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SYSTEMS AND METHODS FOR MAPPING GEOGRAPHIC SUB-AREAS TO SATELLITE-BASED BASE STATION PLATFORMS IN A CELLULAR NETWORK

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(21)

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(57)

ABSTRACT

A computer system for mapping geographic sub-areas of a ground area to cells of a radio access network (RAN) implemented by a plurality of satellites can perform steps including one or more of: receiving, from a first satellite, connection data indicating that a first UE has connected to the RAN via a first beam of the first satellite, wherein the connection data identifies a physical localized identifier of the first beam and a connection time; determining, from a mapping of physical localized identifiers to virtual localized identifiers across a plurality of time slots, a first virtual localized identifier associated with the physical localized identifier of the first

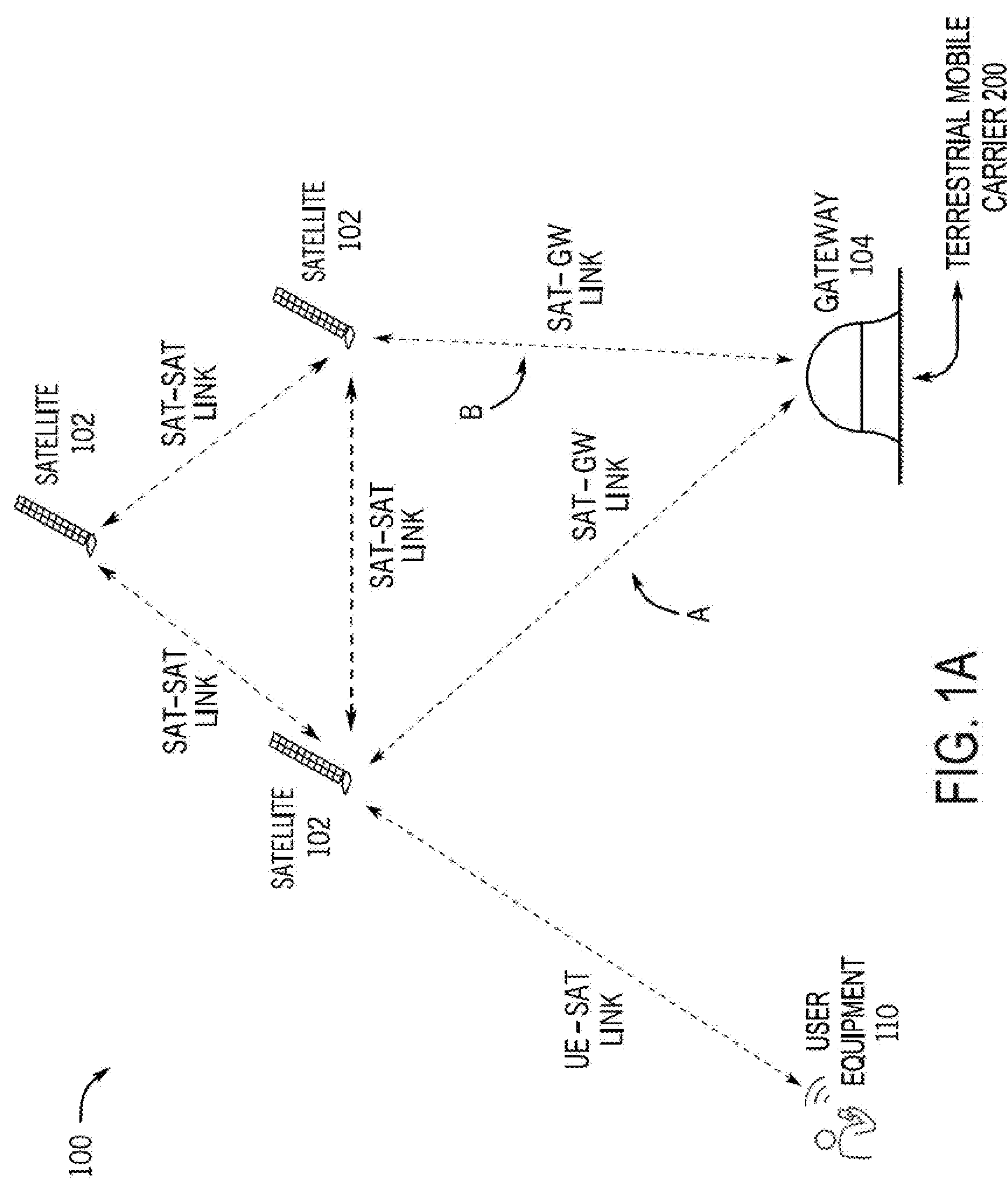


FIG. 1A

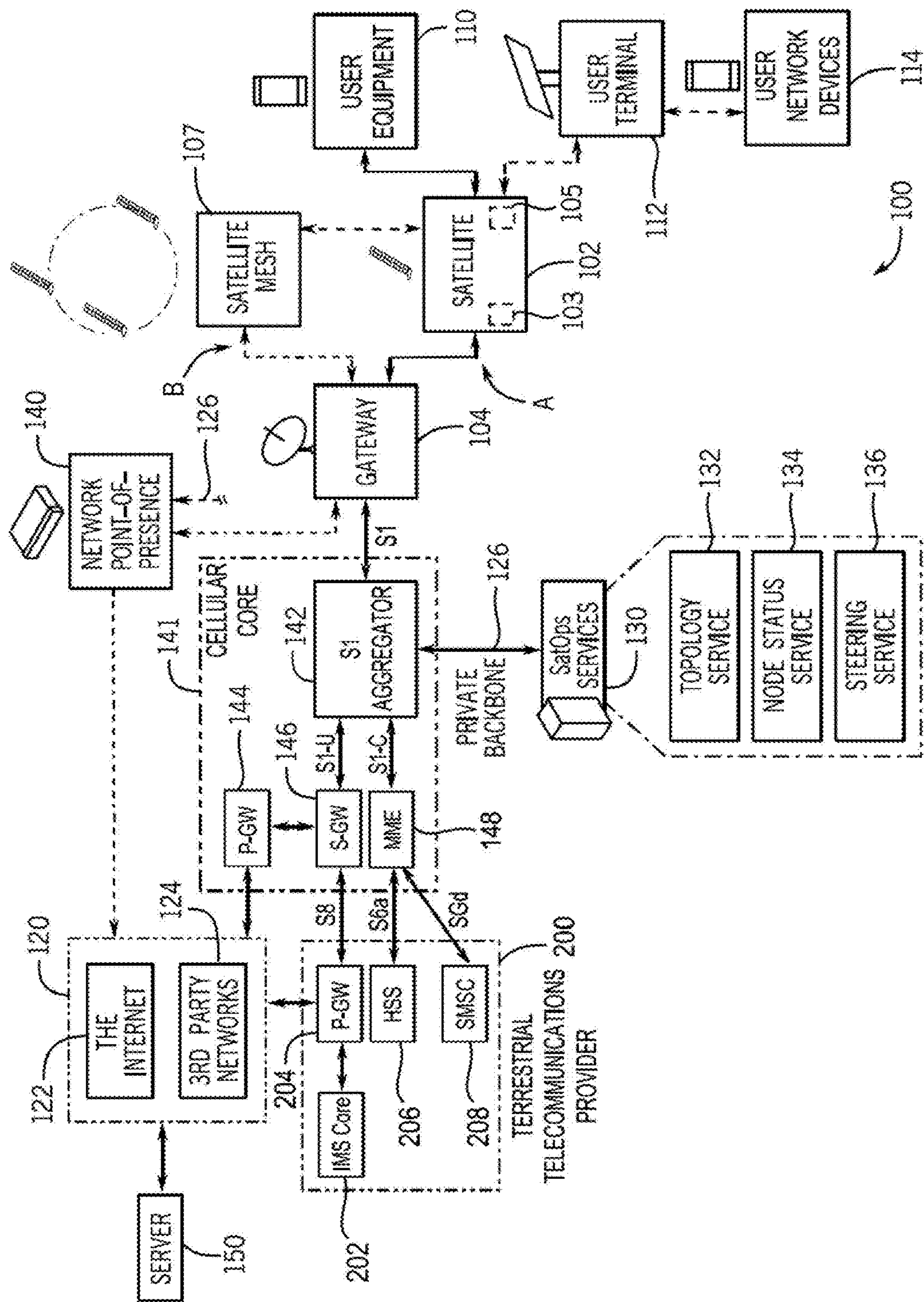


FIG. 1B

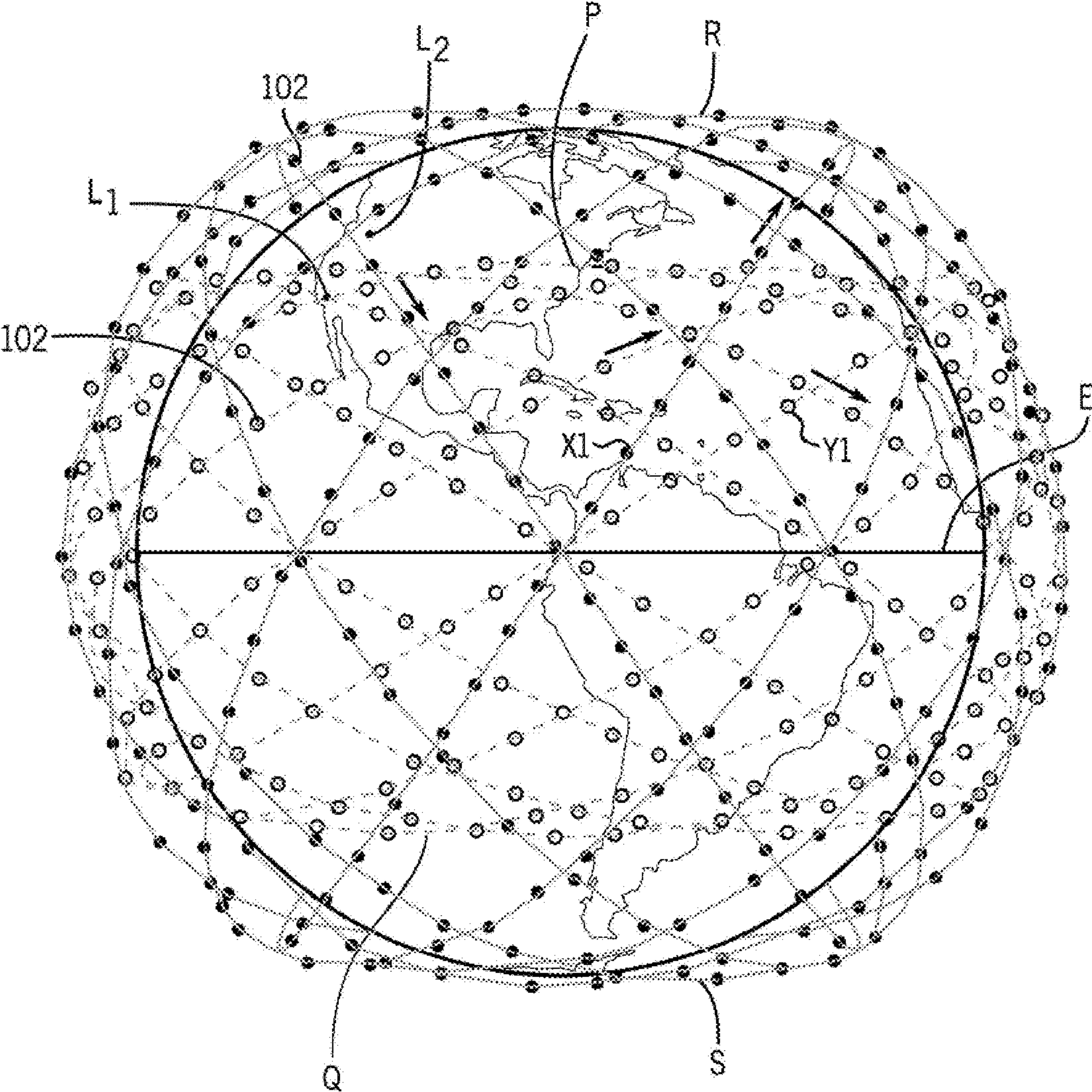


FIG. 2

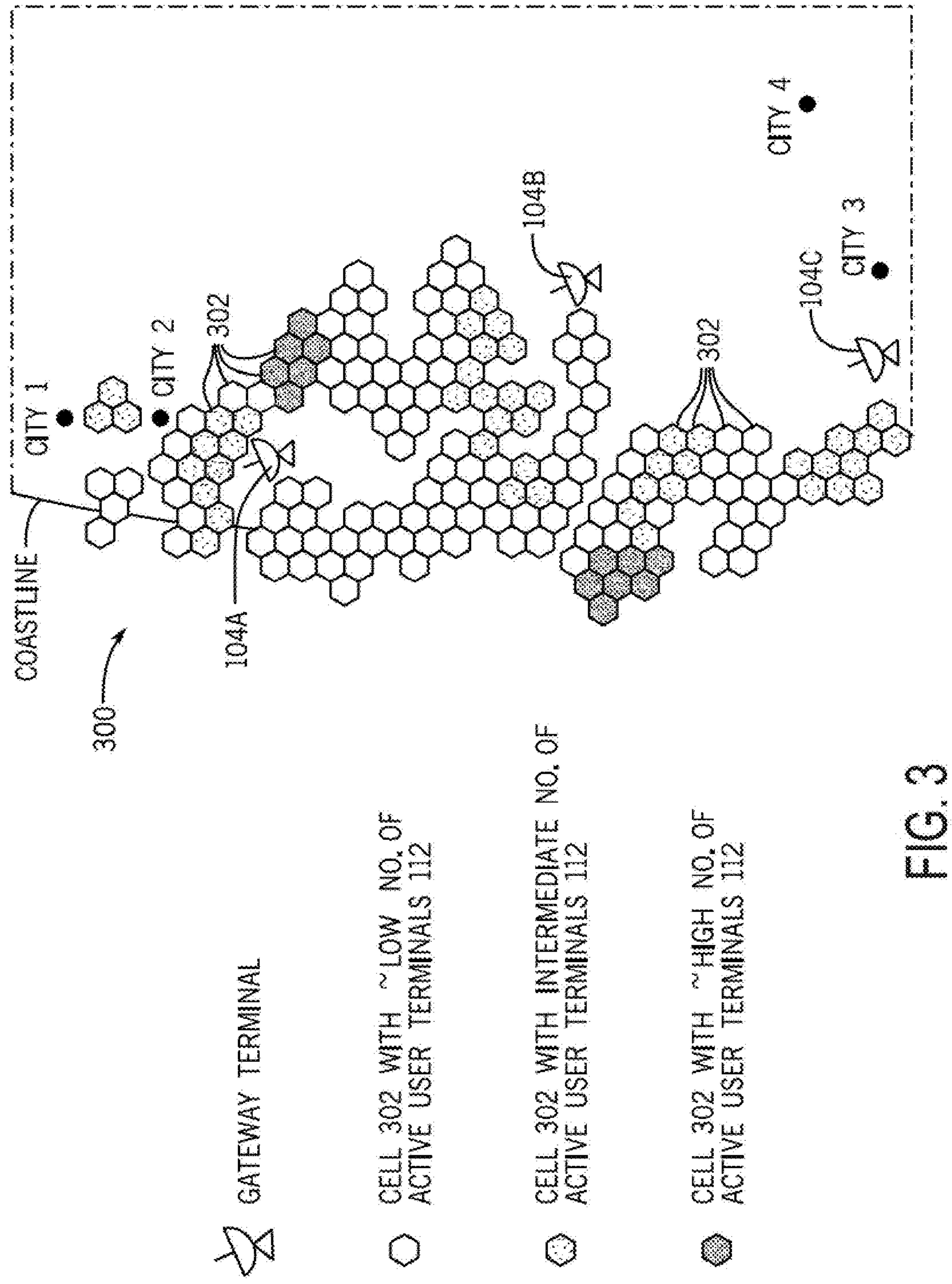
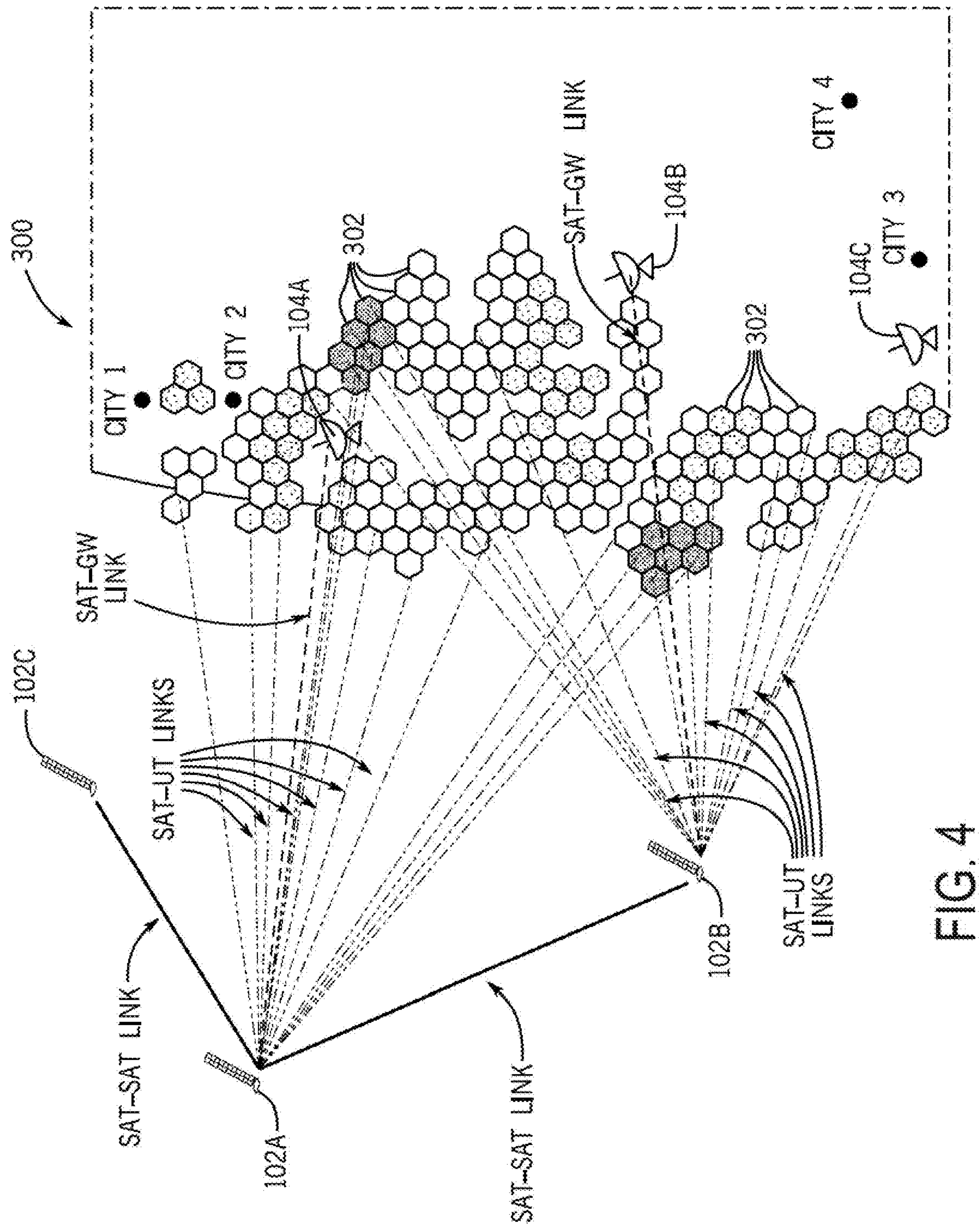


