

**Sh. Sudhir Gupta, Pr. Advisor (MN),**

Telecom Regulatory Authority of India

Mahanagar Doorsanchar Bhawan,

Jawahar Lal Nehru Marg, New Delhi-110 002

Tel : +91-11-23220018

Fax: +91-11-23212014

E-mail: [traí.mn@gmail.com](mailto:traí.mn@gmail.com)

**Subject: Response to the Consultation paper on “Issues relating to blocking of IMEI for lost /stolen mobile handsets ” dated 2<sup>nd</sup> November, 2010**

Sir,

We welcome the opportunity to respond to the Telecom Regulatory Authority of India’s (TRAI) Consultation Paper on “**Issues relating to blocking of IMEI for lost /stolen mobile handsets**”.

We thank TRAI for this consultation paper which will help address the tariff concerns in India.

Please find our response to the consultation paper. We would like to participate in any further opportunity to discuss these issues and looking forward to the counter-comments on the same.

Yours Sincerely,

**Aditya Dubey**

MBA – Telecom Management (First Year)

Contact: [adityadubey.sitm@gmail.com](mailto:adityadubey.sitm@gmail.com)

Mobile - +91-7709395505

**Abhinav Anand**

MBA – Telecom Management (First Year)

Contact: [abhinavanand.sitm@gmail.com](mailto:abhinavanand.sitm@gmail.com)

Mobile - +91-7709392251

**Symbiosis Institute of Telecom Management (SITM)**

**Symbiosis Knowledge Village, Gram Lavale, Tahasil Mulshi**

**Pune, India – 411042**

**--Disclaimer--**

**Please note that the views presented below are solely of the students and not of the Institute.**

**Q-1 In order to reduce/discourage mobile theft do you think the blocking of IMEI is an effective solution? Please give reasons**

A-1 We believe that blocking of IMEI (International Mobile Equipment Identity) is an effective solution in order to reduce/discourage mobile theft because of the following reasons:

1. Blocking of IMEI of all the stolen mobile phone and blocking their use in all VLRs is an effective way to reduce mobile phone thefts.
2. Blocking of IMEI of a mobile equipment will make the mobile a passive electronic box which cannot work in any GSM network.
3. Suspected handsets can be placed 'on hold' and monitored without barring calls and losing revenue.
4. Blocking of IMEI and maintaining a list of all active and inactive IMEI will help the authority to curb the further unauthorized use of mobile equipment. However, from the commercial perspective, this involves cost both in terms of CAPEX & OPEX as centralized database need to be established and maintained.

**Q-2 In case blocking of IMEI is implemented, to what extent load on the network will increase? Please give details**

A-2 In case blocking of IMEI is implemented, Network delay will be a major issue because every time a subscriber makes a call MSC/VLR will enquire EIR/CEIR for permission. If that IMEI is found on black list (suspect list) of EIR/CEIR, then that call has to be disconnected. This process will definitely put an overhead on the network, due to which the Quality of Service (QoS) will also get affected. This Network load is ultimately dependent on the number of unauthorized IMEI user calling from a mobile phone.

The IMEI/ ESN numbers are software based which can be easily reprogrammed thus assigning new IMEI/ESN for mobile phone. This nullifies the effectiveness of whole system. Therefore, to ensure the effectiveness of process, reprogramming of the mobile phones has to be banned as is done in many other countries like in Europe, Australia .These countries have laws which treat reprogramming of the mobile phones as a crime and ban anything related with reprogramming of mobile handsets. The establishment of EIR and CEIR has many Capital & operating expenditure.

**Q-3 In your opinion who should maintain the CEIR? Please give reasons**

A-3 We believe that CEIR (Central Equipment Identity Register) should be maintained by the Authority itself. This stand has been taken on the basis of following reasons:

1. CEIR is a data sensitive, secured customer identity based center which should be uniquely handled by the government authority. With CEIR, fraudulent use of the network can be rapidly detected. IMEI requests that include the optional IMSI parameter can be logged and analyzed to detect suspicious and possibly fraudulent use.

2. Under the supervision of the authority, cost and funding issues related to infrastructure building and maintenance can be handled efficiently.
3. During the blocking procedure, some documents of the customers should be kept in a very confidential manner which can be effectively handled by the authority at the central level.
4. As it is a customer focused approach, so government authority can better assure primarily the customer and not the profits.
5. Government authority will be unbiased to any kind of network or network operators related issues.

**Q-4 Should the CEIR be maintained at national level or zonal level? Provide details including the estimated data size**

A-4 CEIR should be maintained at the National level who will be a single reporting unit for all the operators whereas EIR should be installed by every network operator. In case of blocking of IMEI of stolen mobile phones, customer has to follow a procedure and has to submit some documents which will be a part of verification of the genuineness of mobile phone's owner. Customer will convey their query to their corresponding mobile operator. In response, mobile operator will block the IMEI of stolen mobile phone and also send a request to the CEIR along with the scanned copies of the document to block IMEI at National level. And then CEIR authority will send the stolen mobile's IMEI to all the network operators.

