

## Why Emergency Managers Should Care About Data Standards

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With a master's degree in computer science and 20 years supporting missile systems, it is clear to me that a consistent form of communication between systems in this domain is imperative. The events of Sept. 11 brought that need to most Americans' consciousness. The first thought was to improve radio communications.

### A Focus on Data Interoperability

Interoperability became the buzzword of the day. Legislation was enacted making funding available for radio communication systems. While improvements to voice communications were truly needed, there was a clear absence in legislation for the interoperability of computer systems that are also critical to emergency communication.

Data interoperability has been a focus of the Emergency Interoperability Consortium (EIC), the DHS Science & Technology Directorate and the FEMA IPAWS Programs. The foundation work on the Common Alerting Protocol (CAP) began in 2001 with the Partnership for Public Warning.

### Why OASIS Was Selected

We shopped for an SDO (Standards Development Organization) to get this standard ratified. OASIS was chosen because it is free, open and international—free because the standard itself can be downloaded from the Web site at no charge. There is no charge to obtain or use, as with some other SDOs. The standards development process is open to anyone in the world that wants to participate in providing comments on the works in development. All deliberations of committees are also made publicly available as with all comments and disposi-

tion of them. It is *international*, which has allowed the use of and uptake of these standards all over the world. We know that disasters know no jurisdictional boundaries.

So, CAP is a "data standard." It is a set of ordered data that encapsulates all the information for an alert. It includes such information as the area, urgency, severity, certainty, headline, description, event, category, message type, and scope, as well as response type, sender, effective time, and message type.

You can actually read the data, have a look at [www.weather.gov/alerts/](http://www.weather.gov/alerts/), and select the CAP message for a state that is having thunderstorms. You will see what a CAP message really looks like. The National Weather Service is moving to CAP for all alerts over time as they upgrade their products. These examples are live but of an early version of their implementation.

### What This Means to Emergency Managers

What does all this mean to the emergency manager? Not only can you read the CAP message, but so can computer applications. You should be able to purchase software systems to send alerts that can issue a CAP message (e.g., EOC software packages) and purchase alert dissemination systems (e.g., e-mail, radio, siren) that can receive a CAP messages and alert based on that message. In that way, you are able to make the choices about the products and services you buy that suit your jurisdiction's particular needs.

How can you know the systems work, that they can really exchange information in this way, and that they are fitting to your environment? The National Incident Management System (NIMS)

Support Center has a testing program in place that not only tests products to the standard, but also includes a group of subject matter experts (SMEs) to identify the usefulness of the products tested. A database of the products that have been tested can be found on the Responder Knowledge Base.

This article talked a bit about CAP. What about other emergency data? The OASIS EM-TC also has ratified the EDXL-DE (Emergency Data Exchange Language – Distribution Element) and how it is used for the routing of emergency data and the communication between systems; the EDXL Resource Message (RM); and the EDXL Hospital Availability Exchange (HAVE) Data Standards. Subsequent articles will focus on these data standards.

### Learn More at the IAEM 2009 Annual Conference

■ There will be a panel discussion on standards and procedures at the IAEM 2009 Annual Conference. The status of the OASIS standards, the NIMS Support Center compliance testing, and the latest information on NFPA 1600 will be presented on Wednesday, Nov. 4, 2009, 11:00 a.m.-noon.

■ In addition, there will be an interoperability demonstration, showing a variety of product and service providers, that will demonstrate a scenario showing how data can be shared among different applications. Stay tuned for further details on the dates and times for the demonstration.

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