FIG. 3



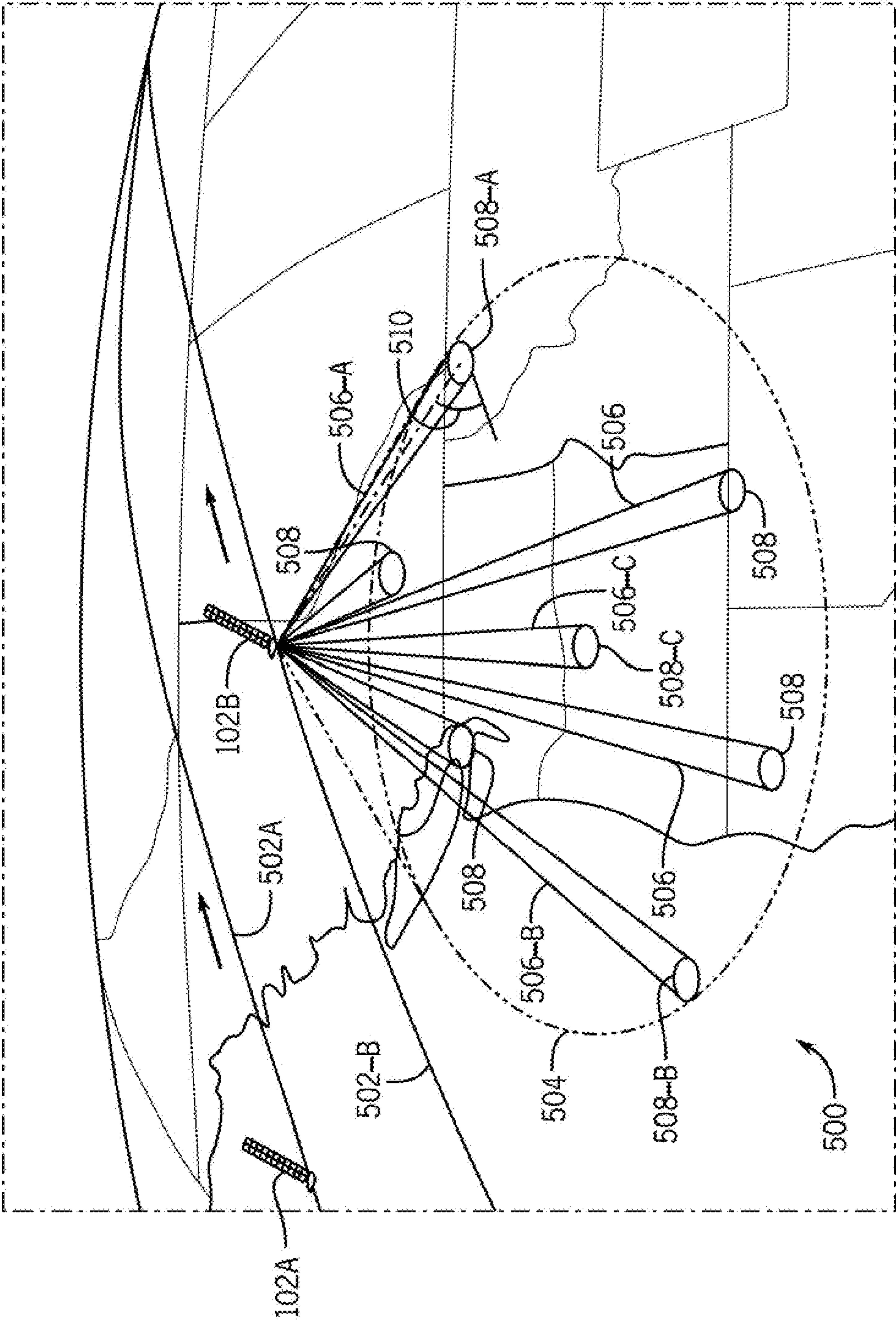
