

**Summary of Discussions at ITU's Workshop
on
"Combating Counterfeit Using Conformance
and Interoperability Solutions"
ITU Headquarters, Geneva,
Switzerland 28 June 2016**



Trade in Counterfeit and Pirated Goods: Mapping the Economic Impact by OECD

- Counterfeiting has become a concern because the growing importance of intangibles such as brand.
- Incentives for counterfeiting also growing due to the incentive of free riding on a known brand.
- Trade in fake goods is about 338 billions Euros amounting to 2.5% of global trade.
- In the EU counterfeit imports amounted to 85 billion euros amounting to 5% of total EU imports.
- Fake products originate mainly from middle income countries. They have the capacity to manufacture but have not developed the institutional capacity to combat counterfeiting.
- **Difficult to monitor because of complex trade routes.**
- Counterfeiting becomes an incentive when there are IP-protected products. Counterfeiters copy these brands to enable them sell at a premium.
- ICT products account for almost 10% of global trade. ICT products are innovative and IP-protected and therefore a target for counterfeiters.

Trade in Counterfeit and Pirated Goods: Mapping the Economic Impact

- Countries with industries most affected by counterfeiters are mainly OECD countries but some companies in countries like China are also affected.
- Mode of transport of counterfeit products are changing. They don't come in containers but in small parcels.
- We are working on case-studies (with ITU) and quality papers.

The Economic Cost of Counterfeiting in EU and the jointly ITU/BDT-EUIPO Research on Counterfeiting of ICT Devices

- One objective of the EU Observatory on Infringement of Intellectual Property Rights is to provide evidence based papers and studies.
- The observatory have measured the importance and other relevant information on IP rights.
- The observatory has done sectorial studies on the impact of counterfeiting and piracy.
- They calculate the total economic loss on IPR infringements as well as the indirect impact of IPR infringements.
- Joint research between UEIPO and BDT to analyze the economic cost of intellectual property infringements in ICT devices.

BDT Actions would include

- Carry out research to provide baseline studies (including a study on Regulatory Aspects of Counterfeit), case studies and other tools;
- Develop policy and regulatory guidelines working together with stakeholders to combat counterfeit;
- Continue to collect data and information worldwide on the evolution of regulatory frameworks;
- Disseminate information through ITU Knowledge Exchange platforms on Counterfeiting;
- Organize Regional and Global meetings and discussion fora in 2017, involving Regulatory Associations, Regulators, Policy Makers and other stakeholders from across the sectors;
- Collaborate with Regulatory Associations to disseminate regulatory resources developed by ITU on counterfeit.

ITU Regulatory Survey 2015

ITU Regulatory Survey in 2015 shows that most national regulators in developing countries have a responsibility related to counterfeit unlike developed countries.

In the same vein more countries in developing countries have adopted policies/regulations related to counterfeit ICT devices unlike developed countries.

Combating Counterfeit ICT Conformity Assessment as a Tool by Brazil

- Brazil Conformity Assessment has categorized ICT devices into:
 - **Category 1:** Terminal Equipment (using or not radiofrequency).
 - **Category 2:** Not in Cat.1, but uses radiofrequency.
 - **Category 3:** Not in Cat.1 or 2, but are relevant to telecommunication (e.g. routers and switches).
- CA can assist on the combat of counterfeit by: (i) stop the entrance of new counterfeit device and; (ii) support the reference database for Post-Market.
 - CA in Brazil assist on Pre (certification) and post (surveillance) market control conducted in Brazil.
- SIGA project aims to control counterfeit, cloned, tampered and other unauthorized mobile devices. Centralized and automated solution, scalable, dynamic and flexible. It is also reliable and secure.
 - Active since 2014 generating data on the Brazilian scenario.

Challenges when addressing Counterfeit/Tampered/unauthorized

- Construct a Reliable Reference Database
- Identification and definition of action for each scenario
- Reduce End-user Impact
- Removal of Terminal already on the Network

What ANATEL is aiming for

- Multi Level Actions and Cooperation
- Reduce End User impact
- National multiple actions to combat Counterfeit/Tampered/Unauthorized devices
- Reliable reference databases

Overview of National Initiatives and Solutions to Combat Counterfeit Mobile Devices by Dmytro Protsenko 1/2

- Counterfeiting problems continue to grow. 72% of counterfeit products from China.
- Reasons for counterfeiting.
- Low-risk, high reward crime.
- Considered as a safe revenue stream by criminal networks.
- Low level crime among others.
- Mobile phone market to reach 1.9 billion units- about 80% of device shipments.
- Mobile phones comprise a big part of customs counterfeit-related seizures.
- Samsung and Apple among the top four brands counterfeited the most.
- Countries mostly targeted by counterfeiters are developing countries (Asia- Pacific, Middle East and Africa, etc.).

Overview of National Initiatives and Solutions to Combat Counterfeit Mobile Devices by Dmytro Protsenko 2/2

- He gave information on measures being taken by a number of countries to combat counterfeit (Nepal, Cameroon, India, Kenya, Malaysia, Kenya, Uganda, Rwanda, Ukraine, Tanzania, etc)
- He stated further that the solutions proffered cannot on their own be sufficient to combat counterfeit ICT devices. There was the need to deploy a combination of solution.

