Abstract

Mobile communications has become one of the fastest growing sectors in the world today. With the technological advancement, mobile communication has subjected to many upgrades such as 2G, 3G, 4G. The question of "Does a customer get the expected capabilities from it?" is not answered yet. Even though, the subscribers of all operators pay almost equal charges per minute, most of the time, they do not get the real benefit from the service. At the moment there is no any location based system to capture the availability of signal receiving levels (specially 3G and 4G signal for Dongles), when a customer sit in front of the marketing person, asking to provide a new connection. What most of the customers do is to use the equipment for few days and return them with a complaint of malfunction in case of signal unavailability. In this study geostatistical analysis was carried out by the method of Inverse distance weighting and the interpolated maps were generated using ArcMap 10. Maps were uploaded to the map server, with standard color ramp. Thereby, the network users can get a better idea about the variation of mobile signal receiving level in a particular location. The developed web based GIS (Geographic Information Systems) system provides the capability of accessing the mobile signal levels remotely in an online manner prior to dealing with a particular
Web GIS to Identify the Problematic Mobile Signal Clusters

customer. Analysis of receiving signal level variation helps to find clusters which have low signal levels than expected. Also, further investigation can be carried out to determine the frequently changing network clusters against a relevant time domain.

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