



ORGANIZACION DE LOS ESTADOS AMERICANOS  
ORGANIZATION OF AMERICAN STATES

Comisión Interamericana de Telecomunicaciones  
Inter-American Telecommunication Commission

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**IV MEETING OF PERMANENT CONSULTATIVE  
COMMITTEE I: TELECOMMUNICATION  
STANDARDIZATION  
March 16 to 19, 2004  
Quito, Ecuador**

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

**(Item on the Agenda: 4 )**

**(Document submitted by the Drafting Group )**

## TABLE OF CONTENTS

I.	AGENDA .....	3
II.	AUTHORITIES OF THE MEETING .....	3
III.	RESOLUTIONS .....	4
	PCC.I/RES. 44 (IV-04).....	4
	PACKET-BASED MULTIMEDIA COMMUNICATIONS SYSTEMS .....	4
	PCC.I/RES. 45 (IV-04).....	5
	COORDINATED STANDARD DOCUMENT FOR ITU-T RECOMMENDATION X.805, “SECURITY ARCHITECTURE FOR SYSTEMS PROVIDING END-TO-END COMMUNICATIONS” .....	5
	PCC.I/RES. 46 (IV-04).....	7
	SECURITY ARCHITECTURE FOR THE INTERNET PROTOCOL.....	7
	PCC.I/RES. 47 (IV-04).....	7
	STUDIES ON THE ECONOMIC ASPECTS AND CHARACTERISTICS OF INTERNET PROTOCOL TELEPHONY .....	7
	PCC.I/RES. 48 (IV-04).....	7
	AGENDA, VENUE AND DATE OF THE V MEETING OF PCC.I .....	7
	PCC.I/RES. 49 (IV-04).....	7
	CYBERSECURITY .....	7
	PCC.I/RES. 50 (IV-04).....	7
	CITEL PREPARATIONS FOR THE WORLD TELECOMMUNICATION STANDARDIZATION ASSEMBLY .....	7
	PCC.I/RES. 51 (IV-04).....	7
	INTERNATIONAL TELECOMMUNICATIONS QUESTIONNAIRE .....	7
	PCC.I/RES. 52 (IV-04).....	7
	PERFORMANCE INDICATORS FOR CITEL’S STRATEGIC PLAN .....	7
	PCC.I /RES .53 (IV-04).....	7
	SITUATION OF TELECOMMUNICATIONS IN INDIGENOUS COMMUNITIES OF THE AMERICAS ....	7
	PCC.I/RES. 54 (IV-04).....	7
	QUESTIONNAIRE ON THE DEVELOPMENT STATUS , USE AND PROMOTION OF SPACE TECHNOLOGIES .....	7
IV.	DECISIONS .....	7
	PCC.I/DEC. 11 (IV-04).....	7
	PCC.I/DEC. 12 (IV-04).....	7
	PCC.I/DEC. 13 (IV-04).....	7
	PCC.I/DEC. 14 (IV-04).....	7
	PCC.I/DEC.15 (IV-04).....	7
	PCC.I/DEC.16 (IV-04).....	7
V.	LIST OF BASIC DOCUMENTS .....	7

**FINAL REPORT**  
**IV MEETING OF THE PERMANENT CONSULTATIVE COMMITTEE I:**  
**TELECOMMUNICATION STANDARIZATION**

The IV Meeting of the Permanent Consultative Committee I: Telecommunication Standardization was held in Quito, Ecuador, March 16 to 19, 2004.

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

1. Approval of the agenda and schedule of activities
2. Establishment of the Drafting Group for the final report
3. Report and meeting of the Working Groups:
  - 3.1 Working Group on Standards Coordination
  - 3.2 Working Group on Advanced Network Technologies and Services
  - 3.3 Working Group on MRA and Certification Processes
  - 3.4 Working Group on Economic Aspects and Tariff Principles
  - 3.5 Working Group on Preparations for the World Telecommunication Standards Assembly
  - 3.6 Working Group on Preparations for the World Conference on International Telecommunications (WCIT)
4. Approval of the Final Report
5. Agenda, venue and date for the V Meeting of PCC.I
6. Other Business

**II. AUTHORITIES OF THE MEETING**

**Chair:** Mr. Félix Castro (Colombia)

**Vice-Chair:** Mr. Marcos Bafutto (Brazil)

**Executive Secretary:** Mr. Clovis Baptista (CITEL)

**Drafting Group:**

**Chair:** Mr. Mario Benitez (Ecuador)

**Members:** Ms. Emily Talaga (USA)  
Mr. William Davies (Canada)

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<sup>1</sup> CCP.I-TEL/doc.350/04 rev.1

### **III. RESOLUTIONS**

#### **PCC.I/RES. 44 (IV-04)<sup>2</sup>**

##### **PACKET-BASED MULTIMEDIA COMMUNICATIONS SYSTEMS**

The IV Meeting of the Permanent Consultative Committee I: Telecommunication Standardization,

##### **CONSIDERING:**

- a) That Recommendation H.323 represents a mature peer-level control protocol that provides a foundation for audio, video, and data communications across IP-based networks, including the Internet; and
- b) That Recommendation H.323 is the most widely employed standard among first-generation Internet solutions,

##### **RECOGNIZING:**

That CITELE Member States and associate members consider that the evolution of next generation networks is important, in particular with regard to signaling interworking,

##### **RESOLVES:**

To endorse the ITU-T Recommendation H.323 – “Packet-based Multimedia Communications Systems” with no deletions, additions or modifications to its normative references and Annexes.

##### **RECOMMENDS:**

- a) The Working Group on Standards Coordination continues to monitor and determine the applicability for the Americas of the Recommendation H.323 series as it evolves.
- b) The Working Group on Standards Coordination continue addressing the service needs of the Americas and provide implementation options based on H.323 and other evolving standards on network signaling.

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<sup>2</sup> CCP.I-TEL/doc.359/04

**COORDINATED STANDARD DOCUMENT FOR ITU-T RECOMMENDATION X.805,  
“SECURITY ARCHITECTURE FOR SYSTEMS PROVIDING END-TO-END  
COMMUNICATIONS”**

The IV Meeting of the Permanent Consultative Committee I: Telecommunication Standardization,

**CONSIDERING:**

- a) That secure information networks play an important role for the critical infrastructure of all OAS Member States, their economies and their societies;
- b) That, with the development of information and communication technologies and networks have given rise to ever-growing security challenges; and
- c) That the Permanent Executive Committee of the Inter-American Telecommunication Commission (COM/CITEL) has identified building a culture of cyber security as an important objective for CITEL (COM/CITEL/RES. 151 (XII-02)),

**RECOGNIZING:**

- a) That telecommunications carriers and service providers of the region are faced with security threats from a wide range of sources, including computer-assisted fraud, espionage, sabotage, vandalism, etc.;
- b) That ITU.T Recommendation X.805, “Security architecture for systems providing end-to-end communications” defines an architecture that can be applied to various kinds of networks where the end-to-end security is a concern and defines the general security-related architectural elements that are necessary for providing end-to-end security; and
- c) That the ITU-T Study Group 17 approved Recommendation X.805 in October 2003 under the "Alternative Approval Process" (AAP) and it is now in force,

**RESOLVES:**

To endorse ITU.T Recommendation X.805 Security architecture for systems providing end-to-end communications” with no deletions, additions or modifications.

**RECOMMENDS:**

1. That the Working Group on Standards Coordination continues to monitor the security work of ITU-T Study Group 17 and determine its applicability for the Americas as this work evolves; and
2. That the Working Group on Standards Coordination continues addressing the security needs of the Americas and provides additional recommendations for endorsing standards that serve to enhance network security.

