EXHIBIT C

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Karaoguz et al.

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(54) **MULTIPLE PATHWAY SESSION SETUP TO SUPPORT QOS SERVICES**

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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 1371 days.

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(51) **Int. Cl.**
G06F 15/16 (2006.01)
H04L 12/701 (2013.01)
H04L 12/707 (2013.01)
H04L 12/725 (2013.01)

(52) **U.S. Cl.**
CPC *H04L 45/00* (2013.01); *H04L 45/22* (2013.01); *H04L 45/24* (2013.01); *H04L 45/302* (2013.01); *H04L 45/306* (2013.01); *H04L 45/308* (2013.01)
USPC **709/238**; 709/239

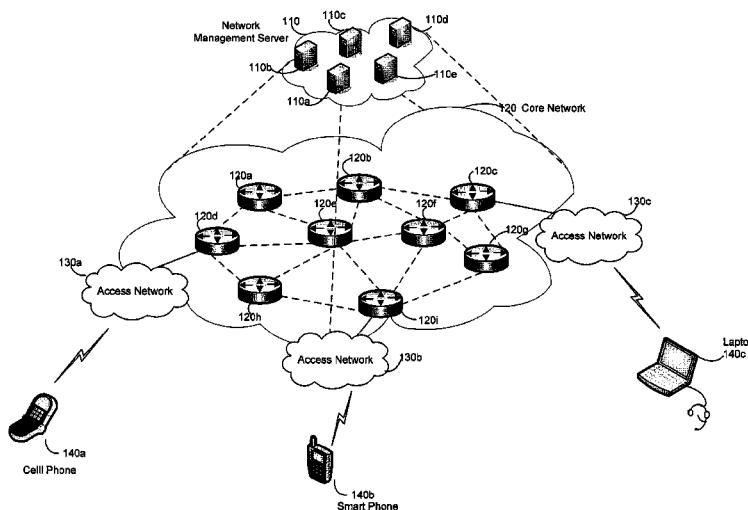(58) **Field of Classification Search**
USPC 709/238, 239
See application file for complete search history.

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(57) **ABSTRACT**

A request from a user device is received for a service by a network management server via a communication network. The network management server determines multiple routes for delivering content associated with the requested service based on a provisioning profile for the user device. Content associated with the requested service is then delivered via the determined multiple routes. The provisioning profile is updated and includes preferred service types, desired QoS for one or more services, client account information, and/or client credit verification information. The network management server manages the delivery of the content associated with the requested service via the determined multiple routes. The content includes packets that are the same, which are communicated or delivered simultaneously via the determined multiple routes. The network management server allocates one or more of the determined multiple routes for delivering the content based on priorities associated with the routes.

20 Claims, 6 Drawing Sheets

FIG. 1

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FIG. 2

To Server Processor

202

302 — Provisioning Database

304 — Routing Engine

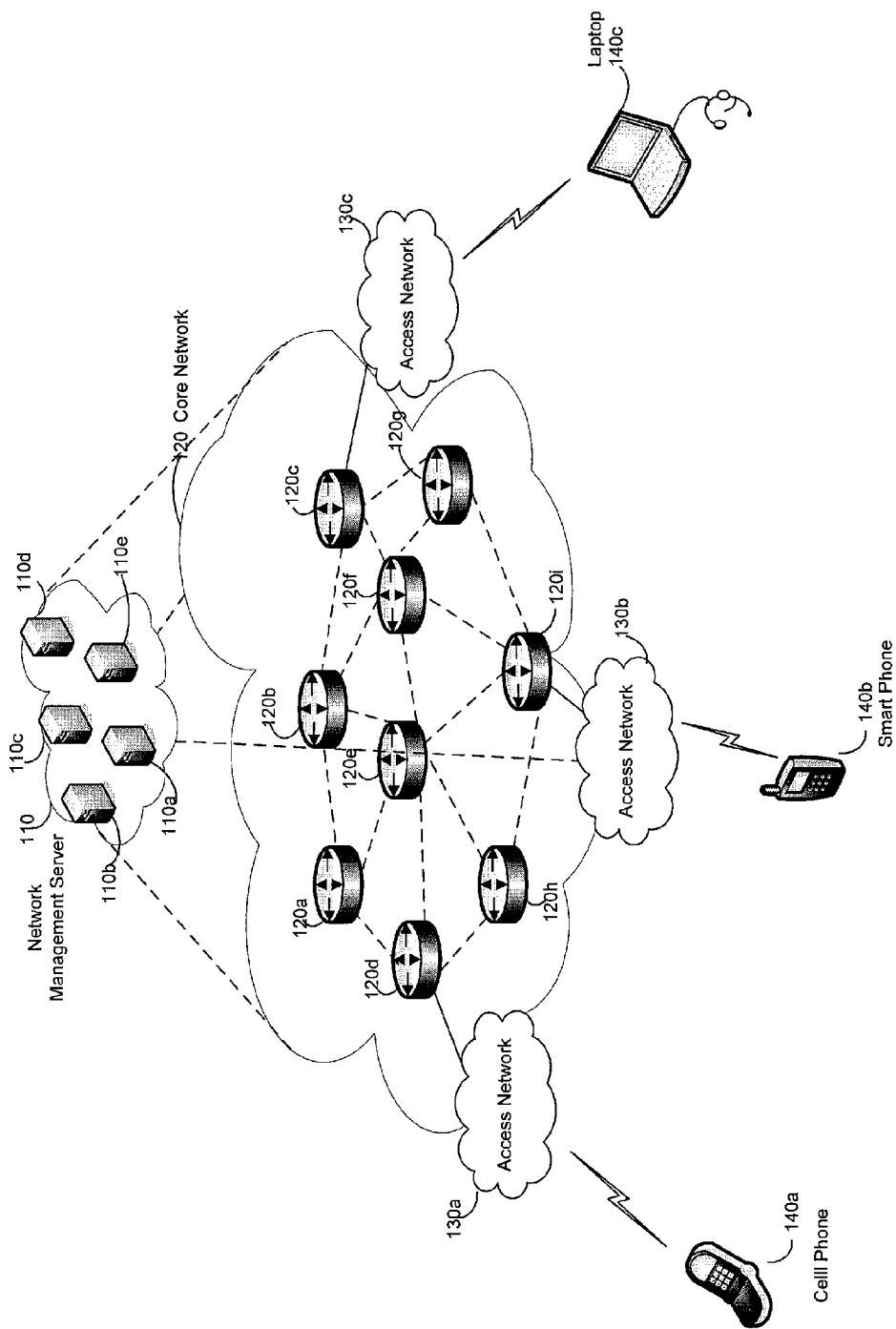306 — Traffic Details Recording Engine
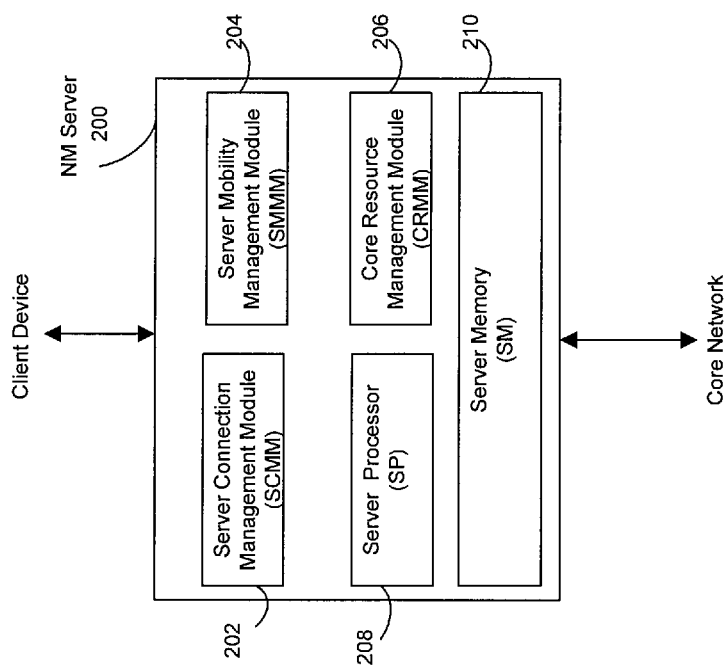
308 — Traffic Database

