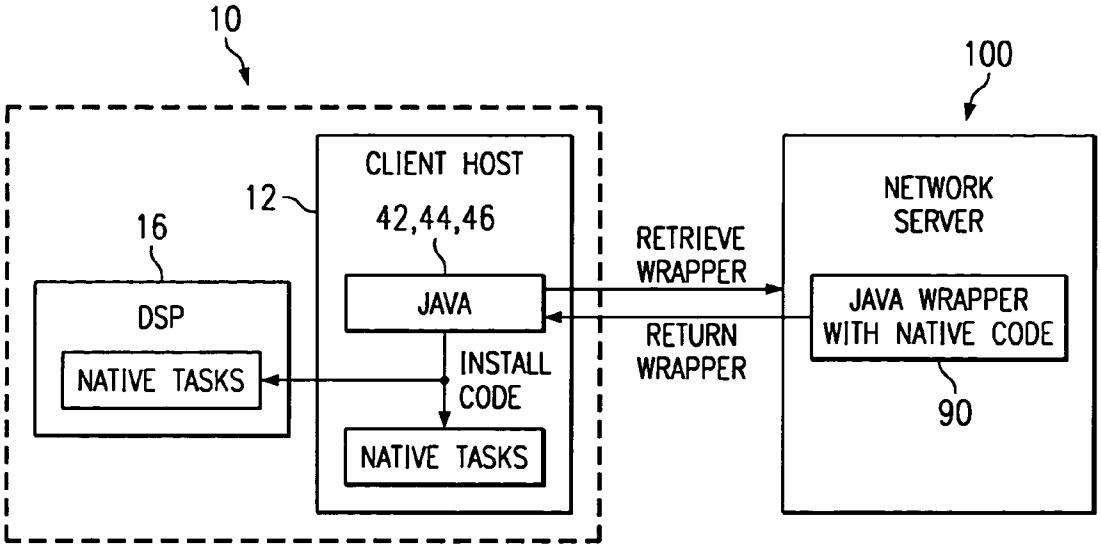

FIG. 5

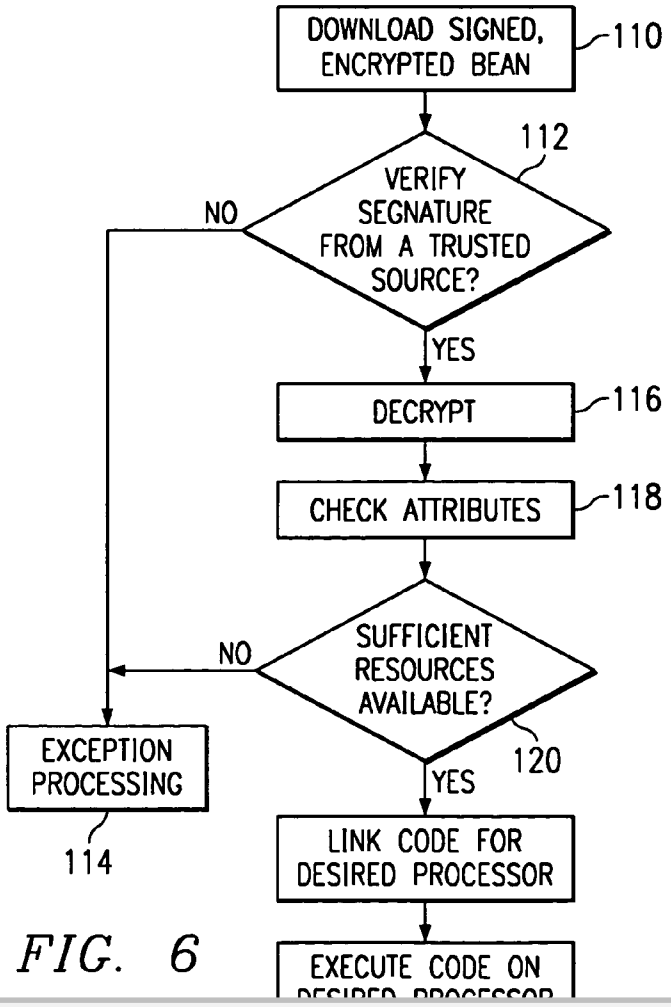

FIG. 6

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