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<sup>3</sup> CCP.I-TEL/doc.393/04

## **ANNEX TO RESOLUTION PCC.I/RES.45 (IV-04)**

### **Coordinated Standards Document Security Architecture for Systems Providing End-to-End Communications**

#### **1. EXECUTIVE SUMMARY**

The Working Group on Standards Coordination (WGSC) has addressed network and protocol security as part of its studies of standards for Next Generation Networks (NGN), Services, Signaling, and Operations as they relate to the security needs of the Americas. Part of this activity has included monitoring the work of the ITU-T. ITU-T Study Group 17 (Data Networks and Telecommunication Software) has been designated as the Lead ITU-T Study Group for Communication System Security. In this capacity, Study Group 17 created a security architecture document (draft Recommendation X.css, “Security architecture for systems providing end-to-end communications”) to define the general security-related architectural elements necessary for providing end-to-end security. Draft versions of Recommendation X.css were reviewed at the PCC.I Meetings in Guatemala City (April 2003) and Mexico City (September 2003). At the Third Meeting of PCC.I (Mexico City; September 2003), it was reported that draft Recommendation X.css had been put forward by Study Group 17 for approval as ITU-T Recommendation X.805. The WGSC has recommended that CITELEPCC.I endorse Recommendation X.805. Since the standard was still in the approval process, PCC.I chose to defer its endorsement until the Fourth Meeting of PCC.I (Quito; March 2004). Therefore, this Coordinated Standards Document (CSD) now presents ITU-T Recommendation X.805 to PCC.I for its endorsement for the region of the Americas.

#### **2. BACKGROUND**

ITU-T Recommendation X.805, “Security architecture for systems providing end-to-end communications”, defines a network security architecture for providing end-to-end network security. This architecture can be applied to various kinds of networks where the end-to-end security is a concern and is independent of the network’s underlying technology. This Recommendation defines the general security-related architectural elements that are necessary for providing end-to-end security. The objective of this Recommendation is to serve as a foundation for developing detailed recommendations for the end-to-end network security.

This security architecture was created to address the global security challenges of service providers, enterprises, and consumers and is applicable to wireless, optical and wire-line voice, data and converged networks. The architecture addresses security concerns for the management, control, and use of network infrastructure, services and applications. It provides a comprehensive, top-down, end-to-end perspective of network security and can be applied to network elements, services, and applications in order to detect, predict, and correct security vulnerabilities.

The security architecture logically divides a complex set of end-to-end network security-related features into separate architectural components. This separation allows for a systematic approach to end-to-end security that can be used for planning of new security solutions as well as for assessing the security of the existing networks. Three architectural components are addressed: security dimensions, security layers and security planes.

## **2.1. Security Dimensions**

A security dimension is a set of security measures designed to address a particular aspect of the network security. This Recommendation X.805 identifies eight such sets that protect against all major security threats. The security dimensions are:

1. Access control
2. Authentication
3. Non-repudiation
4. Data confidentiality
5. Communication security
6. Data integrity
7. Availability
8. Privacy

## **2.2. Security Layers**

In order to provide an end-to-end security solution, the security dimensions must be applied to a hierarchy of network equipment and facility groupings, which are referred to as security layers. Recommendation X.805 defines three security layers:

1. Infrastructure Security Layer
2. Services Security Layer
3. Applications Security Layer

The security layers are a series of enablers for secure network solutions: the infrastructure layer enables the services layer and the services layer enables the applications layer. The security layers identify where security must be addressed in products and solutions by providing a sequential perspective of network security.

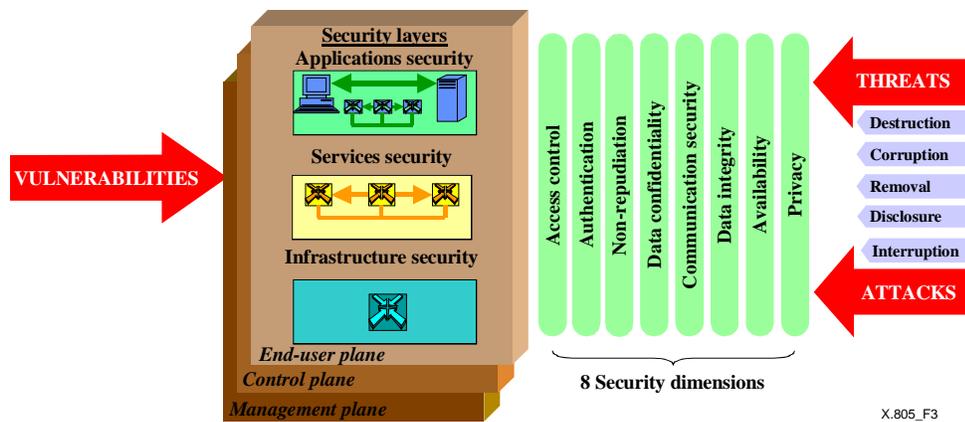
## **2.3. Security Planes**

A security plane is a certain type of network activity protected by security dimensions. Recommendation X.805 defines three security planes to represent the three types of protected activities that take place on a network. The security planes are:

1. Management Plane
2. Control Plane
3. End-User Plane

These security planes address specific security needs associated with network management activities, network control or signaling activities, and end-user activities correspondingly.

Recommendation X.805 summarizes the dimensions of the security architecture with the following figure:



**Figure 3/X.805 – Security architecture for end-to-end network security**

The security architecture described in Recommendation X.805 can be used to guide the development of comprehensive security policy definitions, incident response and recovery plans, and technology architectures by taking into account each security dimension at each security layer and plane during the definition and planning phase. The security architecture can also be used as the basis of a security assessment that would examine how the implementation of the security program addresses the security dimensions, layers and planes as policies and procedures are rolled out and technology is deployed.

### 3. CONCLUSIONS

The Working Group on Standards Coordination recommends that CITEI PCC.I endorse ITU-T Recommendation X.805, “Security architecture for systems providing end-to-end communications” with no deletions, additions or modifications.

### 4. FUTURE WORK

The Working Group on Standards Coordination will continue to monitor the evolving security work of the ITU-T (especially Study Group 17), ISO, IETF, and other relevant standards groups that address the security needs of the Americas. The objective of Recommendation X.805 is to serve as a foundation for developing additional, detailed recommendations for end-to-end network security and ITU-T Study Group 17 has already drafted additional security-related Study Questions. As appropriate, the WGSC will recommend endorsement of additional standards that serve to enhance network security in the Americas.

### 5. RESOURCE DOCUMENTS

[1] “Security Architecture for Systems Providing End-to-End Communications”, Draft Recommendation X.css; CCP.I-TEL/doc.118/03, Guatemala City, Guatemala, 7-11 April, 2003; ITU-T COM 17, Delayed Contribution 79, (Nov 2002).

[2] “Security Architecture for Systems Providing End-to-End Communications”, powerpoint overview of draft Recommendation X.css; CCP.I-TEL/doc.118/03 add.1, Guatemala City, Guatemala, 7-11 April, 2003.

[3] “Security Architecture for Systems Providing End-to-End Communications”, Draft Recommendation X.css; CCP.I-TEL/doc.208/03 Mexico City, Mexico, 22-26 September, 2003; ITU-T COM 17, Contribution 52, (July 2003).

[4] “Security Architecture for Systems Providing End-to-End Communications”, powerpoint overview of draft Recommendation X.css; .CCP.I-TEL/doc.208/03, Mexico City, Mexico, 22-26 September, 2003.

[5] “Security Architecture for Systems Providing End-to-End Communications”, ITU-T Recommendation X.805 (October 2003).