FIG. 3

DOCKET ALARM
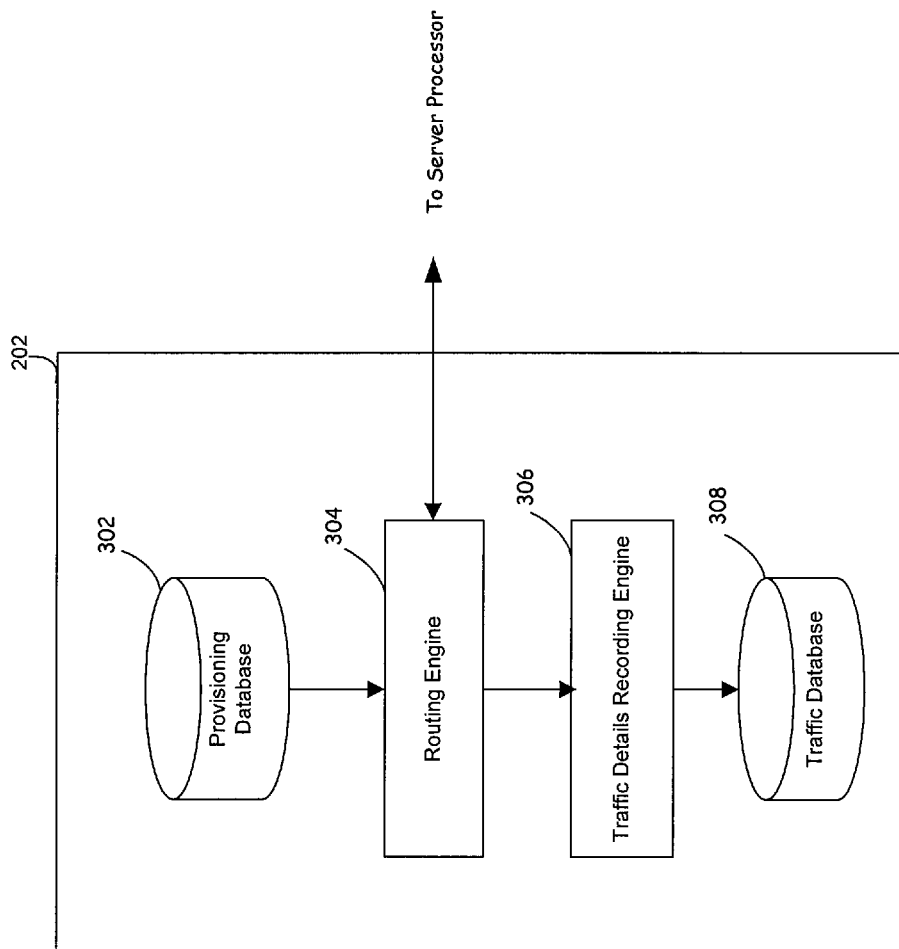
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