

MobileComm Professionals, Inc.

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Workshop on Path to LTE (1 Day)

1. LTE Overview-(1.5 Hour)

- •Why LTE?
- •LTE main requirements
- •LTE versus other Mobile Technologies
- Network Architecture Evolution
- LTE key features
- Basics of LTE Air Interface
- Standardization around LTE Air interface
- •IMT Advanced
- LTE Summary

2. LTE/EPS Network Architecture-(1.5 Hour)

- Network Architecture Evolution
- LTE/EPS Network Subsystems
- •LTE/EPS Network Elements
- LTE/EPS Network Interfaces
- LTE/EPS Roaming Architecture
- LTE/ EPS interworking with 2G/3G networks
- •LTE/EPS inter-working with Non-3GPP access technologies.
- Charging Architecture in LTE/EPS networks.

3. LTE Air Interface-(2 Hour)

- •The Rectangular Pulse
- Multipath Propagation. The Cyclic Prefix
- Multi- Carrier Modulation
- Orthogonal Multi- Carriers: OFDM
- Effect of frequency errors in OFDM
- •SC-FDMA
- OFDM Transmitter and Receiver











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- •OFDM Multiple Access
- Subcarriers Assignment Methods
- •OFDM implementation n in LTE/ EUTRAN
- •LTE/EUTRAN Radio Frames
- •OFDM Resource Block
- Modulation Schemes in LTE/ EUTRAN
- •LTE/EUTRAN Frequency Variants
- MIMO
- •DL & UL Peak bit rates
- LTE UE Categories

4. LTE Performance-(1 Hour)

- Timing Advance
- Overview of FDD Performance Evolution
- Peak Bit Rates
- Coverage
- Throughput
- •TDD Performances
- Comparison with performance of UMTS







