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<u>**COMMENTS ON CONSULTATION PAPER NO. 11/2012**</u>

Sir,

1.   Stakeholder comments on the subject paper are at succeeding paragraphs.

Approach of the Consultation Paper

2.   The aim of the consultation paper was stated as "*This consultation paper primarily focuses on the network congestion issue and is an attempt to find ways and means to ensure that the network congestion bottlenecks are soothed out at least for personnel working in government machinery and other organizations who are responsible for 'response and recovery' during such disasters.*" The paper goes on to state "Congestion is perhaps the most difficult threat to official responders, because its transient nature defies diagnosis." But the question to be asked is whether congestion the most common cause of failure of civil communications during emergencies. If it is not and TRAI has chosen to address this aspect then would it not be prudent to ensure an environment that congestion becomes the most likely and cause of failure of civil networks during emergencies/disasters. This is possible if probability of occurrence of other causes, namely of network elements, are minimized during the pre-disaster phase or more appropriately as a routine. Simply put it is pointless to put in measures to bypass congestion for identified subscribers without putting in measures to ensure resilience of the network elements. To that effect it needs to be asked - what measures TRAI has mandated/recommended to ensure survivability and fast restoration of civil networks. After all what good are priority call routing measure the network is not up and functioning.

3.   The paper justifies its approach as- *"But such a comprehensive approach would be time and cost consuming. It is imperative to make a beginning with solutions that can be implemented fast and without much costs and then move on to strengthen other capabilities. For these reasons this consultation paper focuses on the issue of priority call routing in particular."*

4.   I would again draw attention to the 'brick in the wall' comment (para 2.7 of the Paper) to stress the fact that priority call routing is a measure in a large framework of actions both as a concept and a functional entity- it would be pointless to activate it as a 'stand alone' measure without creating the *ecosystem* it requires to be effective. Priority call routing is resorted to in countries which have put in place, Firstly, seamless interconnectivity across multiple service providers and media (landline and cellular) to ideally a single emergency number (100, 911 ect). Second, the emergency number at the back-end has a robust call centre or Public Service Answering Point (PSAP) and three, all service providers have message board services activated in emergencies to relieve congestion and make 'priority call routing' painless for the common subscriber (Aam admi). TRAI has regulations for none.

5.   These are the reasons why the initiative to operationalise priority call routing in the country is more a case of 'plucking the low hanging fruit' rather than a 'ground breaking' effort.

Grey Areas

6.   The consultation is paper very technology centric and misses out on certain key issues which are enumerated below:

      (a)   Role of citizens as first responders and their requirement to communicate during emergencies.
      (b)   We are looking at two elements of Disaster Cycle. Preparation in the pre-disaster phase and response in the post disaster phase. Discussed in Para 1.15 and 1.16 but not clear.
      (c)   Legal issues relating to calls in progress and emergency calls by citizens which could not be made and result in severe trauma , both mental and physical.
      (d)   Eventualities when Law enforcement agencies use jammers or call for switching of local network to avoid triggering of devices through mobile phones.
      (e)   Effect of providing priority voice services on SMS availability and delivery for non-priority subscriber in a overloaded network.
      (f)   *Evidence from recent disasters clearly indicates that the rapidly advancing capabilities of civilian communications networks, their wider availability, and their widespread standardization have made them indispensable for ad hoc inter-organizational communications among official emergency responders(Para 1.5)* Key word here is adhoc. The civil communication systems have a function to perform which they do so on daily basis. Hence for planning and regulatory purposes the time window for adhoc reliance on civil communications for first responders must be limited to the point of arrival and establishment of their

incident point/end communications- the communications which they use to perform their functions on a daily basis.

(g) **Voluntary or Mandatory.** Case studies from developed countries relating to priority call routing have been included in the paper but it does not dwell on the fact whether TRAI regulations on priority call routing will be mandatory or voluntary as in case of developed countries. I guess a sense can be got from Para *5.13 of Strategies - To prescribe sectoral Standard Operating Procedures for effective and early mitigation during disasters and emergencies. To mandate Telecom Service Providers to provide alternative reliable means of communication at the time of disaster by creating appropriate regulatory framework.*

(h) **Funding**- There appears to be no indication on how funding is to be obtained possibly TRAI is awaiting inputs in response to the question on the service delivery model.

(i) VOIP has not been evaluated.

Response Sought

7.   The response to some of the issues for which opinion of stakeholders has been sought is at the following paragraphs.

8.   **Genie in the Bottle(Q5.4-5.5)**. *"What mechanism should be followed to identify which personnel working in organizations identified in Q5.4 above should get priority routing?"* What safeguards does TRAI plan to introduce that legitimate use of priority call routing is done or only legitimate persons are accorded this facility. It is a strong possibility that TRAI on issuing guidelines on this facility would leave it to the judgment of the DoT to decide the users. And in all probability this facility too would go the way of red VIP lights on cars or SPG commandoes decided more by appointment than utility. The stand of TRAI in that case would be that it role is advisory and Government will take the final call. Finally we shall have more useless load on the network already congested into 'uselessness' by the disaster. Why not leave the Genie in the bottle?

9.   **Separate Unit/Division.**   *In your opinion should there be a separate Unit/Division under DoT / TRAI to monitor the implementation of the scheme. If yes, what should be the structure and role of this unit?*   There is NO requirement of a separate Unit/Division if this is the task visualized for it. Once the regulations on priority routing are promulgated, implementation rests with the TSPs and monitoring with field units of DoT coordination functions can be discharged by existing establishment at TRAI/DoT. However there exists a case for a separate 'Public Safety Communications' Division if TRAI adopts a holistic and comprehensive approach towards public safety communications and address some the issues already identified in the Paper eg "This is

because the wide variety of radio equipment used by various public safety organizations is frequently incompatible, preventing communications between responders from neighboring jurisdictions.(1.17)" and not identified in the paper "*In addition to the above, there were various measures taken such as the re-routing to another headquarters of 119 emergency calls to the Rikuzen-Takata Fire and Rescue Headquarters in the tsunami-devastated area, the need for which had not been previously foreseen. This indicates a key issue to be addressed in future so as to ensure the viability of communications in the event of damage to critical sites.*"

Suggestions

10.   **Duration**.   Must be for limited duration. This should be promulgated by the competent authority. Once immediate response to an emergency/disaster is over, priority routing must be suspended and relief agencies must revert back their communications completely to their integral communication equipment. TRAI must also consider the eventuality where priority routing maybe required during the pre-disaster phase for critical preparatory actions as this point the call volume will start to peak.

11.   **Information to Subscribers**. Suitable means must be identified to inform subscribers that priority routing has been activated.

Conclusion

12.   Single number emergency response system, PSAPs and network interconnectivity is a baseline requirement. Ukraine for the ongoing UEFA Cup Football Championship being hosted by it, had to give a commitment that it would establish the 112 emergency call system in the country and interconnect with other EU countries prior to the start of the Championship. Such conditions come up when nations realize the importance of telecommunication to the safety and well being of its citizens.