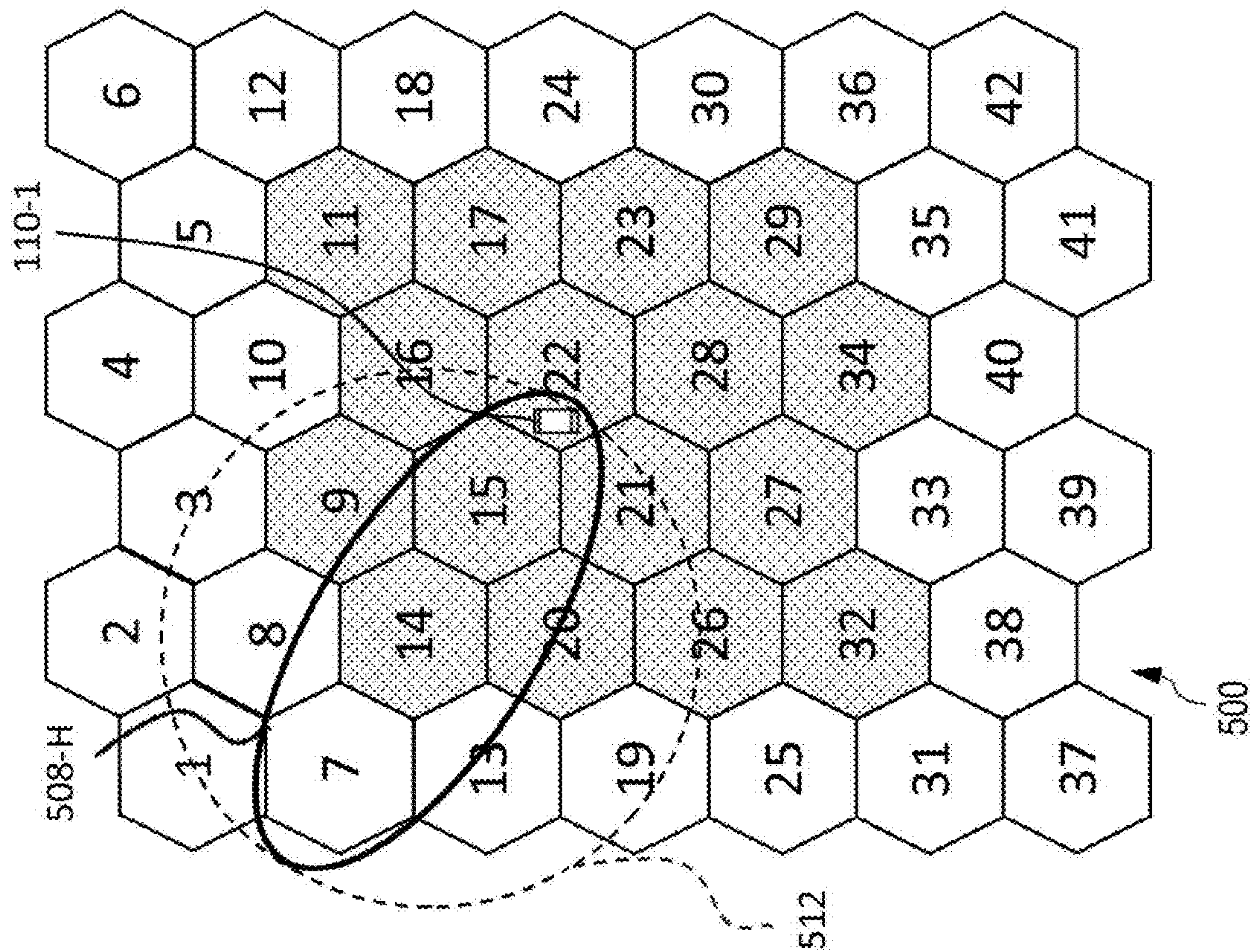
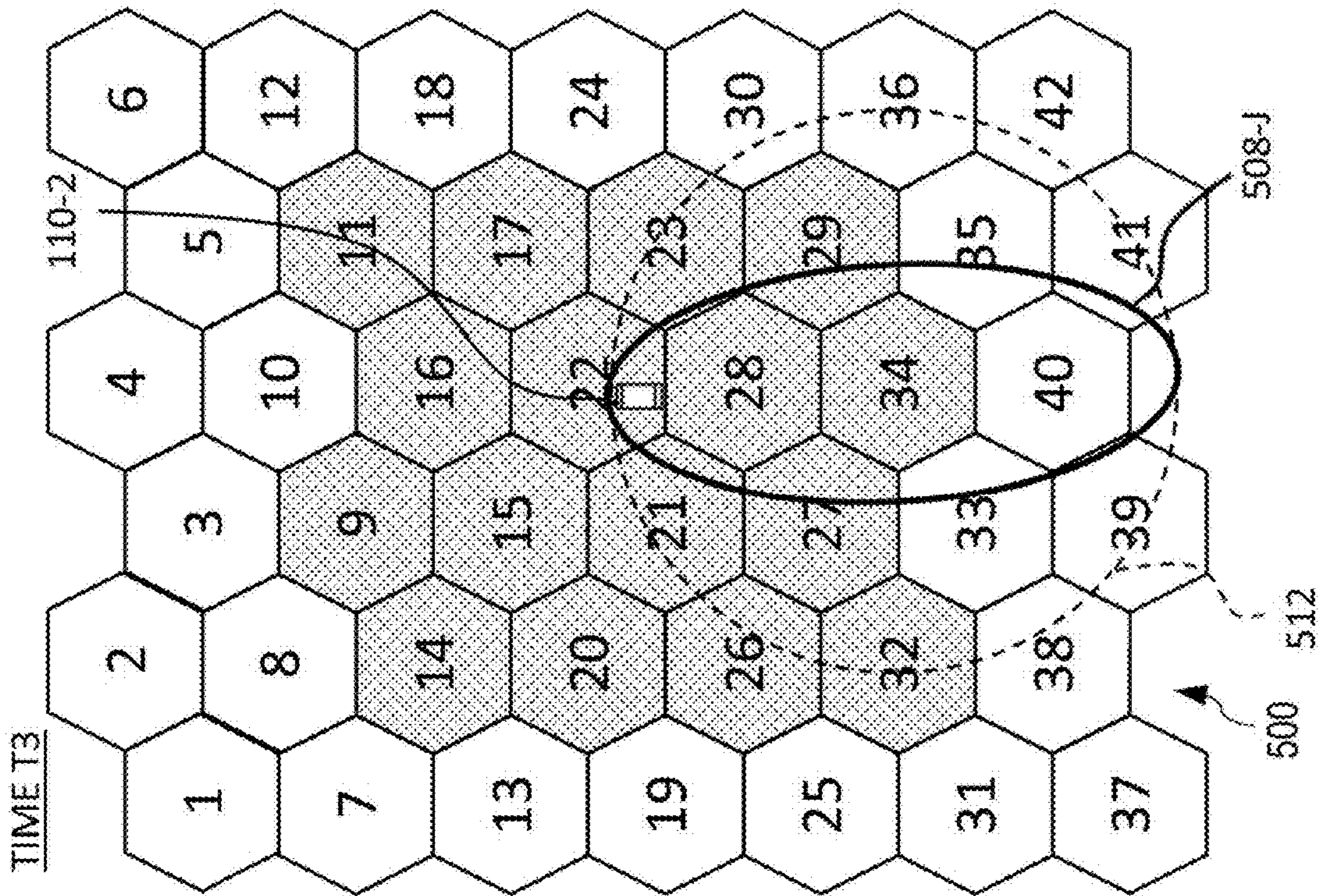


