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United States Patent [19]

Roel-Ng et al.

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[45] **Date of Patent: Dec. 14, 1999**

[54] **SYSTEM AND METHOD FOR INFORMING NETWORK OF TERMINAL-BASED POSITIONING METHOD CAPABILITIES**

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[73] Assignee: **Ericsson Inc.**, Research Triangle Park, N.C.

[21] Appl. No.: **09/037,071**

[22] Filed: **Mar. 9, 1998**

[51] **Int. Cl.**[6] **H04Q 7/20**

[52] **U.S. Cl.** **455/456**

[58] **Field of Search** 455/456, 404, 455/435, 412, 413, 414, 433, 436, 553

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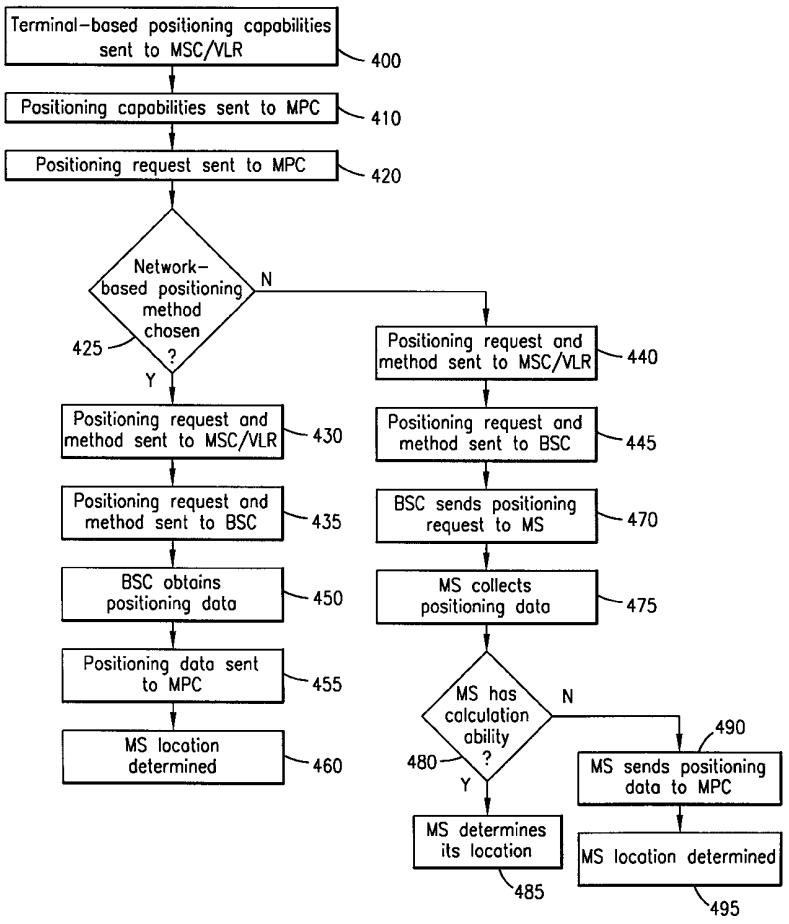
[57] **ABSTRACT**

A telecommunications system and method is disclosed for allowing a cellular network to determine the optimum positioning method, having knowledge of all available network-based and terminal-based positioning methods. This can be accomplished by the Mobile Station (MS) sending to the Mobile Switching Center/Visitor Location Register (MSC/VLR) a list of terminal-based positioning methods that the MS is capable of performing. This list can, in turn, be forwarded to the Mobile Positioning Center (MPC) for determination of the optimum positioning method. For example, in a GSM network, the MS CLASSMARK information, which is sent to the MSC/VLR when the MS registers with the MSC/VLR, can be extended to include the MS's positioning capabilities.

