



OAS DEPARTMENT OF SCHOLARSHIPS AND TRAINING

Professional Development Course in Telecommunications **Network Interconnection - Regulatory Aspects** **(second level)**

IACD/DST/CIR.112/2004

- 1) **Venue:** The e-learning platform of the International Telecommunication Union ITU, Centre of Excellence for the Americas Region.
- 2) **Offered by:** The Excellence Network Node and Regional Training Center of the Inter-American Telecommunication Commission (CITEL): **Colombian Association of Engineers (ACIEM)**.
Tel: (57-1) 369-0424, e-mail: aciem@cable.net.co
- 3) **Coordinator:** Ms. Melba Lucía de Reyes, Director of the Centre of Excellence for the Americas Region, Tel: (54-35) 4344-4222, e-mail: excelencia-cursos@ubp.edu.ar.
- 4) **Modality:** Online course
- 5) **Starting and ending dates:** August 30 to October 8, 2004.
- 6) **Duration of the course:** Six (6) weeks.
- 7) **Language:** Spanish and English.
- 8) **General Objective:** To study in depth the regulatory, managerial, and technical aspects with the greatest impact on interconnection in order to provide new decision-making tools.
- 9) **Specific Objectives:**
 - To evaluate the main technical, financial, and legal aspects involved in interconnection of telecommunications networks
 - To analyze the competence of the regulation organizations regarding interconnection.
 - To identify the key aspects to be considered in interconnection processes
 - To identify the principal factors affecting interconnection prices
 - To study the main features of interconnection contracts

On completion of the course, participants will be able to identify the main factors involved in initiating a process among fixed and mobile operators for interconnection of telecommunications networks, and the type of regulation existing in this area. They will also be able to identify the essential elements of an interconnection contract to be considered in entering into the respective agreements.

10) Program:

FIRST AND SECOND WEEK

The interconnection contract

- Legal nature of interconnection contracts
- Elements of interconnection contracts
- Effects of interconnection contracts
- Legal effects of basic interconnection offer or reference interconnection offer
- Legal characteristics of mandatory imposition of interconnection (servitude)

THIRD AND FOURTH WEEK

I. Legal Aspects

- Competence of the regulating body to settle disputes
- Case study. Application of access charges per capacity

II) Technical Aspects

Offer of unbundled network elements.

Case study 1: Size of interconnection networks between telephone service operators

Case study 2: Criteria for network sizing for indemnity acknowledgment when interconnection links are removed

III) Financial Aspects

Determination of regulated interconnection prices in an open scenario. A bottoms-up model
Elements of negotiated access fees

FIFTH AND SIXTH WEEK

Interconnection prices and access, and depth study of competition in the telecommunications industry (price and tariff models)

- Introduction: Interconnection, interconnection prices and in depth study of the competition
- Fundamental aspects to determine interconnection prices: Basic principles
- Interconnection services, objective of costs and prices: generic categories
- Definition of interconnection prices: General Structure of the Bottom-up model
- Building the cost models for telecommunication networks: Design of the basic fixed telephony network, consideration of operational costs, year round costs of capital of operational costs, mark-up calculation, differential interconnection prices calculation, strengths and weaknesses of the bottom-up model

11) Methodology:

The online course will take place over a six (6) week period and will be taught over the ITU e-learning WebCT platform. On a weekly basis, tutors will assist the participants accessing the Web/CT to: a) access course sessions, b) read support materials, c) download assigned exercises or activities, d) complete or continue with weekly activities or exercises, and e) post their answers for tutor's review, evaluation and clarification if necessary. In addition, each week the tutors will send the group a consolidated analysis of their answers, together with any individual

clarifications or explanations that may be necessary. The evaluation process will be based in a final evaluation and will take into account the participation in the interactive dialogue.

12) Requirements:

- a) Be a citizen or permanent resident of one of the OAS Member States (residents must send copy of valid visa), except Colombia, as this is the host country of the offering institution.
- b) Participant profile: Managers, Directors, Heads of Division, and professionals from regulatory agencies, operator companies and equipment provider companies with proven experience in strategic planning, network planning or regulatory issues. In addition, the participant must have basic knowledge of network interconnection.
- c) Candidates must have at least three years' experience in the sector.
- d) The application request must include an e-mail address. Applications that do not include an e-mail address will not be considered.
- e) Participants must have access to computers and an Internet connection, subject to the following technical specifications:
 - **Computer:** Must be able to use the latest browsers. A 486 (or its equivalent on Apple or Unix) with at least 32 Mbytes of RAM is recommended.
 - **Internet Access:** Candidates must have access to the Internet from their home or workplace. The minimum acceptable modem speed is 28.8 kbps.
 - **Browser:** The choice of browser is very important. The e-learning platform requires a browser that can run Java and JavaScript. That option must be enabled in your browser. For best results use either Netscape 3.0, 4.0 or Internet Explorer 4.0. You can download the latest versions of these browsers from:
<http://home.netscape.com/computing/download/index.html>
<http://www.microsoft.com/windows/ie/default.asp>
 - **Office Software:** In order to access and view course contents you must have installed in the computer the following applications:
 - WinWord viewer <http://support.microsoft.com/default.aspx>
 - Adobe Reader <http://www.adobe.com/support/downloads>.
- f) Present complete application by deadline established by the ONE¹ in their respective country.

13) Benefits:

CITEL/OEA will provide full tuition costs for enrollment in the course for selected candidates.

14) Responsibility of the selected candidates:

Once the candidates are selected, they should accept the scholarship and confirm with CITEL that he/she will be available to take the course in the period indicated and under study conditions to be determined in due course.

The student will be required to cover all costs incurred in securing access to this equipment and all communications fees (Internet access and electronic mail).

In the event that a candidate accepts the scholarship but cannot take the course, for whatever reason, he/she must immediately advise the tutor and CITEL so that they can take further action.

15) Certification:

CITEL/OEA, the ITU Center of Excellence for the Americas Region and ACIEM will present the participants with a certificate on their successful completion of the course.

¹ The deadline for presentation of applications to the National Liaison Organizations (ONE) differs from one country to another, therefore, it must be confirmed by the corresponding ONE in the country of origin or permanent residence of candidate.

16) Presentation of Candidates Applications:

The requests for scholarships should be presented to the OAS General Secretariat of the OAS, using OAS Form 98, including the requested documents, through the National Liaison Organizations (ONE) established by the government in each country.

The following is the list of ONEs in the OAS Member States:

<http://www.educoas.org/portal/es/becas/ones.aspx?culture=es&tabindex=9&childindex=13>

The OAS Form 98 may be obtained through the Offices of the General Secretariat of the OAS In the Member States, or in the following link:

<http://www.educoas.org/portal/es/becas/formularios.aspx?culture=es&tabindex=9&childindex=12>

Please take into account this announcement is published in the languages of instruction of the course and is available at the fellowships web page: <http://www.educoea.org>.

Any question regarding the presentation of applications for this course may be directed to: scholarships@oas.org.

Regards,

Santos Mahung,
Director
Department of Scholarships and Training

C.c.: Course Coordinator
Course Mission
File Course

SGutiérrez-Olmedo/LZea-Yonker/DST/Interconexión de Redes, inglés/CITEL/2004