



**ORGANIZATION OF AMERICAN STATES**  
**Inter-American Telecommunication Commission**

**X MEETING OF PERMANENT CONSULTATIVE COMMITTEE I:  
PUBLIC TELECOMMUNICATION SERVICES**  
**June 28 to July 2, 1999**  
**Cartagena de Indias, Colombia**

**OEA/Ser.L/XVII.4.1**  
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**FINAL REPORT**

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## FINAL REPORT

### TENTH MEETING OF PERMANENT CONSULTATIVE COMMITTEE I: PUBLIC TELECOMMUNICATION SERVICES

The Tenth Meeting of the Permanent Consultative Committee I: Public Telecommunication Services was held in Cartagena de Indias, Colombia, June 28 to July 2, 1999.

#### I. AGENDA<sup>1</sup>

1. Approval of the Agenda.
2. Establishment of the Working Groups of the Meeting.
3. Presentation and Evaluation of Working Group and Ad Hoc Working Group Reports on:
  - a. Standards Coordination;
  - b. Network Modernization and New Services;
  - c. Certification Processes;
  - d. Basic and Universal Telecommunications Services;
  - e. Development of Human Resources;
  - f. Study of Global Information Infrastructure.
  - g. International Telephone Services Accounting Rates
  - h. Preparation for the ITU World Telecommunication Standardization Assembly
  - i.
4. Conclusions, Resolutions and Recommendations of the Working Group and Ad Hoc Working Group Meetings on:
  - a. Standards Coordination;
  - b. Network Modernization and New Services;
  - c. Certification Processes;
  - d. Basic and Universal Telecommunications Services;
  - e. Development of Human Resources;
  - f. Study of Global Information Infrastructure.
  - g. International Telephone Services Accounting Rates
  - h. Preparation for the ITU World Telecommunication Standardization Assembly.
5. Other Matters.
6. Approval of the Summary Minutes of Plenary Sessions.
7. Approval of the Final Report.

#### II. MEETING AUTHORITIES<sup>2</sup>

Chairman:

Mrs. Claudia de Francisco  
Minister of Communications of Colombia

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<sup>1</sup> Document PCC.I/doc.754/99 (original=Spanish)

<sup>2</sup> Document PCC.I/doc.807/99 (original=Spanish)

Alternate Chairman: Mr. Felix Castro  
Chief of International Affairs Office  
Ministry of Communications, Colombia

Executive Secretary: Mr. William Moran  
Executive Secretary of CITEL, OEA

Drafting of the Final Report:  
Chairman: Mr. William Poveda (Colombia)  
Members: Mr. William McCrum (Canada)  
Ms Judy Herrman (USA)  
Mr. José Pirrone (Venezuela)

### **III. RESOLUTIONS**

#### **PCC.I/RES. 58 (X-99)<sup>3</sup>**

#### **SEMINAR ON INTERNATIONAL TELEPHONE SERVICE COST METHODOLOGIES AND SCHEMES**

The Tenth Meeting of the Permanent Consultative Committee I: Public Telecommunication Services,

#### **WHEREAS:**

- (a) Integration and liberalization processes have motivated the need to draft a common scheme for an international telephone service cost structure;
- (b) Administrations participating in this meeting expressed their support for a seminar on International Telephone Service Cost Methodologies and Schemes for the Americas; and
- (c) There is presently a delay in fixing a common position on the drafting of an international telephone service cost model.

#### **RESOLVES:**

1. To hold a Seminar on International Telephone Service Cost Methodologies and Schemes for the Americas during the Eleventh Meeting of PCC.I to be held in Buenos Aires, Argentina, from the 25-29 October, 1999.
2. To urge all CITEL members to participate in the presentation of said Seminar.
3. That the Seminar Coordinator will be the topic rapporteur.

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<sup>3</sup> Documento PCC.I/doc.845/99 (original=Español)

**PCC.I/RES. 59 (X-99)<sup>4</sup>**

**SURVEY ON THE PROCESS FOR EVALUATING CONFORMITY, CERTIFICATION  
AND MUTUAL RECOGNITION AGREEMENTS APPLIED BY CITEL MEMBERS TO  
TELECOMMUNICATIONS EQUIPMENT**

The Tenth Meeting of the Permanent Consultative Committee I: Public Telecommunication Services,

**WHEREAS:**

- (a) PCC.I, in its Decision PCC.I/Dec.13 (VIII-98), decided to form a Rapporteur Group within the Ad Hoc Group on Certification Processes to prepare a Draft Model Agreement for establishing a Mutual Recognition Agreement/Arrangement for Evaluating Conformity and Certification of Telecommunications Equipment for CITEL's Member Nations;
- (b) During the Ninth (IX) Meeting of PCC.I, an analysis and decision were made that a need exists to up-date information that PCC.I's Ad Hoc Group on Processes for Certification collected from CITEL's Member Nations on their processes for Certification and Evaluation of Conformity because, since then, regulatory and certification processes have changed drastically in a large number of CITEL's Member Nations; and
- (c) The meeting of the Senior Telecommunication Officers that CITEL coordinated and that was held in September 1996 in Washington, D.C., decided to adopt the **"Guidelines for Certification of Telecommunications Equipment proposed by CITEL"** and agreed to entrust CITEL with the development of proposals for adopting and establishing those guidelines in every country in Latin America, as well as the development of a Draft MRA Model to be applied in the spirit of FTAA and that this task was assigned to the Ad Hoc Group on Certification Processes and MRA.

**BEARING IN MIND:**

- (a) The Ad Hoc Group on Certification Processes and MRA agreed in its PCC.I/Doc.729/98 Attachment 3, on a *"Survey to collect and up-date information on Processes for Evaluating Conformity and Mutual Recognition Agreements applied by CITEL Member States to Telecommunications Equipment"*;
- (b) Item 3 of the Report on the meeting of the Ad Hoc Group, written during the IX Meeting of PCC.I, contained in document PCC.I/Doc.729/98 requested CITEL's Executive Secretary to distribute the Survey contained in ATTACHMENT 3 of the afore-referenced document, and the designation of Volunteer Coordinators who would be responsible for verifying and encouraging the collection of the responses to the survey; and

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<sup>4</sup> Document PCC.I/doc.776/99rev2 (original=Spanish)

- (c) The number of responses obtained since that meeting is minimal and some CITEL Administrations state that they have not received or noticed the survey, because it is integrated into document PCC.I/Doc.729/98, which is distracting and, therefore, they have not responded.

**RESOLVES:**

1. To redistribute the “*Survey to collect and up-date information on Processes for Evaluating Conformity and Mutual Recognition Agreements applied by CITEL Member Nations to Telecommunications Equipment*” included in ATTACHMENT 1 of this resolution.
2. To recognize and thank the Volunteer Coordinators agreed on by the Ad Hoc Group on Certification Processes, as recorded in document PCC.I/Doc.729/98, item 3, for their work, and ask them to continue their valuable tasks of coordination and encouragement.
3. To instruct CITEL’s Executive Secretary to re-send the survey contained in ATTACHMENT I of this Resolution to all CITEL Member States, taking special care that it is preceded by a brief letter wherein the importance and urgency of responding to the survey is stressed. The mailing should also include an invitation to every Member State to name Delegates who will actively participate in the work of the Ad Hoc Group on Certification Processes and Mutual Recognition Agreements, because of the regulatory and commercial importance and impact that the results of this Ad Hoc Group may have on each of them, and on all CITEL Members.

**ATTACHMENT 1** contains the “*Survey to collect and up-date information on Processes for Evaluating Conformity and Mutual Recognition Agreements applied by CITEL Member Nations to Telecommunications Equipment.*”

**ATTACHMENT 1**

**SURVEY TO COLLECT AND UP-DATE INFORMATION ON PROCESSES FOR  
EVALUATING CONFORMITY AND MUTUAL RECOGNITION AGREEMENTS  
APPLIED BY CITEL MEMBER STATES TO TELECOMMUNICATIONS  
EQUIPMENT**

1. What are the legal bases (laws, regulations, codes, or other legal instruments) for regulating the Evaluation of Conformity of Telecommunications Equipment in your country?
2. What legal developments in regulating that area are expected in your country?
3. What are the Technical Standards and Regulations applicable to Telecommunications Equipment in your country?
4. What is the official definition of “Evaluation of Conformity” used in your country?
5. What are the mandatory procedures that are applied to Evaluate Conformity of Telecommunications Equipment based on Technical Standards or Regulations?
6. What governmental and/or private entities are responsible for Evaluating the Conformity of Telecommunications Equipment in your country?
7. How are private entities accredited and/or approved for Evaluating Conformity of Telecommunications Equipment in your country?

8. What governmental and/or private entity/entities is/are responsible for accrediting and/or approving entities that Evaluate Conformity in your country?
9. What requirements must entities that Evaluate Conformity meet to be accredited and/or approved?
10. What Mutual Recognition Agreements or Arrangements of Results for Evaluation of Conformity of Telecommunications Equipment are signed and in effect in your country? If your response is positive, what countries or economic groups have them and what have the results been to date?
11. What Mutual Recognition Agreements or Arrangements of results for Evaluation of Conformity of Telecommunications Equipment are currently being negotiated in your country? With what countries and how advanced are the negotiations?
12. Please include and define any terms not found in “**ISO Guide 2**”, that are applied and required by Technical Regulations and the processes for Evaluating Conformity of Telecommunications Equipment in your country.
13. When is your government ready to participate in the Phase I and II procedures of the Inter-American MRA? Indicate the date on which your government will complete each phase.

**PCC.I/RES. 60 (X-99)<sup>5</sup>**

**INFORMATION FOR THE BOOK ON UNIVERSAL SERVICE IN THE AMERICAS**

The Tenth Meeting of the Permanent Consultative Committee I: Public Telecommunication Services,

**WHEREAS:**

- (a) Resolution PCC.I/RES.45 (VIII-98), adopted at the Eighth Meeting of Permanent Consultative Committee I: Public Telecommunications Services (CITEL), calls for a book on universal service in the Americas to be prepared jointly by CITEL and BDT/ITU;
- (b) Subsequently, at the Ninth Meeting of PCC.I, AHCIET participation in the project was approved by means of resolution PCC.I/RES.56 (IX-98);
- (c) In both instances, the Chairman of the Working Group on Basic and Universal Services was made responsible for coordinating progress in this respect, in conjunction with the PCC.I Chair and the Executive Secretariat of CITEL; and
- (d) The objective outlined in point one of the terms of reference (PCC.I/RES/45 (VIII-98)) is to gather the required information through the questionnaire referred to in resolution PCC.I/RES.36 (VI/97).

**CONSIDERING:**

- (a) That ITU involvement has allowed two BDT/ITU experts to collect information currently available on this topic at BDT/ITU, to analyze replies to CITEL surveys on the subject and

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<sup>5</sup> Document PCC.I/doc.812/99rev1 (original=Spanish)

to review legislation, decrees, rulings and reference documents corresponding to some CITEL member countries, tasks that continue to date;

- (b) The General Secretariat of AHCIET has been consulted and will furnish the material said organization has acquired on the topic, based on its work and the requirements formulated by the GTSByTU;
- (c) Thanks to support received by GTSByTU from the PCC.I Chair and the Executive Secretariat of CITEL, two experts were contracted to help write the book: one for the Andean Community and another for the Caribbean;
- (d) The replies to the questionnaire provided for in resolution PCCI/RES.36 (VI-97) are those listed in Attachment I of the briefing document submitted by the Group Chair and were presented at the VII, VIII and IX Meetings of PCC.I, as per the documents noted in the table of said attachment; and
- (e) Completion of the work and effective benefit from the efforts of participating organizations require that all the information be up-to-date.

**RESOLVES:**

1. To urge CITEL members who did not submit information to answer the questionnaire provided for in item 2 of the decisory clause in resolution PCCI/RES.36 (VI-97).
2. To invite CITEL members who filled out the questionnaire to send supplementary information updating their original response, if applicable.
3. To ask the CITEL members referred to in preceding sections a) and b) to submit their replies by no later than 23 July 1999.
4. To determine that preparations for the Book on Universal Service in the America be developed according to the Action Plan submitted by the Chair of the Working Group on Basic and Universal Service, respecting the approximate deadlines established therein.

**PCC.I/RES. 61 (X-99)<sup>6</sup>**

**FORMATION OF AN AD HOC GROUP ON THE STRATEGIC ANALYSIS OF PCC.I**

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<sup>6</sup> Document PCC.I/doc.819/99 (original=Spanish)

The Tenth Meeting of the Permanent Consultative Committee I: Public Telecommunication Services,

**CONSIDERING:**

The indication by the PCC.I Chairperson concerning the need for an in-depth study of the Committee, its objectives, the efficiency of its working methods and the effectiveness of its results, so as to align them with the needs of the information era and, thus, enable PCC.I to help all OAS Member States and their citizens to become part of this new economic and social order in which telecommunications sector is a fundamental and strategic element;

**RESOLVES:**

1. To form an Ad Hoc Group to do a strategic analysis of PCC.I and to prepare the documents on planing and structural modificactions as required.
2. To ask said Ad Hoc Group to work in close coordination with the chairpersons, aVice-chairpersons and rapporteurs of the working groups.
3. To ask the Group in question to report on its activities at the XI Meeting of PCC.I.
4. To appoint Ms. Marian Gordon of the United States Administration as Chairperson of the Ad Hoc Group on the strategic analysis of PCC.I.

