The Common Alerting Protocol

CAP

What CAP Is

- International data transmission standard for warning messages
- “Write it once” method for integrating multiple alerting systems
- Template for complete and effective warning messages
- Tool for tracking and analyzing patterns of local warning activity
- Compatible with existing warning systems

Why CAP Was Needed

"A standard method should be developed to collect and relay instantaneously and automatically all types of hazard warnings and reports locally, regionally and nationally for input into a wide variety of dissemination systems."

- "Effective Disaster Warnings" report by the Working Group on Natural Disaster Information Systems Subcommittee on Natural Disaster Reduction Committee on Environment and Natural Resources National Science and Technology Council November 2000

Why CAP Was Needed

- Simplify and accelerate warning procedures
- Improve warning targetability, reduce “spill” of warnings to unaffected recipients
- Coordinate use of a wide variety of warning systems, existing and future
- Ensure consistency of emergency alerting across all available media
- Track and analyze warning activity

CAP Timeline

2000: Requirement identified by White House panel, other experts

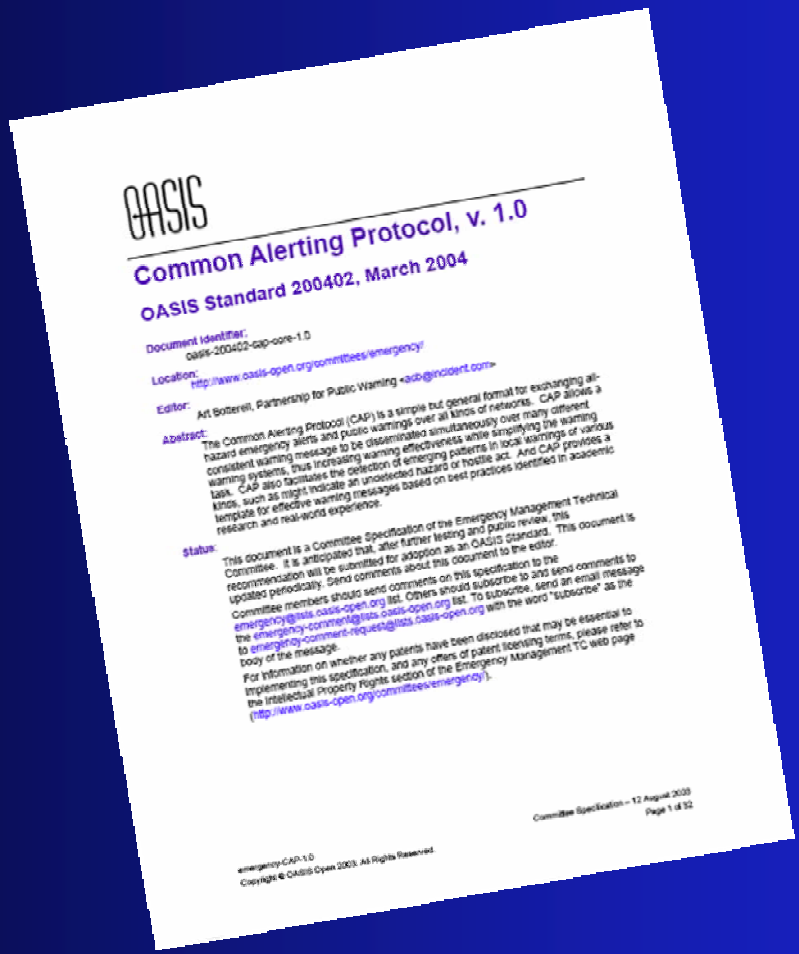
2001: PPW forms; CAP Working Group forms; CAP specifications drafted

2002: Initial field tests in California and Northern Virginia (ComCARE)

2003: PPW sponsors CAP into OASIS formalization process

2004: CAP becomes OASIS standard

The OASIS Standard



OASIS

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Abstract:
The Common Alerting Protocol (CAP) is a simple but general format for exchanging all-hazard emergency alerts and public warnings over all kinds of networks. CAP allows a consistent warning message to be disseminated simultaneously over many different warning systems, thus increasing warning effectiveness while simplifying the warning task. CAP also facilitates the detection of emerging patterns in local warnings of various kinds, such as might indicate an undetected hazard or hostile act. And CAP provides a template for effective warning messages based on best practices identified in academic research and real-world experience.

Status:
This document is a Committee Specification of the Emergency Management Technical Committee. It is anticipated that, after further testing and public review, this recommendation will be submitted for adoption as an OASIS Standard. This document is updated periodically. Send comments about this document to the editor.
Committee members should send comments on this specification to the emergency@lists.oasis-open.org list. Others should subscribe to and send comments to the emergency-comment@lists.oasis-open.org list. To subscribe, send an email message to emergency-comment-request@lists.oasis-open.org with the word "subscribe" as the body of the message.
For information on whether any patents have been disclosed that may be essential to implementing this specification, and any offers of patent licensing terms, please refer to the Intellectual Property Rights section of the Emergency Management TC web page (http://www.oasis-open.org/committees/emergency/).

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What CAP Is Not

- Not a warning system in itself
  - Links and integrates: a “warning internet”
- Not a data communications network
  - CAP can be used across all kinds of “transports”
- Not a warning message display format
  - XML format is for for systems, not humans
  - Delivery systems determine public presentation
- Not a professional code of warning practice
  - That remains to be done…

How CAP Works

- Messages are coded in a standard data format (a type of XML document)
- Each message can have multiple parts
  - Multiple languages
  - Multiple areas
  - Multiple timeframes
- Messages are targeted to specific audiences with hazard type and GIS-oriented codings
  - Compatible with existing schemes, but more flexible

How CAP Works

- Warning system controllers and/or individual devices select relevant messages by their area or topic of service
- “Person in the loop” approval can be required, generally or by message category
- Individual devices “do what they do”… make noise, play audio, display on a screen, etc., in coordination with all other CAP-enabled systems

Who's Using CAP?

- National Weather Service (www.weather.gov/alerts/)
- California Office of Emergency Services (EDIS)
- APTS Digital TV trials for DHS
- Contra Costa County CWS
- Amber Portal EAS Links
- Numerous warning and emergency management system providers

Action Items

- Refinement and improvement of the standard
  - USA Working Group
  - OASIS Emergency Mgt. Tech. Committee
- Specification in procurements
  - Florida, Washington, Contra Costa doing so already…
- Integration in a professional code of public warning practice

For more information…

- Partnership for Public Warning

  (www.ppw.us)

- CAP Working Group

  (www.incident.com/cap/)

- OASIS Emergency Management Technical Committee

  (www.oasis-open-org/committee/emergency/)