ABSTRACT

EFFICIENT PERIODIC LOCATION REPORTING IN A RADIO ACCESS NETWORK

A user equipment (UE) communicating with a radio access network (RAN) sends to a network entity (e.g., an MSC/SGSN) a request for periodic reporting of the UE location to a client entity. After the request is approved, the MSC/SGSN sends to the RAN signaling to initiate periodic location reporting for the UE. The RAN may request a positioning center (e.g., a SAS) to send assistance data to the UE. The RAN may coordinate and control the periodic location reporting or may pass the control over to the positioning center. For each location reporting, the UE sends location information (e.g., measurements made by the UE or a location estimate computed by the UE) to the RAN. The SAS computes a location estimate if the UE sends measurements. The RAN then sends the location estimate for the UE to the MSC/SGSN, which forwards the location estimate toward the client entity.

Figure 2A