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## **Wireless EAS System Design Adopted But no takers yet for “Alert Aggregator” position**

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On April 9, 2008, the FCC adopted an Order establishing the architectural framework for a voluntary emergency alert system for commercial wireless mobile devices. This was in response to a Congressional mandate to adopt standards, procedures and protocols for a national alert system no later than April 9. By procrastinating until the last possible day to act, the FCC sent a strong message of how seriously it takes its emergency mission.

The FCC set up an Advisory Committee to make recommendations on the issues to be addressed. By and large, the Commission adopted the recommendations of the Advisory Committee, noting that the Committee’s recommendations were the result of a consensus reached after 10 months of deliberation among a variety of stakeholders: commercial wireless carriers, equipment vendors, public safety agencies, broadcasters, the disability community, and other emergency alert experts. The basic network arrangement is depicted in the diagram below (reproduced from the FCC’s order).

Under the adopted framework, an “Alert Aggregator” will receive, aggregate, and authenticate alerts originated by authorized Alert Initiators (*i.e.*, Federal, state, tribal and local government agencies) using the Common Alerting Protocol (CAP). The Alert Aggregator will also act as an “Alert Gateway” to formulate a 90 character alert based on key fields in the CAP alert sent by the Alert Initiator. Based on CMS provider profiles maintained in the Alert Gateway, the Alert Gateway will then deliver the alert over a secure interface operated by the CMS provider to another gateway maintained by the individual CMS provider. The CMS Provider Gateway is then responsible for formulating the alert, mapping the alert to the associated cell sites/paging transceivers, and managing congestion within the CMS provider infrastructure. Ultimately, the alert, in a five-element text format patterned after National Weather Service alerts, will be received on a customer’s mobile device. However, by the time the message is received, it appears that the emergency will either be over or the recipients will be in no condition to check their cell phones.

There will be three classes of alerts provided via the alert network: Presidential, Imminent Threat, and AMBER alerts. Presidential alerts are those originating from the President or his designee in times of national emergency and will be granted highest priority. The Imminent Threat Alerts class is tailored to those emergencies where life or property is at risk, the event is likely to occur, and some responsive action should be taken (such as hurricane evacuation orders). AMBER alerts, which originate from voluntary partnerships between law enforcement agencies, broadcasters and CMS providers in connection with child abduction cases, will be the third class.

Alerts will be geographically targeted at the county-level. They need be transmitted only in English. Roaming subscribers of a participating CMS provider will receive alerts only if the operator of the roamed upon network is also a participating provider *and* the subscriber's device is configured to receive alert messages from the roamed upon network; there is no requirement that the individual providers ensure such interoperability. Significantly, the Commission ruled that emergency alerts must *not* preempt a voice call or data session already in progress, on the rationale that, in an emergency, alerts should not be permitted to interrupt calls for aid.

The rules also require that mobile devices be able to authenticate interactions with the CMS provider infrastructure, monitor for these alerts, maintain customer options (including the ability to opt-out of the alerts), and activate visual, audio, *and* mechanical (*e.g.*, vibration) indicators when an alert is received on the mobile device. The varied indicator requirements were adopted to ensure access by the elderly and disabled.

Interestingly, no one has agreed as yet to become the Alert Aggregator. Potential candidates include FEMA, some other Department of Homeland Security office, or NOAA, but this portion of the equation remains undetermined. The system cannot proceed until one of these agencies steps forward to take on the responsibility for directing the whole thing. In this sense, the emergency alert rules typify all too well the government's solution to problems in the emergency response system: issue a bold proclamation that gives the appearance of addressing the nation's needs (after having a committee study the situation for a couple of years), while really doing nothing whatsoever to actually help anyone.

The new rules will take up residence in a new Part 10 of the Commission's Rules, and go into effect 30 days after publication in the Federal Register. *However*, as noted in new Section 10.11, compliance by providers with any of these new rules will not be mandatory until 10 months after an announcement naming the federal entity responsible for aggregating and formulating these emergency alerts.