**INVITE ALL PCC.I MEMBERS:**

To contribute to the work of the Ad Hoc Group.

**PCC.I/RES. 62 (X-99)<sup>7</sup>**

**ESTABLISHMENT OF A COORDINATION ON THE SUBJECT OF  
TELECOMMUNICATIONS OVER IP**

The Tenth Meeting of the Permanent Consultative Committee I: Public Telecommunication Services,

**CONSIDERING:**

The impact of telecommunications over IP in all countries of the region;

**RECOGNIZING:**

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<sup>7</sup> Document PCC.I/doc.820/99 (original=Spanish)

The need to study the implications of this topic in the work that must be performed by PCC.I in support of the definition of regulatory and standardization processes that may be adopted by the Member States;

**RESOLVES:**

1. To establish a coordination mechanism to study how PCC.I will deal with the subject of Telecommunications over IP;
2. To ask the coordinator to present a report on the results at the next meeting of PCC.I; and
3. To appoint Mr. Sergio Martínez, President of CCIT-Colombia, as coordinator.

**URGES THE MEMBERS OF PCC.I AND THE CHAIRPERSON OF THE WORKING GROUPS:**

1. To participate actively in the work performed by the coordinator.
2. To answer promptly the ITU questionnaire prepared, included in PCC.I/doc.785/99.

**PCC.I/RES. 63 (X-99)<sup>8</sup>**

**UPDATING OF THE BLUE BOOK ON TELECOMMUNICATION  
POLICIES IN THE AMERICAS**

The Tenth Meeting of the Permanent Consultative Committee I: Public Telecommunication Services.

**WHEREAS:**

- a)* The Blue Book was prepared jointly by CITELE and ITU in accordance with Resolution AM-RTDC/92 N° 1, which was adopted at the Regional Conference on Telecommunication Development in the Americas (Acapulco, 31 March - 4 April 1992) in line with Program I of the Buenos Aires Action Plan (PABA).
- b)* In March 1996, the first edition of the Blue Book was circulated by CITELE and BDT/ITU to all ITU members in the Americas and to all regional and sub-regional organizations.
- c)* Resolution COM/CITELE RES. 79 (VII-98) approved updating the blue book "Telecommunication Policies for the Americas", in conjunction with the International Telecommunication Union.

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<sup>8</sup> Document PCC.II/doc.823/99 (original=Spanish)

- d) Said resolution gives the Chair of COM/CITEL responsibility for coordinating efforts with the ITU Development Office to find the best way to update the book.

**CONSIDERING:**

- a) The extreme importance of providing the Member States with an updated document on telecommunication policies for the Americas that would allow them to adapt effectively to the changing environment in the field of telecommunications;
- b) That the ITU Regional Office for the Americas has indicated it plans to contract an expert in telecommunication policies to update the aforementioned blue book; and
- c) That the consultant contracted by ITU should work together with CITEL in performing this assignment.

**RESOLVES:**

1. To appoint the PCC.I Chair as the contact with the ITU Regional Office for the Americas in order to update the Blue Book on topics dealing with Public Telecommunication services.
2. Instruct the Executive Secretariat to work on a tentative work program together with the ITU Regional Office.
3. Ask the ITU Regional Office for the Americas to submit a progress report at the XI PCC.I meeting.

**INVITES ALL PCC.I MEMBERS :**

To play an active role in these activities.

**PCC.I/RES. 64 (X-99)<sup>9</sup>**

**CREATION OF A WORKING GROUP TO PROMOTE  
GLOBAL INFORMATION INFRASTRUCTURE IN THE AMERICAS (CTPIGIA)**

The Tenth Meeting of the Permanent Consultative Committee I: Public Telecommunication Services,

**CONSIDERING:**

- (a) The need for economic integration and access to services;
- (b) The need for access to and an exchange of information ;

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<sup>9</sup> Document PCC.I/doc.825/99rev1 (original=Spanish)

- (c) That the Global Information Infrastructure, based on international standards insofar as possible, is the mechanism that lends viability to development of the afore-mentioned points;
- (d) That the work performed to date by the Working Group on Network Modernization and New Services and the Ad -Hoc Group to Study Global Information Infrastructure shows the need to provide member countries with guidelines for opportune decision-making on new technologies;
- (e) Due to technological convergence the terms of reference for the Working Group on Network Modernization and New Services and the Ad -Hoc Group to Study Global Information Infrastructure can coincide; and
- (f) That the Administrations have not yet submitted contributions to one of the mentioned groups and it is necessary to adjust the PCC.I structure.

**RESOLVES:**

1. To create the Working Group to Promote Global Information Infrastructure in the Americas (GTPIGIA) by merging the Group on Network Modernization and New Services with the Ad -Hoc Group to Study Global Information Infrastructure.
2. The Mission and Terms of Reference of this new group shall be:

***Mission:***

To promote the conditions necessary for the countries in the Americas to develop Global Information Infrastructure and reap its benefits.

***Terms of Reference:***

- (a) To collaborate with the member countries in order to define the minimum telecommunications infrastructure and increase the penetration of telecommunication services in the Region.
- (b) To formulate regulatory guidelines to enhance interconnection of networks and interoperability of services in the Americas, taking into account the regional standardization work being carried out by the Working Group on Standards Coordination.
- (c) To identify the new technologies in telecommunications networks and the services and applications derived from them, to draft policy proposals for consideration by PCC.I, seeking to implement such systems, services and applications in the region at the earliest possible date.
- (d) To collaborate with member countries, with other CITELE working groups, and with any other appropriate organization, to promote the flexibility in the existing networks so as to adapt to new telecommunication technology and guarantee the development of the Global Information Infrastructure in the Americas.
- (e) To formulate prototypes that allow for an understanding of the GIIA framework and help to detect the elements necessary for its composition.

2.- To appoint Mr. José Pirrone of the Administration of Venezuela as Chair of the Working Group, Mr William Mc Crum of the Administration of Canada, and Mr. Enrique Diaz Ceron of the Administration of Mexico as Vice-chairmen of the Working Group.

3.- The first task of this group will be to conclude the work plan of the Ad Hoc Group for the Study of the Global Information Infrastructure, which has been absorbed by this new group.

4.- Instruct the Executive Secretariat to advise all CITELE members on the creation of this group, so they may submit their contributions and suggestions in the interests of establishing a new work plan for the next PCC.I meeting.

5. Instruct the Executive Secretariat to send a communiqué to Mr. Roderick Sanatan thanking him for his work as Chairman of the Working Group on Network Modernization and New Services.

### **PCC.I/RES. 65 (X-99)<sup>10</sup>**

#### **INTELLIGENT NETWORKS Capability Set 2**

The Tenth Meeting of the Permanent Consultative Committee I: Public Telecommunication Services,

#### **CONSIDERING:**

- (a) That Resolution PCC.I/Res.27 (V-96) Intelligent Networks was accepted at the fifth meeting of PCC.I in Lima, Peru in 1996;
- (b) That the Second Summit of the Americas in Santiago, Chile in 1998 identified Intelligent Networks as a continued priority for the region of the Americas;
- (c) That Intelligent Networks have become more widely deployed throughout the Americas; and
- (d) IN provides a functional architecture for many advanced capabilities and must interwork with Wireless and Data Networks.

#### **RECOGNIZING:**

- (a) That interest in the application of IN continues to grow within the region of the Americas;
- (b) That the services supported by an IN promote the harmonization and interoperability of networks and administrations within the Region;
- (c) That guidance from PCC.I Members and Associate Members strongly suggests the support of continued IN evolution through international standards; and

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<sup>10</sup> Document PCC.I/doc.827/99 (original=Spanish)

- (d) That the ITU-T approved the IN Capability Set – 2 (Q.122x) series of recommendations in 1997.

**RESOLVES:**

PCC.I endorses the ITU-T Intelligent Network Capability Set 2 (1997), Q.122x series of Recommendations.

**RECOMMENDS:**

- (a) That the WGSC continues to monitor and determine the applicability for the Americas of the ITU-T IN recommendations as they evolve (*e.g.* CS-3, CS-4).
- (b) That the WGSC evaluates evolution options to facilitate inter-networking of IN based services between Member States,
- (c) That the WGSC continues to evaluate the service needs of the Americas and provide implementation options based on the ITU-T IN recommendations, in particular, Number Portability and inter-operability with Data Networks should be addressed by the WGSC.

**ANNEX**

**INTELLIGENT NETWORK  
COORDINATED STANDARDS DOCUMENT**

**1. EXECUTIVE SUMMARY**

The Intelligent Network (IN) Rapporteur Group continued to study IN as it relates to the needs of the Americas. The Rapporteur Group recommends that PCC.I endorse the ITU-T IN Capability Set 2 (IN CS-2) series of recommendations (Q.122x) for the Americas.

In September 1996 the IN Rapporteur Group concluded the first phase of work on IN standards recommendations. The work had been requested by the Heads of State at the first Summit of the Americas, COM/CITEL Resolution (II-94). PCC.I subsequently approved resolution PCC.I/RES.27 (V-96) that recommends the ITU-T IN Capability Set 1 (IN CS-1) Recommendations (Q.121x) and appropriate subsets for use in the Americas.

It is important to understand that the IN architecture is continually evolving. This fact was acknowledged by the ITU-T when Capability Sets (CS) were defined for the study of IN. Since the PCC.I endorsement of ITU-T IN CS-1, work has progressed in the area of IN. In 1997 the ITU-T completed work the IN CS-2 series of recommendations (Q.122x). Work in the ITU-T continues on the IN CS-3 series of recommendations.

As the work in the ITU-T progresses, so too the needs of operators and service providers evolve. Recognizing this, the Heads of State during the second Summit of the Americas once again instructed CITEL, “with some urgency,” to continue the work of the IN Rapporteur Group in studying the standards coordination aspects of the telecommunications infrastructure.

In this spirit, the IN Rapporteur Group continued to study IN as it relates to the needs of the people of the Americas. The group monitored the work of the ITU-T and regional standards bodies. Information was discussed during each meeting of the PCC.I. Once again the group used a survey to solicit guidance from Members and Associate Members. The result of the group's work is a recommendation that PCC.I endorse the ITU-T IN CS-2 (Q.122x) series of recommendations for the region of the Americas.

## **2. GUIDE TO DOCUMENT**

This document is based on the first Resolution and annexed CSD for Intelligent Networks, PCC.I Res/27(V-96). The reader is referred to that document for a more complete understanding of the activities of the IN Rapporteur Group.

Section 3 of this document describes the contributions and discussions leading up to this second Resolution and CSD for IN. Section 4 presents the conclusions and section 5 suggests future work to be addressed by the group.

## **3. BACKGROUND**

Prior to the completion of ITU-T Capability Set 1 (IN CS-1), the ITU-T had started the work on IN Capability Sets 2 (IN CS-2) and Capability Set 3 (N CS-3). This work was driven by contributions from Study Group participants and the activities of regional bodies such as T1S1 in the United States and ETSI in Europe. The goal was to continue to meet the needs of regulators, network operators, service providers and customers by evolving the recommendations so as to support new services and capabilities.

Of primary importance in IN CS-2 is the Call Party Handling (CPH) functionality. This functionality allows the SCP service logic to manipulate the topology of a call. Call segment legs may be added to calls and dropped from calls. Call segments may be joined together or split apart.

ITU-T IN CS-2 provides additional enhanced capabilities that will allow IN to support advanced services. IN CS-2 supports non-call associated signaling that would allow the SCP and customer premise equipment, for example, to communicate. IN CS-2 also provides enhanced security features through the use of X.500 procedures. IN CS-2 supports Service Data Function (SDF) to SDF interworking and Service Control Function (SCF) to SCF interworking, providing distributed service logic. Finally, new user interaction services are provided through enhanced Specialized Resource Function (SRF) capabilities.

Recognizing the importance of the ITU-T IN CS-2 Recommendations, ETSI and T1S1 contributed extensively to the work in creating the Q.122x series of recommendations. Simultaneously both bodies evolved their regional standards to include those portions of CS-2 deemed important in their respective regions.

The IN Rapporteur Group monitored and discussed these activities. While IN was just beginning to emerge within the region, keeping abreast of international standards was an agreed upon priority. Active participants directed the group towards an endorsement of the ITU-T IN CS-2 Recommendations. Doing so will allow network operators and service providers to provide new and enhanced services supported by IN CS-2.

