Technical solutions for the 3G long-term evolution

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Abstract:
Work has started in the 3GPP to define a long-term evolution for 3G, sometimes referred to as super-3G, which will stretch the performance of 3G technology, thereby meeting user expectations in a 10-year perspective and beyond. The fundamental targets of this evolution - to further reduce user and operator costs and to improve service provisioning - will be met through improved coverage and system capacity as well as increased data rates and reduced latency. This article presents promising technologies to fulfil these targets, including OFDM, multi-antenna solutions, evolved QoS and link layer concepts, and an evolved architecture. Furthermore, the results of a performance evaluation are presented, indicating that the requirements can indeed be reached using the proposed technologies.

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