#### **PCC.I/RES. 46 (IV-04)<sup>4</sup>**

### **SECURITY ARCHITECTURE FOR THE INTERNET PROTOCOL**

The IV Meeting of the Permanent Consultative Committee I: Telecommunication Standardization,

#### **CONSIDERING:**

- a) That with the development of information and communication technologies, information and communication networks have given rise to ever-growing security challenges;
- b) That IETF RFC 2401 “Security architecture for the Internet Protocol” is a framework of open standards that provides security for transmission of sensitive information over unprotected networks such as the Internet; and
- c) That RFC 2401 supports different applications ranging from narrow-band to wide-band communications capability with integrated personal and terminal mobility to meet the user and service requirements,

#### **RECOGNIZING:**

- a) That Telecommunications carriers and service providers of the region are faced with security threats from a wide range of sources, including computer-assisted fraud, espionage, sabotage, vandalism, etc.; and
- b) That Sources of damage such as computer viruses, computer hacking and denial of service attacks have become more common, more ambitious and increasingly sophisticated,

#### **RESOLVES THAT:**

To endorse the IETF RFC 2401 “Security architecture for the Internet Protocol” with no deletions, additions or modifications.

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<sup>4</sup> CCP.I-TEL/doc.428/04

## **RECOMMENDS:**

1. That the Working Group on Standards Coordination continues to monitor and determine the applicability for the Americas of the IETF RFC 2401 standard as it evolves; and
2. That the Working Group on Standards Coordination continue addressing the service needs of the Americas and provide implementation options based on IETF RFC 2401 and other evolving standards on network security.

## **ANNEX TO RESOLUTION PCC.I/RES.46 (IV-04)**

### **Coordinated Standards Document Security Architecture for the Internet Protocol**

#### **1. EXECUTIVE SUMMARY**

The Internet and other communication networks are an ever-increasing part of our daily lives, so does our dependency upon their underlying infrastructure. Unfortunately, as our dependency has grown, so have hostile attacks on infrastructure by network predators. Newly discovered forms of attacks, the availability and wide distribution of attack tools, as well as the flaws in common desktop software have resulted in networks becoming increasingly vulnerable.

IP's flexibility and strength is also its weakness, the way IP routes packets makes it easy for attacks such as spoofing (in which one machine masquerades as another), sniffing (in which a transmission is monitored) or a session hijacking in which an attacker uses both techniques to impersonate one of the communicating parties.

The importance of security is recognized by both the IETF (Internet Engineering Task Force) and the ITU-T. There is a need to further understand all the issues and the implications. To address Security the IEFT created the Security Area and further subdivided the area into working groups. The ITU-T SG 17 (Data Networks and Telecommunication Software) has a security study group that targets security issues at all levels. The role of each organization is a somewhat different, the Security Area Advisory Group primary role is to provide help to IETF working groups on how to provide for security in the protocols they design. The ITU-T is focusing the need for a global approach to the dissemination of information regarding the security of critical network infrastructures and ways to stimulate international or regional cooperation with respect to critical network infrastructure.

The IETF IP Security (IPSec) suite of protocols provides security for IP traffic at the network layer. The Working Group on Standards Coordination (WGSC) started to study IPSec (PCC.I/doc. 1518/02) at the XVI meeting held in Montevideo, Uruguay in May 2002 and Section 6 of the Next Generation Networks Standards Overview document (CCP.I-TEL/doc. 112/03) provides a description of IPSec.

## 2. BACKGROUND

### Overview of IETF RFC 2401

IPSec is described in RFC 2401 - Security Architecture for the Internet Protocol [1]. The protocol suite provides the five components described below.

#### Security Associations (SAs)

The function of the SAs is to provide a method for two parties to exchange secure data and both parties need to agree on the security parameters. "SAs" are defined for one-way traffic only, therefore for bi-directional traffic requires two "SAs" to be defined. The IPSec SA specifies the following parameters:

- AH authentication mode (Algorithm and Keys)
- ESP Encryption Algorithm
- How to exchange Keys
- How often the key are changed
- SA Lifetime
- SA source address

#### Authentication Header (AH)

AH, defined in IETF RFC 2402 (Proposed Standard), lets parties communicating using IP to verify that the data was not modified during transmission and that it comes from the original source of the information. The AH provides connectionless data integrity, data authentication and protects against replay attacks. The AH adds a block of code to the data packet that is the result of a "hash" function applied to the entire packet. There are 2 fields in the AH header that are important:

- Security parameter Index (SPI) specifies to the receiving device what group of security protocols the sender is using.
- Sequence Number is used to prevent replay attacks by preventing the reprocessing of a packet multiple times.

The Authenticator Field on the AH is only 96-bits long, the "sender" runs the "hash" functions, truncates the resulting number to fit in to the AH Authenticator field, and sends it off. On the other side, the receiver runs the same "hash" algorithm (as specified in the SPI) on the packet and truncates the resulting number accordingly. The receiver then compares the number calculated to the number in the AH in the authenticator field. If the numbers match the number in the packet, it is accepted as not being altered. The two most widely used AH "hash" algorithms are, Message Digest 5 (MD5) defined by IETF RFC 2403 (Proposed Standard) produces a 128-bit authenticator and Secure Hashing Algorithm (SHA-1) defined by RFC 2404 (Standard) produces a 160-bit authenticator. The AH does not keep the data confidential, and is meant for occasions when "ONLY" authentication is needed.

#### Encapsulation Security Payload (ESP)

ESP, defined in IETF RFC 2406 (Proposed Standard), encrypts the information to prevent monitoring by a non-trusted entity. ESP can also be used for authentication. The ESP authentication field contains the cryptographic checksum that is computed over the remaining part of the ESP (minus the ESP authentication field itself). AH authentication differs from the ESP's version in that the ESP authentication does not protect the IP header that precedes the ESP header.

The ESP authentication can be used instead of the AH to reduce the packet processing and it performs one "transform" operation instead of two steps, also prevents replay attacks by keeping track of the sequence number much like AH, however this would compromise the validity of the header. There are two types of tunnel mode in both types the original IP header information is encrypted; the down side is that it does not

work across NAT (Network Address Translation). In the transport mode the original IP header is not encrypted and may work across NAT.

ESP most widely used encryption schemes are:

- Data-Encryption Standard (DES) uses a 56-bit encryption IETF RFC 2405 (Proposed Standard)
- Triple DES (3DES) uses 168-bit encryption by passing the data through the DES algorithm 3 times IETF RFC 2405

### **Key Management**

The two most commonly used methods for key exchange, is manual keying which is suitable for a small number of sites; the other method is by a protocol defined by IETF RFC 2409 (Proposed Standard) “Internet Key Exchange (IKE)”. “IKE” is the combination of “ISAKMP” and “Oakley”, the “Internet Security Association and Key Management Protocol (ISAKMP)” defined by IETF RFC 2408 (Proposed Standard) provides the framework for authentication and key exchange, and the Oakley protocol defined by IETF RFC 2412 (Informational) describes various modes of key exchange.

### **Manual Key Exchange**

Manual exchange is the easiest form of key management for a small number of sites. Both sides of the IPsec tunnel must be configured manually with the appropriate keys. However there are many disadvantages with manual keying:

- Manual intervention is needed to update or change the keys.
- Since manual changing of keys is normally infrequent, the attacker has more time to crack the key and to decrypt data.
- There is a chance of error in configuration since the same key needs to be configured on the two different endpoints of the IPsec tunnel.
- If the person with access to the keys leaves or becomes untrustworthy, lengthy configuration changes need to take place.
- The keys in the configuration need to be protected in some manner from outside attack.

## **3. CONCLUSIONS**

The Fixed and Mobile Services and Network Signaling Rapporteur Group recommends the endorsement of IETF RFC 2401 “Security Architecture for the Internet Protocol” by the Members and associate members of CITEI PCC.I. Furthermore, the group recommends that RFC 2401 be accepted with no deletions, additions or modifications to its normative references.