FIG. 5



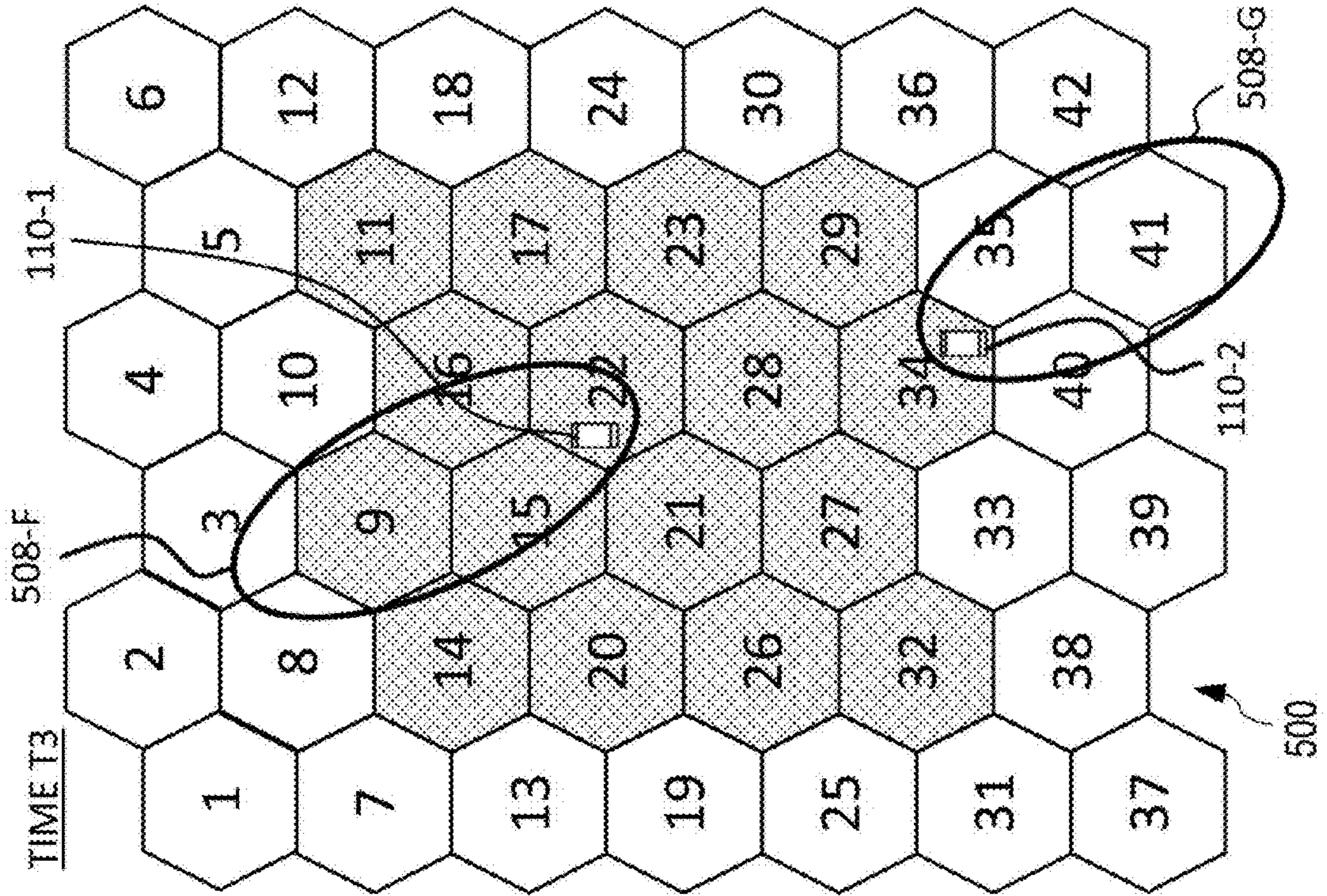


FIG. 9A

