## Overview of ITU, ITU-T and ITU-T Study Group 17

ITU Regional Workshop for the CIS countries and Georgia on Complex aspects of cybersecurity in infocommunications

Session 1: The role of international organizations and the state on issues of cybersecurity in infocommunications

Martin Euchner Adviser, ITU-T

Odessa, Ukraine, 15-17 June 2016



#### **Contents**

- Overview of ITU, and of ITU-T
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- Overview of ITU-T Study Group 17
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# About International Telecommunication Union (ITU)

- ✓ The United Nations Specialized Agency for telecommunications, Information and Communication Technologies (ICTs)
- ✓ Founded in Paris in 1865 as the International Telegraph Union

✓ 2015 marked 150 years of experience and innovation



## ITU: enabling communication since 1865

ITU is committed to connecting the world

1865 2015









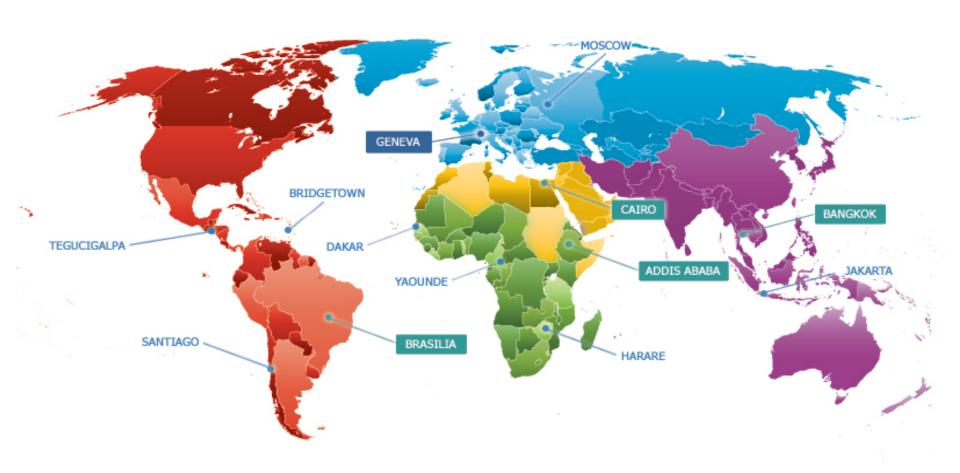








#### ITU: global presence



#### ITU: a unique Membership

193 Member States

100 universities and research establishments



750+ companies

Business associations

International organizations

**NGOs** 

Part of the UN family: WHO, WMO, UNESCO, WIPO, ...



#### Structure of ITU

#### Radiocommunication ITU-R

Coordinates global wireless communication

Standardization ITU-T

Produces interoperable technical ICT standards



**Development** ITU-D

Provides assistance to the un-connected

The **General Secretariat** provides intersectoral coordination for the whole organization



#### **ITU-T: Standardization Sector**

Produces standards covering all fields of telecommunications on a worldwide basis, and defines tariff and accounting principles for international telecommunication services

The mission of the ITU Telecommunication Standardization Sector (ITU-T):

- to provide a unique forum for industry and government to work together to foster the development and use of interoperable, non-discriminatory and demand-driven international standards.
- These standards are based on openness and take into account needs of users, in order to create an environment where users can access affordable services worldwide regardless of underlying technology, particularly in **developing countries**, while establishing links between the activities of ITU-T and the relevant WSIS outcomes.

#### Mandate of ITU-T and of ITU-T Study Groups



- SG2 Operational aspects
- SG3 Economic and policy issues
- SG5 Environment and climate change
- SG9 Broadband cable and TV
- SG11 Protocols and test specs
- SG12 Performance, QoS and QoE
- SG13 Future networks & cloud
- SG15 Transport, access and home
- SG16 Multimedia
- SG17 Security
- SG20 IoT