#### **4. CONCLUSIONS**

The IN Rapporteur Group recommends the endorsement of the ITU-T IN CS-2 series of recommendations, Q.122x, by the Members and Associate Members of CITELE PCC.I. Furthermore, the group recommends that Q.122x be accepted with no deletions, additions or modifications to the normative references listed here:

- ITU-T Recommendation Q.1221 (09/97) - Introduction to Intelligent Network Capability Set 2
- ITU-T Recommendation Q.1222 (09/97) - Service Plane for Intelligent Network Capability Set 2
- ITU-T Recommendation Q.1223 (09/97) - Global Functional Plane for Intelligent Network Capability Set 2
- ITU-T Recommendation Q.1224 (09/97) - Distributed Functional Plane for Intelligent Network Capability Set 2
- ITU-T Recommendation Q.1225 (09/97) - Physical Plane for Intelligent Network Capability Set 2
- ITU-T Recommendation Q.1228 (09/97) - Interface Recommendation for Intelligent Network Capability Set 2
- ITU-T Recommendation Q.1290 (05/98) - Glossary of Terms Used in the Definition of Intelligent Networks

#### **5. FUTURE WORK**

Keeping with the intent of recent work, the IN Rapporteur Group will continue to monitor the work of ITU-T Study Group 11, T1S1 and ETSI SPS3. The results of their work that has benefit for CITELE Member States will be incorporated as appropriate.

The IN group will also lead the effort in studying the Number Portability issue in the Americas. The group will coordinate a workshop in 1999 and solicit input from service providers, carriers and regulators to assist in making a recommendation to CITELE.

#### **6. RESOURCE DOCUMENTS**

- [1] "Resolution - Intelligent Networks" PCC.I/RES.27(V-96), Lima, Perú, 9 – 13 September 1996.
- [2] "Introduction to Wireless IN (WIN)" PCC.I/doc.379/97, Asuncion, Paraguay, 28 July 1997.
- [3] "Proposed 1998 Workplan" PCC.I/doc.435/97rev1, Foz do Iguacu, Brazil, 13 October, 1997.
- [4] "Discussion: An Overview of IN Standards Activities" PCC.I/doc.436/97, Foz do Iguacu, 13 October 1997.
- [5] "Discussion: ITU-T IN CS-2/IN CS-3 Capabilities and Services" PCC.I/doc.437/97, Foz do Iguacu, 13 October 1997.
- [6] "IN Related Questionnaire" Attached to the Report of PCC.I, Foz do Iguacu, 17 October 1997.
- [7] "Proposed Workplan for the IN Rapporteur Group" PCC.I/doc.560/98, Cartagena de Indias, Colombia, 29 June 1998.

[8] "Proposal: An Updated IN Resolution and CSD" PCC.I/doc.671/98, Cartagena de Indias, 29 June 1998.

[9] "IN CS-2 Overview" PCC.I/doc.672/98, Cartagena de Indias, 29 June 1998.

[10] "Report of the Activities of the IN Rapporteur Group" PCC.I/doc.721/98, Cartagena de Indias, 3 July 1998.

### **PCC.I/RES. 66 (X-99)<sup>11</sup>**

#### **NEW VISION OF TELECOMMUNICATIONS WITHIN CITEL**

The Tenth Meeting of the Permanent Consultative Committee I: Public Telecommunication Services,

#### **WHEREAS:**

- (a) The Secretary General of the Organization of American States (OAS) recently published a document outlining the need to revise and update the OAS vision, based on the impact of new telecommunication technologies and real needs of the Member Countries;
- (b) The Heads State and Government of the Member States attending the Second Summit of the Americas entrusted the OAS with new responsibilities and commitments to develop and coordinate telecommunications within the region;
- (c) Some of the telecommunication responsibilities entrusted to the OAS at the Second Summit of the Americas were, in turn, transferred to the Inter-American Telecommunication Commission (CITEL), as set out in PCC.I/doc.764/99 entitled "Follow-up on Activities of the Summit of the Americas";
- (d) CITEL has complied fully and promptly with all telecommunication requirements and actions requested by the OAS, starting with those received at the First Summit of the Americas; and
- (e) The Senior Telecommunication Officials meeting in September 1996 adopted and endorsed the resolutions, recommendations and guidelines published by CITEL in response to the mandates it received; CITEL immediately began work on the new tasks entrusted to it in the Action Plan and Declaration of Principles adopted at the same meeting.

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<sup>11</sup> Document PCC.I/doc.836/99 (original=Spanish)

## **CONSIDERING:**

- (a) That as a result of the Second Summit of the Americas, the governments agreed on a series of new mandates, including the following:
- Establish strategies to support the development and continuous updating of a regional telecommunications infrastructure plan, taking into account national plans, the need for universal access to basic telecommunications services throughout the Region, and the evolution of the Global Information Society.
  - Work together in close cooperation with the private sector to rapidly build out the telecommunications infrastructure in the region, adopting strategies to make affordable access available to all for basic telephone service and the INTERNET, such as implementing the Inter-American Telecommunication Commission (CITEL) guidelines on value-added services and encouraging the development of community information service centers that provide access to basic telephone and value-added services, computers, the INTERNET and multimedia services bearing in mind the diverse needs of the countries of the Region and divergent levels of development;
  - Promote, in cooperation with the private sector, the exchange and distribution of information concerning regulatory matters such as universal access/service, interconnection and the establishment of independent regulatory bodies, taking into account the commitments made in the World Trade Organization's Agreement on Trade in Basic Telecommunications Services (the GBT Agreement), developments in the Free Trade Agreement of the Americas process, and the Declaration and Action Plan adopted by the 1996 Senior Telecommunications Officials Meeting held in Washington, D.C., with a view to developing, wherever possible, and subject to national constraints, best practice guidelines, and requesting when needed the assistance of CITEL, regional telecommunications organizations, the International telecommunication Union (ITU), the Inter-American Development Bank (IDB) and others as appropriate.
  - Foster, together with the private sector, the development of applications over electronic networks, such as the INTERNET, broadcast television and radio which, taking into account different socio-economic conditions and languages, will support education, health, agriculture and sustainable rural development, electronic commerce and other applications assisting small savers, Micro-Enterprises and Small and Medium-sized Enterprises (SMEs), and modernization of the State.
  - Encourage CITEL to address, as a matter of urgency, studies of standards coordination aspects of telecommunications infrastructure, including the areas of Telecommunication Management Network (TMN) and Intelligent Networks (IN) so that the network can evolve to meet the interconnection requirements and to support the implementation of new applications in the regional context.
  - Continue to examine ways to develop consistent regulatory approaches among member countries leading to the promotion of greater commonality in the certification processes for telecommunications equipment and to the establishment of a framework for a Mutual

Recognition Agreement (MRA) and to move toward the negotiation and implementation of such an agreement for telecommunications equipment encompassing all the countries of the Region.

- (b) That the OAS has fulfilled these mandates, as indicated in PCC.I/doc.764/99 of the Tenth Meeting of PCC.I; and
- (c) That at the First Plenary Session of the Tenth Meeting of PCC.I, Mexico was assigned responsibility for the preparation of a draft document describing The New Vision of the OAS and of CITELE, and particularly of PCC.I on telecommunications for the new millennium. This new vision will include activities, the achievements and mandates accomplished over the past five years and a view of the telecommunications sector, highlighting its importance to the countries of the region in terms of their economic, political and social development. The document will be submitted to the Secretary General of the OAS for consideration and used to draft the **“New OAS Vision of Telecommunication Sector”**.

#### **RESOLVES:**

1. To send the Secretary General of the Organization of American States a copy of the document entitled **“The New Vision of Telecommunications within the OAS”**, which is attached to this resolution.
2. Assign the Executive Secretary of CITELE the responsibility of fulfilling this resolution, by submitting a copy of the attached document to the Secretary General of the OAS along with a letter of introduction from the PCC.I Chairperson explaining its nature and scope.

#### **ATTACHMENT**

##### **THE NEW VISION OF TELECOMMUNICATIONS WITHIN THE ORGANIZATION OF AMERICAN STATES**

This document is submitted to the Secretary General of the Organization of American States (OAS) by the Inter-American Telecommunication Commission (CITELE) to bring to his attention the important impact of telecommunications on the economic, political and social development of the region. The telecommunications sector is clearly one of the most significant in terms of the way it affects the economy, education, trade, finance and, in general, overall development in countries of the region. It also represents a major challenge and opportunity.

By acknowledging that telecommunications are an essential component of a country's development and that our region has pressing needs in this respect, governments are focusing on hemispheric telecommunications, as expressed in the mandates the OAS received in December 1998 at the Summit of the Americas. These mandates emphasize regional development of telecommunication infrastructure, access to universal telecommunication service, development of the information

society, global information infrastructure and its value-added services such as Internet, telemedicine, distance education (tele-education) and electronic trade, among others, through strategies that will make reasonably-priced telecommunication services available to all. This will be accomplished through a joint effort on the part of the private telecommunication sector and the Inter-American Telecommunication Commission (CITEL), for the benefit of all members of our societies.

The Organization of American States (OAS) has charged the Inter-American Telecommunication Commission (CITEL) to address these and other related issues. Work of significant benefit to the countries of the region has been accomplished in this respect during the last five years, thus complying with the mandates received and establishing plans and programs for the continued development of telecommunications in the Americas, covering at least the next five years. The following shows how CITEL has made a major contribution to the development of telecommunications in the region.

## **A. CITEL ACHIEVEMENTS**

### **COOPERATION WITH PRIVATE COMPANIES AND ORGANIZATIONS**

- Creation and consolidation of **“associate membership”**, which allows private telecommunication companies to participate. This results in a final and more dynamic achievement of the tasks mandated to CITEL and allows its Member States to benefit from support and information provided by international experts, all of which contributes to a more effective and economical solution to important telecommunication needs.

### **FORA, SEMINARS AND WORKSHOPS**

- Holding telecommunications fora with seminars on topics of current interest to telecommunications in the region, featuring internationally renowned experts on each topic.

The first was held in Buenos Aires, Argentina and the second in Foz de Iguazú, Brazil. The following topics were addressed:

- Mutual Recognition Agreements for the Conformity of Telecommunication Equipment
- Global Information Infrastructure
- Coordinated Technical Standards for Intelligent Networks
- Telecommunication Network Management Systems
- Basic and Universal Telecommunication Service
- Electronic Commerce and Community Development
- Telecommunications over Internet Protocols (IP)
- Interconnection of Telecommunication Networks
- Solving the Y2K Problem
- Telemedicine Services
- Distance Education (Tele-education)

- Holding of workshops and seminars on International Roaming in the Americas, Number Portability, Single Identification Number for Wireless Service, Analysis of Systems Interference and Wireless Service, among other topics.

### **DOCUMENTS APPROVED AND ADOPTED IN THE REGION**

- Approval and adoption by CITELE Member States of seven documents on Coordinated Standards with respect to: Channel 7 Signaling (SS 7), Integrated Services Digital Networks (ISDN), Intelligent Networks, Wireless Personal Communication Systems (PCS) and Wireless Personal Communication Systems for extremely low-power applications
- Approval of guidelines for furnishing value-added services, also used by the FTAA negotiating group with respect to services
- Approval of guidelines for Certification and Assessment of the Conformity of Telecommunication Equipment
- Approval of recommendations and holding of seminars and conferences to address and resolve the Y2K problem, assuring that public telecommunication networks in the region will continue to operate smoothly at the start of the new millennium

### **PUBLICATIONS**

- Publication of the "Blue Book", which is a compilation of procedures and recommendations for telecommunication policies and regulations in the region.
- Publication of resolutions, recommendations and a compendium on Basic Universal Telecommunication Services targeted primarily to resolve regional needs in this respect, in conjunction with the International Telecommunication Union (ITU).
- Publication of resolutions and recommendations for solving rural telephone problems in CITELE Member States, by encouraging the development of networks for basic universal and value-added services to satisfy pressing regional needs in this respect.

### **COOPERATION WITH REGIONAL AND INTERNATIONAL ORGANIZATIONS**

- Encouragement for memorandums of understanding on the different satellite communication services, e.g. on GMPCS.
- Coordination for making more efficient and beneficial use of the radio electric spectrum in the region.
- Approval of resolutions and recommendations to facilitate and guarantee the interconnection and interoperability of public telecommunication networks in the region and worldwide.
- Cooperate and actively participate in preparations for the Free Trade Area of the Americas (FTAA).

