CONNECT & PROTECT ™

Using the Common Alerting Protocol (CAP) to Improve Public Safety

A Report From The Field

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A Very Disconnected World…

The Need -

Federal, state, and local agencies and private organizations need to exchange “all-hazards” warnings and reports.

The Problem –

How to get a chaotic, non-interoperable, patchwork of alerting and response systems with different data formats to “talk” to each other?
What is CAP?

An open, non-proprietary “all-hazards” warning and reporting data format. Ratified as a standard in March 2004 by the Organization for the Advancement of Structured Information Standards (OASIS).

Why is it important?

CAP promotes a standardized, simple “all-hazards” data format which allows different systems send data to other systems. The sender knows what data format to expect.

The “lingua franca” of alerting systems
OASIS EM Design Philosophy

- Interoperability
- Completeness
- Simple Implementation
- Simple XML and Portable Structure
- Multi-use Format
- Familiarity
- Interdisciplinary and International Utility
Connect & Protect

**Connecting** public officials, Oregon Emergency Management, county emergency offices, local 9-1-1 centers, emergency responders, critical infrastructure providers and key public safety stakeholders -

- Operating since August 2003
- Over 150,000 emergency events processed annually
- Added a tsunami warning service, linked to NOAA Tsunami Warning Center
- Registered sex offender trusted information exchange
- Improving public/private response to “all-hazards”
- Offering common ops picture for Mayor and Emergency Management

- **Totally CAP-driven**
Connect & Protect

- 9-1-1 Centers and Responders
- State & Local Agencies (Mayor, OEM, National Guard)
- NGOs (Red Cross)
- Multnomah County (County Chair, OEM, Parole/Probation)
- University System (Portland State, OHSU)
- Building Management / Private Security
- Hospitals
- Hotels
- Transportation
- Financial
- Manufacturing
- Large Employers & Event Sites
- K-12 Schools (Free)

Certified Solutions

Swan Island Networks, Inc.
1. Proprietary dispatch alert data files are sent from 9-1-1 centers to Connect & Protect

2. Connect & Protect transforms proprietary data to Common Alerting Protocol (CAP) formatted XML (OASIS-approved standard)
An Audible, Pop-Up Alert Is Sounded On PCs
Alert Details

- CAP-based Alert details
- Alert location map (from ArcWeb) with effected radius
- Contextually relevant supporting documents, preparedness plans, and reference materials
9-1-1 alerts can be layered onto maps.
On-the-fly Data Fusion

1. New alerts received/transformed into CAP by Connect & Protect
2. Alert location, title, radius, and map style automatically sent by Connect & Protect to ESRI’s ArcWeb protected web service
3. ArcWeb returns map to Connect & Protect
4. Alert with map sent by Connect & Protect to precisely targeted users
Enhancing CAP’s Value With Geospatial Information

Alert with No Map

Alert with Fused Map
The following information is provided by the West Coast & Alaska Tsunami Warning Center. This message is informational only. Please follow your established protocols in responding to this incident.

2005-06-15T02:56:00.0000000-07:00
Incident # WEPA41 PAAQ 150256 TSUWCA

TO - TSUNAMI WARNING SYSTEM PARTICIPANTS IN
ALASKA/BRITISH COLUMBIA/WASHINGTON/OREGON/CALIFORNIA
FROM - WEST COAST AND ALASKA TSUNAMI WARNING CENTER/NOAA/NWS
SUBJECT - TSUNAMI WARNING BULLETIN - INITIAL
BULLETIN NUMBER 1
ISSUED 06/15/2005 AT 0256 UTC

...A TSUNAMI WARNING IS IN EFFECT FOR THE COASTAL AREAS FROM THE CALIFORNIA-MEXICO BORDER TO THE NORTH TIP OF VANCOUVER I.-BC. INCLUSIVE...

ESTIMATED TIMES OF INITIAL WAVE ARRIVAL
CRESCENT CITY-CA 2029 PDT JUN 14   ASTORIA-OR       2154 PDT JUN 14
CHARLESTON-OR  2044 PDT JUN 14   TOFINO-BC        2157 PDT JUN 14
SAN FRANCISCO-CA 2123 PDT JUN 14   SAN PEDRO-CA     2200 PDT JUN 14
SEASIDE-OR       2126 PDT JUN 14   LA JOLLA-CA      2214 PDT JUN 14
NEAH BAY-WA      2148 PDT JUN 14

Severity: Extreme
Category: Safety
Latitude: 41.3
Longitude: -125.7
Radius: 20112.5 km (12469.75 miles)
Connect & Protect worked beautifully! Having a fast, slick method of getting targeted emergency information and maps—in order to enact a safety plan that we have—makes all the difference.”

—Chad Sweet, General Manager, Surfsand Resort, and volunteer fireman

The Surfsand received the Connect & Protect Tsunami Warning even before the warning went out to the community by other notification methods, including fire, police and area sirens.

Tsunami Warnings is only one example of a Connect & Protect network providing information sharing (with end-to-end information assurance) and localized ArcWeb Services to communities of interest.
RAINS, a §501(c)(6) non-profit corporation, governed by a Board of Directors comprised of public officials and private sector representatives, envisions new, cross-organizational information sharing environments for public safety and homeland security, based upon Internet standards and integrated, multi-vendor solutions.

**Mission**: Accelerate the adoption of innovative information sharing and emergency communication systems for homeland security and public safety.

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