Viewpoint on Emergency Alert Services (EAS)

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3G Americas Viewpoint on EAS

3G Americas understands the need for a robust emergency alert system (EAS) that uses the country's many communications resources.

3G Americas supports the efforts of the Administration, Congress and the FCC to find effective ways to improve the current EAS and undertakes to work closely with policymakers.

Technology Considerations for Mobile Wireless Networks

Existing EAS requirements for broadcast and cable service cannot easily be applied to the very different technical environment of mobile wireless networks.

Policymakers and mobile network operators must work together closely to develop EAS requirements that can reasonably be met by mobile wireless networks.

Initial studies suggest that incorporating a NOAA or FM radio in a mobile wireless handset, as some have suggested, simply is not feasible.

> Adding another radio will drain handset batteries, cause technical problems arising from the need to tune to the proper frequency, add too much bulk to handsets, and require replacing hundreds of millions of handsets.

This means that any effective EAS requirements will have to be met using the frequencies ordinarily available to the mobile wireless networks.

Initial studies suggest that there is no "one size fits all" solution for mobile wireless networks.

Short-messaging service (SMS), Enhanced SMS, and Unstructured Supplementary Service Data technologies, for example, may eventually be useful for small-scale emergency notification on mobile wireless networks, but this depends on the nature of the EAS requirements.

> Since SMS and USSD rely on relatively scarce resources in the radio access network (e.g. Standalone Dedicated Control Channels) these technologies do not have the capacity for large-scale emergency notification. Additionally, without enhancement, SMS will not support the possible criteria of delivering messages to specific geographic areas or to inbound roamers.

Initial studies of 11 possible technology solutions, suggest that cellular broadcast technologies (e.g., Cell Broadcast, Multimedia Broadcast/Multicast Service) may eventually provide the best solution for large-scale emergency notification on mobile wireless networks, but this depends on the nature of the EAS requirements.

Policy Considerations for Mobile Wireless Networks

Specific EAS requirements need to be identified jointly with government and industry participation before any technical solutions can be implemented.

Policymakers should always keep in mind the immediate impact of using mobile wireless networks for emergency notifications – the increased (and perhaps overwhelming) congestion on those networks as consumers receive the emergency notifications and respond by making wireless calls.

Configuring wireless mobile networks to provide emergency notification, regardless of the specific requirements, will be an expensive undertaking.

Policymakers will need to provide cost recovery mechanisms (e.g., funding for development and deployment, authority to charge for alert messages, a per-alert charge to alerting agencies, etc.) to cover EAS expenses.

Cost issues can, perhaps, be mitigated by the creation of a mobile wireless EAS that recognizes the unique capabilities and limitations of mobile technologies and devices.

Any decision to incorporate mobile wireless networks into the EAS must take into account the time needed to develop and implement technology choices.

Using wireless networks to provide emergency alerts will also create liability issues that policymakers must address to best facilitate wireless as a possible complementary EAS solution.

Conclusion

Mobile wireless networks may well have a role to play in a comprehensive, emergency alert system.

To overcome the technical and policy hurdles, however, it is important that industry and government work together, as happened in the creation of the Wireless Priority Service – a voluntary program crafted by industry and government working together.