

ITU-T SG 17 Achievements in ICT Security Standardization

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Topics

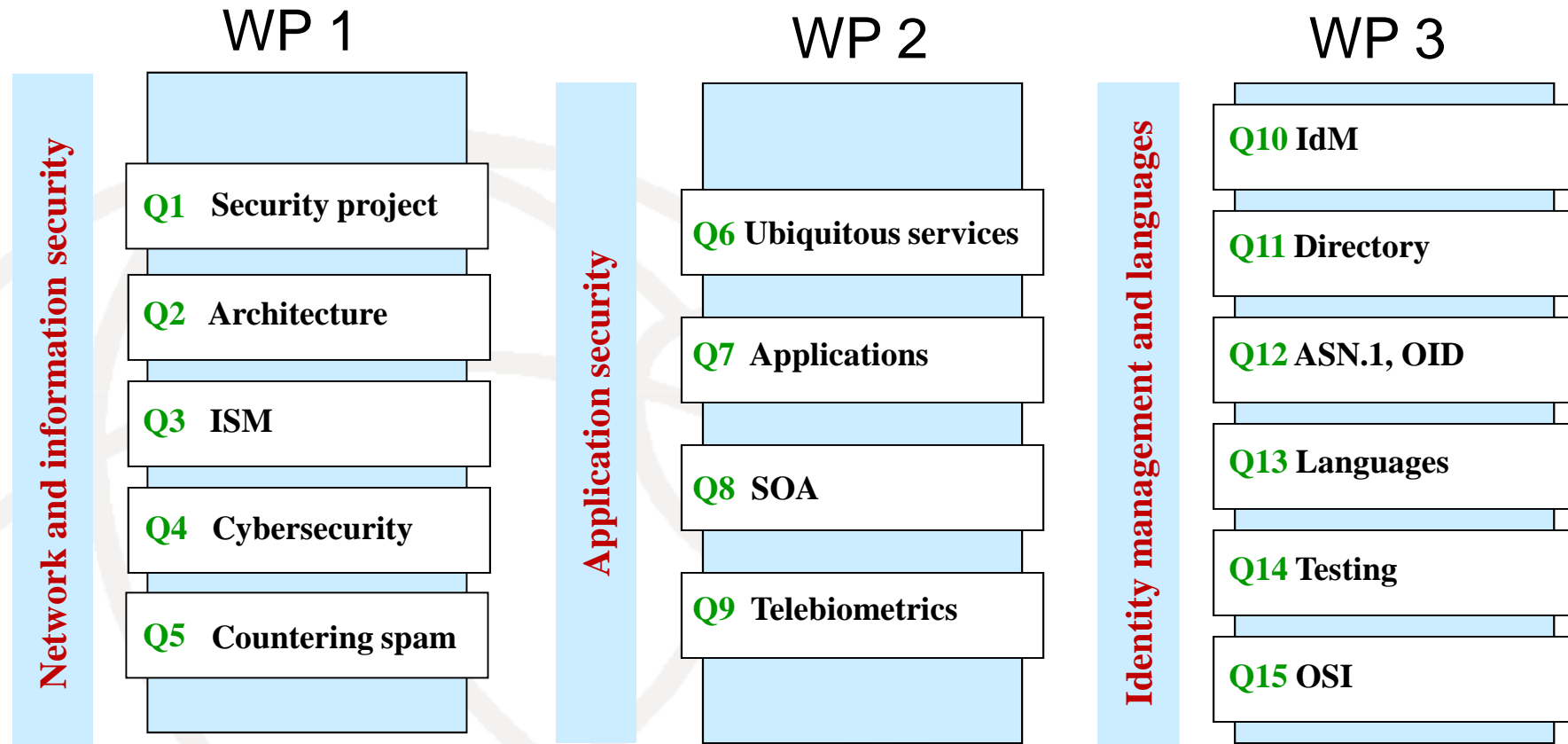
- ITU Plenipotentiary Conference Actions on ICT Security
- Brief recap of SG 17 work program
- Update on SG 17 Security Standardization Work Since the last ETSI Security Workshop:
 - ITU-T Recommendations Approved or Approval Process Initiated in 2010
 - New Work Items Initiated in 2010
 - Security Project
 - Collaboration
- Useful references