We assume that in certain conditions, 1,00,000 cases of mobile phones theft has been reported on one day at the CEIR authority by different operators. Then for a single case, four supporting documents for verification will be required. These documents will consist of:

<u>Documents</u>	<u>Estimated data size</u>
A certificate of reporting the theft to the police.	500KB
A document confirming one's property right with regard to a blocked mobile handset (together with an IMEI number), such as: a VAT invoice, a receipt, a guarantee card, an agreement for the provision of telecommunication services or an annex to this agreement, a sales contract or a contract of donation together with an original proof of ownership.	1024KB=1MB
A document confirming the applicant's identity	500KB
An authorisation in the case when a request is submitted by a person authorized by the subscriber	500KB
Total	2524KB=2.5MB

For a single report, estimated data size can vary from 2-2.5 MB. For accommodating 1,00,000 on a typical day, the server disk space required would vary from 195GB to 255 GB which can be easily supported by a efficient sever of CEIR.

**Q-5 Please comment on cost and funding aspects of Centralized EIR ? Please provide detailed cost estimates?**

A-5 It depends on the deployment procedure of CEIR and is also a variable of complaints received by the customer on per day basis. For the time being, no detailed comments can be given from our point of view.

**Q-6 Should blocking of IMEI /ESN be chargeable from customer? If yes, what should be the charge?**

A-6 Yes, Blocking of IMEI /ESN should be chargeable from customer. And We believe that Rs. 100 will be an appropriate charge paid by the customer for blocking of IMEI of stolen mobile phones. This amount has been put under consideration because of the following reasons:

1. Manpower involved in the maintenance of database of the IMEI at CEIR.
2. Maintenance cost involved for the infrastructure such as network usage, computer hardware, electricity bills etc
3. After implementation of Blocking of IMEI of stolen mobiles, network operators will also want some wages for their services.
4. To curb the misuse of this service by unauthorized and invalid customers.
5. If lost mobile is found, then this amount also includes the charge for unblocking the IMEI of that mobile phone.

**Q-7 Please give your views on bringing a legislation to prevent re-programming of mobile devices? In your opinion what are the aspects that need to be covered under such legislation?**

A-7 Yes, It is necessary to bring a legislation to prevent re-programming of mobile devices. This will help the authority in the following ways:

1. To prevent the use of stolen mobile handsets in their network
2. List flexibility: suspected handsets can be placed 'on hold' and monitored without barring calls and losing revenue

3. Share information efficiently: data can be sent to and from the Central Equipment Identity Register (CEIR) (which holds a blacklist of all stolen handsets) and local service providers, and overridden when necessary.

4. Rapid fraud protection: with EIR, fraudulent use of the network can be rapidly detected. IMEI requests that include the optional IMSI parameter can be logged and analyzed to detect suspicious and possibly fraudulent use.

Aspects that need to be covered under such legislation:

**(A) Reprogramming mobile telephone**

1. He changes International mobile equipment identity (IMEI)
2. He interferes with the operation of IMEI

**(B) Possession of anything for re-programming purposes**

1. He has in his custody or under his control anything which may be used for the purpose of changing or interfering with the operation of IMEI
2. He intends to use the thing unlawfully for that purpose or to allow it to be used unlawfully for that purpose

**(C) Supply of anything for reprogramming purposes**

1. He supplies anything which may be used for the purpose of changing or interfering with the operation of IMEI
2. He knows or believes that the person to whom the thing is supplied intends to use it unlawfully for that purpose or to allow it to be used unlawfully for that purpose

But a person does not commit an offense under this legislation if:

- a. He is the manufacturer of the device.
- b. He does the act with the written consent of the manufacturer of the device.

**Q-8 What should be the procedure for blocking the IMEI?**

A-8 Procedure for blocking the IMEI is as follows:

1. Customer will make a complaint in the nearby police station about his lost mobile phone.

2. And then with the above mentioned (Answer 4) documents and Rs. 100 (process charge), Customer will go to nearby office of his network operator where customer will prove his identity and authorization and request the operator to block the IMEI.

3. With immediate effect, operator will block the IMEI of lost mobile phone from his own EIR and place that IMEI in black list (Suspect List) of IMEI at his own end and operator will give an acknowledgement slip to the customer.

4. Further, operator will send a request (with scanned copies of documents) to CEIR (Central Authority) to block the IMEI in other networks also by pass it onto other networks operators.

**Q-9 If lost mobile is found, should there be a facility of unblocking the IMEI number? If yes, what should be the process for it? Should there be a time limit for unblocking the IMEI number? Should it be chargeable?**

A-9 Yes, There should be a facility for unblocking the IMEI number. The process should be as follows:

1. Authorized Customer will go to the operator's office with his acknowledgement slip and request the operator to unblock the IMEI.

2. After verification, operator will unblock the number from his own end, but the number will not get unblocked unless CEIR will not approve it. In order to do so, operator will send a request to CEIR to unblock the IMEI from other networks also.

3. CEIR will approve the request and will also inform other network operators to unblock the IMEI.

Appropriate time limit is 24 hrs and no extra charge will be taken as Rs.100 is one time charge for whole process.