Regulatory Proposal in Colombia to control IMEIs in mobile networks (unformatted, invalid, cloned, non-approved, non-registered)

- Colombia intends to set up a system connected to the GSMA database and based on IMEIs to reduce/stop the availability of unformatted, invalid, non-approved, cloned or registered handsets.

ISSUES FOR CONSIDERATION

- Times for Implementation
- Control to Non Homologated (Non-approved)
- Diagnosis of Duplicated
- Identification of Genuine Device

Blockchain to Combat Counterfeit Product 1/2

- Blockchain is a distributed ledger and very difficult to alter information in it without leaving some trace.
- Advantages of Blockchain-reliable, transparent as all participants have read access, immutable integrity is guaranteed, deployed in non face-to-face transactions.
- Instead of preventing counterfeiters producing a product, the blockchain can disrupt their market by arming the user with tools to authenticate their acquired product.
- Each product will need to be marked with a tamper-proof mark such as QR codes which can be scanned by a hand-held device.
- Users will download an authorised smartphone application (Authentication App) from the manufacturer's site that has been enhanced with extended validation certificates for SSL communications.

Blockchain to Combat Counterfeit Product 2/2

- Authentication App will read embedded QR codes on the user's device which will be a unique hash code
- It will only be directed to a specific IP address
- It will cause the blockchain to be interrogated to deliver the information validating the product in question
- It is not a fool-proof solution as counterfeiters will try to spoof the manufacturer's website to fool users into downloading false authentication apps
- New security protocols should be investigated to reduce the risk of spoofing attacks

A set of private blockchains will reduce the available market of counterfeiters and

- The system will allow users to identify in absolute terms whether a product is authentic. Instead of concentrating on the counterfeiter per se this system concentrates on the user which should obviate the marketability of counterfeit products

Combating Grey Devices (Qualcomm)

- Vision: We need very good secure foundation
- Definition of Grey devices based on IMEI: All zeros/Invalid duplicate/Invalid non-duplicate/Non-TAC- duplicate/TAC-aged duplicate/TAC-aged non-duplicate/Valid
- Negative impact on government, industry, end user and operator
- Dangers for health & environment (MMF Study on lead): more than 39 times than the acceptable limit
- Set of regulatory solutions:
 - Implement a program to ensure device imports through official channels only
 - Ensure use of officially sanctioned TAC/IMEIs by GSMA as part of Device Type Approval process
 - Register all legally imported mobile devices in a Central database using IMEIs – ‘Whitelist’
 - Enact a government mandate barring operators from providing services to devices not in the Whitelist (Blacklisting)
- Conclusion: 1/Increase security on regular phones 2/Strengthen existing network systems to block illegal devices 3/Review IMEI standard to enhance fraud protection

Industry Cooperation to Tackle Counterfeiting in Mobile Communications (MMF)

- MMF is an International non-profit association with scientific purpose of telecommunications equipment manufacturers with an interest in the safety of mobile or wireless communications, focusing on EMF and Health, SAR, Counterfeit Devices , etc.
- 125 million and 148 million counterfeit handsets sold globally in 2011 and 2013 respectively. USD6 billion lost in sales per year.
- From a survey, 70% wrongly believed that the counterfeit devices were of the same quality as the original
- Research shows that counterfeit phones has a negative impact on user QoS. Majority of these phones have pre-installed malware.
- MMF and ITU should have closer collaborations
- Joint Device Identifier Taskforce (JDIT) established between MMF and GSMA to align and drive the industry's management of mobile device identifiers.

A mutual benefit of Mobile Operators and Governments to deploy Device Management Systems (Invigo)

- Proposing a real-time solution to combat counterfeit devices as well as SIM-box among others.
- Operators losing control of users due to proliferation of OTT applications thereby leaving revenue flat and decline in ARPU. There is also a huge demand for applications and therefore networks need to upgrade their networks. They are therefore resorting to the use of cost-effective solutions.
- Devices are more valuable to the consumer than the actual operator

ITU SURVEY ON COUNTERFEIT ICT DEVICES IN AFRICA REGION: FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

- The presentation on the ITU Survey gave an overview on the Background leading to the survey, the
- Survey was conducted with the aim of gathering empirical information
 - on the nature of the challenges,
 - use cases and
 - efforts in place to address such challenges posed by counterfeit ICT products.
 - Possible creation of regional group of Study Group 11 for the African Region.

Conclusions after analysis of Findings

- Counterfeit ICT devices are considered “fake and substandard” as per the understanding of the respondents in the African region.
- ITU’s involvement in addressing the problem of counterfeit ICT devices through its standardization work is needed.
- ICT Devices perceived to have been counterfeited are mobile phones & personal computers.
- Counterfeit mobile phones are easily patronized because of their affordability and availability in the markets.
- Member States have interest in establishment of an ITU-T SG11 Regional Group for Africa and would support and participate in such group activities.

Recommendations

- ITU should adopt the definition in the TRIPS agreement or should develop its own standard definition for counterfeit ICT devices to help the industry and avoid the seaming confusion.
- Much more needs to be done on Market Surveillance activities and Type Approvals in the region.
- ICT equipment testing laboratory is required in this region to authenticate devices and give assurance to the general public.
- There should be sub-regional or regional harmonized standards.