CAP Implementation in México

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Since 1991 is working Monitoring and Warning System to public directly, using technology designed by CIRES.

Today with 98 acelerometers, in 7 States, 8 Transmitters (NOAA frequencies), EQW is acceded by 25 million people, using open standards: Common Alerting Protocol (CAP) and Emergency Alert System/Specific Area Message Encoding (EAS/SAME).

We use the CAP for Message Type for UPDATE, NOT Alert. ¿Why?
Background

- Long-term climate prediction
- Seasonal to interannual climate prediction
- Long-range weather forecasting
- Medium-range weather forecasting
- Short-term weather forecasting
- Nowcasting

Seismic
Mexico’s Earthquake Early Warning System

- México City 2014
- 1 minute warning
- [http://www.youtube.com/watch?v=x5wE7-NgvX8](http://www.youtube.com/watch?v=x5wE7-NgvX8)

- Los Angeles CA 2014
- Any Warning
- [http://www.youtube.com/watch?v=KiB7ny52-xw](http://www.youtube.com/watch?v=KiB7ny52-xw)
How does it work?

Communications, registering and control Subsystem (EASAS)

Emergency Diffusion Alerts Subsystem (EAS-SAME) and Update with CAP

Warns in VHF NOAA frequencies

UHF frequencies

State Seismic monitoring: Jalisco, Colima, Michoacán, Guerrero, Oaxaca and Puebla
5.2. IPAWS CAP v1.1 Profile EAS Specific Elements

The remaining tables represent the requirements and guidelines to create the EAS Profile <info> and other blocks of the IPAWS CAP v1.1 Profile which are intended to be EAS-specific. General guidelines for message creation of an EAS <info> block are defined below:

Federal Emergency Management Agency (FEMA)
Integrated Public Alert & Warning System (IPAWS)
Common Alerting Protocol (CAP) v1.1 Profile Requirements
Draft Version 2.4
December 10, 2008
Example

Before

Volcanic

Flood

During

UV

Tsunami

Huracan

After

Puebla County is implementing CAP (All Hazard-Multiple Media) and EAS/SAME

Guerrero State is working on proposal with CAP (All Hazard-Multiple Media) and EAS/SAME
In 2014, Presidency of the Mexican Republic and CONAGUA–SMN worked together in CAP implementation for tropical cyclone alerts (July).

It collaborates with Google Crisis Map, a new way to inform the public in a timely manner on these weather events.

One of many success examples on how the CAP helps to alert the public is with the Hurricane Odile that hit Baja California México in September 2014.

In this year CONAGUA–SMN began the implementation of the CAP for the cold fronts alerts (May). CONAGUA–SMN is currently working in the development of more CAP’s for weather alerts.
Since 2014 in coordination with technological Presidency office of the Mexican Republic worked together in CAP implementation for Volcano alerts.
June 2014. Urge the House of Representatives to IFT to establish an APP to alert seismic by cell phones.

July 2014. Meetings with the National Seismological Service (SSN), the Center for Instrumentation and Seismic Record, AC (CIRES).

September 2014. Request of the National Water Commission (CONAGUA) to assist and advise the pilot sent emergency announcements project hydrometeorological phenomena via cell phone.

October 2014.- Installation of working groups for the regulation and development of the Mexican Seismic Alert System (SASMEX) in mobile telephony.

October 2014 to April 2015.- Installation and monitoring of desks with mobile phone dealers for the draft notices by hydrometeorological phenomena.

November 2014.- Contact with sub-ministry of Telecommunications (Subtel) of Chile to share technical information and advice in implementing the warning system for emergencies.
January 2015.- Analysis of Cell Broadcast technology for the transmission of bulk messaging in emergency situations.

April 2015.- Inclusion Project in the National Digital Strategy President of the Republic.

April 2015.- Initiative to reform the Federal Telecommunications Act and Broadcasting (LFTyR) to give the power to regulate IFT messages in emergency situations. Favorable vote in Parliament (Senate vote needed).

May 2015.- Analysis of the use of SMS messaging for the transmission of messages in emergency situations.


June 2015.- Inclusion of the issue on the bilateral agenda June 8 with the Federal Communication Commission (FCC) of the US
Actual Situation: Mexico use CAP

- Creates CAP group for Mexico: IFT, CONAGUA-SMN, CIRES, others
- IFT will be leading to continue sponsoring the use of CAP in Mexico.

Centro de instrumentación y registro sísmico, a. c.
Creates CAP group for Mexico: IFT, CONAGUA - SMN, CIRES, others

IFT will be leading to continue sponsoring the use of CAP in Mexico.

Legal Framework

Public Preparedness

Federal Warnings

Local Warnings

Local Civil Protection Authorities

Notification, Reaction and Collaboration

Government Responsibility for collaboration and coordination

Next Steps: National Warning System Model

1. Hazards
2. Hazards Monitoring
3. National Warning System**
4. Federal Warnings
5. Public Preparedness

1
2
3
4
5

Hazards

Warnings

Monitoring

System**
Issuing technical regulations to be observed by telecommunications licensees, broadcasters and service providers to prioritize communications applications and services providing transmission and reception of relevant information, newsletters or mass messages, it occurred before or after an emergency or risk free for users
Next Steps

Legal Framework

- Senate accepts IFT's power to regulate the messages in emergency situations
- Regulate warning equipment for emergency
- Develop CAP México Profile (CAP-Mx)
Next Steps

Analysys and CAP Mexico
Strategical components development

Design, monitor and regulate the mechanism and define the technological parameters required to transmit massively through dealers telecommunications, broadcasting and application service providers, smart alert messages in emergency situations.

Regulate mode in which dealers telecommunications, broadcasting and application service providers shall or shall not transmit early warnings in emergency situations.

Strengthening the physical infrastructure of telecommunications to prioritize communications before, during and after an emergency event.

Methodology to disseminate Warnings and Notifications using CAP.
Next Steps

Coding the Common Alerting Protocol (CAP) to approve its use by different agencies issuing warnings

Coordinate Federal using CAP Alert Messages Between Authorities

Coordinate State and County Messages using CAP Between Authorities

Coordinate Public Hazard Warning using all CAP
Mexico’s EQW is using CAP to Update Earthquakes; for Alert is using EAS/SAME VHF technology (fast response)

CAP-EAS/SAME protocols may to be used for last mile to warn communities that doesn’t have access to other telecommunications medias

Mexico’s Federal Telecommunications Institute is leading and working to create legal framework to use CAP in Mexico

Mexico’s Agencies are working together to implement CAP, not only at Federal Level, are included State and County, but mainly Public
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