ITU Plenipotentiary Conference Actions on ICT Security

- Strengthening the role of ITU in building confidence and security in the use of information and communication technologies (Res. 130)
- The use of telecommunications/information and communication technologies for monitoring and management in emergency and disaster situations for early warning, prevention, mitigation and relief (Res. 136)
- ITU's role with regard to international public policy issues relating to the risk of illicit use of information and communication technologies (Res. 174)
- Conformance and Interoperability (Res. 177)
- ITU role in organizing the work on technical aspects of telecommunication networks to support the Internet (Res. 178)
- ITU's role in child online protection (Res. 179)
- Definitions and terminology relating to building confidence and security in the use of information and communication technologies (Res. 181)

Brief recap of SG 17 work program

As of 1 January 2011, responsible for 268 approved Recommendations and 8 approved Supplements in the E, F, X and Z series.




Lead Study Group on:

- Telecommunication security
- Identity management (IdM)
- Languages and description techniques

“Parent” for Joint Coordination Activity:

- Identity management
- Conformance & interoperability testing



Update on SG 17 Security Standardization Work Since the last ETSI Security Workshop (January 2011)

ITU-T Recommendations Approved or Approval Process Initiated in 2010 (1/3)

SG 17 Question	Recommendation		Equivalent	Action
	Acronym	Title		
2, Security architecture and framework	X.1032 (X.interfaces)	Architecture of external interrelations for a telecommunication network security system	None	Approved
	X.1034 (revised)	Guideline on extensible authentication protocol based authentication and key management in a data communication network	None	Consented
4, Cybersecurity	X.1209 (X.sisfreq)	Capabilities and their context scenarios for cybersecurity information sharing and exchange	None	Approved
	X.1500 (X.cybex)	Cybersecurity information exchange techniques	None	Determined
	X.1520 (X.cve)	Common vulnerabilities and exposure (CVE)	None	Determined
	X.1521 (X.cvss)	Common vulnerability scoring system (CVSS)	None	Determined
	X Suppl. 8	X Suppl. 8: ITU-T X.1205 – Supplement on best practices against botnet threats	None	Approved
5, Countering spam by technical means	X.1243 (X.tcs-1)	Interactive gateway system for countering spam	None	Approved
	X.1245 (X.fcsip)	Framework for countering spam in IP-based multimedia applications	None	Approved
6, Security aspects of ubiquitous telecommunication services	X.1101 (X.mcsec-1)	Security requirements and framework for multicast communication	None	Approved
	X.1195 (X.iptvsec-5)	Service and content protection (SCP) interoperability scheme	None	Consented
	X.1311 (X.usnsec-1)	Security framework for ubiquitous sensor network	ISO/IEC 29180	Consented
	X.1312 (X.usnsec-2)	Ubiquitous sensor network (USN) middleware security guidelines	None	Consented

ITU-T Recommendations Approved or Approval Process Initiated in 2010 (2/3)

SG 17 Question	Recommendation		Equivalent	Action
	Acronym	Title		
7, Secure application services	X.1153 (X.sap-3)	A management framework of an one time password-based authentication service	None	Consented
9, Telebiometrics	X.1081, Amd.2	The telebiometric multimodal model – A framework for the specification of security and safety aspects of telebiometrics – Amendment 2: Enhancement to support ISO/IEC 80000-series	None	Approved
	X.1082, Amd.2	Telebiometrics related to human physiology – Amendment 2: Enhancement to support ISO/IEC 80000-series	IEC 8000-14, Amd.2	Approved
10, Identity management architecture and mechanisms	X.1252 (X.idmdef)	Baseline identity management terms and definitions	None	Approved
	X.1261 (X.EVcert)	Extended validation certificate framework	None	Determined
11, Directory services, directory systems and public-key/attribute certificates	E.115 (revised)	Computerized directory assistance	None	Approved
	X.500 series (2008)	7 Technical Corrigenda	ISO/IEC 9594 (2008)	Consented
	X.500 series (2005)	7 Technical Corrigenda	ISO/IEC 9594 (2005)	Consented
12, Abstract Syntax Notation One (ASN.1), Object Identifiers (OIDs) and associated registration	X.672 (X.oid-res)	Information technology – Open systems interconnection – Object identifier resolution system (ORS)	ISO/IEC 29168-1	Approved
	X.674 (X.alerting)	Procedures for the registration of arcs under the alerting object identifier arc	None	Consented

