



# LONG TERM EVOLUTION (LTE/4G): TECHNOLOGY AND BUSINESS DRIVERS TRAINING COURSE

Date: 26<sup>th</sup> – 30<sup>th</sup> October 2015

Overview of the key technology & business drivers, including: higher spectral efficiency, all-IP network, Self Organizing Network (SON), Multiple-Input Multiple-Output (MIMO), high spectrum flexibility and scalability, higher peak data rates, lower latency, network sharing, lower costs per bits, improved user quality of experience, and monetizing the network.

Principles, motivations, and key requirements for LTE; overview of LTE releases 8, 9, and 10.

**Target group** 

- Senior and middle level business and technical managers working for mobile operators and other ICT service providers
- ICT regulators and policy makers
- Equipment vendors
- ICT consultants and analysts.

#### FACILITATOR - MR Mohammed Noorani

Venue: Kigali, Rwanda

Mohammed is an international expert in telecommunications, data communications and networking and has been actively involved in the industry since 1981. He holds a Bachelors degree in Electrical Engineering and is a licensed and registered Engineer in his home country, Kenya. He is also a Cisco Certified Network Associate (CCNA), Huawei Certified Data Professional (HCDP) and Microsoft Certified Systems Engineer (MCSE).

Mr Noorani has facilitated telecommunications technology and data communications training seminars and workshops to wide acclaim across Africa since 1991 and has broad experience working as an engineer in the telecommunications industry.

Mohammed worked for the (former) Kenya Posts & Telecommunications Corporation (KPTC) as a Project Planning Engineer for 10 years. Projects included Digital Voice and Data Networks, on Signaling System 0.7, X25 Packet Switching Network for Kenya Data Networks and many other projects in capacities ranging from detailed Project Design and Implementation to Project Leader.

He has been the Head of Network Planning & Management at AFRALTI for over 20 years, he specializes in developing and conducting training in Broadband Wireless Technologies, CCS No. 7, VSAT Networks, Network Planning, Telecommunication Network Management, IP networks and convergence, GSM Wireless Technologies such as CDMA, 3G, LTE and WiMAX, Ethernet Switching, VoIP, Next Generation Networks and IP Networking over satellite.

# WORKSHOP OVERVIEW The workshop will explore key areas in:

- LTE RADIO INTERFACE Detailed description of the LTE radio interface and procedures.
- MIMO TECHNOLOGIES IN 3GPP LTE AND LTE-ADVANCED – Overview of the different Multiple input multiple outputs (MIMO) Technologies.
- LTE SYSTEM ARCHITECTURE & PROTOCOLS
   Description of the LTE functional elements, interfaces, and protocols.
- LTE SPECTRUM OVERVIEW Overview of the standard FDD and TDD bands allocated for LTE.
- LTE CHALLENGES Presentation of the main challenges in adopting and deploying LTE.
- LTE ECOSYSTEM Overview of both the LTE device and network ecosystems.
- STATE OF LTE DEPLOYMENTS Presentation of the current state of LTE deployments around the globe and the different marketing and technology strategies.
- LTE DEPLOYMENT SCENARIOS & STRATEGY -Review of all LTE deployment scenarios.
- QoS IN LTE Description of the QoS mechanisms in LTE.
- VOICE SERVICES WITH LTE Description of the pros and cons of the different options to support voice on LTE.

## AFRALTI Workshop - LONG TERM EVOLUTION

# Workshop Overview ...

SELF-ORGANIZING NETWORK (SON) IN 3GPP LTE - Overview of the various SON features offered in the different release versions of LTE.

LTE NETWORK SHARING - Description of the network sharing options (and their related benefits) offered by the standard 3GPP features, as well as those offered by some non-standard commercial features.

INTERFERENCE MANAGEMENT WITHIN LTE -Goals of interference management within cellular systems.

LTE NETWORK PLANNING - Description of the key steps in planning an LTE network.

LTE ROAMING - Description of the roaming guidelines and implementations for voice and data services.

LTE INTERWORKING WITH 2G & 3G - Description of the key options, procedures, and related reference points between the 2G&3G network and the LTE network.

LTE ADVANCED (i.e. LTE Rel-10) - Description of the key performance improvements of LTE.

# Workshop Objective and key benefits:

Participants to the LTE Workshop will get an understanding of the benefits and challenges offered by LTE so that they will be in the position to:

- Describe the features and benefits of LTE;
- Understand the LTE network components and functions;
- Understand LTE Air Interface Methods
- Determine the available LTE options in terms of spectrum, equipment availability, timeline, evolution from 3G;
- Understand the current state of the LTE ecosystem and service offerings;
- Optimize their LTE strategy, based on LTE current & future capabilities;
- Understand all areas of their business that will be affected by LTE;
- Initiate an educated dialog with equipment vendors and service providers on procurement initiatives.

### **BANK DETAILS**

**Tuition Fees:** 

**US\$600** per Participant

Account Number: 4002200232452

➤ A/C Name: EACO (East African Communications

Organization)

Branch: EQUITY BANK-RWANDA

Intermediary bank: Equity Bank Kenya Ltd

Swift Code: EQBLKENA

Correspondent bank: Citibank N.A. New York

➤ Swift Code: CITIUS33

Payment can be made directly at the venue before course start

# For more details contact:

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# **AFRALTI**

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