



Editor

DRAFT PRELIMINARY APT COMMON PROPOSAL

PROPOSED MODIFICATION TO WTSA-16 RESOLUTION 96

ITU Telecommunication Standardization Sector studies for combating counterfeit telecommunication/information and communication technology devices

Abstract

This document proposes to revise Resolution 96 in following aspects:

- 1) To enhance study on reliable global devices information sharing solutions utilizing emerging technologies, such as Distributed Ledger Technology (DLT), to improve combating counterfeit and theft for ICT devices.
- 2) To enhance the study of solutions on combating counterfeit devices through online platforms and using ICT tools.

Introduction

WTSA-20 Resolution 96 for “ITU Telecommunication Standardization Sector studies for combating counterfeit telecommunication/information and communication technology devices” is intended to promote combating counterfeit and inferior ICT products through technical means and international cooperation. Although some international cooperation and studies have been actively carried out, there are still some challenges in combating counterfeiting of ICT devices. (1) lack of efficient technical solutions on combating tampering of telecommunication/ICT devices;

(2) lack of efficient and secure global devices information sharing mechanism;

(3) the proliferation of e-commerce makes it convenient for merchants to advertise and sell counterfeit telecommunication/ICT devices from anywhere.

As one of emerging technologies, DLT is bringing more and more innovative solutions for various industries, such as finance, communication, identity authentication, etc. Based on the technical advantages, including (i) distributed data consistency, (ii) preventing data tampering, and (iii) supporting multiparty trusted data sharing, DLT can help to develop reliable and distributed global telecommunication devices information sharing infrastructure and assist in forming international cooperation alliance to combating counterfeiting and tampering of telecommunication/ICT devices.

Some governments, operators and manufacturers of mobile devices, are actively exploring

distributed and security information sharing solution of ICT devices by utilizing DLT. In China, DLT has officially joined other emerging technologies such as AI and IoT in underpinning the systems China uses to manage the flow of information in the coming years. In Europe, Deutsche Telekom has created a pilot project based on SAP Cloud Platform Blockchain, which has proved successful. It allows multiple parties to share, identify and disable stolen devices using a shared ledger of mobile devices more easily.

Several ITU-T study groups (e.g. Study Groups 11, 13 and 16) are actively conducting DLT related study of Recommendations, technical reports and methodologies, including applying DLT in distributed information sharing and security. ITU is also actively cooperating with other SDOs to exchange and explore DLT based technical solutions to address more communication problems.

It is necessary to develop reliable and distributed global ICT devices information sharing solution and forming international cooperation alliance to combating counterfeiting and tampering of telecommunication/ICT devices utilizing emerging technologies, such as Distributed Ledger Technology (DLT). And there is a need to enhance the resolution in addressing the availability of counterfeit devices through online platforms and in using ICT as a tool to combat counterfeit devices.

Proposal

APT members propose to revise Resolution 96 to enhance study on reliable global devices information sharing solutions utilizing online platforms and emerging technologies, such as Distributed Ledger Technology (DLT), to improve combating counterfeit for ICT devices.

MOD

RESOLUTION 96 (REV. HYDERABAD, 2020)
ITU Telecommunication Standardization Sector studies for combating counterfeit telecommunication/information and communication technology devices

(Hammamet, 2016; Hyderabad 2020)

The World Telecommunication Standardization Assembly (Hyderabad, 2020),
recalling

