

EXHIBIT 4

(12) **United States Patent**
Maeoka et al.

(10) **Patent No.:** **US 7,116,438 B2**
(45) **Date of Patent:** **Oct. 3, 2006**

(54) **TERMINAL FOR INFORMATION PROCESSING**

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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 186 days.

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(30) **Foreign Application Priority Data**
May 22, 2003 (JP) 2003-144259

(51) **Int. Cl.**
G06F 15/00 (2006.01)
G06F 15/12 (2006.01)

(52) **U.S. Cl.** **358/1.15**; 348/333.06;
705/50; 715/750

(58) **Field of Classification Search** 361/679-687,
361/724-727; 348/333.06; 705/50; 345/81;
713/176; 715/750; 358/1.15, 1.16
See application file for complete search history.

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(57) **ABSTRACT**

An electronic notice-board system for allowing information to be contributed to an electronic notice board. A first short-distance communication device carries out communication with the mobile terminal located in a predetermined communication range and a second communication device exchanges data with the mobile terminal after the user of the mobile terminal has been authenticated. Similarly, the mobile terminal also has a short-distance communication device for carrying out communication with the electronic notice board located in a predetermined communication range and a second communication device for exchanging data with the electronic notice board after the user of the mobile terminal has been authenticated. Since users of the electronic notice board must be close by, it is possible to avoid improper use of the electronic notice board by any user located a long distance away from the electronic notice board.