## **4. FUTURE WORK**

For the last three years, the Working Group of Standards Coordination has been studying multiple aspects of Next Generation Networks, including protocols definition and Network Security. Document PCC.I/doc.0202/03 [2] presents an updated version of these studies. It is therefore to be expected that future studies on various areas of that document will result on a number of future Coordinated Standards Documents.

## **5. RESOURCE DOCUMENTS**

- [1] "Security Architecture for the Internet Protocol" IETF RFC 2401.
- [2] "Next Generation Networks – Standards Overview"; PCC.I/doc. 0202/03, (September 2003).

### **PCC.I/RES. 47 (IV-04)<sup>5</sup>**

#### **STUDIES ON THE ECONOMIC ASPECTS AND CHARACTERISTICS OF INTERNET PROTOCOL TELEPHONY**

The IV Meeting of Permanent Consultative Committee I: Telecommunication Standardization,

#### **OBSERVING:**

- a) That at the III Meeting of Permanent Consultative Committee I: Telecommunication Standardization (PCC.I) held on September 22-26, 2003, in Mexico City, Mexico, was approved Resolution PCC.I/RES. 39 (III-03), resolving to develop a study on the economic aspects of Internet Protocol Telephony under the coordination of Mexico, in the framework of the Working Group on Economic Aspects and Tariff Principles; and
- b) Likewise, at the III Meeting of PCC.I, it was resolved to request the Member States and associate members comments about the structure of the study on voice characteristics in converging networks and the sending of contributions for each one of the chapters identified by the III Meeting of PCC.I in the annex of document CCP.I-TEL/doc. 276/03, in the framework of the Working Group on Advanced Network Technologies and Services,

#### **CONSIDERING:**

That both studies can be mutually complementary, since, among other issues, they incorporate technical and economic aspects,

#### **TAKING INTO ACCOUNT:**

That the information supplied by the countries was really valuable to move forward in the above-mentioned studies,

#### **RESOLVES:**

1. To request the Member States and associate members for comments on the studies under way, as well as to send contributions for each technical and economical issue to be developed in these studies, specifically indicating whether in their countries there are regulations for this or not.
2. To invite the Member States and associate members to join both Discussion Groups at the Electronic Forum of CITELE (**SERVVOIP** and **TARIFF**).

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<sup>5</sup> CCP.I-TEL/doc.426/04 cor.1

3. To take into consideration the following timetable of activities for the development of both studies:

<b>ACTIONS</b>	<b>April/ 04</b>	<b>May/ 04</b>	<b>June /04</b>	<b>July /04</b>	<b>August /04</b>
- Gathering information on regulation in various countries through the Discussion Groups at the Electronic Forum of CITEL ( <b>SERVVOIP</b> and <b>TARIFF</b> ).		X			
- Processing the information that is gathered.		X	X		
- Preparation of the preliminary draft, which will be distributed on the Discussion Groups at the Electronic Forum of CITEL ( <b>SERVVOIP</b> and <b>TARIFF</b> )			X	X	
- Presentation of study progress report.				X	
- Presentation of study's final report.					V <b>Meeting PCC.I</b>

**RECOMMENDS:**

1. That the above-mentioned work be continued in the respective Working Groups in accordance with the approved mandates.
2. That, for these activities, existing Discussion Groups, in both Working Groups, continue to be used for mutual feedback.
3. That close coordination be maintained among those responsible for both Working Groups to avoid duplicating efforts.
4. That the final results of both studies be later merged into one single report, in view of the complementary nature of the mandates.

**PCC.I/RES. 48 (IV-04)<sup>6</sup>**

**AGENDA, VENUE AND DATE OF THE V MEETING OF PCC.I**

The IV Meeting of the Permanent Consultative Committee I: Telecommunication Standardization,

**RESOLVES:**

1. To hold the V Meeting of the Permanent Consultative Committee I: Telecommunication Standardization in Asunción, Paraguay, August 3 to 6, 2004.
2. To adopt the Draft Agenda for the V Meeting of PCC.I attached in the annex to this resolution.

**ANNEX TO RESOLUTION PCC.I/RES. 48 (IV-04)**

**DRAFT AGENDA OF THE V MEETING OF PCC.I**

1. Approval of the agenda and schedule of activities
2. Establishment of the Drafting Group for the final report
3. Report and meeting of the Working Groups:
  - 3.1 Working Group on Standards Coordination
  - 3.2 Working Group on Advanced Network Technologies and Services
  - 3.3 Working Group on MRA and Certification Processes
  - 3.4 Working Group on Economic Aspects and Tariff Principles
  - 3.5 Working Group on Preparations for the World Telecommunication Standards Assembly
  - 3.6 Working Group on Preparations for the World Conference on International Telecommunications (WCIT)
4. Approval of the Final Report
5. Agenda, venue and date for the VI Meeting of PCC.I
6. Other Business

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<sup>6</sup> CCPI-TEL-0425/04

**PCC.I/RES. 49 (IV-04)<sup>7</sup>**

**CYBERSECURITY**

The IV Meeting of the Permanent Consultative Committee I: Telecommunication Standardization,

**RECOGNIZING:**

- a) That ensuring the safety and security of networked information systems (cybersecurity) is a priority item for our hemisphere;
- b) That ubiquitous and secure information networks play an important role for the critical infrastructure of all OAS Member States, their economies and their societies; and
- c) That the next generation networks (NGNs) presently being designed and standardized can take into account technologies and techniques to ensure their robustness and harden their resilience to cyber attacks,

**TAKING INTO CONSIDERATION:**

- a) That secure and efficient operation of the global telecommunications infrastructure is crucial to the welfare and development of all sectors of the economy and therefore is of vital interest to both governments and the private sector; and
- b) The increasingly frequent and insidious number of cyber attacks on networks, institutions and users, which is causing all kinds of harm, especially those moral, economic and financial,

**CONSIDERING:**

- a) That CITEI, CICTE (the Inter-American Committee Against Terrorism of the OAS) and REMJA (the Meeting of Justice Ministers or Attorneys General of the Americas) are working towards the development of a hemispheric-wide strategy for cybersecurity, as determined by the OAS General Assembly in Resolution AG/RES.1939(XXXIII-O/03);
- b) The workshop held jointly by the Working Group on Advanced Network Technologies and Services and the Working Group on Standards Coordination on cybersecurity at the IV PCC.I Meeting in Quito, Ecuador, addressed the key issues of cybersecurity as related to CITEI; and
- c) The important commitments undertaken by the Heads of State and Government of the Region, as expressed in the Nuevo Leon Declaration, including the encouragement of affordable access to information and communications technologies for all,

**FURTHER CONSIDERING:**

That CITEI, through its partnering with the private sector on issues in its areas of responsibility, and through its Work Plan for advanced network issues, and in particular cybersecurity and NGNs, can make

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<sup>7</sup> CCP.I-TEL/doc.427/04 rev.2

an important contribution to both raising awareness of critical issues potentially impacting the Region and refining its work plans in these areas through facilitation of focused discussion and information sharing.

**RESOLVES :**

1. To approve the attached contribution of CITELE to the OAS Cybersecurity Strategy and forward it to the OAS Committee on Hemispheric Security for review and submission to the OAS General Assembly in June 2004.
2. To request the CITELE's Rapporteur on Cybersecurity and Critical Infrastructure matters to convey a copy of this Resolution to the CICTE/CITELE/REMJA Joint Working Group on Cybersecurity.

**INVITES:**

- a) The Working Group on Advanced Network Technologies and Services and the Working Group on Standards Coordination to continue working on the issue of cybersecurity and to report back to PCC.I on their findings on this particular matter.
- b) The Chairman of PCC.I to send a letter to the Chairman of the OAS Committee on Hemispheric Security attaching a copy of this Resolution.

