



International Telecommunication Union

Report on ISO/IEC/JTC1/SC27 Activities in Digital Identities

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ITU-T Workshop on "Digital Identity for NGN"
Geneva, 5 December 2006



Outline

- o Overview
- o Identity Management Activities
- o Concluding Remarks



ITU-T

SC 27 Membership

Brazil	Belgium	France	Netherlands	Sweden	USSR
Canada	Denmark	Germany	Norway	Switzerland	China
USA	Finland	Italy	Spain	UK	Japan
<i>founding P-Members (in 1990)</i>					

Russian Federation			South Africa	Kenya		
Korea		Ukraine	Malaysia	Austria	New Zealand	Uruguay
Australia	Poland	Czech Republic	India	Luxembourg	Singapore	Sri Lanka
1994	1996	1999	2001	2002	2003	2005/06
<i>additional P-Members</i>						

O-members:

- Argentina, Hong Kong, Indonesia, Belarus, Cyprus, Estonia, Hungary, Ireland, Israel, Lithuania, Serbia and Montenegro, Romania, Slovakia, Turkey

Overview

- SC 27 Meets Twice/Year and is Responsible for
 - ~ 90 Projects,
 - ~ 45 Active Projects
 - ~ 8 Active IdM Projects/Activities
- Between 1990 and Today, SC 27 has Published
 - 60+ International Standards (IS) and Technical Reports (TR)
- SC 27 IdM Collaboration includes:
 - ISO/IEC SC 37: Biometrics
 - ISO TC 68/SC 6/WG 10: Financial Services – Retail/Privacy
 - ITU-T SG 13: Next Generation Networks
 - ITU-T SG 17: Security, Languages, and Telecommunications Software
 - FIDIS: Future of Identity in Information Society
 - The International Conference of Data Protection and Privacy Commissioners
 - Open Group (IdM Forum and Jericho Forum)
- SC27 IdM Collaboration is expanding



ISO/IEC JTC 1/SC 27 "IT Security Techniques"

**ISO/IEC JTC 1/SC 27: Information technology -
Security techniques**

*Chair: Mr. W. Fumy
Vice-Chair: Ms. M. De Soete*

**SC 27 Secretariat
DIN
Ms. K. Passia**

**Working Group 1
Information
security
management
systems**
Convener
Mr. Humphreys

**Working Group 2
Cryptography
and security
mechanisms**
Convener
Mr. K. Naemura

**Working Group 3
Security
evaluation
criteria**
Convener
Mr. Mats Ohlin

**Working Group 4
Security
controls and
services**
Convener
Mr. Meng Choi

**Working Group 5
Identity
management
and privacy
technologies**
Convener
TBD



SC27's Identity Management Goals

- o Involve as many IdM Communities of Interest as Possible
- o Encourage IdM Standards Development Contributions
- o Emphasize IdM Interoperability and Trust Relationships among Identity Providers
- o Develop IdM Best Practices that Ensures Privacy
- o Support Auditing, Reporting and Compliance Regulatory Requirements
 - U.S. Sarbanes-Oxley new authentication and access controls requirements to include Separation of Duties



Identity Management and Privacy Technologies (WG 5)

- Study Period initiated by in late 2005
- WG 5 First Meeting in Nov 06
- **Scope:** Development and Maintenance of Standards and Guidelines addressing Security Aspects of Identity Management (IdM) and the Protection of Personal Information (PPI).
- **Current activities**
 - Framework for Identity Management (ISO/IEC 24760)
 - A Privacy Framework (ISO/IEC 29100)
 - A Privacy Reference Architecture (ISO IEC 29101)
 - Authentication Assurance (New)
 - Authentication Context for Biometrics (ISO/IEC 24761)
 - Biometric Template Protection (ISO/IEC 24745)
 - Official Privacy Documents (Standing Document - SD) (New)
 - Joint ITU-T and ISO SC 27 Workshop on Digital Identity (New)



Identity Management and Privacy Technologies (WG 5) (Continued)

Potential Future Topics

- Role Based Access Control
- IdM Provisioning
- Single Sign-On
- Privacy Infrastructures
- Identity Anonymity and Credentials
- Privacy Enhancing Technologies (PETs).

