



**AFRICAN ADVANCED LEVEL TELECOMMUNICATIONS INSTITUTE (AFRALTI)**

## **TRAINING WORKSHOP OUTLINE**

<b>Title:</b>	<b>Telecommunications Network Interconnection Cost Analysis and Modeling</b>
<b>Dates:</b>	<b>14th - 25th March 2016</b>
<b>Duration:</b>	<b>10 Days</b>
<b>Venue:</b>	<b>AFRALTI, Nairobi, Kenya</b>
<b>Course Fee:</b>	<b>AFRALTI Member States: US\$2,400; Non-Members: 2,880</b>

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### **COURSE OVERVIEW**

Until the late 1980s, governments around the world owned and operated telecommunications network and services on monopoly basis. During this period there was no interconnection of the telecommunications networks and services in the country due to a single state owned telecommunications network operation. There was also no competition in the telecommunications sector due to monopoly situation. Costs were not big issues because telecommunications network development was driven by governments and politics.

In the early 1990s, the government around the world reformed the telecommunications sector by liberalizing telecommunications markets and opening them up to competition. The competition brought new players especially mobile communications companies and entered into the telecommunications markets. The new players' networks required to interconnect with the incumbents' telecommunications networks in order to allow seamless communications between subscribers connected to different telecommunications networks. The new players would like to know the costs of accessing the incumbent infrastructure before interconnecting the telecommunications networks. The costs become the big issues in the liberalized and competitive telecommunications markets. Therefore, this course presents conceptual framework for the analysis and modeling of the interconnection costs that form basis for setting up cost based interconnection charges. The cost based interconnection charges promote effective competition and economic efficiency.

## **Target Audience**

Telecommunications regulators, operators and government policy makers.

## **Pre-requisite/s**

- Basic knowledge of in telecommunications network engineering, operations and regulations; and
- Basic knowledge in economic, finance and laws.

## **Pain Points**

In the early 1990s, reform of the telecommunications sector took place around the world, without taking into considerations the analysis and modeling of the interconnection costs, as a result the interconnection charges were set far above the costs in most of developing countries. High interconnection charges brought up endless interconnection cost disputes in most of the developing countries including East Africa. Unless regulators and governments understand well the analysis and modeling of the interconnection costs, then most of the developing countries will continue to face high interconnection charges and subsequent interconnection disputes. Introduction of the cost based interconnection charges drives down the high interconnection charges and resolve amicably the existing interconnection disputes in most of the developing countries.

## **Value Proposition**

At the end of the course, participants will have deep understanding of the conceptual framework for analyzing and modeling the interconnection costs, which form the basis for setting up the cost based interconnection charges.

## **Workshop Objectives**

- Understand well conceptual framework for analyzing and modeling the interconnection costs;
- Understand establishment of interconnection charges based on costs;
- Determine current, expected and interconnect traffic throughput;
- Dimension network capacity;
- calculate route factors; and
- Estimate the interconnection costs;

## Workshop methodology

The workshop includes presentations by the facilitator, country presentations and interactive sessions.

## Workshop Contents

- 1 Definition of interconnection
- 2 Different types of interconnection models
- 3 Interconnection Agreements/Regulations
- 4 Fixed interconnection cost models
  - Network design to be modeled;
  - Different network elements /components to be modeled; and
  - different types of services/calls to be modeled
- 5 Mobile interconnection cost models
  - Network design to be modeled;
  - Different network elements /components to be modeled; and
  - Different types of services/calls to be modeled
  
- 6 Determination of Current, Expected and Interconnect Traffic Throughput in minutes
- 7 Route Factors and Network dimensioning
- 8 Analysis of different cost methodologies
- 9 Analysis of different cost modeling approaches
- 10 Estimation of network related Capital Expenditure (CAPEX)
- 11 Determination of Weighted Average Cost of Capital (WACC)
- 12 Annualisation of CAPEX
- 13 Estimation of network related Operating Expenditure (OPEX)
- 14 Estimation of Total Annual Cost
- 15 Analysis of Cost to Volume Relationship (CVR)
- 16 Estimation of the Interconnection Costs

**For more information, please contact us on**

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