ITU-T Recommendations Approved or Approval Process Initiated in 2010 (3/3)

SG 17 Question	Recommendation		Equivalent	Action
	Acronym	Title		
13, Formal languages and telecommunication software	Z.120 (revised)	Message sequence chart (MSC)	None	Consented
	Z.150 (revised)	User Requirements Notation (URN) – Language requirements and framework	None	Consented
14, Testing languages, methodologies and framework	Z.161 (revised)	Testing and Test Control Notation version 3: TTCN-3 core language	ETSI ES 201 873-1	Consented
	Z.164 (revised)	Testing and Test Control Notation version 3: TTCN-3 operational semantics	ETSI ES 201 873-4	Consented
	Z.165 (revised)	Testing and Test Control Notation version 3: TTCN-3 runtime interface (TRI)	ETSI ES 201 873-5	Consented
	Z.166 (revised)	Testing and Test Control Notation version 3: TTCN-3 control interface (TCI)	ETSI ES 201 873-6	Consented
	Z.167 (revised)	Testing and Test Control Notation version 3: TTCN-3 mapping from ASN.1	ETSI ES 201 873-7	Consented
	Z.168 (revised)	Testing and Test Control Notation version 3: TTCN-3 mapping from CORBA IDL	ETSI ES 201 873-8	Consented
	Z.169 (revised)	Testing and Test Control Notation version 3: TTCN-3 mapping from XML data definition	ETSI ES 201 873-9	Consented
	Z.170 (revised)	Testing and Test Control Notation version 3: TTCN-3 documentation comment specification	ETSI ES 201 873-10	Consented

New Work Items Initiated in 2010

SG 17 Question	New Work Item	
	Acronym	Title
Q.2/17, Security architecture and framework	X.nsc	National IP-based public networks security centre for developing countries
	X.rev	Architectural systems for security controls for preventing fraudulent activities in public carrier networks
Q.4/17, Cybersecurity	X.csi	Guidelines for cybersecurity index
	X.sip-cyber	Security guidelines for countering cyber attacks in SIP-based services
	X.ssaf	Security standards availability framework
Q.6/17, Security aspects of ubiquitous telecommunication services	X.iptvsec-6	Framework for the downloadable service and content protection (SCP) system in mobile IPTV environment
	X.iptvsec-7	Guidelines on criteria for selecting cryptographic algorithms for the IPTV service and content protection (SCP)
Q.8/17, Service oriented architecture security	X.ccsec	Security guideline for cloud computing in telecommunication area
	X.fspvn	Framework of the service platform for virtual network
	X.srfctse	Security requirements and framework of cloud based telecommunication service environment
Q.9/17, Telebiometrics	X.bhsm	Telebiometric authentication framework using biometric hardware security module
	X.gep	A guideline for evaluating telebiometric template protection techniques
Q.10/17, Identity management architecture and mechanisms	X.discovery	Discovery of identity management information
	X.idmcc	Requirement of IdM in cloud computing
	X.mobid	Baseline capabilities and mechanisms of identity management for mobile applications and environment
	X.oitf	Open identity trust framework
Q.13/17, Formal languages and telecommunication software	X.uml-grl	Unified modeling language (UML) profile for URN GRL

