Breaking down the Barriers for Emergency Telecom

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- What practical steps can regulators and policy makers take to encourage and facilitate industry's participation in emergency telecommunication efforts?
- What are the major restrictions on the movement of telecommunications equipment and personnel which inhibit disaster response efforts?
- What can be done to address this issue?
- What specific industry-government partnership approaches have been successfully used in specific disasters, which could be implemented in other similar situations?

In today's world prone to increasingly more frequent natural disasters and emergency situations, the ability to communicate in such emergency cases is becoming more crucial for rescue and relief efforts. Regulators and operators should cooperate in emergency telecommunication efforts in the following areas:

1. Provision of reliable communication channels for the warning system
2. Provision of spare capacity for the emergency communication
3. Rapid deployment of mobile equipment for emergency telecommunication
4. Rapid recovery and restoration of communication channels
5. Establishment of a centralized call center for queries of emergency situations

In normal situations, redundant and reliable communication channels should be secured for receiving early detection signals as well as transmitting warning signals to the areas most likely to be affected by the disasters. Besides, the operators should prepare certain excess capacity for use in the emergency situations. There should be a co-ordination between operators and service providers toward such effects by the mediation of a regulator or policy maker. Network resources mapping and coordination plan for emergency must be established.

With experiences in Tsunami disasters back in 2004 and several subsequent emergency events, such as a number of flood, mudslides and landslides in Northern part of Thailand, the National Telecommunication Commission (NTC), in its capacity, has allocated a new set of common frequencies for distress calls and for emergency usage. This is necessary for coordination of rescue and relief efforts.

NTC has set up a centralized call center with a nationwide access code for emergency calls. NTC has also stated in the terms and conditions of the network providers to come up with an emergency telecommunication plan. Alternative routes and priority call

handling are among the countermeasures to prevent network congestion, especially from calls to the areas of disaster.

One problem arises when disasters or emergency situations occur in remote areas. Sometimes, it is difficult and time-consuming to locate the effected areas and its victims. As a result, the rescue and relieve efforts could not be effectively directed toward the areas. In the Tsunami incidents in 2004, the amateur radio proved to be a very effective means in conveying the current status of emergency situations. Since all other telecommunication equipments were out of power, a number of voluntary groups of amateur radio had reported the situations back to the control center. Compared to satellite radio, amateur radio is less expensive and more agile. With more than 300,000 members spreading nationwide, the amateur radio society is one of the most effective voluntary groups for emergency telecommunication. Plans are being considered by NTC to support activities to increase its members and to install more repeaters for relaying communication signals in emergency.

Another area for cooperation between government and industry is in R&D. New models of mobile units for emergency telecommunication have been developed under the initiatives of NTC with a national research center and a private company. These units can be deployed to the restricted areas by airlifting.

Last, but not least, education about emergency situation and its response must be given to the general public to raise awareness and encourage cooperation among the parties concerned.