GLOBAL TRENDS AND REGIONAL APPROACHES TO REGULATING ICT COUNTERFEITING.

Future challenges for C&I Question 4/2

Telecommunications/ICT equipment: Compliance and interoperability, fight against counterfeiting and theft of mobile devices

Work of the ITU-D Study Group 2 Question 4/2 Steering Team

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ITU-D PRIORITIES

- Affordable Connectivity
- Digital transformation
- Environmental political and regulatory activation
- Resource mobilization and international cooperation
- Inclusive and secure telecommunications/ICT for sustainable development,

FUTURE CHALLENGES FOR C&I Q 4/2

New technologies go beyond regulatory and testing procedures:

- ✓ Regulatory aspects for the adoption of openness and interoperability linked to 5G;
- ✓ Communication paradigms of intelligent objects;
- ✓ Software modifications of ICT devices after certification;
- ✓ Effective harmonization of procedures and technical collaboration
- ✓ Study of management and monitoring mechanisms. Digital metrology application .

NEW TECHNOLOGIES GO BEYOND REGULATORY AND TESTING PROCEDURES

Reduce time to market and progressive implementation of rules and procedures for new technologies:

- **Step 1 :** Use of available testing protocols from equipment manufacturers in conjunction with the analysis procedure;
- **Step 2 :** Deployment of the test area for compatibility testing;
- **Step 3 :** Development of established requirements and testing in an accredited laboratory. New technologies go beyond regulatory and testing procedures

REGULATORY ASPECTS FOR ADOPTING 5G OPENNESS AND INTEROPERABILITY

The gradual adoption of 5G-related technologies requires:

- Feasibility study of the use of 5G in this territory;
- Determine the economics of adopting 5G technology and calculate the cost of a service license;
- Develop operator licensing requirements to implement 5G-related technologies;
- Allocation of the frequency resource and implementation of control and supervision measures;
- Develop defined requirements for the adoption of 5G-related technology;
- Accreditation of laboratories and certification bodies to work with 5G-related technologies;
- Implementation of remote testing mechanisms based on digital metrology .

THE COMMUNICATION PARADIGMS OF SMART OBJECTS

The question is related to the paradigm of using 5G technologies:

- It is necessary to determine the legal status of inanimate objects connected to the communication network;
- In the case of using Intelligence Artificial (AI), it is necessary to determine the legal status of decisions taken on the basis of Intelligence Artificial (AI) without human participation;
- IoT objects and Intelligence Artificial (AI), it is necessary to introduce remote testing mechanisms based on digital metrology .

CHANGES TO ICT DEVICE SOFTWARE AFTER CERTIFICATION

Major and minor software changes must be defined

In case of minor software changes, the ICT equipment has the same interfaces and physical parameters, but new software functions. For the type approval procedure, it is the same equipment. In this case, the equipment must only be declared that it is the same equipment with the new software version.

In the event of major software changes, the ICT equipment will have new physical parameters. In this case it is the new equipment and it is necessary to carry out type approval tests for this.

EFFECTIVE HARMONIZATION OF PROCEDURES AND INTERNATIONAL TECHNICAL COLLABORATION

To minimize the costs required for equipment control, it is advisable to create regional systems based on product labeling with QR codes.

Such a mechanism allows you to quickly verify the origin of products, payment of all necessary duties and taxes, as well as the availability of existing conformity confirmation documents.

It is not efficient to create separate databases and QR code recognition systems in each country. We need agreements on the recognition of research results and general product requirements.

This approach makes it possible to effectively fight against the contract and at the same time inexpensive to implement

STUDY OF MANAGEMENT AND MONITORING MECHANISMS.

Management and control mechanisms form the basis of modern ICT technologies. When implementing systems of this class, the main question is where the results of monitoring the communication network are stored.

In the modern world, it is necessary to adhere to the rule of storing monitoring results in a reliable and protected place. It is also necessary to eliminate the impact of unauthorized controls on communications networks.

To solve these problems, digital metrology methods are used.

APPLICATION OF DIGITAL METROLOGY

The application of digital metrology constitutes the basis for the introduction of new ICTs.

The connection of the communication network to the probe system with metrological characteristics is required. This allows:

- measure data transmission rate and packet transmission delays;
- to ensure transmission with minimum delays and maximum reliability;
- to determine the origin of the packages.

Digital metrology elements make communications networks safer and more reliable

STATISTICS OF CONTRIBUTIONS RECEIVED IN THE CONTEXT OF SG2 WORK, Q4/2

For the study period 2022 – 2025 and for the achievement of its mandate as defined by WTDC-22, the Steering Team for question 4/2 organized two meetings and a workshop in December 2022 and from May 22 to June 2, 2023 .

During these meetings, several contributions reporting country experiences and falling within global and regional approaches to regulating ICT counterfeiting were received according to the chapters proposed for the final report, as follows:

- **Chapter 1:** ICT products serving the SDGs
- **Chapter 2:** C&I Infrastructure and Applications

STATISTICS OF CONTRIBUTIONS RECEIVED IN THE CONTEXT OF SG2 WORK, Q4/2 (CONTINUED 1)

- **Chapter 3:** Fight against the proliferation of counterfeit devices, poor quality devices and altered devices
- **Chapter 4: :** Theft of mobile devices
- **Chapter 5:** Internet of Things and C&I
- **Chapter 6:** Review of information transfer, know-how and training _
- **Chapter 7:** Future Challenges and Adoption in Telecommunications/ICT and improving digital skills for C&I

Below are the statistics of contributions received to date:

STATISTICS OF CONTRIBUTIONS RECEIVED IN THE CONTEXT OF SG2 WORK, Q4/2 (CONTINUED 2)

No.	CHAPTERS	NUMBER OF CONTRIBUTIONS
01	ICT products serving the SDGs	1
02	C&I infrastructure and applications	8
03	Fight against the proliferation of counterfeit devices, poor quality devices and altered devices	1
04	Mobile device theft	0
05	Internet of Things and C&I	0
06	Review of information transfer, know-how and training	2
07	Future Challenges and Adoption in Telecommunications/ICT and Upskilling Digital Skills for C&I	2
08	Collaboration	6
09	List of binding declarations sent	1

RECOMMENDATIONS

The **content of the contributions received to date is not sufficient to enable the Group to continue its work. Contributions are still expected during the 2022-2025 meeting periods to reinforce the achievements relating to the drafting of the different chapters of the report.**

Contributions are especially expected for Chapter 4 on Mobile Device Theft and for Chapter 5 relating to the Internet of Things and C&I .

To this end, the Question 4/2 Management team :

- **recommends strengthening collaboration between ITU-T Commissions SG 11 and ITU-D SG 2, Q4/2;**
- **requests the collaboration and contribution of "active contributors" with a view to better drafting the final report within the allotted time frame .**

CONTACT DETAILS

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Question 4/2 Management Team

thank you

END