18 Claims, 5 Drawing Sheets



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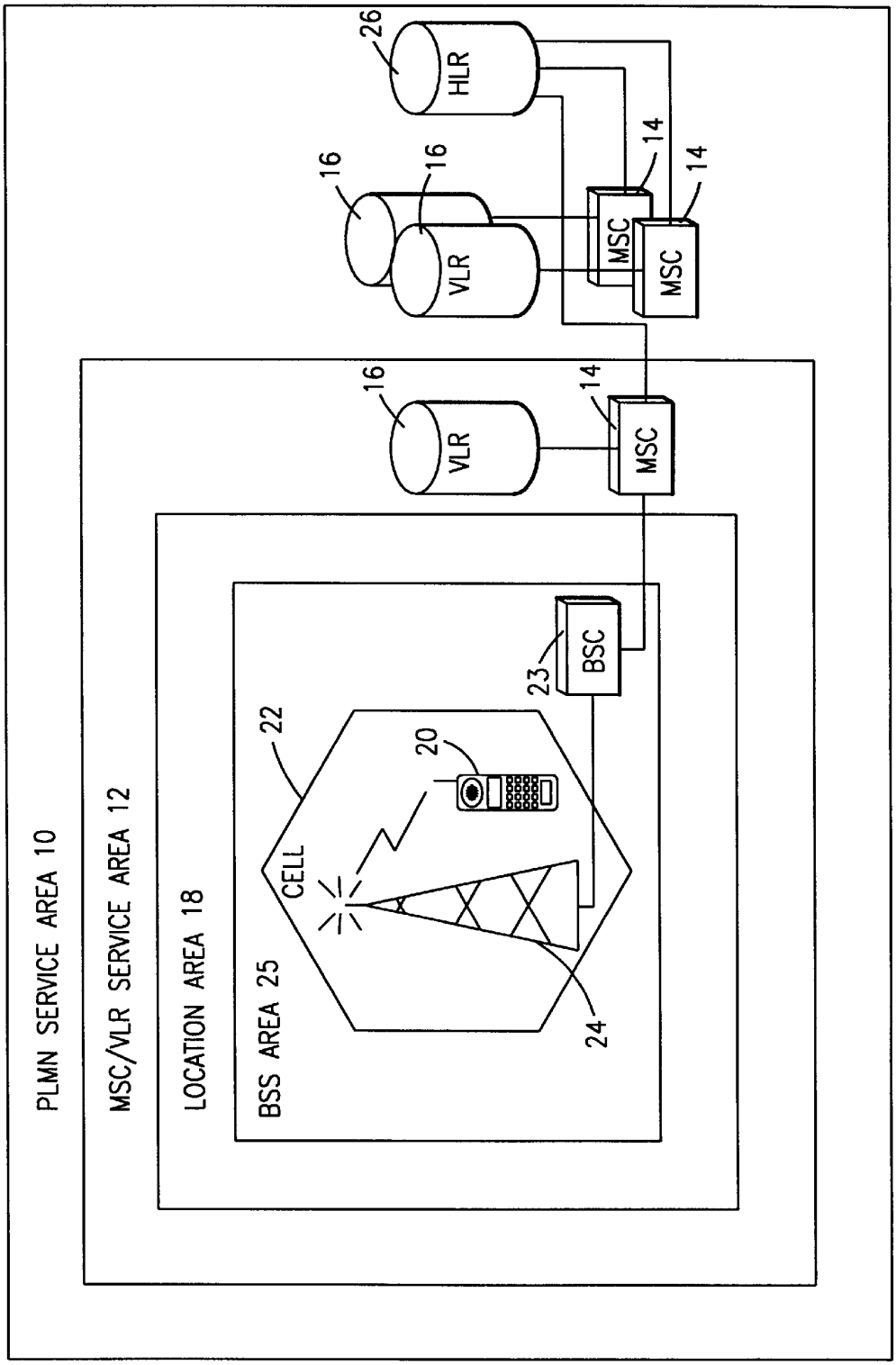

