

COMBATING COUNTERFEIT TELECOMMUNICATION/ICT DEVICES AND SOFTWARE

CONTROL OF MOBILE DEVICES WITH IRREGULAR IMEI IN COLOMBIA

System description:

The solution framework against the use of stolen mobile devices began in 2011 as a result of a nationwide alliance between the ICT sectors (ministry, regulator, industry and operators), Defense, Justice and Commerce, led by the Presidency of the Republic .

The control framework is based on positive and negative lists in a model of restriction or blocking of devices that are reported as stolen or los, or that are detected with irregular IMEI in 5 modalities i) without format (they do not comply with the standard format of digits and length), ii) invalid (not on the GSMA assigned TAC list), iii) not homologated according to national regulation, iv) duplicated (with the same IMEI used in more than one device) or v) not registered in the positive database with an owner's ID document.

The system comprises a national administrative database, operated by a private third party paid by mobile operators, and operational databases in each mobile network operator, which are synchronized for an exchange at the national level, and at the same time provide a common information point for law enforcement and customs authorities. All mobile operators contributes to the international Exchange and blocking of lost/stolen reported IMEIs between countries of the región.

The positive list is fed with the information of imported IMEIs and IMEIs registered by mobile operators and users. This list includes the IMEI and the identification document of its owner and serves as a reference of the legal equipment that may have service, that is, that they have been legally imported, that they have been legally acquired by their owner, that their identifier is Valid and complies with industry standards, which are duly approved and registered and whose identifier has not been duplicated.

The main challenges facing this system are:

At a user level: The time and burden to comply with the regulation regarding the registration of the IMEI in the positive list and the homologation of terminals purchased on the internet or entered the country in the traveler mode. Also users have impact arising of the blocking of duplicated IMEIs and the solution process, which are increased when the users of equipment with the same IMEI belong to different operators and even different countries.

In the operational side: the complexity in processes of detection, notification to the user, the centralized and distributed control, and the handling of complaints and solutions to users, which has implied high costs for mobile operators to comply with the regulation.

Technical issues: the IMEI alteration, the wide margin of error in cases of alteration to identify which equipment is genuine and which has been altered.

External issues: the adaptation of criminal organizations to the controls that has affected the positive effect of the measures.

The benefits of the system:

The system has shown Theft figures with a stable and downward trend in the medium term

Other effect are the incentives for legal importation and sale of mobile devices.

There has been more results by the law enforcement in the identification and prosecution of those responsible thanks to having more and better online information about theft and alteration of devices.

Identified needs and solutions:

The necessity to seek greater efficiency in controls, taking into account the burden on users, and the costs of complying with the regulation. For this, the CRC is carrying out a regulatory project to review and simplify the regulatory framework.

Also, it is importante the standardization of measures with the aim to avoid alteration of the IMEI and in the meantime, the use of tools that allow to identify the originality of a device and distinguish those that are tampered or altered.

QUESTIONS TO THE PANELIST

1) Within the regulatory project to review and simplify the regulatory framework against the use of illegal terminals, what have been the main findings to make them more efficient?

Based on Information requirements and cost studies we identify that the process to register the IMEI and identification document absorbs approximately 30% of the operator CAPEX and OPEX and is the one that implies the greatest burden for users.

For this reason, this measure is susceptible to simplification, since a cost-benefit relationship can be maintained similar to the one we have with the statu quo.

2) What is the balance of the measures implemented against the problem?

Regarding the measures in charge of the ICT sector, all those that are feasible according to the state of the art of technology have been adopted.

As a result, periods of slight reduction and stability have been observed in the figures. The analyzes show a quadratic behavior of the theft reporting curve, and results when inserting more controls is not immediate showing a positive effect in the medium term.

However, in the long term this effect has been nullified by the adaptation to the controls and it shows a greater speed in the crime value chain (theft, reception, alteration and illegal resale). In conclusion, an IMEI safe against alteration is required to increase the effectiveness of technical measures and improvings in comprehensive measures at the level of law enforcement and customs actions.