

OVERVIEW OF LONG TERM EVOLUTION NETWORK

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Abstract

In the field of mobile communication, Long Term Evolution Network is the emerging network. The main features of LTE are high peak data transmission rate, spectrum usage flexibility, low latency times and capacity per cell is higher. The radio interface of Long Term Evolution Network is based on an Orthogonal Frequency Division Multiple Access (OFDMA) in the downlink and Single Carrier-Frequency Division Multiple Access (SC-FDMA) in the uplink. Its architecture is designed in such a way that it deliver the services according to the need of the customers, like higher internet data rate (upto 100 mbps downlink and upto 75 mbps uplink), video conferencing, etc.. For providing services, the network should satisfy the following criterion - open interfaces as against closed technologies of the past, reduced cost per bit, increased service provisioning by lowering the cost and increasing efficiency and experience, higher spectral efficiency, power consumption efficiency, scalable and flexible usage of frequency bands. The aim of this paper is to give an overview of the LTE Network Architecture and the LTE Network services.