Privacy in a Global Environment

- World's Privacy Guidelines are Twenty-Years Old
 - EU Directive on Data Protection
 - OECD's Guidelines on the Protection of Privacy and Trans-border Flows of Personal Data
- Today Environment is different
 - Distributed vs Centralized Data bases
 - Significantly more Computing Power
 - More Invasive Data Collection
 - Routine Trans-border dataflow
 - Difficult to Destroy Information when it is No Longer needed



Framework for Identity Management (ISO/IEC 24760)

- What:
 - Provide a Framework for the Secure and Reliable Management of Identities
- Scope:
 - Applicable to Individuals and Devices
 - Defines IdM Terminology, Concepts and Models
 - Describes Basic Components of IdM, Federated Identities, and Control Objectives
 - Discusses the Life Cycle of Identities and Identity Information as they are Established, Modified, Suspended, Terminated or Archived.
 - Basis for Future ISO/SC27 Identity Standards
- Status: 2nd Working Draft

A Privacy Framework (ISO/IEC 29100)

- What: Privacy Safeguards for Personally Identifiable Information (PII)
- Scope
 - Applicable on International Scale
 - Provide Common Privacy Terminology
 - Define Privacy Principles when processing PII
 - Describe and Categorize Privacy Features
 - Relate Privacy Requirements to Existing Security Guidelines
 - Basis for Future ISO/SC27 Privacy Standards
- Status: 1st Working Draft - Scope and Outline



A Privacy Reference Architecture (ISO IEC 29101)

- What:
 - Best Practices for Consistent Technical Implementation of PII Privacy Requirements
- Scope:
 - Guidelines for the Planning and building architectures for the proper handling of PII
 - Privacy Framework First, then Architecture
- Status: Study Period - Call for Contributions in Following Areas ...
 - Existing Implementation Guidelines
 - Challenges/Questions
 - Privacy Technologies
 - Technology Forecast i.e. Maturity Levels
 - Case Studies
 - White Papers

Authentication Assurance (New Work Item Proposal)

- What: Framework for Assessing “How Close” an Identity is to the Correct One
- Scope:
 - Provide Guidelines for Assigning Levels of Assurance to Identifiers that Account for:
 - Authentication Mechanism
 - Characteristics of Authentication Device
 - Location of Entity
 - Ease of Manipulation by an Attacker
 - Etc.
 - NIST SP800-63 “e-Authentication” provides Four Level of Assurance i.e. 1 to 4
- Status: National Body Letter Ballot



Official Privacy Documents (Standing Document – SD)

- What: Living List of Official Privacy Requirements, Regulations and Standards
- Scope:
 - Name of organization
 - Key Documents
 - Executive Summary
 - Hyperlinks
- Status:
 - Call for Contributions
 - Requesting Nominations for Editor



Joint ITU-T & ISO/SC 27 IdM Workshop

- o A **Proposal** to ITU-T SG 13 and SG 17
- o **When:** Oct 08, prior to SC27 Meeting
- o **Where:** Potentially Lucerne, Switzerland
- o **Why:**
 - Follow-up to 5 Dec 06 ITU-T Identity Workshop
 - Bridge Gap between Network Service Providers, IT Security Experts, and IdM Community
- o **How:**
 - IdM Expert Presentations
 - IdM Standards Bodies and Consortiums Reports
 - IdM Telecommunications Case Studies

SC 27 - Summary

o Next Meetings

- May 2007 Moscow, Russia
- Oct 2007 Lucerne, Switzerland

o More Information & Contact

- SC 27 web-page: scope, organization, work items, standing documents (SDs), etc.

<http://www.ni.din.de/sc27>

- SD7: Catalogue of SC 27 Projects and Standards
- SC 27 Secretariat: Krystyna.Passia@din.de
- SC 27 Chairman: Walter.Fumy@siemens.com



International Telecommunication Union

Back - Up Slides

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Authentication Context for Biometrics: ACBio (ISO/IEC 24761)

- o WG 1 Proposal - April 2005
- o Example of Authentication Assurance Standard
- o Biometric verification depends on the Quality of the Device Used
- o In the Internet, a Biometric Verifier may NOT Know the Biometric Device's Quality,
- o Better decision possible if knew Device's Quality

Authentication Context for Biometrics: ACBio (ISO/IEC 24761)

Continued

- Scope: A data format for data generated by the Five Biometrics Processing Units (BPU) described in ISO/IEC19092-1
 - Data Capture, Signal Processing, Storage, Comparison, Decision
 - An ACBio instance includes Reports about
 - Accuracy of each BPU
 - Quality of the Data generated by BPU
 - Security (tamper-resistance) of the BPU
- Status: Final Committee Draft (FCD)