

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

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 (45) **Date of Patent:** **Oct. 14, 2003**

- (54) **MOBILE CREW MANAGEMENT SYSTEM FOR DISTRIBUTING WORK ORDER ASSIGNMENTS TO MOBILE FIELD CREW UNITS**
- | | | | |
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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 0 days.

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(21) Appl. No.: **09/509,100**

(22) PCT Filed: **Jan. 8, 1999**

(57) **ABSTRACT**

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§ 371 (c)(1),
 (2), (4) Date: **Apr. 26, 2000**

A system for multi-crew management comprises an enterprise computing system, a mobile field unit, and wireless communication network which supports terminal control protocol/internet protocol (TCP/IP). The enterprise computing network comprises application programs through which work orders may be assigned and managed, various server machines containing data related to the work orders, a local area network (LAN) connecting the server machines, and a gateway to the TCP/IP wireless network. A mobile field unit comprises a computing device and modem for communicating over the wireless network to the enterprise computing system. A mobile field unit and each machine in the enterprise computing system has a unique IP address assigned to it. Accordingly, commands and data can be communicated freely between all machines.

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PCT Pub. Date: **Jul. 15, 1999**

(51) **Int. Cl.**⁷ **G06F 15/16; G06F 15/173; H04H 1/00; H04B 7/24**

(52) **U.S. Cl.** **709/202; 709/201; 709/223; 709/224; 455/3.01; 455/39**

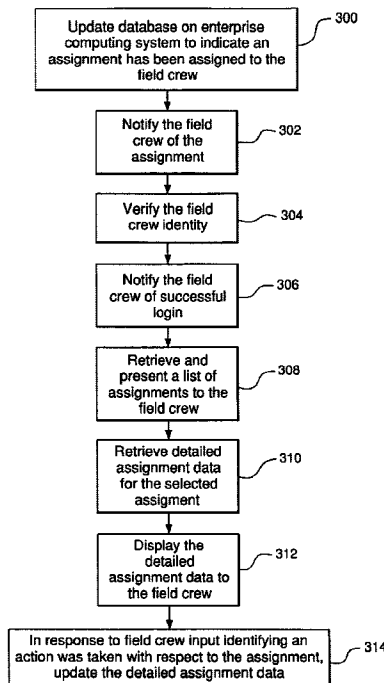
(58) **Field of Search** **709/202, 223, 709/201, 224; 455/3.01, 39**

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27 Claims, 18 Drawing Sheets



