



AUSPI'S RESPONSE TO THE TRAI CONSULTATION PAPER NO. 3/2013 ON UNIVERSAL SINGLE NUMBER BASED INTEGRATED EMERGENCY COMMUNICATION AND RESPONSE SYSTEM.

General

We appreciate the opportunity given by the Authority to comment on the issues raised in the Consultation Paper on Universal Single Number based Integrated Emergency Communication and Response system.

Creation of Universal Single Number based Integrated Emergency Communication and Response System requires the public safety answering points (PSAP) like those implemented in many places internationally. In addition to answering calls by PSAP, a coordinated emergency at the highest level would be necessary for the scheme to be successful and helpful to the public. We feel that the Universal Single Number based Integrated Emergency Communication and emergency system should be implemented in a phased manner with important emergency services implemented in the first phase and other services in subsequent phases.

AUSPI's response to the issues raised by the TRAI in this consultation paper is as follows:

- 1) **What are the types of emergency services that should be made available through single emergency number?**

AUSPI Response:

All emergency services should be implemented through single emergency number. Implementation should be in phased manner considering the emergency services like Police, Fire, Ambulance, Disaster Management and Accidents in the first phase and others in subsequent phases. Considering the geographical diversity, the Government may implement such emergency services progressively and in different phases as per the need of the population at large and category of emergencies.

For Emergency services to be taken for implementation through a single number base, installation of safety answering points need to be there and coordination will be required between various Governments and local authorities for routing calls to the PSAP. Before implementing the scheme, it is necessary that advance awareness campaign for making the emergency response system successful.

There is also a need to have proactive robustness that will be required to reduce the effect disruptions and clearly defined measures during the emergencies as well post disaster recoveries. During the implementation of



first phase, we suggest that the Government should continue the existing methodologies to handle the emergency services including natural calamities and terrorist attacks etc.

- 2) **What universal number (e.g. 100, 108, etc.) should be assigned for the integrated emergency communication and response system in India?**

AUSPI Response:

Ideally, we consider that number 100 presently being used for Police would be suitable for use as single emergency number as this well known and will have acceptance throughout the country.

Whichever number is chosen as mentioned extensive campaign is required in popularizing and making it acceptable to the public at large.

- 3) **Should there be Primary/ Secondary access numbers defined for the integrated emergency communication and response system in India? If yes, what should these numbers be?**

AUSPI Response:

As suggested above, the primary number may be 100 and other numbers would be secondary numbers. Calls from other secondary emergency numbers should be routed to the Integrated Emergency Communication response system as part of the emergency set up.

- 4) **For implementing single number based integrated emergency communication and response system in India, should the database with information of telephone users be maintained by the individual service provider or should there be a centralized database?**

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- 5) **In case of centralized database which agency (one of the designated Telecom provider, a central govt department or a designated third party) should be responsible for maintaining the database?**

AUSPI Response:

As mentioned in the CP there would be two scenarios for implementing Universal Single Number based Integrated Emergency Communication and Response System in India - one with individual service providers base and second alternative with a centralized data base.

Both the above mentioned options being complex in nature therefore, would require feasibility study, data work flow & routing, corresponding IT development and POC by the Government before finalizing the recommendations. We, therefore, feel centralized database maintained by DOT or TRAI should be appropriate.



- 6) **What are the technical issues involved in transfer of location of a mobile user in real time?**
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- 7) **What accuracy should be mandated for the location information to be provided by the mobile service provider?**

AUSPI Response:

Two scenarios are envisaged –

- (i) Wherein location sites are transmitted based on the available technical capability of the network and;
- (ii) Where more accuracy required, it can be based on the network and handsets.

We suggest as follows:

- **Service providers maybe directed to provide to PSAP location of cell sites of base station which are handling the calls. Service providers would require implement the solution for real time transfer of cell data.**
 - **For GPS enabled handsets, it would be possible to transmit location with more accuracy. However at this stage this solution may not be implemented as many handsets are without GPS capabilities.**
- 8) **Should emergency number access be allowed from inactive SIMs or handsets without SIMs? Please justify your answer?**

It is suggested that for security reasons, the emergency number access should not be allowed for inactive SIMs and handsets without SIMs. The security aspect is very important for such cases as it will lead to misleading and hoax calls, hampering desired, robust, foolproof and efficient operations of PSAP operator.

- 9) **Should emergency access be allowed through SMS or email or data based calls? If yes, what will be the challenges in its implementation?**

AUSPI Response:

- Emergency access be allowed through SMS in the first phase.
- Email access should be implemented in subsequent phase as it will need exhaustive testing and support at all ends. However location based services would not be possible for Emails.