FIG. 1

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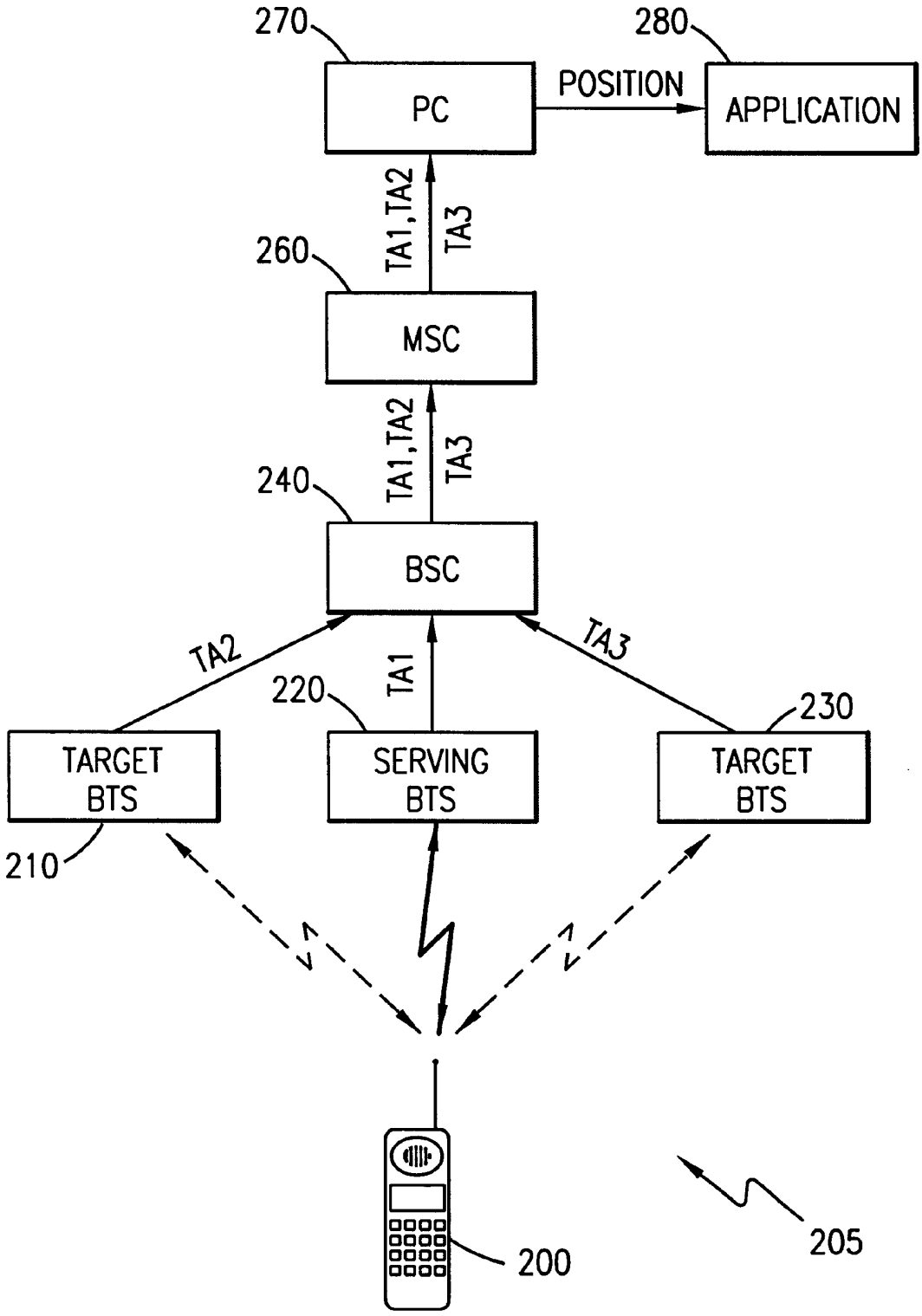

FIG. 2

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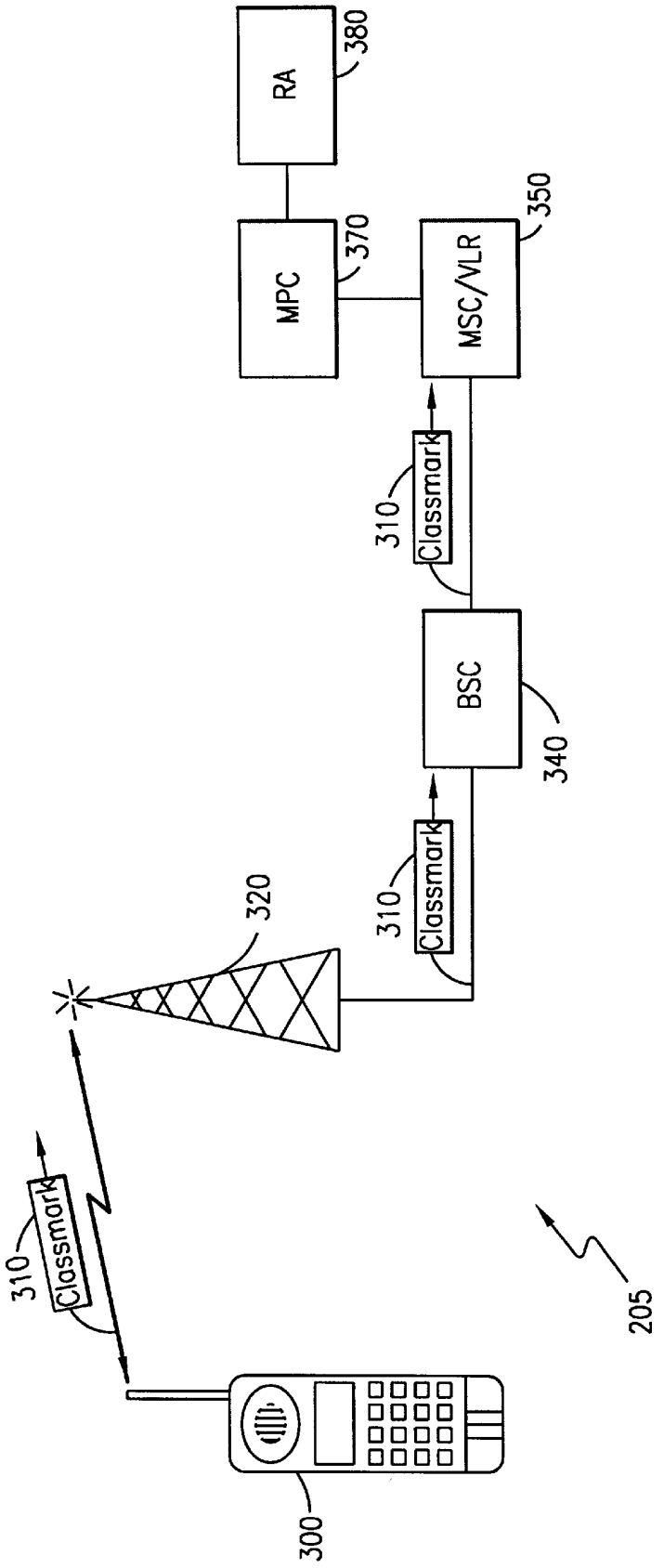