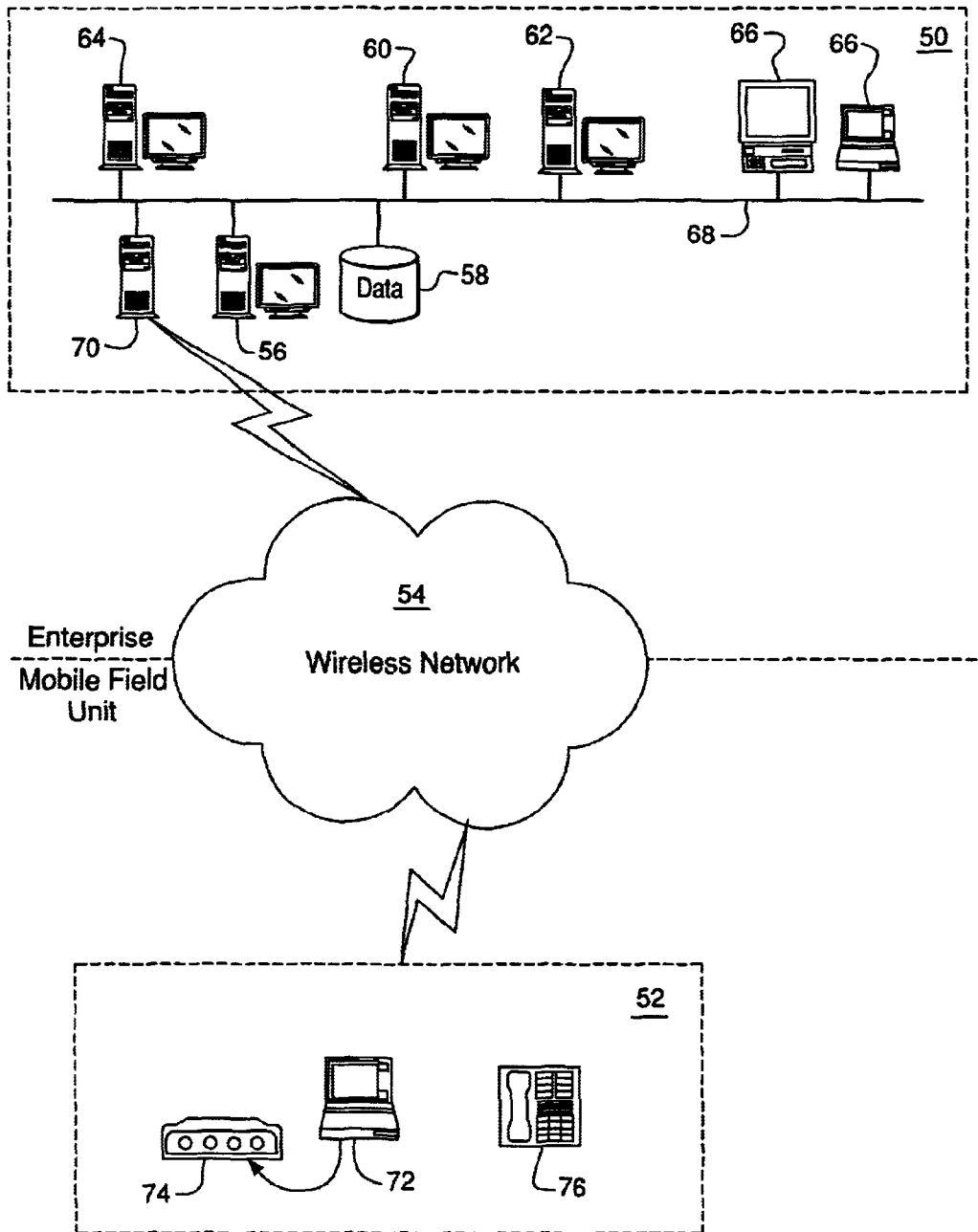


FIG. 1

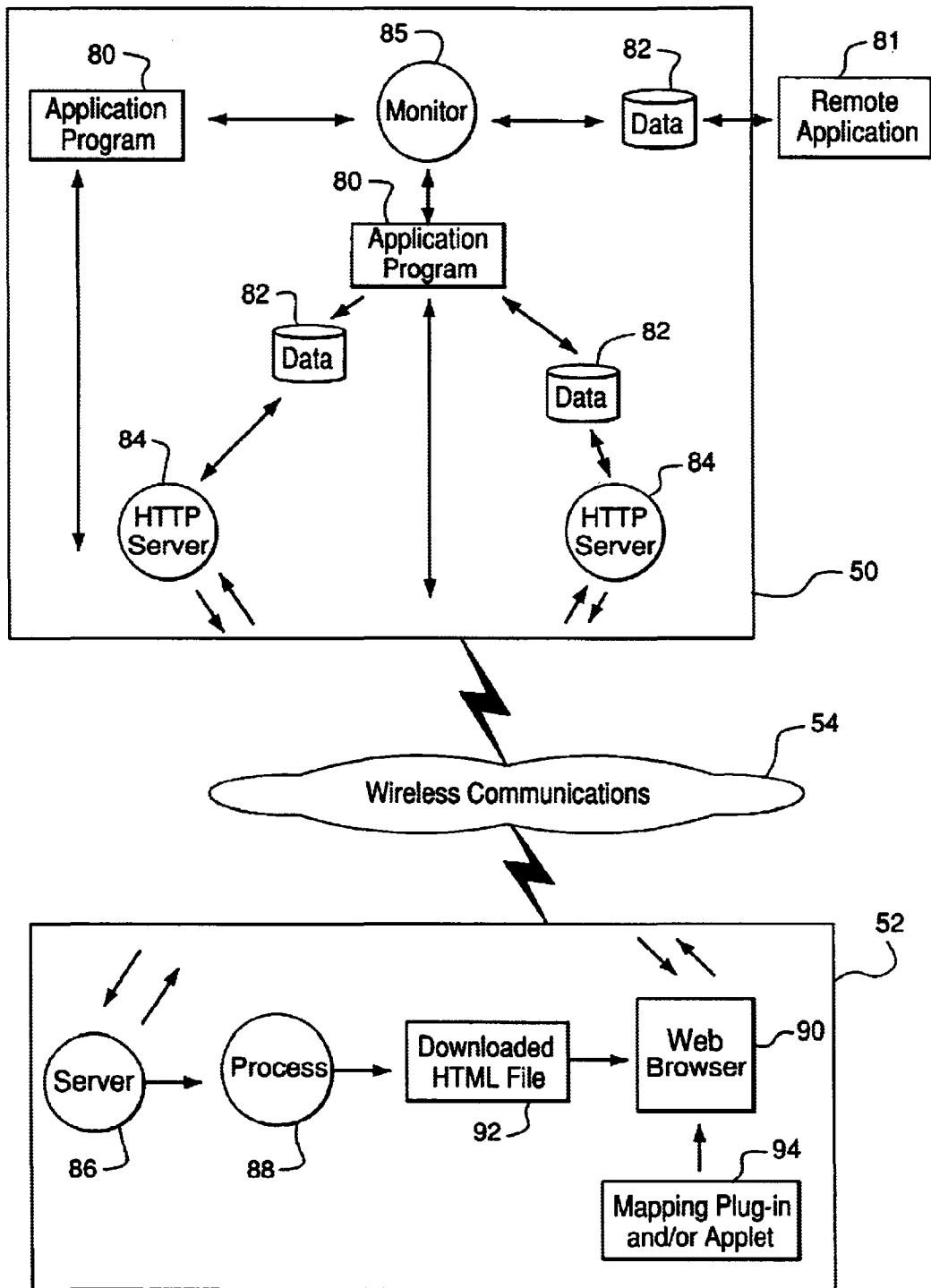