- 10) **Is it technically possible to get location information in case of SMS or data based calls on real time basis? If yes, please elaborate the process and technical challenges if any.**

AUSPI Response:

For SMS, it is technically possible to get location information, however, for data based calls, we understand that it is not possible to get location information on real time basis. Emergency mode allows the handset to lock onto the strongest signal to ensure the best possible voice connection, overrides location privacy settings, and initiates an origination request for call routing and location information. The current handsets do not recognize emergency text as an emergency communication; therefore, it may not be possible to get location information in the case of SMS as well as data calls. In view of that, initially, location based testing of emergency service may not be possible.

- 11) **How to build redundancy in operations of Centralised response centres or PSAPs as they may be vulnerable to attack – both physical and application software related (Virus, Malware, denial of service, hacking) or to Network failures or congestion i.e call overload?**

AUSPI Response:

Redundancy in operations is required regarding centralized response centre, which may be vulnerable to attack. Telecom operators to have redundancy through connectivity built in for point of connections through different switches.

Hardware and software network elements are 'safe to connect' certified by the operators. There should be periodic audit of the emergency response system.

Disaster recovery site based on clear roles and responsibilities of stake holders is desirable.

- 12) **Should all the calls made to universal emergency number be prioritized over normal calls? Please justify your answer.**

AUSPI Response:

We feel that there is no need of prioritization of calls made to Emergency Communication and Response System. PSAP level only congestion may happen due to limitation of manning the position.



- 13) **What legal/ penal provisions should be made to deal with the problem of Hoax or fake calls to emergency numbers?**

AUSPI Response:

Hoax calls should be considered as an offence and TRAI may decide suitable legal provision for addressing hoax calls. TRAI should bring out legislation to make hoax call a criminal offence.

- 14) **How should the funding requirement be met for costs involved in implementing IECRS? Should the cost be entirely borne by central/ state governments or are there any other possible ways to meet the funding requirements?**

AUSPI Response:

In the worst scenario, service providers may be allowed to charge all subscribers a fixed amount to recover the cost involved in implementation of IECRS.

We suggest that the funding requirement based cost should be entirely borne by Central/ State Governments. It should also include the interconnection cost that will be borne by the operators for provision of such emergency services. In other words, the operators should not charge each other for provision of such emergency services by way of using each other's network.

- 15) **Should Key Performance Indicators (KPIs) related to response time be mandated to PSAPs? If yes, what should be the KPIs? Please justify your suggestion.**

AUSPI Response:

KPI related to response time for PSAP may be regulated. Before finalizing KPI, the situation must be observed practically over a trial period based on various factor like available manpower, average call volume, response time of the PSAP operator etc.

Escalation of queries and complaints to higher levels, audit, exercising and review clauses in KPIs may also be defined subsequently.

- 16) **Should use of language translation services be mandated for PSAPs?**

AUSPI Response:

Yes, language translation services be mandated. The language translation services should not be mandated for PSAPs as the same will be funded by the Government.



- 17) **In your opinion, what issues related to interconnectivity and IUC may come up in implementation of IECRS in India? What are the suggested approaches to deal with them?**

AUSPI Response:

Based on reasonable charges, connectivity from the service providers to PSAP may be allowed directly as well as through any other telecom service provider.

Selecting one or two operators will lead to single point of failure therefore, all operators should be accessible to PSAP with redundancy to other operator network for handling emergency calls.

Once the IECRS is fully functional and all the operators are connected to it with redundancy then all the calls relating to all type of emergency should be routed to PSAP and operators should not be charged.

- 18) **Should a separate emergency number for differently able persons be mandated in India? How the use of this number be administered?**

AUSPI Response:

After sufficient experience in the first phase, this aspect should be considered for implementation. TRAI may decide appropriately.

- 19) **In your opinion, apart from the issues discussed in this consultation paper, are there any other technical, commercial or regulatory issues that may be involved in implementation of IECRS in India? Please elaborate.**

AUSPI Response:

Implementation of IECRS in India should be in a phased manner. Awareness of the integrated single number for all emergencies and its acceptance is a real challenge.

- As PSAP location will be distributed to have disaster recovery in place, Priority calling feature implementation will have limitation as it needs end to end handling of EMLPP tag including NLD network which does not have such standard in place. Solution need to be developed keeping in mind the technical feasibility and costs implications.
- Awareness, amongst the populace of an integrated numbers and appreciation of real emergencies would be a challenge.