

Cellular Networks

Third-generation mobile communication systems evolve by orienting the integration of three essential domains: broadband, mobile, and the Internet. TITAN Lab has been studying for many years the mobility of an user in a wireless environment. Very relevant research lines are related to user mobility, such as the optimization of the system resources management and the Quality of Service (QoS) provisioning. The former requests to develop handover algorithms, location and paging management, the latter considers call admission control, traffic management and scheduling algorithms.

Through the extensively usage of simulation tools, TITAN Lab analyses and proposes new techniques able to integrate different systems. This integration would pave the way for the fourth generation systems, which will be based on IP traffic and packet switching.