FIG. 2

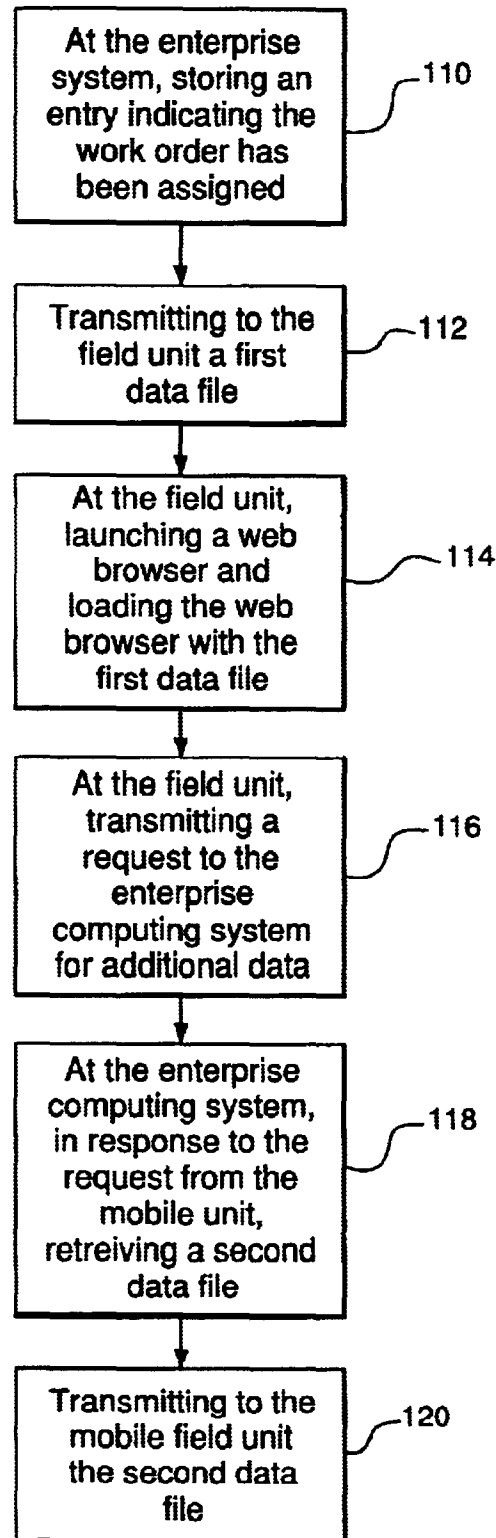


FIG. 3