7 Claims, 10 Drawing Sheets

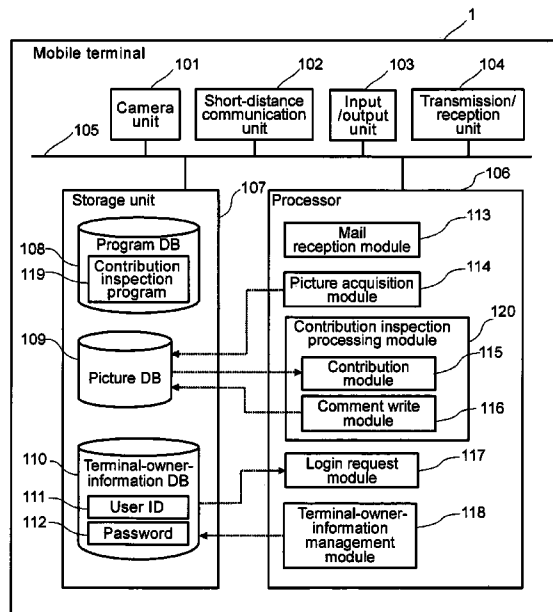


FIG.1

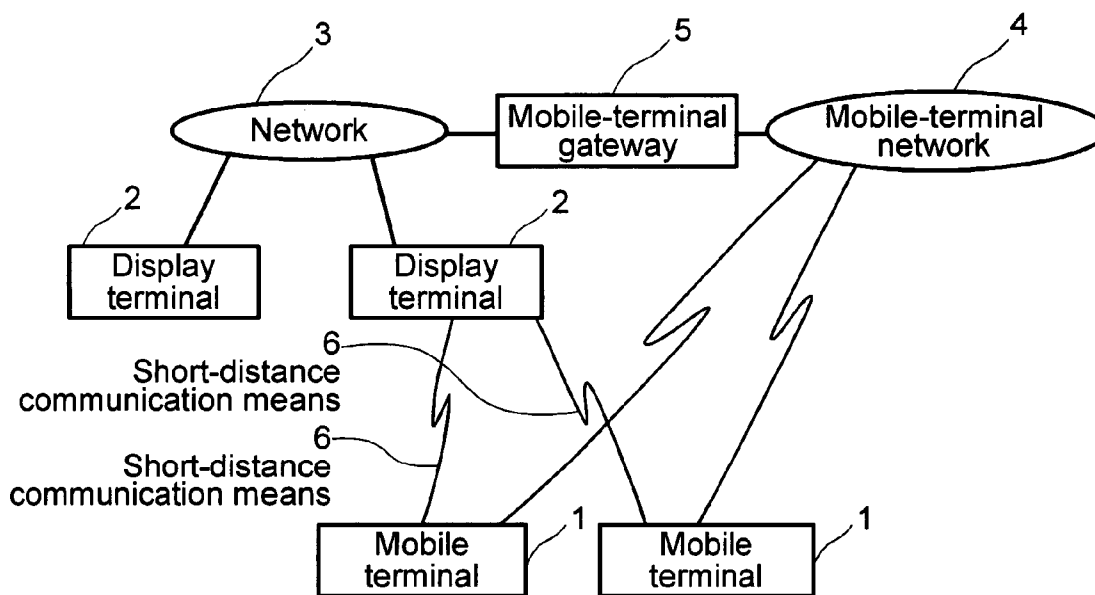


FIG.2