**ANNEX TO RESOLUTION PCC.I/RES.49 (IV-04)**

**CITELE: The Identification and Adoption of Technical Standards for a Secure Internet Architecture**

An effective cyber security strategy must recognize that the security of the network of information systems that comprise the Internet requires a partnership between government and industry. Both the telecommunications and information technology industries and the governments of OAS Member States are seeking cost-effective comprehensive cybersecurity solutions. Security capabilities in computer products are crucial to the overall network security. However, as more technologies are produced and integrated into existing networks, their compatibility and interoperability -- or the lack thereof -- will determine their effectiveness. Security must be developed in a manner that promotes the interweaving of acceptable security capabilities with the overall network architecture. To achieve such integrated, technology-based cybersecurity solutions, network security should be designed around international standards developed in an open process.

The development of standards for Internet security architecture will require a multi-step process to ensure that adequate agreement, planning, and acceptance is achieved among the various governmental and private entities that must play a role in the promulgation of such standards. Drawing upon the work of such standards development organizations as the Standardization Sector of the International Telecommunication Union (ITU-T), CITELE is identifying and evaluating technical standards to recommend their applicability to the Americas region, bearing in mind that the development of networks in some of the OAS Member States has suffered some delays, which implies that for those countries, the achievement of a certain degree of quality for their networks will be important to fully realize adequately secure information exchange systems. To expedite its work, CITELE and the ITU-T organized a joint workshop on Cybersecurity in March 2004. CITELE is also establishing liaisons with other standards bodies and industry fora to obtain the participation and feedback of those parties.

The identification of cyber security standards will be a multi-stepped process. Once CITELE's evaluation of existing technical standards is completed, it will recommend the adoption of standards of particular importance to the region. It will also, on a timely and ongoing basis, identify obstacles to implementation of those security standards in the networks of the region, and possible appropriate action that may be considered by Member States.

The development of technical standards is not a "one-size-fits-all" endeavor. CITELE will evaluate regional approaches to network security, deployment strategies, information exchange, and outreach to the public and the private sector. As part of this effort CITELE will identify resources for best practices for network communication and technology-based infrastructure protection. This process will require that CITELE review the objectives, scopes, expertise, technical frameworks and guidelines associated with available resources in order to determine their applicability within the Americas region to determine which ones are most appropriate. CITELE will continue to work with Member States to assist them for the most appropriate and effective implementation.

CITELE's contribution to the cyber security strategy will take a prospective approach and seek to foster information sharing among Member States to promote secure networks. It will identify and evaluate technical issues relating to standards required for security of future communications networks across the region, as well as existing ones. This task will draw primarily on the work of ITU-T. Through CITELE, other existing standards-setting bodies, will also be considered, as appropriate. Ultimately, CITELE will highlight security standards of particular importance and recommend that Member States endorse those standards. It is also important to highlight the crucial role of CITELE in promoting capacity building and training programs so as to advance the process of spreading technical and practical information related to cybersecurity issues.

CITELE recognizes that, although the first priority must focus on public policies which will bring the benefits of telecommunications and information technologies to all citizens of the OAS Member States, strengthening the private/public partnership that will result in the wide scale adoption of a framework of technical standards that help secure the Internet will require communication and cooperation among and within the communities that are stakeholders in this partnership. CITELE will foster cooperation among Member States on aspects related to network security by helping Administrations adopt policies and practices that encourage network and service providers to implement technical standards for secure networks. The new edition of the Blue Book – "Telecommunications Policies for the Americas", a joint publication of CITELE and ITU, will include a chapter on cybersecurity. CITELE will also foster dialogue within the relevant technical and governmental communities regarding work on network and cyber security through joint seminars with the ITU on Security standards. The actions of CITELE may also include matters relating to telecommunications policies, practices, regulations, economic aspects and the responsibilities of the users, all within the legal framework within which the telecommunications services operates, and within the duties and responsibilities of CITELE.

**PCC.I/RES. 50 (IV-04)<sup>8</sup>**

**CITEL PREPARATIONS FOR THE WORLD TELECOMMUNICATION STANDARDIZATION ASSEMBLY**

The IV Meeting of Permanent Consultative Committee I: Telecommunication Standardization,

**HAVING EXAMINED:**

The results of the discussions held in the Working Group on Preparations for the 2004 World Telecommunication Standardization Assembly (WTSA-04) at the IV Meeting of PCC.I,

**TAKING INTO ACCOUNT:**

- a) The procedures established the preparation of inter-American proposals for the WTSA-04 adopted by means of Resolution PCC.I/RES. 31 (III-03);
- b) The advisability of identifying Coordinators for each work topic; and
- c) The existing resolutions of WTSA-2000,

**RESOLVES:**

1. To approve the work topics for the preparation of WTSA-04 and appoint the respective coordinators as indicated in the Annex.
2. To establish the following functions for the coordinators:
  - To consult the opinions of the Administrations regarding their corresponding work topic and, on the basis of these consultations, to draw up draft proposals for presentation at the Washington meeting with subsequent follow-up.
  - To report the progress of their work at the Working Group meetings held to prepare for WTSA-04.
  - To perform other activities deemed necessary by the Chair of the Working Group.
3. To establish that the Administrations listed in the Annex have two weeks to provide the CITEL Secretariat with the names of those people who will act as coordinators.
4. To establish that those Administrations wishing to coordinate one of the topics also have two weeks to communicate this to the CITEL Secretariat.

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<sup>8</sup> CCP.I-TEL/doc.422/04 rev.1

**ANNEX TO RESOLUTION PCC.I/RES.50 (IV-04)**

**WORK TOPICS FOR THE PREPARATION OF WTSA-04**

<b>Topic</b>	<b>Coordinators</b>
• Basic principles of the ITU-T role (for example, improvement of the conditions of participation of developing countries)	Ecuador
• ITU-T Restructuring	Brazil
- SG-2	Brazil
- SG-3 (to maintain the SG)	Argentina
- Focal group for mobile technology (SSG)	Brazil
- SG9+SG16	Uruguay
- Focal point for Next Generation Networks (NGN)	Canada, Uruguay
- TDR as a block	
- Treatment of security issues	Argentina, Canada
- Conditions for the creation of ITU-T Study Groups ( <i>critical mass</i> )	Guatemala, Nicaragua
• Working procedures	
- Approval procedure of recommendations	United States
- Relation of ITU-T with other organizations	
- Selection and approval of study questions	
- Function of “project groups” and “other groups”	
• Function of Telecommunication Standardization Adviser Group (TSAG) between Assemblies	United States
• Recommendation A9 “SSG Procedures”	Dominican Republic, Uruguay
• Cost of access to ITU-T recommendations	Paraguay
• Review of Recommendation A7	El Salvador, Panama

**PCC.I/RES. 51 (IV-04)<sup>9</sup>**

**INTERNATIONAL TELECOMMUNICATIONS QUESTIONNAIRE**

The IV Meeting of Permanent Consultative Committee I: Telecommunication Standardization,

**TAKING INTO ACCOUNT:**

a) That, in accordance with Resolution CITEI/RES. 43 (III-02) of the III Regular Session of the Assembly of the Inter-American Telecommunication Commission (CITEI), it has been established that one of the objectives of the PCC.I is to “act as a technical advisory body within the Inter-American Telecommunication Commission with respect to telecommunications equipment certification processes, tariff principles and standards coordination for telecommunication networks and services with the goal of ensuring the interoperability of such networks and services within the region”;