- Coordinated and recognized participation in international meetings, primarily world assemblies and conferences on telecommunication standardization, radio communication and of plenipotentiaries of the ITU, successfully introducing joint positions adopted by the countries of the region, through CITEL coordination

### **ONGOING INITIATIVES**

Work is on-going with respect to recommendations and resolutions that will allow CITEL countries to have full access to international technology and services via:

- Promotion of the development of the Global Information Infrastructure in the Americas by assessing electronic commerce, by developing regulatory guidelines to enhance interconnection of networks, and by identifying and drafting proposals related to new telecommunications technologies, services, and applications.
- Telemedicine for all sectors of society, particularly needy and isolated groups.
- Distance education (tele-education) as a strategic solution to one of the most pressing needs of the Member States.
- Telecommunications over Internet Protocol (IP), mainly voice and data transmission.
- Drawing up a Mutual Recognition Agreement for Conformity Assessment of Telecommunications Equipment for the Americas (MRA) of CITEL member States to promote trade and immediate access to new technologies.
- Publication of a collection of all documents on coordinated standards approved up to the Tenth Meeting of PCC.I.
- Publication of a pamphlet on the different aspects of PCC.I: officials, structure, working and ad hoc groups, results, publications, topics and work programs.

Clearly, all CITEL Permanent Consultative Committees and Working Groups are complying fully and promptly with OAS mandates, as well as mandates and requests originating at the 1994 and 1998 Summits of the Americas. This is evident in adoption and endorsement of the resolutions, recommendations and guidelines published by CITEL, pursuant to the Plan of Action and Declaration of Principles adopted by the Senior Telecommunication Officials of the Americas at their meeting in 1996.

CITEL has held a sufficient number of meetings of both the Permanent Consultative Committees and its Working Groups, as well as its independent Working Groups. The sole objective of these meetings has been to satisfy, in due time, the mandates and requirements imposed by the development of telecommunications in the region. To date, there have been ten PCC.I meetings, three Special Meetings of its Working Groups and two Fora (75 effective meeting days). PCC.II has met on five occasions (25 effective meeting days); and PCC.III has met on twelve occasions (60 effective meeting days). Nevertheless, the wide range of topics and their complexity and urgency, could require more frequent meetings during the next five years in order to comply with regional

mandates and requirements.

## **B. VISION OF TELECOMMUNICATIONS WITHIN THE ORGANIZATION OF AMERICAN STATES**

Telecommunications in the Americas require more than just continuing with technical, regulatory and standardization work to develop networks and services. The efforts of the OAS, and therefore CITELE, in addition to current work, should extend to the technical and regulatory means whereby access to public telecommunications services would be made available to suppliers of value added, financial, educational and electronic commerce services; and other productive activities. This is essential if these suppliers are to develop their business effectively, economically and for the benefit of all socio-economic groups in countries of the region.

In pursuing its objective and mandates, over the next five years CITELE must direct its efforts and resources primarily, but not exclusively, towards:

- The continuation and conclusion of ongoing work, as per the plans and programs that each Permanent Consultative Committee has in order to meet its mandates and requirements.
- Review and adapt the topics and internal structure of the Permanent Consultative Committees in such a way as to stay abreast of the needs and progress of telecommunication services and networks in the new millennium.
- Encourage private companies to play a more active role in CITELE work, in order for it to have access to information and state-of-the art technology.
- Continue to furnish a prompt and effective response to the telecommunication needs of Member States and encourage permanent upgrading of public telecommunication networks and services for all social and economic sectors in countries of the region.

CITELE will continue to invite sub-regional telecommunications organizations in the Americas to participate in the work of its Consultative Committees. Likewise, it will continue to encourage private telecommunications companies to involve themselves more as Associate Members of its Permanent Consultative Committees.

The guidelines, mandates, objectives and needs concerning telecommunications in the region have an important impact on the CITELE work program and its budget. If it is to fulfill these requirements and maintain its leadership within the region, not to mention its reputation with other regional organizations worldwide, the number of meeting days will have to be increased, as will its activities and the resources assigned to the Executive Secretariat.

**PCC.I/RES. 67 (X-99)<sup>12</sup>**

### **REQUEST FOR INFORMATION ON TELE-EDUCATION**

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<sup>12</sup> Document PCC.I/doc.842/99 (original=Spanish)

The Tenth Meeting of the Permanent Consultative Committee I: Public Telecommunication Services,

**WHEREAS:**

- (a) The rapporteurs on Tele-education and Tele-medicine for the region (Res.48-VIII). were established at the VIII meeting of PCC.I;
- (b) The duties of both raperteurs were specified in said resolution;
- (c) Among these duties, special consideration was given to the description of tele-education experiences and projects, as well as the available hardware and software for tele-education applications developed, or being implemented in the Americas;
- (d) The Executive Secretary of CITELE requested this information from national administrations in 1998 and the Tele-education rapporteur reiterated this requirement on two occasions namely: 19 October 1998 and 19 April 1999. To date the administrations of the Argentine Republic, the Republics of Colombia and Chile have responded; and
- (e) The need to take into account the background information contained in Documents PCC.I/doc.823/99 and PCC.I/doc.830/99 presented by the Argentine delegation, when reporting on the progress of their Tele-education Pilot Project, in order for the institution responsible for its development to improve project design and implementation.

**RESOLVES:**

1. To reiterate its request for the following information from the national administrations:
  - tele-education experiences and projects developed, or in process, in their countries
  - description of the hardware and software available for tele-education applications in their countries
2. To request that national administrations to promptly send this information to the Executive Secretariat of the Inter-American Telecommunication Commission (CITELE).

**PCC.I/RES. 68 (X-99)<sup>13</sup>**

**USE OF  
SIGNALING SYSTEM No. 7 FOR NATIONAL APPLICATION**

The Tenth Meeting of the Permanent Consultative Committee I: Public Telecommunication Services.

**CONSIDERING:**

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<sup>13</sup> Document PCC.II/doc.843/99 (original=Spanish)

- (a) That a significant effort was made in the past and PCC.I already approved a Coordinated Standards Document related to the Signaling System No. 7 Standards that applies at International Interconnections;
- (b) The evolution of national Networks and the advantages and interest to introduce the Signaling System No. 7 at national level;
- (c) That the Signaling System No. 7 is a signaling protocol that will evolve to meet the needs of the Networks of the future.

**RECOGNIZING:**

- (a) That considerable amount of work has been carried out to analyze a minimum set of Signaling System No. 7 capabilities that should be used at national level;
- (b) That the Signaling System No. 7 will be a key component to facilitate the interconnection and interoperability of the Networks of the future; and
- (c) That the Signaling System No. 7 will evolve to meet the service needs of the subscribers.

**RESOLVES:**

That PCC.I endorse the Coordinated Standards Document at the Annex to this Resolution as the Signaling System No. 7 for application within and across Networks operating inside national boundaries, and

**SUGGESTS:**

That The WGSC monitors the evolution of the Signaling System No. 7 standards for their possible application across the Region.

**APPENDIX**

**COORDINATED STANDARDS DOCUMENT ON  
COMMON CHANNEL SIGNALING SYTEM NO. 7  
FOR NATIONAL APPLICATIONS IN CITEL MEMBER COUNTRIES**

“**TITLE:** Coordinated Standards Document on COMMON CHANNEL SIGNALLING No. 7 (Message Transfer Part, Signalling Connection Control Part, Transaction Capabilities Application Part, and ISDN User Part).

This Coordinated Standards Document addresses the Message Transfer Part (MTP), the Signalling Connection Control Part (SCCP) the Transaction Capabilities Application Part (TCAP), and the

ISDN User Part) for use across signalling interfaces existing within a Member States telecommunication network.

Annexes 1 to 5 identify the MTP, SCCP, TCAP, ISUP Basic Service and ISUP Supplementary Service protocol standards, respectively.

## **ANNEX 1**

### **MESSAGE TRANSFER PART (MTP)**

#### **RECOMMENDATION FOR NATIONAL APPLICATIONS IN CITEL MEMBER COUNTRIES**

##### **1. INTRODUCTION**

This Annex identifies the ITU-T Recommendations and the exceptions to these Recommendations that shall apply to the Message Transfer Part at signalling interfaces existing within national networks of CITEL Member Countries. The set of applicable ITU Recommendations (ref. Section 3) and the list of exceptions are identical to those specified for international connections in Coordinated Standards Document PCC.I/RES 20 (III-95).

##### **2. RECOMMENDATIONS**

For signalling interfaces existing within national networks, CITEL endorses the use of the MTP related Recommendations **Q.701 to Q.705, 1993**.

##### **3. NORMATIVE REFERENCES**

- 3.1 ITU-T Recommendation **Q.701**: Functional description of the message transfer part (MTP) of Signalling System No. 7, 1993.
- 3.2 ITU-T Recommendation **Q.702**: Signalling data link, 1988.
- 3.3 ITU-T Recommendation **Q.703**: Signalling link, 1993.
- 3.4 ITU-T Recommendation **Q.704**: Signalling network functions and messages, 1993.
- 3.5 ITU-T Recommendation **Q.705**: Signalling network structure, 1993

##### **4. EXCEPTIONS**

See CSD PCC.I/RES 20 (III-95), Annex 2, Section 3

## ANNEX 2

### SIGNALLING CONNECTION CONTROL PART (SCCP)

#### RECOMMENDATION FOR NATIONAL APPLICATIONS IN CITEL MEMBER COUNTRIES

##### 1. INTRODUCTION

This Annex identifies the ITU-T Recommendations and the exceptions to these Recommendations that shall apply to the Signalling Connection Control Part at signalling interfaces existing within national networks of CITEL Member Countries. The set of applicable ITU Recommendations (ref. Section 3) and the list of exceptions are identical to those specified for international connections in Coordinated Standards Document PCC.I/Res 26 (V-96).

##### 2. RECOMMENDATIONS

For signalling interfaces existing within national networks, CITEL endorses the use of the SCCP related Recommendations **Q.711** to **Q.714** and **Q.716, 1993**.

##### 3. NORMATIVE REFERENCES

- 3.1 ITU-T Recommendation **Q.711**: Functional description of the Signalling Connection Control part, 1993.
- 3.2 ITU-T Recommendation **Q.712**: Definition and function of Signalling Connection Control Part messages, 1993.
- 3.3 ITU-T Recommendation **Q.713**: Signalling Connection Control Part formats and codes, 1993
- 3.4 ITU-T Recommendation **Q.714**: Signalling Connection Control Part procedures, 1993.
- 3.5 ITU-T Recommendation **Q.716**: Signalling Connection Control Part performance, 1993.

##### 4. EXCEPTIONS

See CSD PCC.I/RES.26 (V-96), Annex 1, Section 4.

## ANNEX 3

### TRANSACTION CAPABILITIES APPLICATION PART (TCAP)

#### RECOMMENDATION FOR NATIONAL APPLICATIONS IN CITEL MEMBER COUNTRIES

## 1. INTRODUCTION

This Annex identifies the ITU-T Recommendations and the exceptions to these Recommendations that shall apply to the Transaction Capabilities Application Part at signalling interfaces existing within national networks of CITEL Member Countries. The set of applicable ITU Recommendations (ref. Section 3) is identical to those specified for international connections in Coordinated Standards Document PCC.I/RES.26 (V-96).

## 2. RECOMMENDATIONS

For signalling interfaces existing within national networks, CITEL endorses the use of the TCAP related Recommendations **Q.771 to Q.714, 1993**.

## 3. NORMATIVE REFERENCES

- 3.1 ITU-T Recommendation **Q.771**: Functional description of Transaction Capabilities, 1993.
- 3.2 ITU-T Recommendation **Q.772**: Transaction Capabilities information element definitions, 1993.
- 3.3 ITU-T Recommendation **Q.773**: Transaction capabilities formats and encoding, 1993.
- 3.4 ITU-T Recommendation **Q.774** Transaction capabilities procedures, 1993.

## 4. EXCEPTIONS

None

## ANNEX 4

### ISDN USER PART (ISUP) – BASIC SERVICE

#### RECOMMENDATION FOR NATIONAL APPLICATIONS IN CITEL MEMBER COUNTRIES

## 1. INTRODUCTION

This Annex identifies the ITU-T Recommendations and the exceptions to these Recommendations that shall apply to the ISDN User Part at signalling interfaces existing within national networks of CITEL Member Countries.

## 2. RECOMMENDATIONS

For signalling interfaces existing within national networks, CITEL endorses the use of the ISUP related Recommendations **Q.761** to **Q.764** and **766, 1993**.

## 3. NORMATIVE REFERENCES

- 3.1 ITU-T Recommendation **Q.761**: Functional description of the ISDN User Part of Signalling System No. 7, 1993.
- 3.2 ITU-T Recommendation **Q.762**: General function of messages and signals of the ISDN User Part of Signalling System No. 7, 1993.
- 3.3 ITU-T Recommendation **Q.763**: Formats and codes of the ISDN User Part of Signalling System No. 7, 1993.
- 3.4 ITU-T Recommendation **Q.764**: ISDN user part signalling procedures, 1993.
- 3.5 ITU-T Recommendation **Q.766**: Performance objectives in the integrated services digital network application, 1993.

