Abstract

Upgrading from Second Generation (2G) to Third Generation (3G) mobile networks is an important concept for every practicing telecommunications engineer and technical decision maker involved in 3G planning. Coverage and capacity are important issues in the planning process for cellular 3G mobile networks. The planning process aims to allow the maximum number of users sending and receiving adequate signal strength in a cell. In this paper we show and apply the methodology and the planning steps for designing a 3G network on top of existing 2G mobile network. The roadmap of this paper works, is to define the geographical region under study and as our design target, then, forecasting the subscriber profile is considered and well defined to meet the design parameter for the traffic demand, taking into consideration both current profile and the forecasted future service demand, later, the paper show how to perform both capacity and coverage dimensioning process in order to achieve nominal cell palling.

Index Terms
Keywords

3G, Network Planning, Mobile Communication, Radio Network