What is Private LTE and 5G?

Private LTE and 5G are networks that are designed to serve enterprise businesses, industry verticals and the government sectors. These secure private networks use dedicated radio equipment to support mission critical and business applications for IoT and mobile devices. Utilizing network slicing allows businesses to tailor QoS and SLAs to each specific application. These networks can be operated by traditional mobile operators, network operators specializing in managed services for mobile networks and enterprise IT departments.

Drivers for Private LTE

Organizations and businesses who deliver mission-critical services or who need to have more control over the performance of their communication network will greatly benefit from Private LTE and 5G. A number of industry verticals are good candidates for Private LTE due to their stringent network requirements.

The use of dedicated radio equipment in these networks avoids any impact in traffic fluctuations due to outside users. Unlike today's commercial networks, private LTE can economically guarantee various industry and enterprise businesses' performance requirements, such as:

- ➢ Guaranteed coverage
- ➢ Low latency
- ➢ High throughput
- ➢ High reliability
- ➢ Information security
- ➢ Mobility between private & public networks
- ➢ Dedicated capacity
- ➢ Dedicated connectivity
- ➢ Simplified network management

WiFi versus Private LTE and 5G

Today, WiFi is widely used. It is fast and easy to deploy with a rich feature suite that is targeted for relatively small indoor environments. Private LTE and 5G, on the other hand, is developed for wider area mobility environments but scaled down for small to medium enterprises and private organizations. It provides advantages over WiFi particularly related to enhanced mobility and improved performance and security.

Private LTE and 5G as-a-service

CCN's as-a-service solution enables organizations to quickly deploy and manage their own network without the need for core infrastructure and telecom expertise.

The solution provides:
➢ Cloud based vEPC and EMS
➢ Option for on-site local gateway
➢ Integration with your IT network
➢ API's
➢ Web portal for dashboard and reports
➢ Network updates
➢ 24 x 7 Network operations and management

Private LTE Spectrum Options

Private LTE and 5G can be deployed on licensed, unlicensed or shared spectrum.

Licensed Spectrum
➢ With licensed spectrum, Carriers can license their spectrum to enterprises or small organizations, or they can build and operate a Private LTE network for an enterprise

Shared Spectrum
➢ With shared spectrum, Enterprises can operate Private LTE networks in spectrum that is owned but available in unoccupied or lightly occupied geographic areas. The CBRS band at 3.5GHz is a good example of shared spectrum in USA.

Unlicensed Spectrum
➢ With unlicensed spectrum, Enterprises or Carriers can operate Private LTE networks in unlicensed spectrum such as the UNII-3 band. MulteFire is a good example of this option as it allows the standalone use of LTE in unlicensed spectrum.

Wireless technology solutions to today's business critical segments are advancing the need for Private LTE networks

Business Critical Markets
Business critical networks are becoming more and more prevalent, are operationally intensive, and demand little to no disruption of service.

Private LTE Networks
Local LTE networks that utilize dedicated radio resources and are designed and optimized to meet specific operational requirements will address these critical business needs.

Cirrus Core Networks (CCN) works with world class access providers that provide the dedicated radio resource networks for Private LTE networks. CCN designs, builds and manages the Private LTE core eco-system (EPC, HSS, IMS, …) that meets the critical business needs of enterprises thereby allowing them to focus on managing their primary business.