<sup>9</sup> CCP.I-TEL/doc.442/04 rev.1 cor.1

b) That the mandate of said Committee envisages, “in accordance with the International Telecommunication Union (ITU) Regulations and taking into account the ITU Recommendations, to undertake the coordination of regional preparations for World Conferences on International Telecommunications, World Telecommunication Standardization Assemblies, including the preparation of inter-American proposals (IAP) and common positions, as well as to undertake inter-regional consultations in preparation for these conferences”;

c) That the Plenipotentiary Conference of the International Telecommunication Union (Marrakesh, 2002) approved Resolution 121 as the basis for analysis of the International Telecommunication Regulations; and

d) That this resolution resolved that “the Union should continue a process of reviewing the International Telecommunication Regulations (ITRs); and that a world conference on international telecommunications (WCIT) be convened at the seat of the Union in 2007 or 2008, on the basis of the recommendations arising from this process of review”;

**CONSIDERING:**

a) That the First Meeting of PCC.I passed Resolution PCC.I/RES 4 (I-02), whereby the following mandate was established for the Working Group on the Preparations for the World Conference on International Telecommunications (WG-WCIT): “Considering that the principal output of such a conference is the review of the International Telecommunication Regulations (ITR), the group will consider the agenda for the World Conference on International Telecommunications convened under the auspices of the International Telecommunication Union (ITU) in order to promote the interests of the member States of the Americas region in this international forum”; and

b. That the Work Plan of the WG-WCIT, approved by means of Resolution PCC.I/RES. 40 (III-03), considers performing over the current year the gathering of information on domestic regulation of international telecommunications (questionnaires and/or enquiries), as well as the initial analysis of the current content of the International Telecommunication Regulations (ITR) of the ITU,

**CONSIDERING ALSO:**

a) That, in compliance with the preceding “considering” clause, the III Meeting of the PCC.I, resolved to create a Discussion Group on the Electronic Forum of CITELE open to the participation of the Member States and associate members of CITELE; and

b) That, in spite of the above, no contributions regarding this topic have as yet been received in said Discussion Group,

**RESOLVES:**

To request the CITELE Administrations to duly fill out the questionnaire in the appendix to this Resolution and forward it to the CITELE Secretariat by June 30, 2004.

**INSTRUCTS THE EXECUTIVE SECRETARY OF CITELE:**

a) To send the questionnaire attached to this Resolution to the CITELE Administrations so they will duly comply with the provision of the *resolves* clause.

b) That, on behalf of the Chair of the Working Group on Preparations for the World Conference on International Telecommunications, sends the CITELE Administrations the background to the review of the International Telecommunication Regulations.

**ANNEX TO RESOLUTION PCC.I/RES.51 (IV-4) <sup>10</sup>**

<b>Questionnaire on International Telecommunications</b>
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<b>Section A. Domestic regulatory framework in place</b>
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<b>A.1. International Telephony Traffic</b>
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A.1.1. Please indicate under which regime the provision of international long distance services (ILDS) is offered in your country:

- Liberalization: \_\_\_\_\_
- Competition: \_\_\_\_\_
- Privatization: \_\_\_\_\_
- Duopoly: \_\_\_\_\_
- Monopoly: \_\_\_\_\_
- Other (indicate): \_\_\_\_\_

A.1.2. Please indicate if the provision of ILDS in your country is:

- Regulated: \_\_\_\_\_
- Not regulated: \_\_\_\_\_
- Undetermined: \_\_\_\_\_

A.1.3. If the ILSD is regulated in your country, indicate if regulation is considered in the following aspects, or if intervention of the authority is considered:

- Formalization of agreements with foreigner operators.
- Establishment of distribution (settlement) or termination rates.
- Connection point in your territory (international gateway).
- Others.

A.1.4. Indicate which bypass practices affect the most to the ILSD in your country.

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<sup>10</sup> CCP.I-TEL/doc.419/04 rev.1

A.1.5. Regarding the international traffic routed to or from your country, provide the following information:

1998  
1999  
2000  
2001  
2002  
2003

Total outgoing traffic (minutes)

Total incoming traffic (minutes)

Total number of ILDS providers (operators)

A.1.6. Indicate the 5 principal routes for your country.

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

## **2. Other International Traffic**

A.2.1. Indicate if in your country traffic exchange via Internet is:

- Deregulated
- Regulated to a transport network level
- Regulated to a final user service level
- Regulated to a contents level
- Undetermined

A.2.2. If this traffic is regulated to some specific level, indicate which are the main aspects of such regulations.

A.2.3. Please mention if in your country the Telephony service over Internet Protocol (IP Telephony) is:

- Prohibited. \_\_\_\_\_
- Regulated: \_\_\_\_\_

- Not regulated: _____
- Undetermined: _____
A.2.4. Is there in your country a government plan or strategy for the development of IP Telephony? Please explain.
A.2.5. Which opportunities or disadvantages do you consider that IP Telephony might bring to the different agents on the telephony service market?
<b>Section B. Short and mid term expectations on the domestic regulatory framework</b>
<b>1. International Telephony Traffic</b>
B.1.1. Has your Administration foreseen a substantial reform or modification to the regulatory framework for the ILDS?
B.1.2. Which aspects of your regulation do you foresee to be modified?
<b>2. Other International Traffic</b>
B.2.1. Has your Administration foreseen the implementation of regulatory measures for the traffic exchange via Internet?
B.2.2. Has your Administration foreseen the prohibition or regulation of the IP Telephony service?
<b>Section C. International regulatory framework in place</b>
<b>1. International Telephony Traffic</b>
C.1.1. Indicate if at present your Administration applies or takes as a reference the International Telecommunication Regulations (ITR).
C.1.2. Do you consider necessary the existence of international regulation for telephony traffic? Please explain.
<b>2. Other International Traffic</b>
C.2.1. Do you consider that the present ITR can be applied to other international telecommunication services?
C.2.2. Do you consider appropriate the present system of interconnection agreements between backbone providers for the exchange of Internet traffic?
C.2.3. Do you consider that these kind of commercial relationships should be regulated internationally? Please explain.
<b>Section D. Expectation on international regulation</b>
<b>1. International Telephony Traffic</b>
D.1.1. In the case that the ITR was amended, which basic elements do you consider an updated ITR should include?
D.1.2. Does your Administration participate or it would participate in the ITU Council Working Group for the revision of the ITR?
D.1.3. Please mention if your Administration would support the realization of a World Conference on International Telecommunications for the year 2007 or 2008?
<b>2. Other International Traffic</b>
D.2.1. Indicate which aspects relative to other international services should be considered in the ITR.
D.2.2. Particularly, regarding the international traffic via Internet, which provisions do you consider an updated ITR should include.
<b>Section E. Other issues</b>
What additional issues does your Administration consider should be included within this framework?

**PERFORMANCE INDICATORS FOR CITEL'S STRATEGIC PLAN**

The IV Meeting of the Permanent Consultative Committee I: Telecommunication Standardization,

**CONSIDERING:**

a) That by means of Resolution COM/CITEL RES. 149 (XII-02) CITEL'S Strategic Plan for 2002–2006 was approved; and

b) That the XIII Meeting of the Permanent Executive Committee of CITEL, by Resolution COM/CITEL RES. 161 (XII-03), resolved:

“... ”

1. To develop courses of action and to prepare indicators measuring the degree of progress resulting from the carrying out of activities scheduled in the Strategic Plan.

2. To add annual indicators to the CITEL's Strategic Plan for the period 2002-2006, in order to compare expectations with the actual results obtained at the end of each year, thus making it possible to measure performance or progress in fulfillment, mainly with regard to strategic objectives and priorities.

3. To approve the format attached hereto as an integral part of the Strategic Plan, in order to clearly and simply state each of the strategic objectives, the strategic priorities, the courses of action and the indicators through which the degree of progress in fulfillment of the goals will be measured.