#### **ITU-T Study Group 17 mandate**

Title: Security

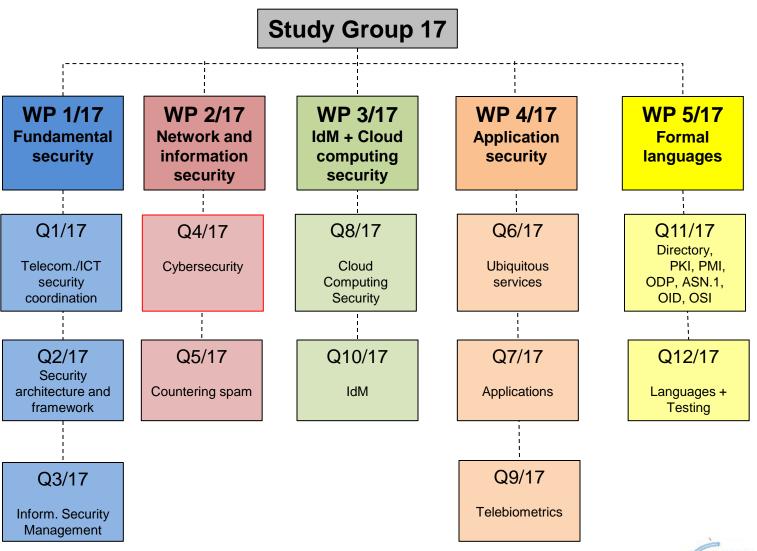
Responsible for building confidence and security in the use of information and communication technologies (ICTs).

This includes studies relating to cybersecurity, security management, countering spam and identity management.

It also includes security architecture and framework, protection of personally identifiable information, and security of applications and services for the Internet of things, smart grid, smartphone, IPTV, web services, social network, cloud computing, mobile financial system and telebiometrics.

Also responsible for the application of open system communications including directory and object identifiers, and for technical languages, the method for their usage and other issues related to the software aspects of telecommunication systems, and for conformance testing to improve quality of Recommendations.

#### **ITU-T SG17, Security**



## Participation of Telecommunication Operators and Service Providers in SG17













verizon/



















#### **Participation of Governments in SG17**



CCITT/ITU-T

Participation of manufacturers, vendors, scientific or industrial organizations, Associates, and other entities dealing with telecommunication matters in SG17







































Corporation for National Research Initiatives®



















### Participation of Universities, research establishments and Academia in SG17

























#### **Hot Topics within Study Group 17**

Technical solution toolkit for trust

Identity
management
and
telebiometrics

Application security solutions



#### **Hot Topics within Study Group 17**

Biometric **HW** security

module Identity

management

and

telebiometrics

Entity authentication assurance

Quantities + Units for physics/ chemistry/ biology/ culturology/ psychology, and secure

holo/biosphere

Cyber Antisecurity spam **CYBEX** 

PKI

ITS security

Secure SW-

update-

over-the air

Technical<sup>(</sup>

solution toolkit

for HAN

IoT security

for trust

SDN security

Mobile (phone)