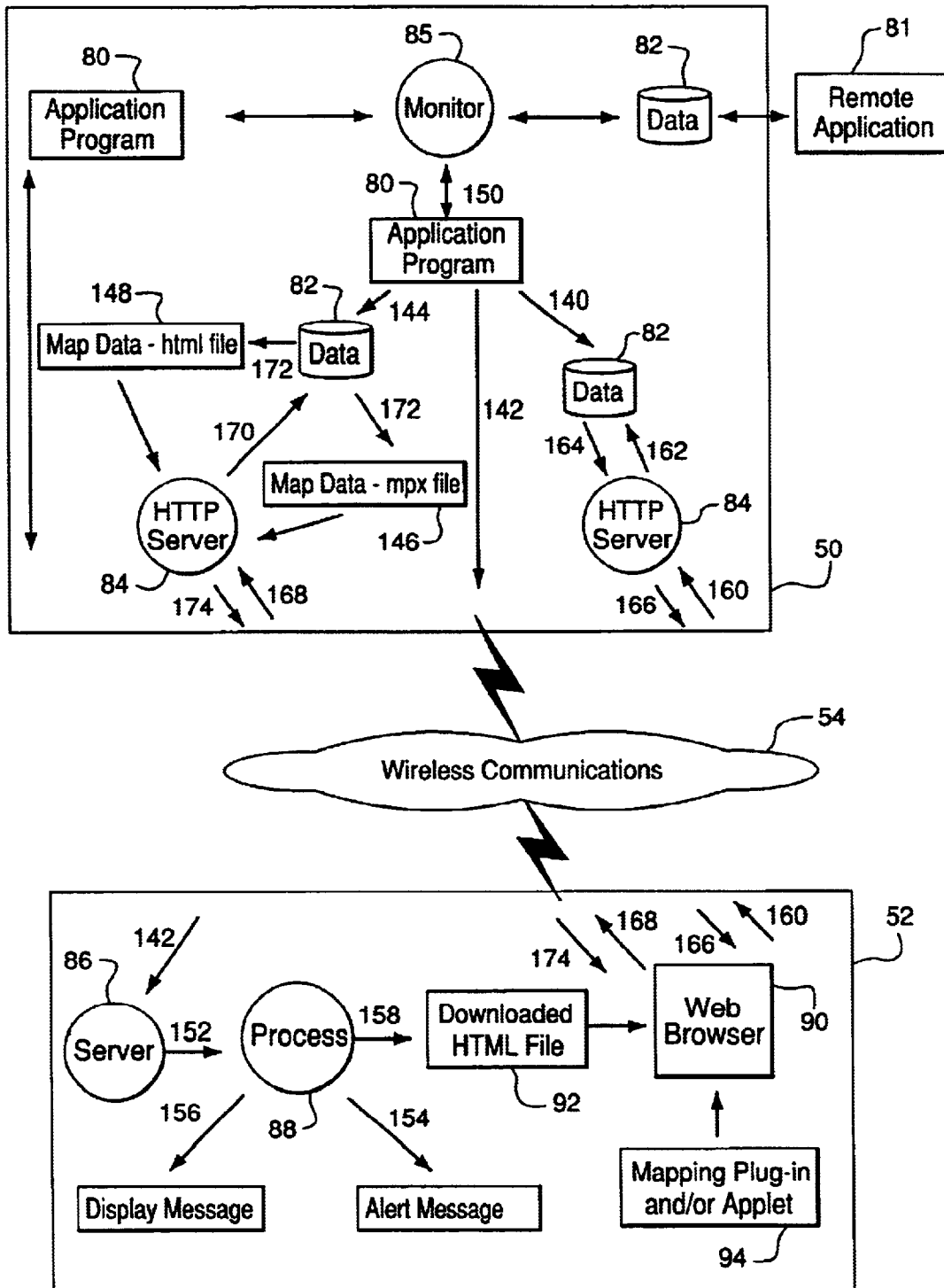


FIG. 4

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