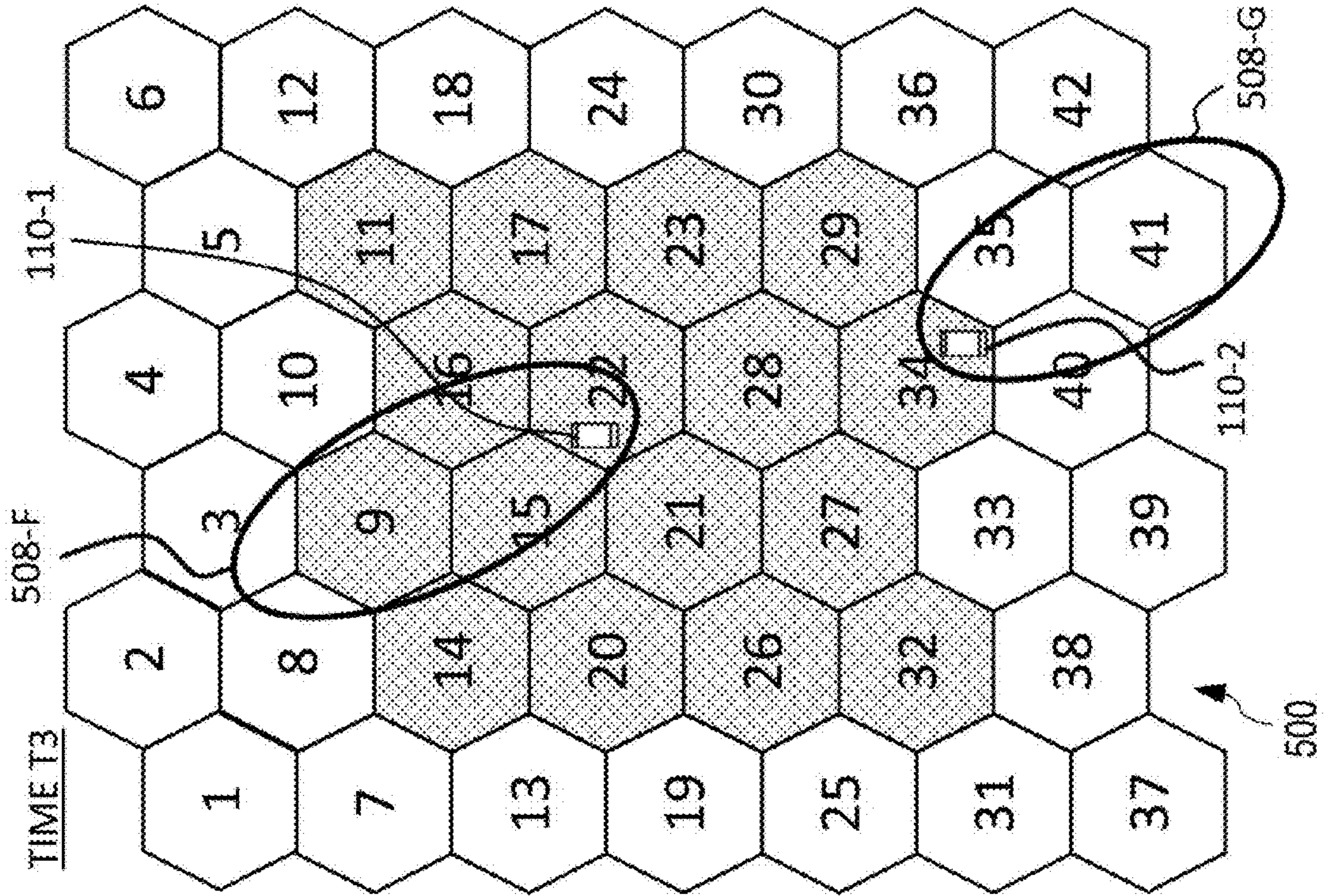


FIG. 9B

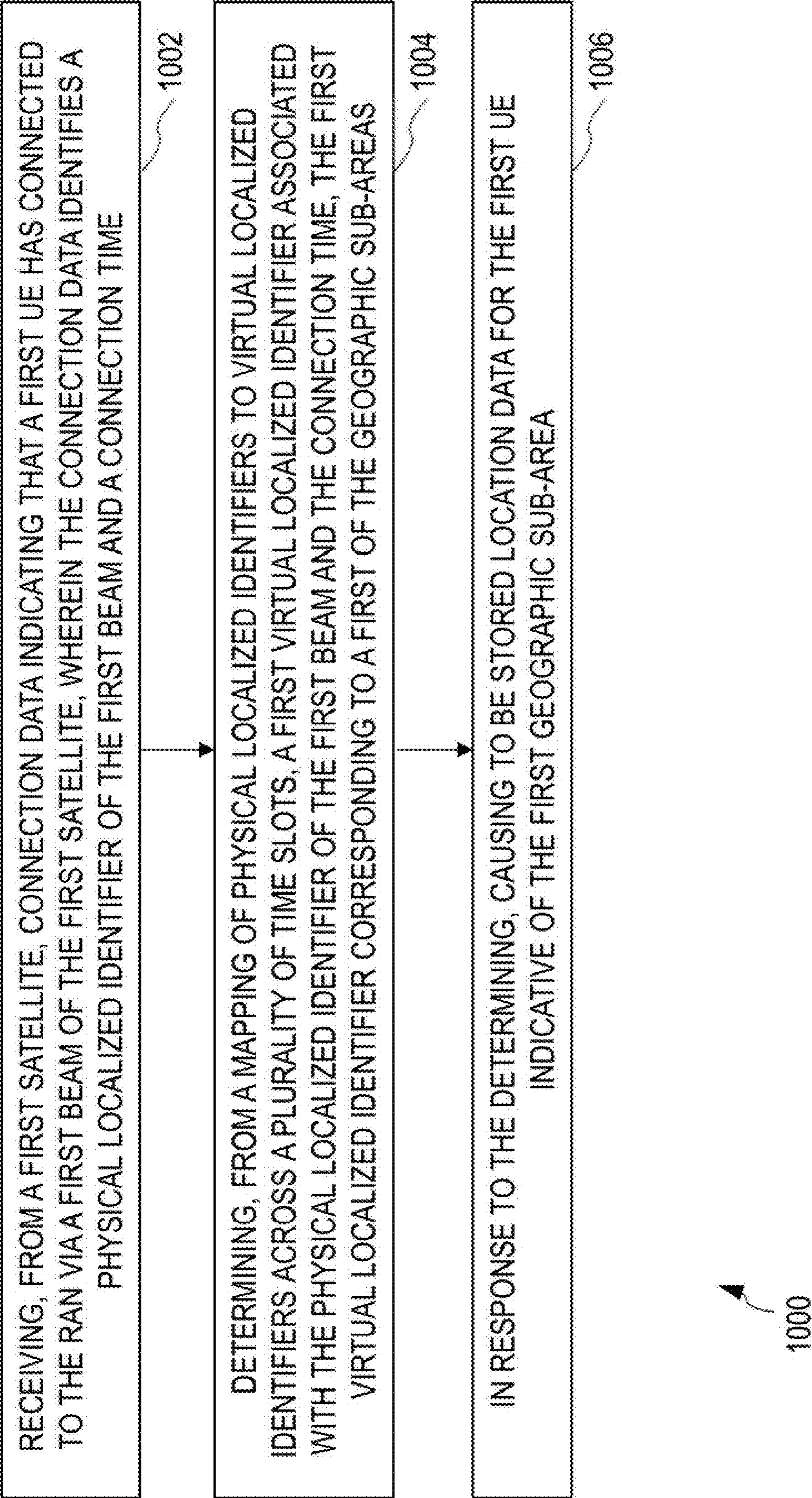


