Indigenous Language CAP Alerts

Presented by Rob Hopkins
Background

Commercial broadcaster in northern Canada since 1997

Great Grandfather was the first International member of SMPTE standards in 1918

Manufacturer of CAP equipment for Canada’s radio and television industry

Champion of open source with CAP client for broadcast
History
CJUC Radio Whitehorse YT

CJUC 92.5 FM
CAP in Canada

Text, Audio and Image Support for Radio and Television recently including Cell Broadcast for mobile

CAP-CP Profile for English and French

Support for Indigenous Languages, although presently unused

Pelmorex NAAD distributes CAP feeds by TCP\IP socket, C Band or 2 KU band satellite.

Note. In Canada it is not permissible to receive broadcast intrusive alerts via RSS.
National Public Alerting System (NPAS)

**Alert Issuers**
- Government of Canada
- Federal Agencies
- Provinces and Territories
- Authorized Municipal Agencies

**Alert Aggregator**
- Palmorex National Alert Aggregation and Dissemination (NAAD) System

**Alert Distributors**
- Radio stations
- Television stations
- Cable distributors
- Satellite distributors
- Wireless/mobile distributors
- Social media companies
- Web-based applications

**Public (recipients)**

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**Alert Timeline**

1. **An emergency management organization (Issuer) decides to issue an alert.**
2. **An authorized Issuer enters the alert into the NAAD System.**
3. **The NAAD System ensures quick and secure delivery of alerts to the Distributors, exactly as provided by the Issuer.**
4. **The Public receives alerts through various channels and responds appropriately to the emergency or situation.**
Examples of Alerts

Aggressive Wild Animals
Extreme Cold and Blizzards
Extended Power and Telecommunications Outages
Evacuation notifications for Fire, Floods and Landslides
Open Source CAP Client

Emergency Alerting is a cornerstone of Radio and Television automation

Used internationally on every continent, except for Antarctic

Runs on generic PC equipment including the 35.00 USD Raspberry PI
RAINFALL WARNING IN EFFECT

LINK TO SOURCE

Description: rainfall warning in effect
Expires: 2015-01-26T15:32:00
Originated from CAP Alert: Environment Canada, 2015-01-25T23:32:00-00:00,
Area: Central Coast - inland sections
Enable Emergency Alerts: Yes

Primary Language: English

Primary Voice (for TTS): mb-en1

Secondary Language: French

Secondary Voice (for TTS): mb-fr1

Location Geocode: 6001036

Alert Repeat Interval (in minutes): 20

Plays Per Alert (0 = no limit): 2

NAAD Stream #1 URL: http://streaming1.naad-adns

NAAD Stream #2 URL: http://streaming2.naad-adns

NAAD Archive #1 URL: http://capcp1.naad-adns

NAAD Archive #2 URL: http://capcp2.naad-adns

Truncate Long Alert Messages: No

Play Moderately Severe Alerts: Yes

Play Test Alerts: No

Alerting System Tests

Test Alerts: Simple Test

Inject Alert

Active Alerts

Last Heartbeat Received: 00:45 min
Alerts Will Play In: 20:57 min

Test Alert

Test - this is a scheduled test of the Yukon Emergency Measures Organization's emergency public alerting system. No action is required. This is only a test. There is no threat of an emergency or disaster at this time. If this had been an actual emergency or threat you would hear instructions that would assist you to protect you and your family. No Action is required. This is only a Test.

<table>
<thead>
<tr>
<th>Cancel</th>
<th>Sender</th>
<th>Times Played</th>
<th>Headline</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>YukonEmergencyMeasuresOrganization B04BEF53-A633-A150-C39F-EE95126FAF1 2015-09-16T15:45:15-07:00</td>
<td>1</td>
<td>Test - this is a scheduled test of the Yukon Emergency Measures Organization's emergency public alerting system. No action is required. This is only a test. There is no threat of an emergency or disaster at this time. If this had been an actual emergency or threat you would hear instructions that would assist you to protect you and your family. No Action is required. This is only a Test.</td>
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UNESCO Year of the Indigenous Languages

• 7 thousand Languages spoken worldwide
• 370 million Indigenous people in the world
• 90 countries with Indigenous communities
• 5 thousand different Indigenous cultures
• 2680 languages in danger

Indigenous Nations in Canada

- 634 groups; First Nations, Inuit and Metis
- 60 Regional Dialects with 20 spoken
- Handful will survive Cree, Ojibway and Inuktitut
- Inuktitut\lnuinnnaqtun in remote arctic communities spoken by 30% of households
Nuxalk First Nation
CKNN 91.1 FM
Bella Coola, British Columbia
Challenge

• Not everyone is located near a cell base station or has a smartphone phone
• Equipment manufacturers do not support indigenous dialects
• Alerts understood by indigenous people in remote communities
• TTS engines do not presently support indigenous languages
Solution

• 20 phrases recorded by community members
• Framework for other countries and languages
• Available as open source for communities to utilize
Workflow Example

1) Equipment is configured to associate available languages with alerting area. IE Tlingit with Tagish Area, Nuxalk in Bella Coola.

2) Valid CAP message is received matching alerting area polygon

3) Starts with standard alerting tones

4) Artificial Intelligence associates the message in CAP alert with available recorded phrases

5) Canned message plays in regional dialect “A severe blizzard is happening in your area, stay tuned for more details”

6) Regular detailed message follows in English\French.
Resources

observer on GitHub
obplayer on GitHub
Support Site
DIY Maker Space Instructions
Get Involved

Do you have an idea to make open source CAP emergency alerting better?

Have some coding skills? Want to learn?

We want to hear from you!

Contact us

www.openbroadcaster.com
Thank-You!