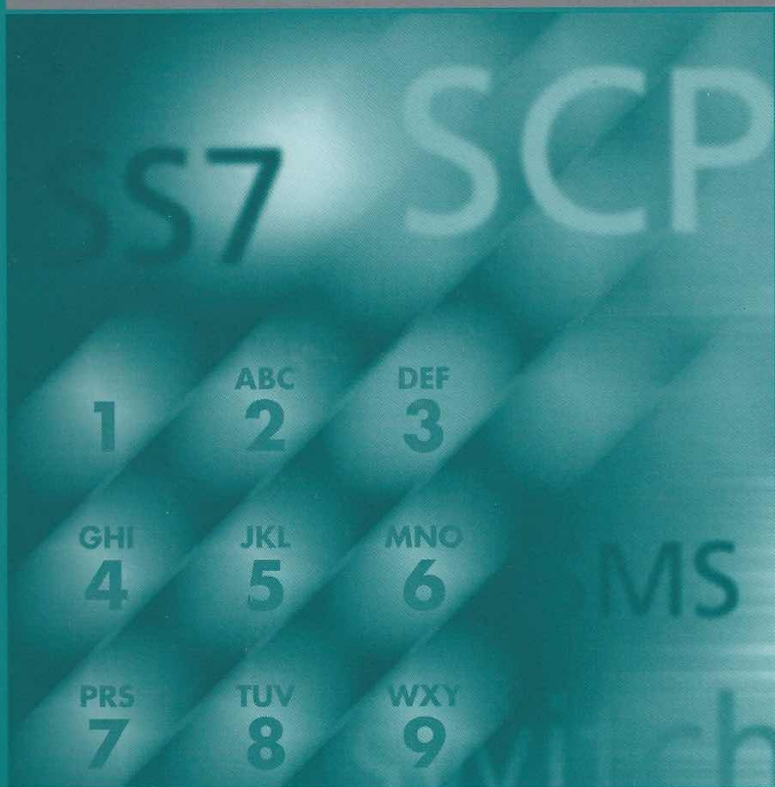


MOBILE COMMUNICATIONS SERIES

WIRELESS INTELLIGENT NETWORKING



GERRY CHRISTENSEN
PAUL G. FLORACK
ROBERT DUNCAN



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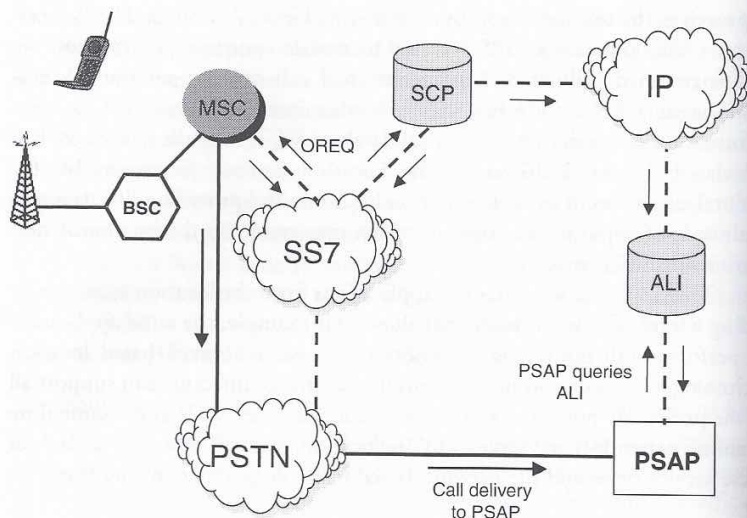


Figure 8.29 Architecture for wireless emergency services.

appropriate PSAP that serves the area from which the call was placed. The MSC then sets-up the call through the public switched telephone network (PSTN). The PSTN routes the call that ultimately arrives at its termination point at the PSAP. Upon receiving the call, PSAP premise equipment interrogates the ALI database. The ALI database, containing a cross-reference of cell/sector data to descriptive data such as street address, landmark, or any other identifying information, returns a response to the PSAP premise equipment that contains a description of the caller's location. Upon receiving the response from the ALI, the PSAP premise equipment synchronizes the location information with the incoming emergency call, displaying the location information along with the caller's MDN to the PSAP operator who answers the call.

This method meets phase I of the FCC ruling, which states the wireless carriers must provide at least cell site/sector level of position accuracy. While this method allows for routing to the appropriate PSAP and provides relatively accurate position information, this architecture is the foundation for greatly improved mobile positioning for emergency services. Work is underway within standards to establish interfaces to obtain much more precise location information from network, handset based, and/or hybrid PDE.