## 4. EXCEPTIONS

### **Q.761 - Functional description of the ISDN User Part of Signalling System No. 7**

Table 1/Q.761

The following features and services are not supported:

Basic Call Features

- Multirate connection types (128, 384, 1536, 1920 kbit/s)
- Access delivery information
- Transport of user teleservice information
- Connection type allowing fallback
- Propagation delay determination
- Dynamic echo control

- Circuit group query
- Temporary trunk blocking
- Automatic congestion control
- Handling of the reception of unequipped circuit identifications
- ISUP availability control

#### Supplementary Services

- Malicious call identification
- Explicit call transfer
- Conference calling
- Multi-level precedence and preemption
- Global virtual network service
- International telecommunication charge card
- Reverse charging
- User-to-user signalling

### **Q.762 - General Function of Messages and Signals of the ISDN User Part of Signalling system No. 7**

#### Section 1 - Signalling Messages

The following signalling messages are not supported:

Paragraph 1.9: Charge information message

Paragraph 1.16: Circuit group query message

Paragraph 1.17: Circuit group query response message

Paragraph 1.23: Facility accepted message

Paragraph 1.24: Facility message

Paragraph 1.25: Facility reject message

Paragraph 1.26: Facility request message

Paragraph 1.28: Identification request

Paragraph 1.29: Identification response message

Paragraph 1.30: Information message

Paragraph 1.31: Information request message

Paragraph 1.33: Loop back acknowledgement message

Paragraph 1.34 : Network resource management message

Paragraph 1.35: Overload message

Paragraph 1.36: Pass-along message

Paragraph 1.41: Segmentation message

Paragraph 1.46: Unequipped circuit identification code message

Paragraph 1.47: User part available message

Paragraph 1.48: User part test message

Paragraph 1.49: User-to-user information message

#### Section 2 - Signalling Information

The following signalling information is not supported:

Paragraph 2.2: Access Delivery Indicator

Paragraph 2.5: Automatic congestion level

Paragraph 2.9: Call history information

Paragraph 2.10: Call identity  
Paragraph 2.11: Call reference  
Paragraph 2.16: Calling party address request indicator  
Paragraph 2.17: Calling party address response indicator  
Paragraph 2.18: Calling party number incomplete indicator  
Paragraph 2.20: Calling party's category request indicator  
Paragraph 2.21: Calling party's category response indicator  
Paragraph 2.24: Charge information request indicator  
Paragraph 2.25: Charge information response indicator  
Paragraph 2.28: Circuit state indicator  
Paragraph 2.32: Component type  
Paragraph 2.35: Connection request  
Paragraph 2.38: Credit  
Paragraph 2.45: End-to-end information indicator  
Paragraph 2.47: Error code  
Paragraph 2.49: Event presentation restricted indicator  
Paragraph 2.51: Facility indicator  
Paragraph 2.52: Generic digits  
Paragraph 2.54: Generic number  
Paragraph 2.56: Feature code  
Paragraph 2.58: Holding indicator  
Paragraph 2.59: Hold provided indicator:  
Paragraph 2.67: Invoke ID  
Paragraph 2.71: Length of network identification  
Paragraph 2.72: Length of reference indicator  
Paragraph 2.73: Linked ID  
Paragraph 2.74: Local reference  
Paragraph 2.77: Look for busy  
Paragraph 2.78: Malicious call identification response indicator  
Paragraph 2.80: MCID request indicator  
Paragraph 2.81: MCID response indicator  
Paragraph 2.82: MLPP service domain  
Paragraph 2.83: MLPP user indicator  
Paragraph 2.88: Network discard indicator  
Paragraph 2.89: Network identification plan  
Paragraph 2.90: Network identification  
Paragraph 2.91: Network identity  
Paragraph 2.92: Network specific facilities  
Paragraph 2.95: Number incomplete  
Paragraph 2.97: Number qualifier indicator  
Paragraph 2.99: Operation code  
Paragraph 2.107 Point code:  
Paragraph 2.108: Precedence level  
Paragraph 2.109: Problem code  
Paragraph 2.110: Propagation delay counter  
Paragraph 2.111: Protocol class  
Paragraph 2.112: Protocol profile  
Paragraph 2.125: Reference *n*th octet

Paragraph 2.126: Reference qualifier indicator  
Paragraph 2.128: Remote operations  
Paragraph 2.133: Sequence  
Paragraph 2.135: Service activation parameter  
Paragraph 2.136: Set  
Paragraph 2.137: Signalling point code  
Paragraph 2.138: Simple segmentation indicator  
Paragraph 2.139: Solicited information indicator  
Paragraph 2.142: Temporary trunk blocking  
Paragraph 2. 146: Transmission medium requirement prime  
Paragraph 2.147: Transmission medium used  
Paragraph 2.149: Type of digits  
Paragraph 2.150: Type of network identification  
Paragraph 2.152: User service information prime  
Paragraph 2.154: User-to-user indicators  
Paragraph 2.155: User-to-user information

### **Q.763 - Formats and Codes of the ISDN User Part of Signalling System No. 7**

Section 1.3, Table 4/Q.763 - Message Type Code

For the list of unsupported Message Types see the exceptions to Recommendation Q.762, Section 1 - Signalling Messages

Section 3 - ISDN User Part Parameters

Table 5/Q.763 - Parameters and Parameter Codes

The following parameters are not supported:

- Access delivery information
- Automatic congestion level
- Call history information
- Call reference
- Circuit state indicator
- Connection request
- Facility indicator
- Generic digits
- Information indicators
- Information request indicators
- MCID request indicators
- MCID response indicators
- MLPP precedence
- Network management controls
- Network specific facility
- Origination ISC point code
- Propagation delay counter
- Remote operations
- Service activation
- Signaling point code
- Transmission medium requirement prime

- Transmission medium used
- User-to-user indicators
- User-to-user information

Exceptions identified against Table 5/Q.763 also apply to Sections 3.2 to 3.61

Section 4 - ISDN User Part Messages and codes

Exceptions identified for Section 2, Table 4 also apply to Section 4

## **Q.764 - Signalling System No. 7 - ISDN User Part Signalling Procedures**

Sections 1 and 2 and Annexes A to G

International ISDN connections are not supported by this CSD. Sections, paragraphs and sentences referring to international connections in Recommendation Q.764 are not applicable to the set-up and clear-down of national connections. For standards relating to international connections refer to the CSD's contained in PCC.I/RES.20 (III-95) (MTP and ISUP) and document WGSC - D 028 (Sao Paulo 1996/06/06).

Section 2.5 - Signalling procedures for connection type allowing fallback

Fallback is not supported

Section 2.6 - Propagation delay determination procedure

The Propagation delay determination procedure as part of dynamic echo control is not supported (ref. the exception stated against Section 2.7).

Section 2.7 - Echo control procedure

The dynamic echo control procedure described in Section 2.7 of Recommendation Q.764 (1993) is not supported. Echo control shall be performed as described in Section 2.8 of Recommendation Q.764 (1988)

Section 2.8.3 - Circuit group query

Circuit group query procedures are not supported.

Section 2.11 - Automatic congestion control

Automatic congestion control procedures are not supported.

Section 2.12 - Unequipped circuit identification code message

Unequipped circuit identification code procedures are not supported

Section 2.13 - ISDN User Part availability control

ISDN User Part availability control is not supported.

Annex C - Examples of echo control signalling procedures

Echo control in accordance with Recommendation Q.764 (1993) is not supported (ref. exception stated against Section 2.7). the examples in Annex C are therefore not applicable.

Annex D - Examples of signalling procedures for connection type allowing fallback  
Fallback is not supported. The examples in Annex D are therefore not applicable.

## ANNEX 5

### ISDN USER PART (ISUP) – SUPPLEMENTARY SERVICES

#### RECOMMENDATION FOR NATIONAL APPLICATIONS IN CITEL MEMBER COUNTRIES

##### 1. INTRODUCTION

This Annex identifies the ITU-T Recommendations and the exceptions to these Recommendations that shall apply to the ISDN User Part at signalling interfaces existing within national networks of CITEL Member Countries.

##### 2. RECOMMENDATIONS

For signalling interfaces existing within national networks, CITEL endorses the use of the ISUP Recommendations for supplementary services **Q.731 to Q.735, 1993**.

##### 3. NORMATIVE REFERENCES

- 3.1 ITU-T Recommendation **Q.731.1**: Direct Dialing In , 1993.
- 3.2 ITU-T Recommendation **Q.731.3**: Calling Line Identification Presentation (CLIP), 1993.
- 3.3 ITU-T Recommendation **Q.731.4**: Calling Line Identification Restriction (CLIR), 1993.
- 3.4 ITU-T Recommendation **Q.731.5**: Connected Line Identification Presentation (COLP), 1993.
- 3.5 ITU-T Recommendation **Q.731.6**: Connected Line Identification Restriction (COLR), 1993.
- 3.6 ITU-T Recommendation **Q.731.8**: Sub-Addressing (SUB), 1992.
- 3.7 ITU-T Recommendation **Q.732.2**: Call Diversion Services: Call Forwarding Busy, Call Forwarding No Reply, Call Forwarding Unconditional, Call Deflection, 1996.
- 3.8 ITU-T Recommendation **Q.733.1**: Call Waiting, 1992.
- 3.9 ITU-T Recommendation **Q.733.2**: Call Hold, 1993.
- 3.10 ITU-T Recommendation **Q.734.2**: Three-Party Service, 1996.
- 3.11 ITU-T Recommendation **Q.735.1**: Closed user group (CUG), 1993.

##### 4. EXCEPTIONS

None

**PCC.I/RES. 69 (X-99)<sup>14</sup>**

**LOW POWER PCS IN THE 1910 - 1930 MHz BAND THAT CONFORM TO THE  
TECHNICAL AND PROCEDURAL FRAMEWORK DEFINED IN  
PCC.III/REC.33/97(IX-97)**

The Tenth Meeting of the Permanent Consultative Committee I: Public Telecommunication Services,

**CONSIDERING:**

- (a) That the increased commercial deployment of low power PCS products offer a variety of applications and benefits in the 1910-1930 MHz band; and
- (b) That a common allotment of spectrum among CITEI countries, along with a recognized technical and procedural framework, will allow obtaining the benefits of economies of scale and multiple vendors providing compatible equipment.

**RECOGNIZING:**

- (a) That the Sixth PCC.III meeting included a seminar on “Applications in the 1910-1930 MHz band” to inform the members of CITEI of the new technologies, standards and applications available in this band;
- (b) That PCC.I developed a CSD titled, “2 GHz Personal Communications Services (PCS)/Wireless” which identifies air-interface standards for devices in the PCS band with a focus on standards for sub-bands A-F; and
- (d) That recommendation PCC.III/REC.32 recommends that Member States of CITEI should consider, based on their national needs and regulations, the allocation of 1910-1930 MHz band for any of the following applications:
  - a) Fixed Wireless Access;
  - b) Low mobility wireless access;
  - c) Voice and data applications low power PCS systems. (See Reference PCC.III/REC.33/97 (IX-97));
  - d) Combination of these applications, taking measures for the compatibility amongst them;
- (d) PCC.III/REC.33 recommends that Member States of CITEI that plan to utilize the band 1910-1930 MHz for low power PCS systems and devices may consider adopting a technical and procedural framework, as shown in its attached annex, to ensure coexistence among systems operating in the same band and in the same geographic area

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<sup>14</sup> Document PCC.I/doc.714/99 (original=Spanish)

- (e) the purpose of this resolution is to complement the CSD titled “2 GHz Personal Communications Services (PCS) Wireless”, PCC.III/REC.32 (IX-97) and PCC.III/REC.33 (IX-97) by identifying standards applicable within the 1910-1930 MHz sub-band for low power PCS that adhere to the Technical and Procedural Framework defined in PCC.III/REC.33 (IX-97).

**RESOLVES:**

That PCC.I endorse the CSD for Low Power PCS that adhere to the Technical and Procedural Framework defined in PCC.III/REC.33/97 (IX-97) provided in the Annex.

## **APPENDIX**

### **COORDINATED STANDARDS DOCUMENT FOR LOW POWER PCS IN THE 1910-1930 MHz BAND THAT CONFORM TO THE TECHNICAL AND PROCEDURAL FRAMEWORK DEFINED IN PCC.III/REC.33 (IX-97)**

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#### **ABSTRACT**

This Coordinated Standards Document (CSD) reviews standards activity on a global basis related to the low powered devices that operate in the 1910-1930 MHz band with a focus on their “air interface” standards conforming to PCC.III/REC.33 (IX-97). The 1910-1930 MHz band is the sub-band of the PCS band plan reserved by CITELE according to PCC.III/REC.32 (IX-97). This document identified those standards that conform to the technical and procedural framework for low power PCS devices operating in the 1910-1930 MHz band defined in item “c” of PCC.III/REC.32 (IX-97) and conform to a technical and procedural framework defined in PCC.III/REC.33 (IX-97).