Security Project

- ITU-T Security Manual
 - 4th edition (published in 4Q/2009) now available in 6 languages
- ITU-T Security Compendia
 - Updated catalogue of approved security-related ITU-T Recommendations and security definitions
- ICT Security Roadmap
 - Updated searchable database of approved ICT security standards from ITU-T and others (ETSI, ATIS, IEEE, IETF, ISO/IEC JTC 1, OASIS, 3GPP and 3GPP2)

Collaboration (1/3)

- Joint Coordination Activity on Identity Management (JCA-IdM)
- Joint Coordination Activity on Conformance and Interoperability Testing (JCA-CIT)
- SG 17 initiated process to establish Joint Coordination Activity on Security (JCA-SEC)

Mentioned JCAs will run in conjunction with the ITU-T SG 17 meetings (April 11-20, 2011; August 24 – September 02, 2011)

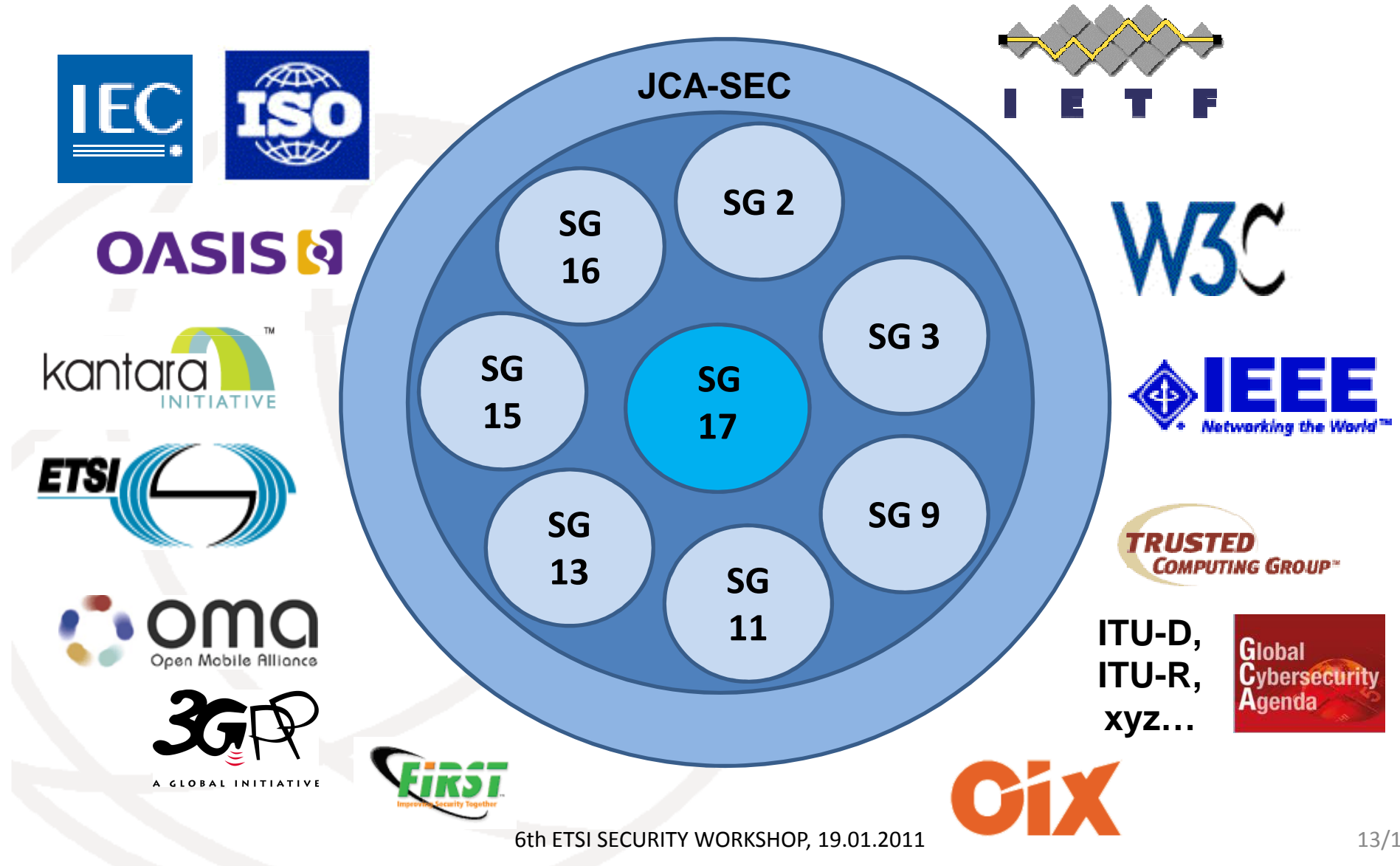
Collaboration (2/3)