4. To establish the following methodology for compliance with the summary table containing the strategic objectives and priorities of the CITEL's Strategic Plan for 2002-2006:

To request the different CITEL's Working Groups, as well as the Permanent Consultative Committees (PCC) and other groups forming part of CITEL's structure, to provide the Chair of the Working Group on CITEL's Strategic Plan with the strategic objectives and priorities, courses of action and indicators allowing to evaluate compliance with CITEL's Strategic Plan.

...”

c) That the Chairperson of the Working Group on the Strategic Plan of CITEL recommended the CITEL objectives and priorities to be considered by PCC.I, regarding the lines of action and indicators that will measure the progress of the planned work, in order to evaluate the results and fulfillment of the stated objectives,

**RESOLVES:**

1. To approve the completed questionnaire in the Annex to the present document.

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<sup>11</sup> CCP.I-TEL/doc.424/04

2. To instruct the Executive Secretary of CITEI to remit this document to the Chairperson of the Working Group on the Strategic Plan of CITEI.

**ANNEX TO RESOLUTION PCC.I/RES.52 (IV-04)**

**PCC.I ACTIONS REGARDING THE STRATEGIC OBJECTIVES AND PRIORITIES  
OF CITEL'S STRATEGIC PLAN FOR 2002-2006**

OBJETIVES OF CITEL'S STRATEGIC PLAN	PCC.I ACTIONS	INDICATOR	GOALS				
			2002	2003	2004	2005	2006
1. Maintain CITEL as the regional organization recognized in the world context of telecommunications	1.1 Participation in the World Telecommunication Standardization Assembly representing CITEL and presentation of common proposals of the Americas.	1.1 Resolutions regarding the mandates of PCC.I adopted at the WTSA	N/A	N/A		---	---
		1.2 Approval of common proposals	---	---		---	---
2. Accelerate the development of telecommunications in the Member States.	2.1 PCC.I actions regarding Standardization, the introduction of new technologies and services, cybersecurity, and the good governance of Internet domain names lead to the development of communications.	2.1. Telecommunication services penetration indicators					

<p>3. Promote training and technology transfer among Member States.</p>	<p>3.1 PCC.I has ongoing working ties with the Member States and associate members regarding to technology and training.</p>	<p>3.1 Please see document CCP.I-TEL/doc.356/04</p>	<p>---</p>	<p>---</p>			
<p>4. Promote economic, social, and cultural development in the Member States</p>	<p>4.1 As a result of the objectives pursued in items 2 and 3, there is economic and social development.</p>	<p>4.1 Telecommunication services penetration indicators</p>					
<p>5. Promote the establishment and development of the Global Information Society as a tool to achieve harmonious development, respecting the cultural and social characteristics of the Member States</p>	<p>5.1 These actions are a consequence of achieving items 2, 3 and 4.</p>	<p>5.1 Follow-up on the Declaration of Principles of the WSIS</p>	<p>---</p>	<p>---</p>			
		<p>5.2 Implementation of the Plan of Action of the WSIS</p>	<p>---</p>	<p>---</p>			
<p>6. Promote the implementation and evaluation of the Agenda for Connectivity in the Americas and the Plan of Action of Quito</p>	<p>6.1 These actions are a consequence of achieving the objectives of items 2, 3, 4 and 5.</p>	<p>6.1 Implementation of the Agendas for Connectivity of the Member Countries</p>	<p>---</p>	<p>---</p>			

<p>7. Promote among the Member States the coordination, planning, and harmonization of operation standards for telecommunication networks and services</p>	<p>7.1 PCC.I has a working group specializing in the coordination of technical standards, whose main objective is the application of these standards in the member countries.</p> <p>7.2 PCC.I's main work is to harmonize technical standards and at present it is working on Next Generation Networks.</p> <p>7.3 Establishment of the methodology for preparing standards.</p> <p>7.4 Application of the methodology in preparing the standards</p>	<p>7.1 Recommendations of PCC.I for standards harmonization</p> <p>7.2 Regulation on Next Generation Networks that is common for the region</p> <p>7.3 Common standards for the region</p>					
<p>8. Fulfill the mandates set forth in the Summit of the Americas held in Monterrey, Mexico in January 2004, as well as the mandates laid out in the Strategic Plan for the Permanent Consultative Committees and Working Groups</p>	<p>8.1 PCC.I is developing all the mandates set-up by the Monterrey Summit such as the implementation of the MRAs, good governance of Internet domain names, and standards coordination.</p>	<p>8.1 Harmonized standards for the region and in line with the MRAs</p>					

**SITUATION OF TELECOMMUNICATIONS IN INDIGENOUS COMMUNITIES OF THE AMERICAS**

The IV Meeting of the Permanent Consultative Committee I: Telecommunication Standardization,

**WHEREAS:**

In most CITEI Member States, the indigenous population, to a high degree, is a low income rural and urban population,

**CONSIDERING:**

a) That Resolution PCC.I/RES. 2 (I-02) establishes that considering the new mandates received from the III Assembly of the Inter-American Telecommunication Commission (CITEI) for PCC.I, Telecommunication Standardization, all tasks pertaining to the “Approval of the Questionnaire for Preparing a Comprehensive Study on the Status of Telecommunications of Indigenous Peoples in America” must be completed, setting the III Meeting of PCC.I as a deadline;

b) That in accordance with the aforementioned Resolution number PCC.I/RES. 2 (I-02), by means of document number CCP.I-TEL/doc. 273/03, the report of the Group of Rapporteurs for preparing a Comprehensive Study on the Status of Telecommunications of Indigenous Peoples in America was presented to the Plenary of the III Meeting of PCC.I, showing the current status of telecommunications in indigenous communities of different countries; and

c) That during the presentation of the aforementioned document CCP.I-TEL/doc. 273/03 several Administrations showed interest in expanding the information that was provided by the countries, for preparing a Comprehensive Study on the Status of Telecommunications of Indigenous Peoples in America,

**ACKNOWLEDGING:**

a) That the Discussion Group on the development of indigenous communities is in operation (DECOMIND); and.

b) That Decision COM/CITEI RES. 33 (XIII-03) establishes that the Discussion Group on Indigenous Communities will remain in effect, until the next Steering Committee Meeting, so that new contributions may be received,

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<sup>12</sup> CCP.I-TEL/doc.431/04

## **TAKING INTO ACCOUNT:**

- a) That the information provided by the countries that answered the survey was truly valuable for carrying out the above-mentioned study; and
- b) That it is possible to obtain additional data to complement the study in question,

## **RESOLVES:**

1. To consider complete the Comprehensive Study on the Status of Telecommunications of Indigenous Peoples in America, based on the new mandates received from the III Assembly of CITEL for the PCC.I, Telecommunication Standardization.
2. To submit the Report of the Group of Rapporteurs for preparing a Comprehensive Study on the Status of Telecommunications of Indigenous Peoples in America to COM/CITEL, in conformity with the provisions of Resolution PCC.I/RES. 2 (I-02).
3. To include the report of the Group of Rapporteurs in the above-mentioned Discussion Group, as a contribution to the report to be presented at the next Steering Committee meeting.
4. To ask the Chair of PCC.I, Telecommunication Standardization, to draw to the attention of the Chair of COM/CITEL and the CITEL Member Administrations regarding the importance of COM/CITEL continuing with studies of indigenous communities.