- a) Resolution 188 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on combating counterfeit telecommunication/information and communication technology (ICT) devices;
- b) Resolution 177 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on conformance and interoperability (C&I);
- c) Resolution 176 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on human exposure to and measurement of electromagnetic fields (EMF);
- d) Resolution 79 (Rev. Buenos Aires, 2017) of the World Telecommunication Development Conference (WTDC), on the role of telecommunications/ICT in combating and dealing with counterfeit telecommunication/ICT devices;
- e) Resolution 47 (Rev. Buenos Aires, 2017) of WTDC, on enhancement of knowledge and effective application of ITU Recommendations in developing countries¹, including C&I testing of systems manufactured on the basis of ITU Recommendations;
- f) Resolution 72 (Rev. Hammamet, 2016) of WTSA, on measurement and assessment concerns related to human exposure to EMF;
- g) Resolution 62 (Rev. Buenos Aires, 2017) of WTDC, on assessment and measurement of human exposure to EMF;
- h) Resolution 182 (Rev. Busan, 2014) of the Plenipotentiary Conference, on the role of telecommunications/ICT in regard to climate change and the protection of the environment;
- i) that this assembly has adopted Resolution 76 (Rev. Hammamet, 2016), on studies related to conformance and interoperability testing, assistance to developing countries, and a possible future ITU Mark programme;
- j) Resolution 79 (Dubai, 2012) of the World Telecommunication Standardization Assembly, on the role of telecommunications/information and communication technologies in handling and controlling e-waste from telecommunication and information technology equipment and methods of treating it,

recognizing

- a) the noticeably growing sales and circulation of counterfeit and tampered telecommunication/ICT devices in the markets, which have an adverse impact on governments, manufacturers, vendors, operators and consumers through: loss of revenues, erosion of brand value/intellectual property rights and reputation, network disruptions, poor quality of service (QoS) and potential hazard to public health and safety as well as the environmental e-waste;
- b) that counterfeit and tampered telecommunication/ICT devices may negatively impact on security and privacy for users;
- c) that counterfeit and tampered telecommunication/ICT devices often contain illegal and unacceptable levels of hazardous substances, threatening consumers and the environment;

¹ These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

- d) that some countries have conducted awareness campaigns on counterfeit and tampered device issues and deployed successful solutions including regulations in their markets to deter the spread of counterfeit and tampered telecommunication/ICT devices, which could be taken by other countries as useful experiences and case studies;
- e) that countries face significant challenges in finding effective solutions to combat counterfeit and tampered telecommunication/ICT devices, given the innovative and creative ways used by persons engaged in this illicit activity to evade enforcement/legal measures;
- f) that ITU's Conformity and Interoperability and Bridging Standardization Gap programmes are intended to add value, by bringing clarity to standardization processes and product conformity with international standards;
- g) that providing interoperability, safety and reliability should be a key objective of ITU Recommendations;
- h) the ongoing work of ITU Telecommunication Standardization Sector (ITU-T) Study Group 11 as the leading expert in the study of combating counterfeit and tampered telecommunication/ICT devices at ITU;
- i) that industry initiatives have been created to coordinate activity between operators, manufacturers and consumers,
 - recognizing further*
 - a) that some countries, with the growing market for mobile devices, rely on unique device identifiers, such as International Mobile Equipment Identity (IMEI) in the Equipment Identity Register (EIR), to limit and deter the proliferation of counterfeit and tampered mobile devices;
 - b) that, as stated in Resolution 188 (Busan, 2014), Recommendation ITU-T X.1255, which is based on the digital object architecture, provides a framework for discovery of identity management information;
 - c) that the proliferation of e-commerce makes it convenient for merchants to advertise and sell counterfeit telecommunication/ICT devices from anywhere,

noting

- a) that individuals or entities engaged in manufacturing and trading of counterfeit and tampered telecommunication/ICT devices are continually developing and enhancing their capabilities and means of illegal activities to circumvent Member States' and other affected parties' legal and technical efforts to combat counterfeit and tampered products and telecommunication/ICT devices;
- b) that supply and demand economics for counterfeit and tampered telecommunication/ICT devices complicate attempts to tackle the global black/grey market, and that no single solution is easily envisaged,

aware

- a) of the current work and studies of ITU-T Study Group 11, which is conducting study of methodologies, guidelines and best practices, including the use of unique telecommunication/ICT device identifiers, for combating counterfeit and tampered telecommunication/ICT devices;
- b) of the current work and studies in ITU-T Study Group 20, on Internet of things (IoT), IoT identity management and the increasing importance of IoT devices to the society;
- c) of the ongoing work under instructs ITU-D Study Group 2, in collaboration with the relevant ITU study groups of Resolution 79 (Dubai, 2014);
- d) that there is ongoing cooperation with standards development organizations (SDOs), the World Trade Organization (WTO), the World Intellectual Property Organization (WIPO), the World Health Organization (WHO) and the World Customs Organization (WCO) on matters related to counterfeit and tampered telecommunication/ICT devices;