Smart-grid

security

Cloud computing security PII code of

**Application** security

Security architecture for network operators

practice

for ISM

**VolTE** security

solutions

Online analytics reference monitor for big data

Trust

elevation

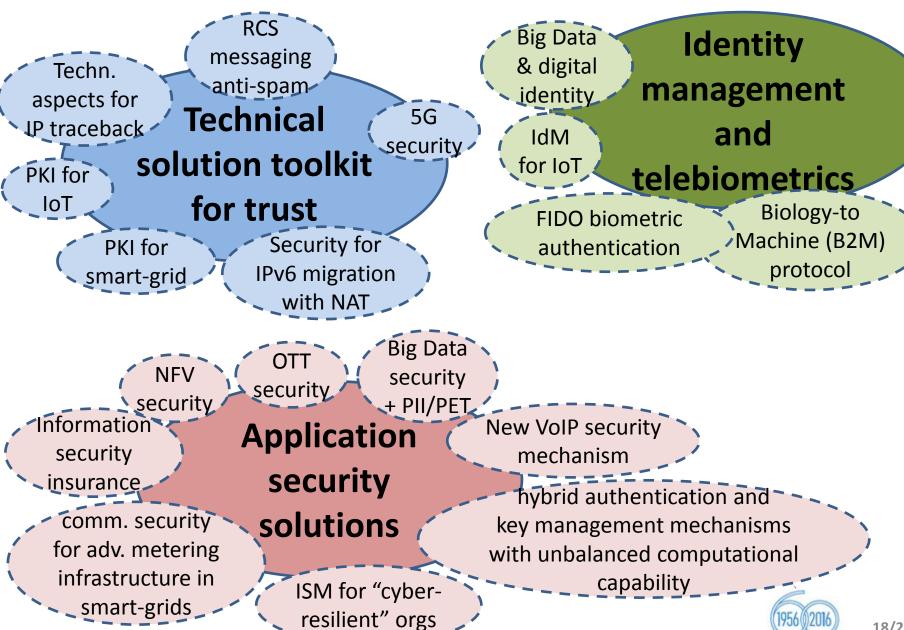
protocol

IdM

for IoT

Security reference architecture for lifecycle mgt of e-commerce business data

#### **Candidate future Topics within Study Group 17**



#### **Coordination with other bodies**





































**Study Group 17** 





















CO-OPERATION AND DEVELOPMENT

**World Health** 

Organization







### Lead Study Group on Security Parent of JCA-COP

- Study Group 17 is the Lead Study Group on:
  - Security
  - Identity management (IdM)
  - Languages and description techniques
- SG17 is "Parent" for the Joint Coordination Activities
  - on Child Online Protection (JCA-COP)
  - on Identity management (JCA-IdM)

JCAs do not perform technical studies nor write Recommendations.



## ITU-T Joint Coordination Activity on Child Online Protection (JCA-COP)

#### Purpose and objectives:

- Coordinates activity on COP across ITU-T study groups, in particular Study Groups 2, 9, 13, 15, 16 and 17, and coordinates with ITU-R, ITU-D and the Council Working Group on Child Online Protection
- Provides a visible contact point for COP in ITU-T
- Cooperates with external bodies working in the field of COP, and enables effective twoway communication with these bodies

#### Tasks:

- Maintain a list of representatives for COP in each study group
- Exchange information relevant to COP between all stakeholders; e.g. information from:
  - Member States on their national efforts to develop COP related technical approaches and standards
  - NGOs on their COP activities and on COP information repositories
  - GSMA on an industry perspective on COP
- Promote a coordinated approach towards any identified and necessary areas of standardization
- Address coordination of activity with relevant SDOs and forums, including periodic discussion of work plans and schedules of deliverables on COP (if any)

#### JCA-COP Chairman:

Mr Philip Rushton.



#### **Coordination on Child Online Protection**















**Global Knowledge** 



















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SYMPROY OF AFTECAN YOUTHS!

























INTERPOL



- ITU Member States

- ITU CWG COP

- ITU-R, ITU-D

- ITU-T SGx, JCA-AHF



#### **Summary**

- ITU (150+ years) provides the international platform for dialogue among governments, private sector and Academia
- ITU-T (60<sup>th</sup> anniversary) is the standardization sector on telecommunications and ICTs
- ITU-T Study Group 17 develops international standards on security
  - SG17 is responsible for 341 approved Recommendations, 26 approved Supplements and 3 approved Implementer's Guides
  - More than 70 Recommendations on security published.
  - Next SG17 meeting: 29 August 7 September 2016, Geneva.

# Thank you very much for your attention!



#### **Reference links**

- Webpage for ITU-T Study Group 17
  - http://itu.int/ITU-T/studygroups/com17
- Webpage on ICT security standard roadmap
  - http://itu.int/ITU-T/studygroups/com17/ict
- Webpage for JCA on child online protection
  - http://www.itu.int/en/ITU-T/jca/COP
- Webpage for JCA on identity management
  - http://www.itu.int/en/ITU-T/jca/idm
- Webpage on lead study group on security
  - http://itu.int/en/ITU-T/studygroups/com17/Pages/telesecurity.aspx
- Webpage on lead study group on identity management
  - http://itu.int/en/ITU-T/studygroups/com17/Pages/idm.aspx
- ITU Security Manual: Security in Telecommunications and Information Technology
  - http://www.itu.int/dms\_pub/itu-t/opb/tut/T-TUT-SEC-2015-PDF-E.pdf