Emergency Notification Systems

Opportunities and realities
Wireless Emergency Alerts: Recent Enhancements

**January 2017:** Alert geo-targeting requirement improved from a county-level standard to a polygon-level standard (“best approximate”)

**November 1, 2017:** Participating wireless carriers are required to support embedded references, such as URLs and phone numbers, in alert messages
  - The carriers sought to postpone this requirement, but APCO successfully pushed back, and the FCC held to the original date
Wireless Emergency Alerts: Upcoming Enhancements

May 2019:
- WEA message length will increase from 90 to 360 characters
- Participating wireless carriers will be required to support Spanish language alerts
- Alert originators will be permitted to conduct “live” end-to-end WEA tests

November 2019: Improved geo-targeting - Participating wireless carriers are required to match the target area specified by alert originators, with no more than 0.1 mile overshoot
Wireless Emergency Alerts: Potential Future Enhancements

• Inclusion of multimedia content in alert messages
  - In March, the PSHSB released a Public Notice seeking to refresh the record
  - APCO Comments:
    - Embedding photos, symbols, maps, and other multimedia content will improve emergency response and provide the public with better emergency information
    - FCC should encourage participating wireless carriers to upgrade WEA systems in a manner that eliminates disparities between what’s available to consumers and what’s available to WEA alert originators

• Many-to-One alerting

• Consideration of WEA enhancements at the outset of 5G deployment

• Annual WEA performance reporting
Actual Use Case

• Seminole County, FL
  • Population approx. 450,000
  • Schools:
    • HS
    • Jr HS
    • Elementary
    • Private
  • LEO, Fire, EMS
Actual Use Case

• The nightmare scenario becomes reality... or does it...
  • Feb. 21, 2014, 12:16 p.m. - Active shooter reported, Lake Mary, FL High School.
  • LEO deploy per protocol
  • School issues “Code Red”, goes on lockdown
  • Neighboring middle school also locked down
  • Fire/EMS deploy and stage per protocol
Actual Use Case

• Before first units can arrive social media has been used to announce the incident (without on scene confirmation) and the information spreads like wildfire.

• Seminole County PSAP and EOC have state of the art ENS system.

• Attempts to inform citizens are delayed only by the need to confirm, or deny, reports.
Actual Use Case

- Twitter and Facebook reporting unconfirmed data, but it is legitimate as far as the students who are passing it along know.
- 1600 related tweets are sent between 12:16 – 1:16 that day.
- PSAP and EOC try to inform parents of actual data starting at 12:30 PM, they ask that parents NOT respond to the schools.
Actual Use Case

- Best efforts by public safety cannot overcome unconfirmed reports on social media.
- Parents flood the schools, and potentially a hot zone.
- Sheriff’s Office, School and PSAP use ENS and social media to inform public, but students beat them to it.
- Thankfully, the incident was a false alarm, called in by a 12 year old who is arrested 3 days later.
PSAP Functional Elements

Emergency Notification Systems
Common PSAP Interfaces

- Nlets
  Motor Vehicle & Criminal History
- Hospital Status Systems
- Gunshot Location Systems
- Weather Alerts
- APCO/CSAA Automated Secure Alarm Protocol
- Intelligent Transportation Systems
Questions?