- e) that governments play an important role in combating the manufacture and international trade of counterfeit and tampered products including telecommunication/ICT devices, by formulating appropriate strategies, policies and legislation;
 - f) that tampering with unique telecommunication/ICT device identifiers diminishes the effectiveness of solutions adopted by countries;
 - g) of the current related work and studies in ITU-T Study Group 11, 13, 16 and 17, which are conducting Distributed Ledger Technology (DLT) related study,
- considering*
- a) the conclusions of the ITU Events on combating counterfeit and tampered telecommunication/ICT devices (Geneva, 17-18 November 2014 and 28 June 2016);
 - b) the conclusions of the Technical Report on Counterfeit ICT Equipment adopted by Study Group 11 at its meeting in Geneva on 11 December 2015;
 - c) that, in general, telecommunication/ICT devices that do not comply with a country's applicable national conformity processes and regulatory requirements or other applicable legal requirements should be considered unauthorized for sale and/or activation on telecommunication networks of that country;
 - d) that a counterfeit telecommunication/ICT device is a product that explicitly infringes the trademark, copies hardware or software designs, or infringes brand or packaging rights of an original or authentic product and, in general, infringes applicable national and/or international technical standards, regulatory requirements or conformity processes, manufacturing licensing agreements, or other applicable legal requirements;
 - e) that a reliable unique identifier shall be unique for each equipment it aims to identify, can only be assigned by a responsible management entity and should not be changed by unauthorized parties;
 - f) that tampered telecommunication/ICT devices are devices that have components, software, a unique identifier, an item protected by intellectual property rights or a trademark tentatively or effectively altered without the explicit consent of the manufacturer or its legal representative;
 - g) that some countries have started implementing measures that aim to deter counterfeit and tampered telecommunication/ICT devices based on an identification mechanism, which can also be effective for the control of tampered telecommunication/ICT devices;
 - h) that tampering telecommunication/ICT devices, especially the ones that clone a legitimate identifier, may diminish the effectiveness of solutions adopted by the countries when addressing counterfeiting ;
 - i) that a framework for discovery, management and sharing of device identity information can assist in combating counterfeiting and tampering of telecommunication/ICT devices;
 - j) that ITU and other relevant stakeholders have key roles to play in fostering coordination between the parties concerned in order to study the impact of counterfeit and tampered telecommunication/ICT devices and the mechanism for limiting their use, and to identify ways of dealing with them both internationally and regionally;
 - k) the importance of maintaining user connectivity;
 - l) that reliable and efficient information sharing utilizing emerging technologies can assist in combating the import, circulation and sale of counterfeit and tampered telecommunication/ICT devices from the market,

resolves

- 1 to explore ways and means to combat and deter telecommunication/ICT device counterfeiting and tampering in order to protect industry, governments and consumers from counterfeit and tampered telecommunication/ICT devices;
- 2 that Study Group 11 should be the lead study group in the area of combating counterfeit and tampered telecommunication/ICT devices,

instructs the Director of the Telecommunication Standardization Bureau, in close collaboration with the Director of the Telecommunication Development Bureau

1 to organize workshops and events across the ITU regions to promote the work in this field, involving all stakeholders and raising awareness of the impact of counterfeit and tampered telecommunication/ICT devices;

2 to assist developing countries in preparing human resources to combat the spread of counterfeit and tampered telecommunication/ICT devices, by providing capacity-building and training opportunities;

3 to work in close collaboration with relevant stakeholders, such as WTO, WIPO, WHO and WCO, on activities relating to combating counterfeit and tampered telecommunication/ICT devices, including restricting the trading, export and circulation of these telecommunication/ICT devices internationally;

4 to coordinate activities relating to combating counterfeit and tampered telecommunication/ICT devices through study groups, focus groups and other related groups;

5 to assist Member States in taking the necessary actions to apply relevant ITU-T Recommendations for combating counterfeit and tampered telecommunication/ICT devices, including the use of conformity assessment systems;