Proposed ITU-T JCA on Security (JCA-SEC)

The JCA-SEC is open to all ITU-T SG representatives and invited members from relevant standard bodies and will consider how best to address the following actions:

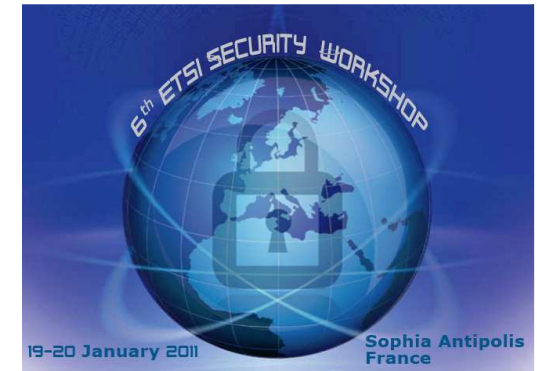
- coordinate the ITU-T security work across all SGs;
- produce a relevant list of ICT security standardization activities and security-related topics of interest which assist in implementing WTSA-08 Resolution 50 on *cybersecurity*, Resolution 52 on *countering and combating SPAM*, Resolution 58 on *encourage the creation of national computer incident response teams, particular for developing countries*, and WSIS action line C5 on *Building confidence and security in the use of ICTs*;
- establish as a single point of contact within ITU-T on ICT security issues in order to avoid potential duplication of effort;
- maintain a list of the currently-designated security contacts in each SG and a list of the designated contacts with relevant standards bodies, if necessary;
- identify any aspects of the security work of concern or potential conflict;
- work collaboratively to resolve any conflicting issues or issues that impede the necessary coordinated security effort;
- work collaboratively when proposing new Question or revising currently established Question in relation with security;
- promote coordination and collaboration between ITU-T study groups in the ICT security work;
- promote external collaboration with other relevant standards bodies and to act as the initial point of contact for ITU-T ICT security activities in liaison with external organizations.

Collaboration (3/3)



Useful references

- Webpage for ITU-T Study Group 17
 - <http://www.itu.int/ITU-T/studygroups/com17/index.asp>
- Webpage on ICT security standard roadmap
 - <http://www.itu.int/ITU-T/studygroups/com17/ict/index.html>
- Webpage on ICT cybersecurity organizations
 - <http://www.itu.int/ITU-T/studygroups/com17/nfvo/index.html>
- Webpage for JCA on Identity management
 - <http://www.itu.int/en/ITU-T/jca/idm/Pages/default.aspx>
- Webpage for JCA on Conformance and interoperability testing
 - <http://www.itu.int/en/ITU-T/jca/cit/Pages/default.aspx>
- Webpage on lead study group on telecommunication security
 - <http://www.itu.int/en/ITU-T/studygroups/com17/Pages/telesecurity.aspx>
- Webpage on lead study group on identity management
 - <http://www.itu.int/en/ITU-T/studygroups/com17/Pages/idm.aspx>
- Webpage on lead study group on languages and description techniques
 - <http://www.itu.int/en/ITU-T/studygroups/com17/Pages/ldt.aspx>
- Webpage for security workshop on Addressing security challenges on a global scale
 - <http://www.itu.int/ITU-T/worksem/security/201012/index.html>



Thank you!

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