

## (12) United States Patent Rayburn

### (54) ROUTE PLANNING SYSTEM FOR MOBILE TELECOMMUNICATIONS

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KS (US)

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patent is extended or adjusted under 35 U.S.C. 154(b) by 557 days.

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### Related U.S. Application Data

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(51) Int. Cl.<sup>7</sup> ...... H04Q 7/20

**U.S. Cl.** ...... 455/457; 455/456.3; 455/456.1; 455/414.3; 340/990; 340/995.23; 340/993;

455/457, 414.1, 456.6; 340/993, 995.23, 340/990; 701/200-202, 209

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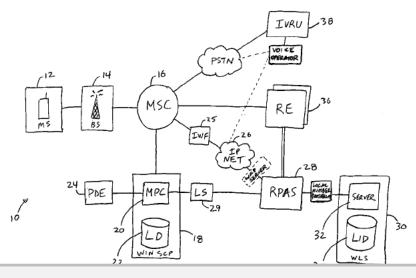
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Primary Examiner-William Trost Assistant Examiner—Sharad Rampuria

#### (57)ABSTRACT

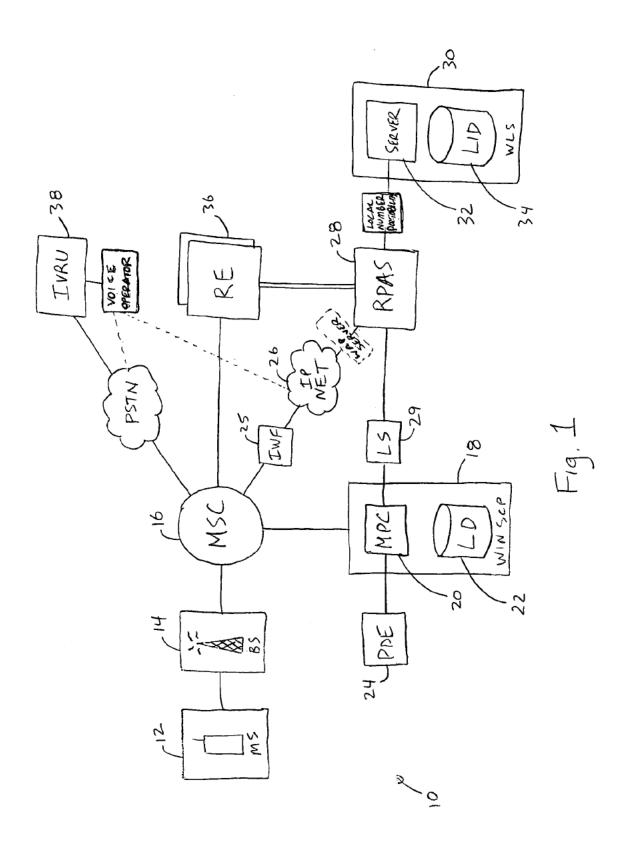
A route planning system for use in mobile telecommunications is disclosed. A user of a mobile station such as a wireless telephone, PDA, pager or computer, initiates a route planning service request and provides a destination telephone number. A switching center responsively initiates an asynchronous position request of a mobile positioning system, which identifies and stores the mobile station position. The switching center connects the mobile station to a route planning application server. The route planning application server obtains the mobile station position by querying the mobile positioning system. The route planning application server further obtains the destination telephone number and queries a location system to determine the destination position corresponding to the destination telephone number. The route planning application server in turn generates a route plan for travel from the mobile station position to the destination position and conveys the route plan to the user by any suitable means.

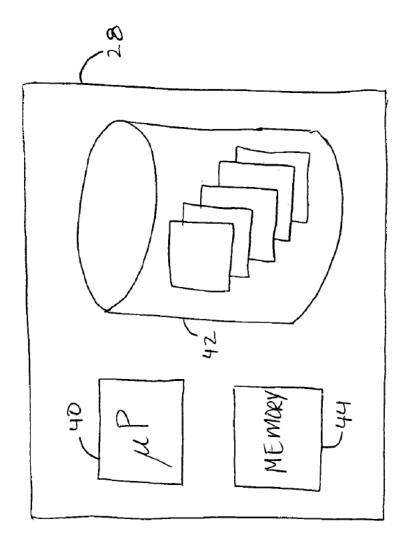
### 32 Claims, 4 Drawing Sheets

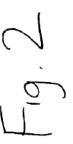


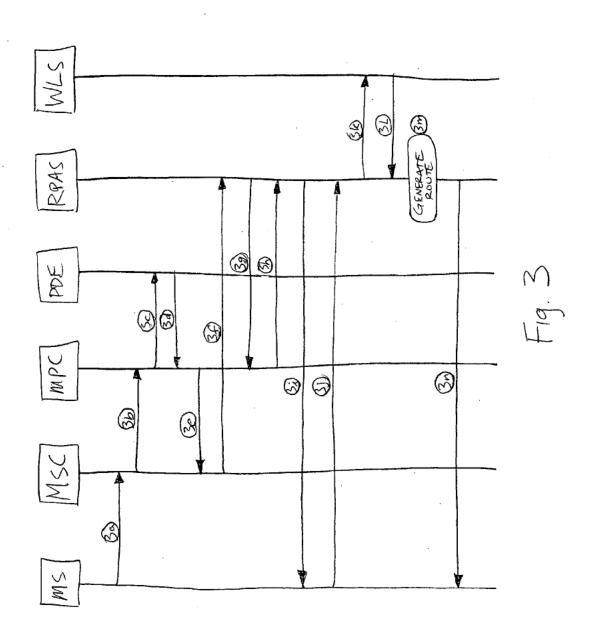


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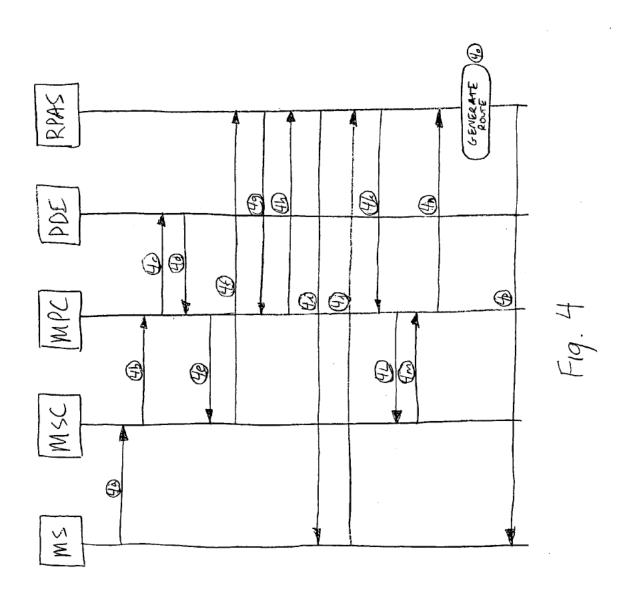














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