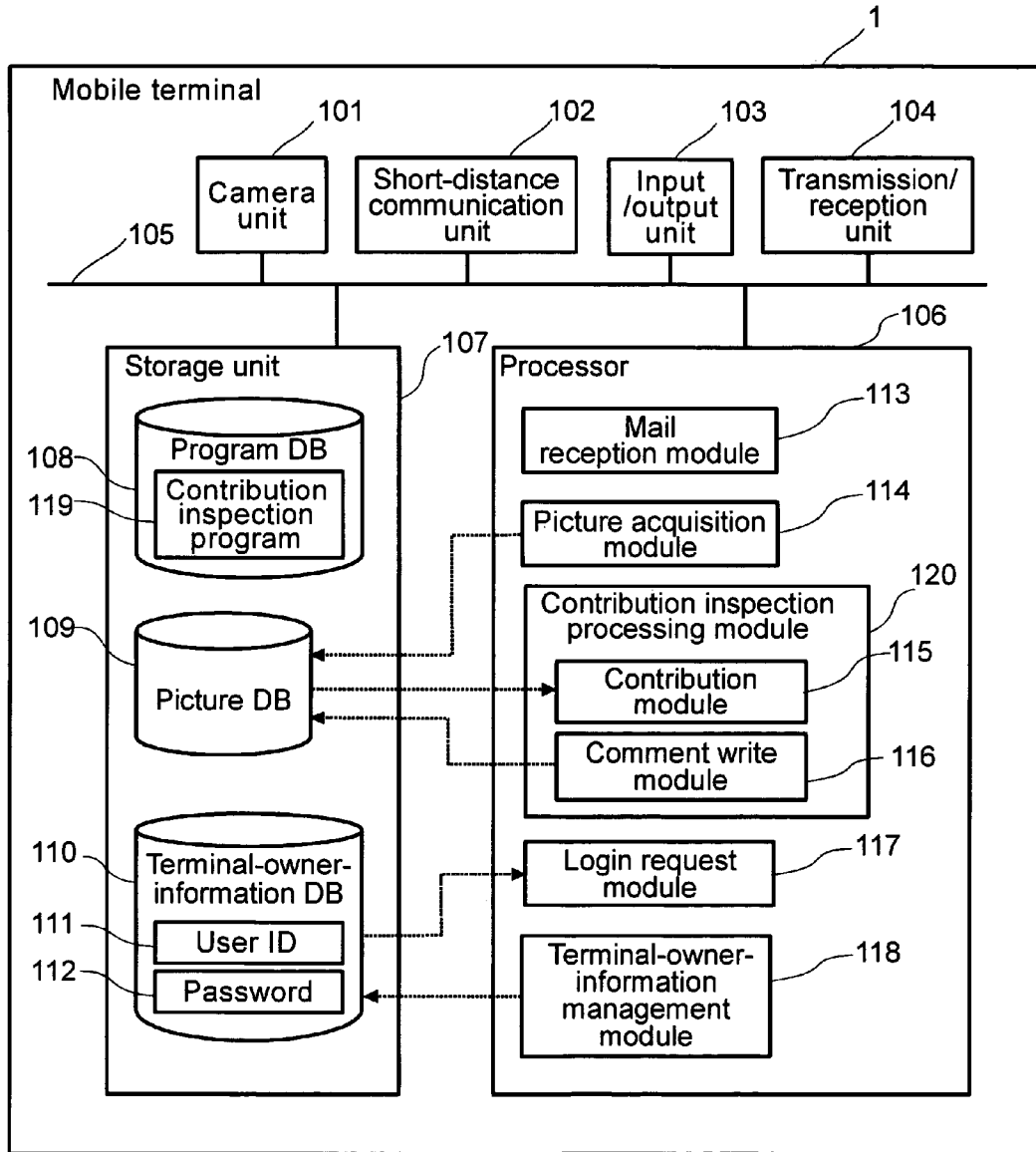
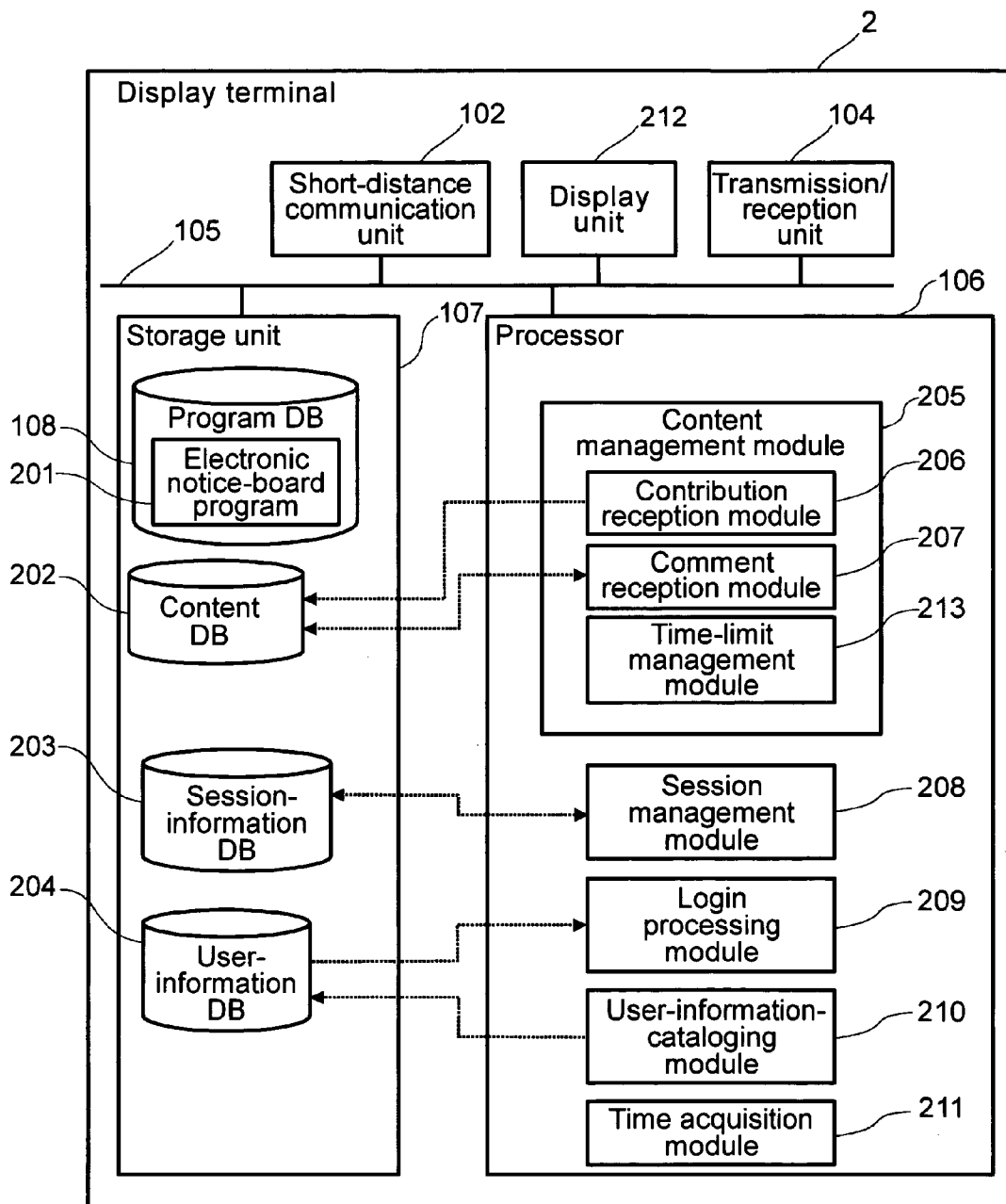


FIG.3



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