FIG. 10

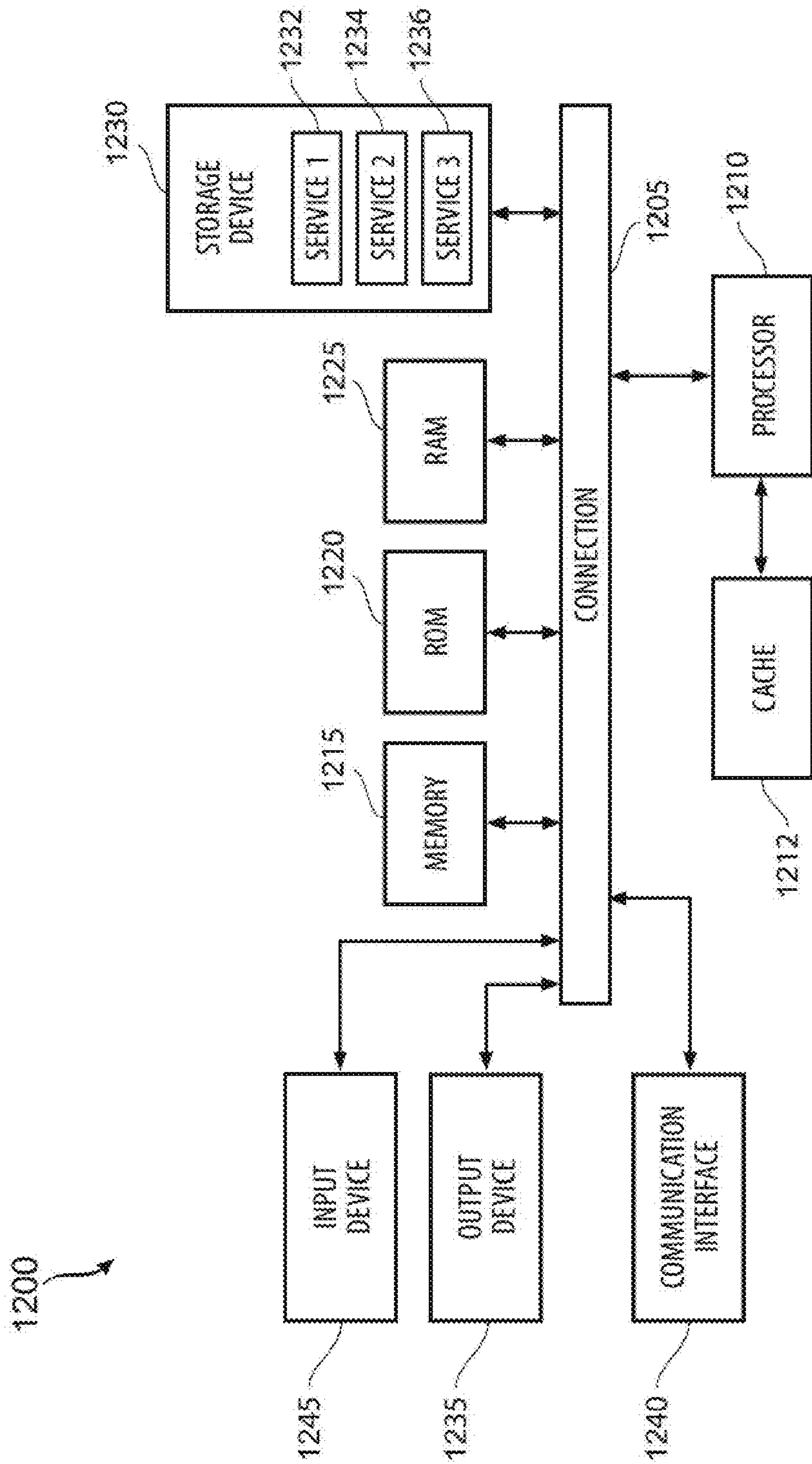


FIG.12

