

**NGN IDENTITY MANAGEMENT FRAMEWORK**

The XIV Meeting of the Permanent Consultative Committee I: Telecommunications,

**CONSIDERING:**

- a) The importance of Identity Management to practically all forms of social and economic activity, as well as the technical development and deployment of all radiocommunication and telecommunication services for diverse entities (persons, organizations/providers, and objects), including:
  - a. authentication and credentials;
  - b. identifiers and their Resolution or use for access;
  - c. attributes including directories, presence and availability;
  - d. derivative identity information including reputation;
  - e. discovery and interoperability of the above authoritative resources;
  - f. identity assurance; and
  - g. identity management privacy, security and governance;
- b) That Identity Management capabilities are essential to almost all areas of telecommunications technology, including RFIDs, sensors, wireless and near-field devices, on-board GSM, IPTV, NGN, healthcare, emergency communications, e-government, disaster relief, product proofing against misuse of resources, lawful interception, mitigating identity theft;
- c) That the rapidly increasing implementation of nomadic and mobile network access by users, providers, and objects to a complex interconnected set of providers necessitate enhanced and new IdM capabilities;
- d) That effective protection of all kinds of national communications, transportation, electrical and other critical infrastructures are fundamentally dependent on effective Identity Management capabilities,

**RECOGNIZING:**

- a) That common frameworks can provide for trusted global discovery and interoperability of identity resources;
- b) That exist a common interest of network operators, service/application providers, government, and users in effective, trusted, interoperable frameworks for Identity Management,

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<sup>1</sup> CCP.I-TEL/doc.1682/09

## **RESOLVES:**

1. To endorse ITU-T Recommendation Y.2720 “NGN Identity Management Framework” with no deletions, additions or modifications.
2. That the Rapporteur Group on Standards Coordination continues to monitor identity management developments and determines its applicability for the Americas as this work evolves.

## **ANNEX TO RESOLUTION PCC.I/RES. 146 (XIV-09)**

### **SUMMARY**

A Standards Coordination Document is proposed which addresses ITU-T Recommendation Y.2720 – “NGN Identity Management Framework”. This Recommendation provides a framework for Identity Management (IdM) in Next Generation Networks (NGN). The primary purpose of this framework is to describe a structured approach for designing, defining, and implementing IdM solutions and for facilitating interoperability in a heterogeneous environment.

### **STANDARDS COORDINATION DOCUMENT**

### **NGN IDENTITY MANAGEMENT FRAMEWORK**

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

The term Identity management (IdM) is understood as "management by providers of trusted attributes of an entity such as a subscriber, a device, or a provider." IdM promises to reduce the need for multiple user names and passwords for each online service used, while maintaining privacy of personal information. Global IdM solutions will help diminish identity theft and fraud. Further, IdM is one of the key enablers for a simplified and secure interaction between customers and services such as e-commerce.

ITU-T Recommendation (Y.2720) “NGN Identity Management Framework” [1] specifies a structured approach for designing, defining, and implementing interoperable identity management solutions for next generation networks (NGN). The framework defined in Y.2720 provides a holistic view of IdM in NGN. It lays the foundation for developing specific aspects of IdM, including detailed requirements, mechanisms and procedures which will form the next stage of work for ITU-T experts.

The Working Group on Standards Coordination started to study Identity Management at the X PCC.I meeting in Buenos Aires, Argentina in March 2007 [2]. These studies continued [3] at the XII PCC.I meeting in Washington DC, USA in March 2008. In addition, Section 7.4 of the Next Generation Networks - Standards Overview Technical Notebook (PCC.I-TEL/doc. 1438/08) [4] provides a comprehensive description of Identity Management.

Identity management, a cornerstone of establishing trust in the evolving ICT infrastructure, is necessary to control access to services and infrastructures, to protect personal information, to perform online transactions, and to comply with legal and regulatory requirements. This CSD proposes that ITU-T Recommendation Y.2720, “Identity Management Framework” approved by the ITU-T SG 13 on January 23<sup>rd</sup> 2009, be endorsed by the PCC.I for the region of the Americas.

## 2. BACKGROUND

A global information society is emerging, a society based on fundamental principles, including the unimpeded ability to communicate with others. New forms of media, ubiquitous devices, and broadband interconnectivity are allowing all members of society to create innovative content and to share their creations with others.

Fundamentally, security and trust play key roles in enabling the global information society. For example, users must have the confidence that online transactions, either with business or government services, are secure and trustworthy. SMEs must also have trust and confidence in their e-business transactions. Security and trust become even more important factors with the use of ubiquitous wireless devices, allowing access to new media and services, where everyone is connected to everything.

Security in the emerging hyper-connected society requires, in part, robust management of digital identities to establish trust, to protect personal information, to control access to services and infrastructures, to perform online transactions, and to comply with legal and regulatory requirements. ICT infrastructures and services have typically evolved with a diverse set of identity management (IdM) solutions, many of which are highly distributed and autonomous. To address the need for a trusted, global, and interoperable IdM capability, ITU-T has developed an NGN IdM framework. This framework is documented in Recommendation Y.2720.

In a heterogeneous, converged environment such as NGN, the assurance, security and management of identity information faces unique challenges, including:

- End users are increasingly using multiple identities
- These identities may be associated with differing contexts and service privileges
- The identities may only partially identify the end user
- The identities may be used anywhere, anytime
- The identities may not be interoperable between providers

Recommendation Y.2720 addresses these challenges and identifies a set of functions and capabilities (e.g., administration, discovery, communication exchanges, correlation and binding, policy enforcement, authentication and authorization) to allow:

- Assurance of identity information (e.g., identifiers, credentials, and attributes)
- Assurance of the identity of an entity (e.g., users/subscribers, user devices, service providers, and network elements)
- Enablement of business and security applications.

This framework is intended to be used as a foundation to develop and specify specific aspects of IdM for NGN, such as detailed requirements, mechanisms and procedures, as needed. It also provides a clear and coherent overview of the totality of IdM in NGN.

It is worth to mention that Recommendation ITU-T Y.2720 results from a truly international effort involving governments, operators and equipment vendors from many countries, including Canada, China, Japan, Korea, the United States, and United Kingdom.

It should be noted that the use of the term ‘Identity’ in this Recommendation relating to IdM does not indicate its absolute meaning. In particular, it does not constitute any positive validation of a person.

### **3. CONCLUSION**

The Working Group on Technology recommends that PCC.I endorses ITU-T Recommendation Y.2720 “NGN Identity Management Framework” with no deletions, additions or modifications.

### **4. FUTURE WORK**

The Rapporteur Group on Standards Coordination will continue monitoring the progress of Identity management as CITELE Members State can benefit from these developments.

### **5. RESOURCE DOCUMENTS**

[1] ITU-T Recommendation Y.1220, “NGN Identity Management Framework”.

[2] “Highlights of the December 2006 ITU-T SG 17 Meeting” CCP.I-TEL/doc. 964/07, Buenos Aires, Argentina, March 2007.

[3] “Identity Management”, CCP.I-TEL /doc.1249/08, Washington, DC, USA, March, 2008.

[4] “Technical Notebook: Next Generation Networks – Standards Overview (August 2008)” CCP.I-TEL /doc.1438/08, Puerto Iguazú, Misiones, Argentina, August, 2008.