



## How Does LTE Work?

LTE improves upon the functionality and performance of older networks. It is a redesign of the 3G standard to satisfy the demand for low latency data transmission. The redesign includes:

- An IP address-based core network
- A simplified network architecture
- A new radio interface
- A new modulation method
- Multiple input, multiple output radios (MIMO) for all devices

## Important Facts

- LTE offers lower latency throughout the network, dramatically improving upon 3G network performance.
- LTE operates on a separate spectrum from 3G networks and requires new hardware.
- LTE provides fast data download speeds of several 100th megabits per second (Mbps), compared to several 10th Mbps for 3G, meaning that **LTE is 5-10 times faster than 3G.**
- LTE can support data, voice (VoLTE), instant messaging and video on smartphones and tablets over a single interface. With 3G, this was done over different systems, and on some networks voice and data was mutually exclusive.