It bears mentioning that there exist other technical and regulatory framework that are not addressed in this document.

**Working Group on Standards Coordination Coordinated Standards Document for Low  
Power PCS in the 1910-1930 MHz band that  
Conform To The Technical and Procedural Framework defined in PCC.III/REC.33 (IX-97)**

**1. EXECUTIVE SUMMARY**

**2. INTRODUCTION**

**3. BACKGROUND**

**4. STANDARDS**

**4.1 International Standards**

4.1.1 ITU-T Recommendations

4.1.2 Other International Standards Organizations

**4.2 Regional Standards**

4.2.1 Region 1 (Europe, Middle East and Africa)

4.2.2 Region 3 (Asia and Pacific Rim)

**4.3 CITELE Countries**

4.3.1 U.S.A.

4.3.2 Canada

**5. CONCLUSIONS**

**6. PROPOSAL**

**7. FUTURE WORK**

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**9. APPENDIX**

## **1. Executive Summary**

This Coordinated Standards Document (CSD) reviews standards activity on a global basis related to the low powered devices that operate in the 1910-1930 MHz band with a focus on their “air interface” standards conforming to PCC.III/REC.33 (IX-97). The 1910-1930 MHz band is the sub-band of the PCS band plan reserved by CITEL according to PCC.III/REC.32 (IX-97). This document identified those standards that conform to the technical and procedural framework for low power PCS devices operating in the 1910-1930 MHz band defined in item “c” of PCC.III/REC.32 (IX-97) and conform to a technical and procedural framework defined in PCC.III/REC.33 (IX-97).

It bears mentioning that there exist other technical and regulatory framework that are not addressed in this document.

## **2. Introduction**

This Coordinated Standards Document (CSD) reviews standards activity on a global basis related to the low powered devices that operate in the 1910-1930 MHz band with a focus on their “air interface” standards conforming to PCC.III/REC.33 (IX-97). The 1910-1930 MHz band in the sub-band of the PCS band plan reserved by CITEL according to PCC.III/REC.32 (IX-97). This document identified those standards that conform to the technical and procedural framework for low power PCS devices operating in the 1910-1930 MHz band defined in item “c” of PCC.III/REC.32 (IX-97) and conform to a technical and procedural framework defined in PCC.III/REC.33 (IX-97). PCC.III/REC.32 (IX-97) and PCC.III/REC.33 (IX-97) are provided in the annexes of this document. Low power is defined in the technical procedural framework in PCC.III/REC.33 (IX-97) as a signal whose power is less than 100 microwatts times the square root of emission bandwidth.

It bears mentioning that there exist other technical and regulatory framework that are not addressed in this document.

Common allocation of spectrum in this band in CITEL countries, along with selection from these standards will allow obtaining the benefits of economies of scales and multiple vendors providing compatible equipment within a standard. Users selecting technologies within a group of standards allows fitting the most appropriate technology to each environment and application.

## **3. Background**

CITEL recommends the PCS band plan in PCC.III/REC.11 (III-95) and PCC.III/REC.12 (III-95). As shown in Figure 1, the PCS band in 140 MHz of spectrum at frequencies 1850-1990 MHz. The band is divided into seven sub-bands. Six sub-bands, A-F, are identified for FDD PCS systems and use frequencies 1850-1910 and 1930-1990 MHz. The seventh sub-band, with a bandwidth consisting of 20 MHz, at frequencies 1910-1930 MHz is identified in PCC.III/REC.32 (IX-97) for the following application:

- a) Fixed Wireless Access;
- b) Low mobility wireless access;
- c) Voice and data applications low power PCS systems. (See reference PCC.III/REC.33 (IX-97);
- d) Combination of these applications, taking measures for the compatibility amongst them.



## **4. Standards**

### **4.1 International Standards**

#### **4.1.1 ITU Recommendations**

There are no ITU-T Recommendations for low power devices in the 1910-1930 MHz band that adhere to the technical and procedural framework defined in (PCC.III/REC.33 (IX-97)).

ITU-R Recommendation M.1033-1 titled “Technical and Operational Characteristics of Cordless Telephones and Cordless Telecommunications Systems” specifies system characteristics of digital cordless systems and includes those standards identified in section 4.1.3.2.

#### **4.1.2. Other International Standards Organizations**

There are no other international standards for devices in the 1910-1930 MHz band that adhere to the technical and procedural framework defined in (PCC.III/REC.33 (IX-97)).

### **4.2 Regional Standards**

#### **4.2.1 Region 1 (Europe, Middle East and Africa)**

No spectrum allocation or standard have been identified in Region 1 for the operation of low powered PCS devices of this type that adhere to a the technical and procedural framework defined in PCC.III/REC.33 (IX-97).

#### **4.2.2 Region 3 (Asia and the Pacific Rim)**

No spectrum allocation or standards have been identified in Region 3 for the operation of low powered PCS devices of this type that adhere to a the technical and procedural framework defined in PCC.III/REC.33 (IX-97).

### **4.3 CITELE Countries**

#### **4.3.1 U.S.A.**

##### **4.3.1.1. Background**

Since knowledge of spectrum usage is important to understand the wireless standards activity, the following summary is provided on the 1910-1930 MHz allocation in the U. S.A.

The Federal Communications Commission allocated the 1910-1930 band for low power PCS for private applications, referred to as the User band in this document. There is no licensing associated with the User PCS band, unlike the sub-bands a-f of the PCS band plan. The User PCS spectrum allocation is intended to “foster the rapid introduction of new PCS technologies by permitting manufactures to ... directly market to the general public, products using new designs and technologies, without the delays associated with the licensing of a radio service”.

User-PCS devices are envisioned to consist of wireless local and personal-area communications for portable and desktop computers; wireless notepad and messaging devices; and wireless office and home telephone systems. User-provided services are used by individuals and organizations who purchase and operate equipment for their own benefit without the need to rent service from a third-party provider or carrier. In so doing, end users can enjoy the benefits of using PCS technology without incurring monthly airtime charges. User-PCS services are low power (100 milliwatts x SQRT [Bandwidth in Hertz] or less) and cover limited distances.

Although User PCS devices are operated in some countries on an unlicensed basis, these devices and the User-PCS band are regulated. The transmission rules for equipment operating in this band are designed to allow conforming devices to cooperate in the use of spectrum. These rules, developed by WIN Forum, are commonly referred to as the “etiquette rules” and were adopted first by the FCC in 47 Code of Federal Regulations (47CFR) Part 15 Subpart D.

#### 4.3.1.2 Standards

Standards organizations in the United States have completed four air interface standards for the 1910-1930 MHz band, known in the U.S.A. as the Unlicensed PCS band. All four standards conform the technical and procedural frameworks defined by the FCC in 47 CFR Part 15 Subpart D and PCC.III/REC.33 (IX-97) the four standards are:

TIA/EIA 662, Personal Wireless Telecommunications, 1995.

TIA/EIA 663, Personal Communications Interface, 1995.

ANSI J-STD-014A, personal Access Communications System – Wireless user Premises Equipment (PACS-WUPE), 1997.

ANSI J-STD-014B, Personal Access Communications Systems-Unlicensed B, 1996

TIA/EIA 662, 663 and 667 standards have been developed by the Telecommunications Industry association (TIA). TIA is an industry consortia of telecommunications equipment manufacturers, and service providers which develop industry standards for telecommunications equipment. ANSI J-STD-014<sup>a</sup>, which is now superseded by TIA/EIA 667, and ANSI J-STD-014B have been developed jointly by Committee T1 and TIA and future development based on these standards are the responsibility of Committee T1.

##### 4.3.1.2.1 TIA/EIA 662, Personal Wireless Telecommunications

The Personal Wireless Telecommunications (PWT) standard, TIA/EIA 662, is based on a micro-cellular radio communications systems that provides low-power radio access between portables and the fixed network at ranges up to a few hundred meters. PWT equipment can be used to support wireless PBX and packet and circuit-mode data services. This standard is based on the Digital Enhanced Cordless Telephone (DECT) standard and has been changed to conform to the technical procedural framework defined by the CFR Part 15 Subpart D. Two examples of the changes that were made to DECT standard to conform to these rules are:

The modulation scheme was changed from FSK to  $\Pi / 4$  DQPSK to reduce the channel spacing from 1.728 MHz to 1.25 MHz.

The maximum power was reduced from 250 mw – 500mW to 90 mw.

The basic technical characteristics for the PWT standard are as follows:

Duplexing	TDD
Frequency Band (MHz)	1920-1930
Carrier Spacing (kHz)	1250
Number of Carriers	8
Bearer Channels/Carrier	12 (24 timeslots)
Channel Bit Rate (kb/s)	1,152
Modulation	$\Pi / 4$ DQPSK
Speech Encoding	32 kb/s ADPCM

Peak Handset TX Power (mW)	90
Frame Duration (millisec)	10

#### 4.3.1.2.2 TIA/EIA 663, Personal Communications Interface

The personal Communications Interface standard, TIA/EIA 663, was standardized in 1995 to provide a standard for a Wireless PABX service. PCI provides the capability for low-power, multi-cell digital wireless telephone service that provides in-building or outdoor private site operation. It includes services such as enhanced call management, portable location tracking, inbound and outbound call services, and full user mobility. It also provides for wireless data services which can be provisioned to enable wireless computer telephony integration, PCI was based on the well known European Cordless Telephone 2 (CT2) standard and has been substantially enhanced to enable advanced services.

The basic technical characteristics are as follows:

Duplexing	TDD
Frequency Band (MHz)	1920-1930
Carrier Spacing (kHz)	100 kHz
Number of Carriers	99
Bearer Channels/carrier	1
Channel Bit Rate (kb/s)	72
Modulation	GMSK
Speech Encoding	32 kb/s ADPCM
Peak handset TX Power (mW)	32
Frame Duration (millisec)	2

#### 4.3.1.2.3 TIA/EIA 667, Personal Access Communications Systems – Wireless User Premises Equipment

The Personal Access Communications System – Wireless User Premises

Equipment (PACS-WUPE), TIA/EIA 667, is a micro-cellular technology that was a rich set of voice features, data and support user mobility. PACS-WUPE is based on the Personal Handyphone System (PHS) and has been changed to conform to the technical and procedural framework defined by the CFR Part 15 Subpart D. Three examples of the changes that were made to the PHS standard to conform to these rules are:

The transmit power was reduced to 53 mW from 80 mW.

Frequency band of operation was changed to 1920-1930 MHz from 1895-1912 MHz

The control channel was changed so that it can be dynamically changed in frequency from being on a fixed frequency.

The basic technical characteristics are as follows:

Duplexing	TDD
Frequency Band (MHz)	1920-1930
Carrier Spacing (kHz)	300 kHz
Number of Carriers	32
Bearer Channels/Carrier	4

Channel Bit Rate (kb/s)	384
Modulation	Π/4 DQPSK
Speech Encoding	32 kb/s ADPCM
Peak handset TX Power (mW)	53
Frame Duration (millisec)	5

**4.3.1.2.4 ANSI J-STD-014 A and B, PACS Unlicensed A and B**

The PACS air interface standard, ANSI J-STD-014 contains two supplements for operation in the 1910-1930 MHz band called PACS-UA and PACS-UB. TIA/EIA 667 supersedes, ANSI-J-STD-014A and it’s characteristics are shown in the table in 4.3.1.2.3. The major difference between PACS-UA and PACS-UB is that PACS-UB uses a 2.5-millisec-frame structure instead of a 5-millisec-frame structure.

The physical layer characteristics of PACS-UB are:

Duplexing	TDD
Frequency Band (MHz)	1910-1930
Carrier Spacing (kHz)	300 kHz
Number of Carriers	32
Bearer Channels/Carrier	4
Channel Bit Rate (kb/s)	384
Modulation	Π / 4 DQPSK
Speech Encoding	32 kb/s ADPCM
Peak Handset TX Power (mW)	53
Frame Duration (millisec)	2.5

The frame structure of PACS-UB is consistent with the frame structure defined in the air-interface standard for licensed PACS.

**4.3.2. Canada**

Canada has adopted the technical and procedural framework applicable in the USA and described earlier as defined in PCC.III/REC.33 (IX-97)

**5. Summary**

Several CITELE countries have allocated spectrum for PCS in 1850-1990 MHz band. Countries are studying the possible allocation of the band 1910-1930 MHz according to the alternatives offered by PCC.III/REC.32 (IX-97). In addition, United States standards bodies have completed four PCS air interface standards for this band based upon consideration of exiting and new digital technology.

Common allocation of spectrum in this band in CITELE countries, along with selection from these standards will allow obtaining the benefits of economy of scale and multiple vendors providing compatible equipment within a standard. Users selecting technologies within a group of standards allows fitting the most appropriate technology to each environment and application.

