## EXPERT LEVEL TRAINING ON TELECOM NETWORK COST MODELLING FOR THE HIPSSA REGIONS

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David Rogerson, ITU Expert

















# Session 6: Calculation of call termination using different cost concepts (a practical exercise)

















#### Agenda

#### Aims and objectives for this session

Describe the scenario

Explain the exercise

Work in groups

Present and discuss findings

















#### **Introducing Normalia**

- All the practical exercises in this workshop concern the fictitious African country of Normalia.
- Normalia is a typical ("normal") country with regulatory challenges similar to those in your country.
- The details required for each practical exercise are presented in the slides / handouts.



















#### Telecoms in Normalia

### Telecom Sector Regulator (TRAN)

#### **Fixed Telecoms**

- 15% teledensity
- Telecom (100%)

#### **Mobile Telecoms**

- 40% teledensity
- Telecom (70%)
- Normcell (30%)
- Mobilco (new)

















#### Interconnection rates

- TRAN follows international best practice and is inclined towards cost-based rates
- But following previous practice it has given Telecom and Mobilco 3 months to negotiate interconnection
- Meantime TRAN has appointed an internal Cost Engineer-Accounting Team (CEAT) to report on different cost standards:
  - Stand alone costs (SAC)
  - Fully allocated costs (FAC)
  - Long run incremental costs (LRIC)











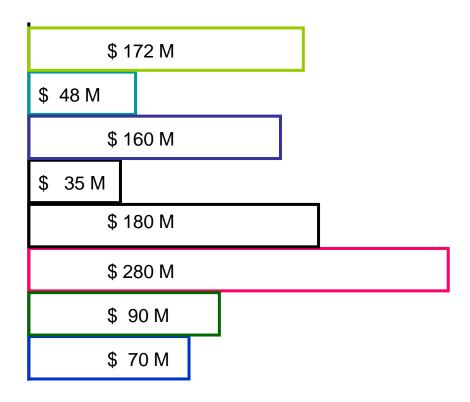






#### Cost data obtained from Telecom

- A. 2G Network Direct On-net Costs
- B. 3G Network Direct On-net Costs
- C. 2G Network Direct Interconnect Costs
- D. 3G Network Direct Interconnect Costs
- E. Shared Network Direct Costs
- F. Retail- Direct Costs
- G. Network Indirect OPEX
- H. Common and Overhead Costs



These costs are exclusively for the mobile network (all costs shared with fixed services have been allocated in proportion to traffic volumes)

















#### Volume data obtained from Telecom

#### **Mobile Subscribers**

- 2G 12 million
- 3G 3 million

#### Mobile Traffic (minutes p.a.)

- On-net 4,000m
- Termination 2,000m
- Origination 1,500m

For the purpose of this exercise you may assume that there are no other mobile services – SMS and data are insignificant.

















#### Your task

#### **GROUP WORK EXERCISE 1**

#### As CEAT, advise the Board of TRAN as follows:

- Calculate or estimate the approximate SAC, FAC and LRIC (TSLRIC) of mobile termination for 2G, 3G and combined?
- Which cost standard should apply to the mobile termination rate (MTR)? Why?
- Should there be a different MTR for 2G and 3G traffic? Why or why not?

















#### Reporting format

	2G	3G	2G+3G
SAC			
FAC			
TSLRIC			

All costs to be shown in \$ cents per minute















