



envision

the future of emergency communications



anaheim, ca | september 20, 2018

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.

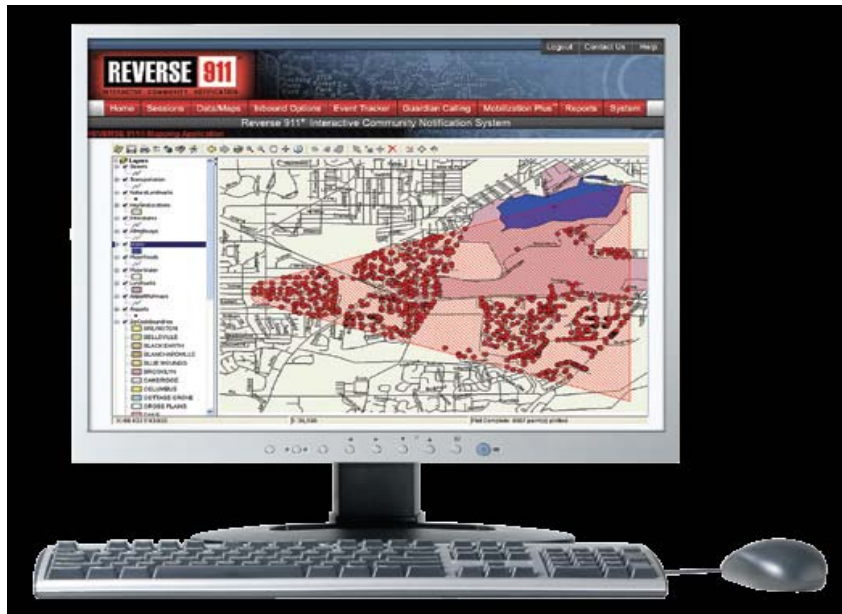
Actual Use Case

- 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**





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Questions?

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