**6. Proposal**

Users should be encouraged to select the radio technology most appropriate for low power PCS applications (in accordance to item “c” of PCC.III/REC.32 (IX-97) based upon standards described in the CSD for the 1910-1913 MHz band and conforming to PCC.III/REC.33 (IX-97). Common allocation of spectrum in CITELE countries, along with selection from these standards, will allow obtaining the benefits of economy of scales and multiple vendors providing compatible equipment within a standard.

## **7. Future Work**

This document will be update in the future if and when new standards are defined for this frequency band.

## **8. References**

TIA/EIA 662, Personal Wireless Telecommunications, 1995.

TIA/EIA 663, Personal communications Interface, 1995.

ANSI J-STD-014A, Personal Access Communications Systems-Unlicensed A, 1996. This document is superseded by TIA/EIA 667, Personal Access Communications System – Wireless User Premises Equipment (PACS-WUPE), 1997. ANSI J-STD-014A is superseded by TIA/EIA 667.

ANSI J-STD-014B, Personal Access Communications Systems-Unlicensed B, 1996.

“Protocol Concerning The Use of the Band 1850-1990 MHz for Personal Communications Services Along the Common Border“, United States of America and United Mexican States, May 16, 1995.

## **ANNEX 1**

### **PCC.III/REC.32 (IX-97)**

#### **APPLICATION OF THE 1910-1930 MHz BAND**

The Ninth meeting of the Permanent Consultative Committee III: Radiocommunications.

#### **CONSIDERING:**

- (a) That the Sixth Meeting of PCC.III included a seminar on “Application in the 1910-1930 MHz band” to inform the members of CITEI of the new technologies, standards and applications available in this band;
- (b) That CITEI PCC.III/REC.26 (VI-96) recommended to administration that the band 1850-1990 MHz be used for PCS and/or Fixed Wireless Access (FWA) systems in the region of the Americas;
- (c) That CITEI PCC.III formed a Working Group to quantify any incompatibility issues between FWA and PCS in the range 1850-1990 MHz;
- (d) That in accordance with PCC.III/RES.43 (VI-96), the corresponding studies are underway;
- (e) That some countries in the region have developed or are in the process of developing wireless telephone networks in the frequency band 1910-1930 MHz to meet the demand for basic telephone service; and
- (f) That one country in the region is introducing both FWA and Low Power PCS in the band the frequency band 1910-1930 MHz in separate geographic locations, e.g. urban and rural areas.

#### **RECOMMENDS**

1. That the members States of CITEI should consider, based on their national needs and regulations, the allocation of 1910-1930 MHz band for any of the following applications:
  - a) Fixed Wireless Access.
  - b) Low mobility wireless access.
  - c) Voice and data applications low power PCS systems. (See Reference PCC.III/REC.33 (IX-97).
  - d) Combination of these applications, taking measures for the compatibility amongst them.
2. That the Members States adopting items a), b) or d) of item 1, should consider the Report in document PCC.III/Doc.III/935/97 (IX-97) for reference and assistance to ensure the necessary compatibility amongst the different applications and with the PCS systems operating in adjacent bands.

## **ANNEX 2**

### **PCC.III/REC.33 (IX-97)**

#### **Technical and Procedural Framework for Low Power PCS in the use of 1910-1930 MHz Band**

The Ninth Meeting of the Permanent Consultative Committee III: Radiocommunications,

#### **CONSIDERING:**

- (a) That the sixth PCC.III meeting included a seminar on “Applications in the 1910-1930 MHz band” to inform the members of CITELE of the technologies, standards and applications available in this band;
- (b) That Resolution PCC.III/RES.42 (VI-96) resolved that PCC.III will consider developing a Recommendation on a technical and procedural framework that supports the operation of low power PCS devices and applications;
- (c) That the increased commercial deployment of low power PCS products offer a variety of applications and benefits in the 1910-1930 MHz band, and;
- (d) That a common allotment of spectrum among CITELE countries, along with a recognized technical and procedural framework, will allow obtaining the benefits of economies of scale and multiple vendors providing compatible equipment.

#### **RECOMMENDS:**

That the Member States of CITELE that plan to utilize the band 1910-1930 MHz for low power PCS systems and devices may consider adopting a technical and procedural framework, as the one shown in the attached annex, to ensure coexistence among systems operating in the same band and in the same geographic area.

#### **INVITES:**

The member countries to continue to contribute other technical and procedural frameworks that will serve as recommendations for other types of alternatives applicable to low power PCS systems in this band.

## ANNEX

### Technical and Procedural Framework for low Power PCS in the 1910-1930 MHz Band

The technical and procedural framework that facilitates efficient shared use of the band is referred to as the “spectrum etiquette.” It defines a broad envelope within which the low power PCS devices/systems must operate; this has been done in such a way to permit a significant degree of flexibility for manufacturers to develop a variety of innovative devices. A key feature of this etiquette is the requirement that devices monitor before transmitting in order to secure a frequency that is not in use at that instant in the immediate area. Thus sharing is invoked in three dimensions: frequency, time, and location. There are general provisions that apply to the entire 1910-1930 MHz band; for instance, PCS devices authorized for use in this band must use digital modulation and maximum power and power spectral density limits are established. The 1910-1920 MHz sub-band is reserved for asynchronous transmissions, i.e., data that is transmitted at irregular time intervals as typified by local area network data systems. The band 1920-1930 MHz is reserved for isochronous transmissions, i.e., devices that transmit at a regular interval, typified by time-division voice systems. A summary of the general technical provisions is given in Table 1.

Table 1: General Technical Provisions		
Parameter	Characteristic/Value	Reference*
Modulation	Digital	§15.319(b)
Data Characteristic	1910-1920MHz: Asynchronous 1920-1930MHz: Isochronous	§15.319(a)
Peak Transmit Power	<100 microwatts times square root of emission bandwidth (to be reduce by amount that antenna gain exceeds 3dBi)	§15.319(c) §15.319(e)
Power spectral density	< 3 milliwatts in any 3 kHz bandwidth	§15.319(d)
*reference is to the FCC Rules (47CFR)		

**Table 2. Detailed Technical Provisions**

Parameter	1910-1920 MHz Band* Asynchronous Devices	1920-1930 MHz band (Isochronous Devices)
Channelization	None	Operation to be contained within one of eight 1.25 MHz channels
Device Bandwidth Limits	500 kHz minimum; 10 MHz maximum	50 kHz minimum; 1.25 MHz Maximum
Transmit Duration	Burst duration of individual or cooperative devices not to exceed 10 ms; intraburst gap between cooperating devices shall not exceed 25 $\mu$ s	Not more than 8 hrs without repeating access criteria
Frame period	Not applicable	20 ms or 10/x ms (where x is a positive integer). Devices using time – division to maintain a duplex connection must maintain a frame repetition rate with frequency stability of at least 50 ppm and a frame interval jitter of 25 $\mu$ or less.
Frequency search strategy	Depends on bandwidth of device: a) BW <1 MHz may not occupy center half if other spectrum is available; b) BW <2.5 MHz; start within 3 MHz of either band edge and search inward; c) BW >2.5 MHz: occupy center half of band	Depends on bandwidth of device: a) BW <625 kHz: start within 3 MHz of lower band edge and search upward; b) BW >625 kHz: start within 3 MHz of upper band edge and search down

**Table 2. Detailed Technical Provisions**

Parameter	1910-1920 MHz Band* Asynchronous Devices	1920-1930 MHz band (Isochronous Devices)
Connection criteria	Monitor spectrum to be used a minimum of 50 $\mu$ s. If no signal is detected above the monitoring threshold, a transmission burst may commence in the monitored spectrum window	Monitor spectrum to be used: 10 ms if transmit frame < 10 ms, 20 ms if transmit frame = 20ms. If no signal is detected above the monitoring threshold, a transmission burst may commence in the monitored spectrum window. A duplex connection can be established by an initiating device which does the monitoring if the responding device can decode the signal. No device or group of cooperating devices located within 1 meter of each other shall occupy more than three 1.25 MHz channels during any frame period.
Acknowledgement required	Not applicable	Once access is obtained, must receive first acknowledgment within 1s, and subsequent periodic acknowledgements at least every 30s, or transmission must cease. For a control and signaling channel no acknowledgement is required but it must be reassessed every 30s
Wait before next transmission	Random within range of 50 – 70 $\mu$ s; however, range is doubled if access fails up to a maximum of 12 ms. This range is re-initialized after each successful access attempt.	Random range of 10-150 ms for the same channel.
Monitoring bandwidth	Equal to or greater than a emission bandwidth	Equal to or greater than emission bandwidth

**Table 2. Detailed Technical Provisions**

Parameter	1910-1920 MHz Band* Asynchronous Devices	1920-1930 MHz band (Isochronous Devices)
Reaction time to monitoring	Formulas depend on BW and signal level; not required to be faster than 50 $\mu$ s for signal at threshold or 35 $\mu$ s for signal 6 dB or more above threshold	Formulas depend on BW and signal level; not required to be faster than 50 $\mu$ s for signal at threshold or 35 $\mu$ s for signal 6dB above threshold.
Monitoring Threshold	Not greater than 32 dB above thermal noise power of emission bandwidth (kTB+32) of the device; but may increase level by same amount that transmit power is below the maximum limit	Not greater than 30dB, or the least interfering channel with a level between 30dB and 50 dB, above thermal noise power of emission bandwidth 8kTB +30 of the device; but may increase level by same amount that transmit power is below the maximum limit.
Out of band emission limits	Emission below reference of 112 mW as follows: 30 dB from band edge to 1.25 MHz beyond; 50 dB between 1.25-2.5 MHz beyond edge; 60 dB at > 2.5 MHz beyond edge.	For BW=1.25 MHz emission below reference of 112 mw as follows: 30dB from channel edge to 1.25 MHz beyond; 50 dB between 1.25-2.5 MHz beyond edge; 60 dB at > 2.5 MHz beyond edge (For smaller BW, similar rejection levels using actual BW points)
Frequency stability	Accounted for in access criteria & out-of-band emission limits.	+/- 10 PPM over a temperature range of -20° C to +50° C
Antenna requirements: only the antenna designed for and /or furnished with the device may used. The monitoring system shall use the same antenna used for transmission, or an antenna that yields equivalent reception at that location.		
Conduction limits: A device designed to be connected.		

Technical provisions for asynchronous data devices using the band 1910-1920 MHz band afford a great deal of flexibility in terms of data rates and emission bandwidths. The band is not channelized; however, provisions related to the frequency search algorithms attribute a higher priority of access to the center of the band for devices requiring bandwidths greater than 2.5 MHz. On the other hand, isochronous data devices using the band 1920-1930 MHz shall confine their emissions to one of eight 1.25 MHz channels. A summary of the detailed technical provisions applicable to operation of devices in the two bands is given in Table 2.

In Table 2, the emission bandwidth shall be determined by measuring the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, that are 26 dB down relative to the maximum level of the modulated carrier. Compliance with the emissions limits is based on the use of measurement instrumentation employing a peak detector function with an instrument resolution bandwidth approximately equal to 1.0 percent of the emissions bandwidth of the device under measurement. The thermal noise power is the noise power in watts defined by the formula  $N=kTB$  where N is the noise power in watts, K is Boltzmann's constant, T is the absolute temperature in degrees Kelvin, and B is the emissions bandwidth of the device in hertz.

Due to the sophisticated technical nature of the spectrum etiquette, a standard measurement procedure was deemed necessary to ensure compatible operation of these devices. The American National Standards Institute (ANSI) developed the *Measurement Procedure for Unlicensed Personal Communications Services Devices* (ANSI C63.17). This document provides measurement procedure manufacturers should use to ensure compliance. It is available directly from the American National Standards Institute.

**PCC.I/RES. 70 (X-99)**

**AGENDA OF THE XI MEETING OF THE PERMANENT CONSULTATIVE  
COMMITTEE I: PUBLIC TELECOMMUNICATION SERVICES**

The Tenth meeting of the Permanent Consultative Committee I: Public Telecommunication Services,

**RESOLVES:**

1. To hold the XI Meeting of the Permanent Consultative Committee I: Public Telecommunication Services in Buenos Aires, Argentina, 25-29 October 1999.
2. To adopt the Draft Agenda for the XI Meeting of PCC.I annexed to this Resolution.