## **PCC.I/RES. 54 (IV-04) 13**

### **QUESTIONNAIRE ON THE DEVELOPMENT STATUS, USE AND PROMOTION OF SPACE TECHNOLOGIES**

The IV Meeting of the Permanent Consultative Committee I: Telecommunication Standardization,

## **CONSIDERING:**

- a) The IV Space Conference of the Americas proposed –among other things–the establishment of mechanisms for the identification and implementation of projects that promote the use of space technologies and also, emphasized the need to provide equitable and timely access to information obtained by means of satellites;
- b) The relevance of the Conference as a proper setting for reaffirming the commitment of the countries of the region to advancing the development of space activities, the peaceful application and use of technologies deriving from them and cooperation as an essential mechanism for achieving these objectives in an equitable manner;

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<sup>13</sup> CCP.I-TEL/doc.432/04

c) The important support of the United Nations through its Office for Outer Space Affairs and the Committee on the Peaceful Uses of Outer Space, for the development of the IV Space Conference of the Americas and its commitment to the application of programs and projects aimed at promoting greater utilization of space science and technology for promoting the economic and social development of the countries of the region; and

d) That the Pro Tempore Secretariat of the IV Space Conference of the Americas requested the assistance of CITELE for the preparation of a report on the status of the development, promotion and use of space technologies in the Americas,

**CONSIDERING ALSO:**

That a study of the reports can identify the difficulties and gaps of the countries and can lead to a program for promoting knowledge of space issues and of international cooperation on said issues,

**RESOLVES:**

1. To move forward the consultation it was asked to carry out regarding the issues that pertain to PCC.I.
2. To ask the CITELE Administrations take steps to complete the questionnaire contained in the annex to this resolution and send it to the CITELE Secretariat.
3. To encourage the countries of the region to continue with the identification and implementation of applications promoting the use space technologies, emphasizing the importance of issues such as risk management, prevention and mitigation of natural and man-made disasters, tele-education, tele-medicine and medical services and environmental protection.
4. To send the request of the Pro Tempore Secretariat of the IV Space Conference of the Americas to PCC.II so that the information contained in this questionnaire may be complemented with those aspects related to radiocommunications and broadcasting.

**INSTRUCTS THE EXECUTIVE SECRETARY WITH:**

Taking the necessary actions for executing the decision.

**ANNEX TO RESOLUTION PCC.I/RES.54 (IV-04)**

**QUESTIONNAIRE ON THE STATUS OF THE DEVELOPMENT, USE AND PROMOTION OF SPACE TECHNOLOGIES**

Administration:

Name of Contact Person:

Contact information for the contact person:

**1. LEVEL 1**

Development of technology.

- a. Subject areas in which space technology is being developed.
- b. Applications (The chart below gives examples of applications. Check the applications the administration has and include any information deemed necessary.)

Environmental protection and support for sustainable development.	
Prevention, early warning, rescue operations and mitigation of the effects of natural and man-made disasters	
Education, research and development in the sciences, technology and space applications	
Space Law	
<b>Positioning and Navigation:</b> -Transportation (maritime, air, land) -Geodesy -Telecommunications -Civil Engineering -Security -Fishing	
<b>Images:</b> -Meteorology -Space Oceanography -Administration of Natural Resources	
Agriculture and forestry	
City and Country Planning	
Financial and Banking Systems	
Metallurgy	
Construction, buildings, civil engineering	
Energy and administration of natural resources	
Health	
Tourism	
Others	

The country presenting the report may discriminate as it considers it would be useful for other countries.

**2. LEVEL 2**

Space agencies.

- a. Structure
- b. Objectives, etc.

**3. LEVEL 3**

Utilization of Special Technology.

- a. Sectors that utilize space technology.

Environmental protection and support for sustainable development.	
Prevention, early warning, rescue operations and mitigation of the effects of natural and man-made disasters	
Education, research and development in the sciences, technology and space applications	
Space Law	
<b>Positioning and Navigation:</b> -Transportation (maritime, air, land) -Geodesy -Telecommunications -Civil Engineering -Security -Fishing	
<b>Images:</b> -Meteorology -Space Oceanography -Administration of Natural Resources	
Agriculture and forestry	
City and Country Planning	
Financial and Banking Systems	
Metallurgy	
Construction, buildings, civil engineering	
Energy and administration of natural resources	
Health	
Tourism	
Others	

- b. Which applications do you use and where do you acquire the technology? What are your new requirements?

1. LEVEL 4

Promotion of knowledge of space technologies.

- a. What promotion programs do you have? At what level?
- b. Do you need support to structure programs.

2. LEVEL 5

Study programs on space technologies.

- a. The universities offer specific programs.
- b. Organizations that use space technologies or applications offer seminars or workshops to promote the study of specific topics?

#### **IV. DECISIONS**

The IV Meeting of Permanent Consultative Committee I: Telecommunication Standardization,

##### **DECIDES:**

**PCC.I/DEC. 11 (IV-04)** To reiterate the request, included in resolution PCC.I/RES. 29 (III-03), “Update of member states schedule of participation in the inter-american MRA and upload of annexes information to the MRA management system” that the Member States provide the information for Annexes 1, 2, 3 and 4, especially Annex 2, on the CITEL page. The instructions to download the information on the MRAMS are available from the above-mentioned Internet page.

**PCC.I/DEC. 12 (IV-04)** To accept the proposal submitted by the USTTI, CITEL’s Regional Training Center, to hold a Videoconference Seminar on Voice over IP, and it is suggested that this videoconference be held during the V meeting of PCC.I. The Chair of the Working Group on Advanced Network Technologies and Services shall coordinate the date and contents of the videoconference with USTTI. A note of thanks to USTTI will be sent by CITEL’s Secretariat for this interesting proposal.

- PCC.I/DEC. 13 (IV-04)14** Circulate once again the document “Guidelines and Practices of CITELE for Interconnection Regulation” whose update was approved by resolution PCC.I/RES. 37 (III-03). The time-limit for responding to this consultation will be June 14, 2004.
- PCC.I/DEC. 14 (IV-04)15**
1. To circulate document CCP.I-TEL/doc.384/04 “Status report, proposed work program and draft report outline for broadband access technologies” to all Member States and associate members requesting their inputs/suggestions on how to proceed in studying this matter, and
  2. To instruct the Executive Secretary to send a note to all Member States and associate members, on behalf of the Chair of PCC.I, inquiring if any of them is willing to take on the role of Coordinator for the Study Question on Broadband Access Technologies.
- PCC.I/DEC.15 (IV-04)16** To continue the study on Internet Domain Names and to circulate document CCP.I-TEL/doc.354/04 “Report on Internet domain names” to all Member States and associate members requesting their comments and contributions to the captioned matter.
- PCC.I/DEC.16 (IV-04)17** To instruct the Executive Secretary:
- 1- To send a letter to the Director General of ETSI, on behalf of the Chair of PCC.I, relaying our appreciation for the invitation made to CITELE for participating in ETSI Technical Committees’ activities announced in: [http://webapp.etsi.org/meetingcalendar/ViewMeetings.asp?qSTART\\_DATE=today](http://webapp.etsi.org/meetingcalendar/ViewMeetings.asp?qSTART_DATE=today), and
  - 2- To send a note to all Member States and associate members , on behalf of the Chair of PCC.I, informing them about this invitation made by ETSI and requesting that Members wishing to participate in ETSI Technical Committees’ meetings to do so through the Secretariat of CITELE.

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<sup>14</sup> CCP.I-TEL/doc.435/04

<sup>15</sup> CCP.I-TEL/doc.437/04 rev.1

<sup>16</sup> CCP.I-TEL/doc.437/04 rev.1

<sup>17</sup> CCP.I-TEL/doc.437/04 rev.1

## **V. LIST OF BASIC DOCUMENTS**

Summary Minutes of the Inaugural Session and the  
First Plenary Session:

CCP.I-TEL/doc. 417/04

Summary Minutes of the Second Plenary Session:

CCP.I-TEL/doc. 438/04

Summary Minutes of the Third Plenary Session  
and Closing Session:

CCP.I-TEL/doc. 444/04

List of Documents:

CCP.I-TEL/doc.348/04 rev.5

List of Participants:

CCP.I-TEL/doc.349/04 rev.2

Final Report for the Meeting

CCP.I-TEL/doc.445/04 rev.1