FIG. 3

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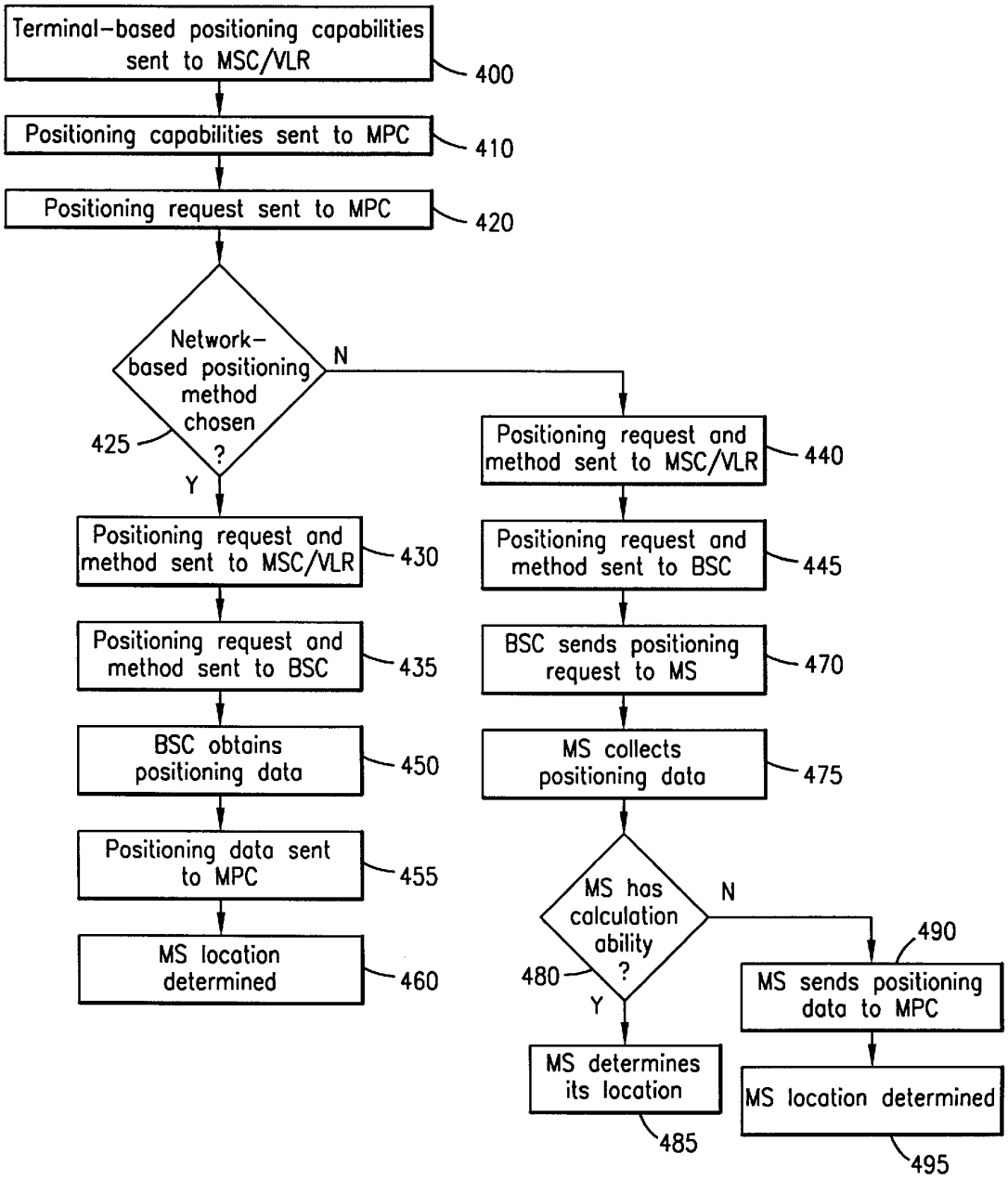

FIG. 4

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