**DRAFT AGENDA**

1. Approval of the Agenda and Calendar.
2. Establishment of the Drafting Group.
3. Report from the Working Group on the Progress made since the tenth meeting.
4. Reports from the Working Groups and Ad Hoc Groups:
  - (a) Standards Coordination;
  - (b) Certification Processes;
  - (c) Basic and Universal Telecommunications Services;
  - (d) Promotion of the Global Information Infrastructure in the Americas.
  - (e) International Telephone Services Accounting Rates
  - (f) Preparation for the ITU World Telecommunication Standardization Assembly.
  - (g) Strategic Analysis of PCC.I.
5. Status Report on the preparations for the Third Forum of CITEI/PCC.I.
6. Status Report from the Coordinator on Telecommunications over IP.
7. PCC.I's preparations for COM/CITEI:
  - (a) Contributions for CITEI Annual Report.
  - (b) Program of activities for PCC.I in the year 2000.
8. Status report from the ITU on the joint projects with CITEI.
9. Approval of the Summary Minutes of Plenary Sessions.
10. Approval of the Final Report.
11. Agenda, site and date of the next Meeting.
12. Other Matters.

#### **IV. RECOMMENDATIONS**

##### **PCC.I/REC. 4 (X-99)<sup>15</sup>**

##### **IDENTIFICATION OF INTERNET TELEPHONY STANDARDS**

The Tenth Meeting of Permanent Consultative Committee I: Public Telecommunication Services,

##### **CONSIDERING:**

- (a) The beginnings of an industry conversion from circuit switched networks to packet (IP) based networks, allowing for a lower cost telecommunication infrastructure and to more broad competition;
- (b) The trend to place voice and other multimedia applications on data networks; and
- (c) The ongoing work of ITU-T Study Group 13 on IP and telecom interoperability related issues,

##### **RECOGNIZING:**

- (a) The need for CITELE Member States to understand the state of and plans for this conversion from circuit switched networks to packet (IP) based networks in the region; and
- (b) The desire of some CITELE Member States to participate in the ongoing work of the ITU-T Study Group 13 activities.

##### **RECOMMENDS:**

1. That all CITELE members join the Electronic Forum. (<http://citel.oas.org/forum.htm>).
2. That CITELE members who are also participate in ITU-T Study Group 13 use the Forum to distribute notifications of SG 13 reports related to IP Telephony to interested parties in CITELE.
3. That CITELE members review the work of ITU-T SG 13 on IP Telephony and participate, as appropriate, in the work of PCC.I.

##### **INSTRUCTS:**

The Executive Secretariat to create an Electronic Forum on IP Telephony.

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<sup>15</sup> Document PCC.I/doc.832/99 (original=English)

## **V. DECISIONS**

### **PCC.I/DEC. 18 (X-99)<sup>16</sup>**

#### **TERMINATION OF ACTIVITIES OF THE WORKING GROUP ON HUMAN RESOURCES DEVELOPMENT**

The Tenth Meeting of the Permanent Consultative Committee I: Public Telecommunication Services,

#### **WHEREAS:**

Resolution PCC.I/RES.1 (I-94) established the Working Group on Human Resources Development.

#### **CONSIDERING:**

- (a) The PCC.I Chairperson indicated that Human resources development needs should be addressed within the general framework and not individually by each Permanent Consultative Committee and
- (b) There is a COM/CITEL work group whose mandate may be extended to address these needs for the whole sector.

#### **RESOLVES TO:**

1. Terminate the activities of the Working Group on Human Resources Development for the reason expressed in the whereas section.
2. Instruct the Executive Secretary to send a letter to the Administration of Mexico thanking it for the work performed by this work group.
3. Request COM/CITEL to modify the mandates for the Working Group on Coordination of Regional Training Centers for the purpose of including CITEL's human resource development needs in a single working group

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<sup>16</sup> Document PCC.I/doc.817/99 (original=English)

**PCC.I/DEC. 19 (X-99)<sup>17</sup>**

**PREPARATION OF THE CITEL ANNUAL REPORT**

The Tenth Meeting of the Permanent Consultative Committee I: Public Telecommunication Services,

**CONSIDERING:**

- a) It is fundamental to defend the importance of the results achieved within PCC.I and
- b) The need to prepare a report that highlights the results of the work performed by the Committee in order to include it in the Annual Report that CITEL will present before the General Assembly of the OAS.

**RESOLVES TO:**

1. Request that the Chairpersons of the PCC.I working groups present a report on their activities for 1999 and a working plan to the Chair of PCC.I.
2. Request that the Chairperson of PCC.I use the mentioned reports to produce a comprehensive report on PCC.I activities and submit it to consideration by COM/CITEL for the purpose of their Annual Report to the OAS General Assembly.

**PCC.I/DEC. 20 (X-99)<sup>18</sup>**

**REITERATION OF QUESTIONNAIRES FROM THE RAPERTEURS ON  
INTERCONNECTION REGULATIONS AND ELECTRONIC COMMERCE AND  
COMMUNITY DEVELOPMENT**

The Tenth Meeting of Permanent Consultative Committee I: Public Telecommunication Services instructed the Executive Secretary to send the attached questionnaires to the CITEL Member States, requesting that the information be returned before 30 July 1999.

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<sup>17</sup> Document PCC.I/doc.818/99 (original=English)

<sup>18</sup> Document PCC.II/doc.838/99 (original=English)

## **CITEL – PCC.I SURVEY REGARDING ELECTRONIC COMMERCE AND COMMUNITY DEVELOPMENT**

### **QUESTIONS:**

1. What percentage of citizens are Internet users in your country? What percentage of these users would you estimate take advantage of E-commerce?
2. What are the main conditions do you find that enhance the use of E-commerce? By businesses, consumers and government.
3. How many Internet service providers (ISP) – domestic and international - are operating in your country? Are there any restrictions on the number of providers or on the type of services they can provide?
4. What Internet access speeds exist in your country – less than 56 Kbps, greater than 56 Kbps, greater than 1.5 Mbps, and / or greater than 45 Mbps? What percentages of users have access speeds higher than 1.5 Mbps?
5. What main infrastructure gaps need to be addressed to further facilitate E-commerce in your country?
6. What percentage of electronic commerce in your country is business-to-business? Business-to-consumers? Government-to-business/consumers? Please give some examples of current electronic commerce applications in these areas.
7. What are the top sectors in your country that conduct E-commerce? Please give some representative examples with Website addresses.
8. What does your government see as the key legal/regulatory issues regarding E-commerce? Has your government developed or implemented any kind of policy/legislation/regulation to promote E-commerce? If not, is it planning to do it in the near future?
9. What kind of public and/or private programs are found in your country to promote community access and development, educational access, electronic delivery of governmental services or other E-commerce applications?
10. What are the appropriate roles for government and private sector in developing a framework for E-Commerce?
11. What role should CITEL play in the development of E-commerce in the Americas?
12. Please give the contact information of at least three national experts in E-commerce.

13. Please add any additional comments regarding the needs of your country in the area of E-commerce and community development.

Mr. Enrique Díaz\_Cerón, Rapporteur

Bosque de Radiatas No. 44, 1er. Piso

Col. Bosques de las Lomas,

México 05120, D.F.

Phone: 525-261-4093 and 525-612-31-23

Fax : 525-261-4041 and 525-613-3524

E-mail: ediaz@cft.gob.mx

## CITEL INTERCONNECTION REGULATION SURVEY

### A. Regulatory framework and policy

1. Which entity/entities (*i.e.*, regulator/ministry) has/have the responsibility for establishing interconnection policies in your Member State?
  - a. Is the incumbent telecommunications operator partially or wholly government owned?
  - b. Please explain to what extent is the regulatory entity independent of any telecommunications operators.
2. Where has the regulatory framework for interconnection been set forth -- legislation, licenses, regulatory statements, directives, and/or other means? Please attach copies of any such document(s).

### B. Interconnection regime generally

1. Does the regulatory framework for interconnection apply to: (1) fixed local interconnection, (2) fixed long distance interconnection, (3) fixed international service interconnection, (4) mobile service interconnection, and/or (5) any other services ?
2. Please briefly outline the procedures used by your Member State to license telecommunications operators. (*i.e.*, information required of applicants, normal time period for application processing).
3. How do customers access different carriers -- carrier-selection prefixes, carrier pre-selection (equal access), or some other means? Please describe.

### C. Extent of interconnection obligation

1. Does the regulatory framework impose an obligation on existing network operators to provide interconnection to competing fixed network operators? to mobile operators?
  - a. If not, what are the provisions for ensuring that interconnection takes place?
  - b. If so, on whom is the obligation imposed -- the incumbent fixed network operator, all fixed network operators, other networks, service providers? Please explain.
    - i. How is the obligation enforceable -- by the regulator, by interested/affected parties through the judicial system, other means?
    - ii. What are the sanctions for failure to provide interconnection or to offer reasonable interconnection terms (*i.e.*, license revocation, fines, etc)?

2. Who has the right to interconnect -- all domestic facilities-based carriers, service providers, content providers, others?
  - a. Are there different classes of fixed operators' licenses? If so, please describe.
  - b. Are all such carriers afforded the same rights to interconnect?
3. Does the regulatory framework address the specific rates, terms and conditions for interconnection? Are they required to be reasonable and nondiscriminatory? Please describe.
4. Are interconnection agreements publicly available?

*D. Interconnection Pricing*

1. Have specific nationwide and local termination rates been set by the regulator. If so, what are the rates?
2. Is regulatory approval of interconnection charges required? If so, on what basis would they fail to gain approval? Have any interconnection charges ever failed to gain approval?
3. Is information about specific interconnection charge agreements publicly available?
4. Do interconnection charges differ based on the type of license held by the interconnecting carrier? Based on the location from which the traffic originated?
5. Does the regulatory framework prescribe the cost basis for determining interconnection charges?
  - a. If so, does the regulatory framework prescribe an historic or a forward-looking cost model (*i.e.*, fully-allocated or long-run incremental models)?
  - b. What kind of cost accounting system is used?
  - c. If no, what method is used to determine interconnection charges?
5. Are universal service contributions factored into interconnection charges? If so, please explain.

*E. Resale and Unbundling*

1. Is unbundled access to network services required and, if so, to what network services (*i.e.*, local loop, local and tandem switching capability, operator services, trunk lines)?

2. Does the interconnection regime require that operators offer telecommunications services at wholesale prices for resale by new entrants?
  - a. If so, what services are required to be made available?
  - b. Please describe how pricing methodology differs from that which applies to interconnection or leasing of unbundled network elements.

*F. Dispute Resolution*

1. If the interconnection terms and conditions are set through commercial agreements between the parties, does the regulatory framework prescribe any dispute resolution mechanisms?
2. Does the regulatory framework contain a timetable for negotiations?
3. Does the regulatory framework set up a clear dispute resolution mechanism(s) if the parties cannot agree, (*i.e.*, arbitration, mediation, regulator-prescribed charges)?
4. In case of a dispute, is there a default interconnection charge and/or specific obligations that create an incentive for the incumbent carrier to negotiate with the entrant?
5. Have operators successfully negotiated interconnection agreements without recourse to the dispute resolution mechanism?

*G. Technical aspects of interconnection*

1. Does the regulatory framework prescribe technical requirements of interconnection (*i.e.*, number and location of points of interconnection, network management across the points of interconnection, other requirements)? Please specify.
2. Are incumbent/ carriers required to collocate the equipment of competitors in their central offices? What procedures are available if there is insufficient space for the competitors' equipment? How are issues of multiple competitors handled?

*H. Competitive safeguards*

1. Where an incumbent provides both monopoly and competitive services, are there any provisions to ensure that the incumbent is unable to set prices at anticompetitive levels?
2. Are there separate antitrust laws that govern the behavior of carriers?
3. Has the regulator/court been required to act in enforcing any of the competitive safeguards? If so, what was the result?

**PCC.I/DEC. 21 (X-99)<sup>19</sup>**

**FORWARDING OF QUESTIONNAIRE REQUESTING INFORMATION ABOUT  
ECONOMIC AND TELECOMMUNICATIONS INDICATORS FROM CITEL  
COUNTRIES**

The Tenth Meeting of the Permanent Consultative Committee I: Public Telecommunications Services.

**RESOLVES:**

1. To instruct the CITEL Executive Secretary to distribute the questionnaire to be sent by the rapporteur on the issue: Draft of a Common Scheme for an International Telephone Service Cost Structure; concerning economic and telecommunications indicators for CITEL countries.
2. Encourage the Administrations to reply to the above mentioned questionnaire as soon as possible, to get a head start on work prior to the following PCC.I meeting.
3. The date for replying to the questionnaire will be indicated in the same.

**VI. LIST OF THE BASIC DOCUMENTS RESULTING FROM THE TENTH  
MEETING OF PCC.I: PUBLIC TELECOMMUNICATION SERVICES**

Summary Minutes of the Opening Session,	PCC.I-806/99
Summary Minutes of the First Plenary Session,	PCC.I-807/99
Summary Minutes of the Second Plenary Session,	PCC.I-847/99rev.1
Summary Minutes of the Third Plenary Session and Closing Session,	PCC.I-850/99
List of Documents,	PCC.I-753/99rev.3
List of Participants,	PCC.I-757/99rev.1
Final Report,	PCC.I-849/99rev.1

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<sup>19</sup> Document PCC.I/doc.846/99 (original=English)