6 to share information on best practices developed by industry or governments and promising trends in combating counterfeit and tampered telecommunication/ICT devices,

instructs the Director of the Telecommunication Standardization Bureau

1 to collaborate with industry associations, consortia and forums to identify possible technological measures, both software and hardware, that may be developed to deter tampering and the use and spread of counterfeit and tampered telecommunication/ICT devices;

2 to submit the results of these activities to the ITU Council for its consideration and required action;

3 to involve experts and external entities as appropriate,

instructs the Director of the Telecommunication Standardization Bureau, in close collaboration with the Directors of the Radiocommunication and Telecommunication Development Bureaux

1 to assist Member States in addressing their concerns with respect to counterfeit and tampered telecommunication/ICT devices, through information sharing at regional or global level, including conformity assessment systems;

2 to assist all the membership, considering relevant ITU-T Recommendations, in taking the necessary actions to prevent or detect the tampering with and/or duplication of unique telecommunication/ICT device identifiers, interacting with other SDOs related to these matters,

instructs Study Group 11 of the ITU Telecommunication Standardization Sector, in collaboration with other study groups concerned

1 to continue developing Recommendations, technical reports and guidelines to address the problem of counterfeit and tampered telecommunication/ICT devices and to support the Member States in anti-counterfeiting activities including combating the advertisement and sale of counterfeit and tampered telecommunication/ICT devices on e-commerce platforms;

2 to collect, analyse and exchange information about counterfeiting and tampering practices in the ICT sector, and strengthen study on use of emerging technologies and relevant solutions in combating counterfeit and tampered telecommunication/ICT devices, which may include use of online platforms and applications for verification of authenticity of devices by consumers themselves;

3 to study existing as well as new reliable, unique, persistent and secure identifiers, in collaboration with ITU-T Study Groups 2, 13, 17 and 20, that have the potential to be used in combating counterfeit and tampered products and telecommunication/ICT devices, including their scope of application and level of security in the context of their possible duplication/cloning;

4 to develop methods of assessing and verifying identifiers used for purposes of combating counterfeit telecommunication/ICT devices;

5 with the involvement of relevant standardization organizations, to develop mechanisms as appropriate for identifying counterfeit telecommunication/ICT devices, by means of unique identifiers that are resistant to duplication and respond to confidentiality/security requirements;

6 to study possible solutions, including frameworks to discover identity management information, that could support combating of counterfeit and tampered telecommunication/ICT devices;

7 to identify a list of technologies/products, used for testing conformance with ITU-T Recommendations, in order to help in efforts to combat counterfeit ICT telecommunication/ICT devices.

invites Member States

1 to take all necessary measures, including collaboration, cooperation and exchange of experiences and expertise with other Member States, to combat counterfeit and tampered telecommunication/ICT devices in a country/region, as well as globally;

2 to adopt national legal and regulatory frameworks to combat counterfeit and tampered telecommunication/ICT devices;

3 to consider measures to mitigate the import, circulation and sale of counterfeit and tampered telecommunication ICT/devices from the market;

4 to consider solutions to be used to differentiate between authentic/genuine and counterfeit or tampered telecommunication/ICT devices, e.g. establishing a centralized national reference database of authorized equipment, which keeps essential information about the authorized equipment including the unique device identifiers, such as IMEI and serial numbers;

5 to conduct awareness campaigns for consumers on the adverse impact of counterfeit and tampered products and telecommunication/ICT devices on the environment and on their own health, as well as on the degraded reliability, QoS and performance of such telecommunication/ICT devices;

6 to consider making available a convenient and practical means for consumers to verify the authenticity of telecommunication/ICT devices using a centralized national reference database of authorized equipment by establishing online platforms such as a website and/or mobile application,

invites Sector Members

to collaborate with governments, administrations and telecommunication regulators in combating counterfeit and tampered telecommunication/ICT devices,

invites all the membership

1 to participate actively in ITU studies relating to combating counterfeit and tampered telecommunication/ICT devices by submitting contributions;

2 to take the necessary actions to prevent or detect tampering of unique telecommunication/ICT device identifiers, in particular regarding cloned telecommunication/ICT devices;

3 to collaborate and share expertise in this area