



# Integrated Public Alert and Warning System IPAWS

*Get Alerts, Stay Alive*

**IPAWS-OPEN Developer SIG Presentation**

**What's In Versions 3.03 and 3.04?**

**Gary Ham & Neil Graves & Manny Centeno**



**FEMA**

December 19, 2012

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# Integrated Public Alert and Warning System

## IPAWS-OPEN Developer SIG Presentation

### What's In Versions 3.03 and 3.04?

19 December 2012



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# Agenda

- ▶ **IPAWS-OPEN Status**
- ▶ **New for 3.03**
- ▶ **New for 3.04**
- ▶ **Termination of CAP 1.1 Interfaces**
- ▶ **The Guides (and other Guidance).**
- ▶ **JITC Overview – Neil Graves**
- ▶ **IPAWS Laboratory – Manny Centeno**
- ▶ **Developer Comments and Questions?**

# IPAWS-OPEN Status

- ▶ **IPAWS-OPEN 3.03 is scheduled for the end of the month in Production.**
- ▶ **3.04 scheduled for the end of January.**
- ▶ **Requirements definition underway for next installment.**
- ▶ **100+ Developers with unique TDL COGs.**

# IPAWS-OPEN Version 3.03

- ▶ **No change to your interface.**
- ▶ **A separate Breakout of the “Active-Active” implementation.**
- ▶ **Two sites with replication and failover.**
- ▶ **UAT was done 15 and 20 November 2012.**
- ▶ **All of you have benefitted from the resulting reliability upgrade (even in a test environment).**

# IPAWS-OPEN Version 3.04

- ▶ Many “behind the scenes” improvements.
- ▶ For Origination Tool Developers:
  - COG Enablement Changes
  - Channel Specific Event Code Profiles
  - COG Profile Retrieval
  - Message List Metadata Improvements
  - Multi-COG Public Alert Retrieval



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# 3.04 COG Enablement

- ▶ **Now fully “switchable” on and off.**
- ▶ **Off means OFF.**
  - **No posting**
  - **No queries**
  - **No other services (DE as well)**
- ▶ **getCogs will now return only fully-enabled COGs.**

# 3.04 Channel Specific Event Code Profiles

- ▶ **Event code permissions may now be set separately for different dissemination channels.**
  - **ALL**
  - **CMAS**
  - **EAS**
  - **NWEM**
  - **PUBLIC**
  
- ▶ **New channel specific error codes**
  - **415 - signer-not-authorized-for-event-code-NWEM**
  - **515 - signer-not-authorized-for-event-code-EAS**
  - **615 - signer-not-authorized-for-event-code-CMAS**
  - **815 - signer-not-authorized-for-event-code-PUBLIC**



# 3.04 COG Profile Setting Retrieval

- ▶ New requestOperation “getCOGProfile”

```
<getRequestTypeDef>  
  <requestAPI>REQUEST1</requestAPI>  
  <requestOperation>getCogProfile</request Operation>  
</getRequestTypeDef>
```

- ▶ New channel specific error codes

- 415 - signer-not-authorized-for-event-code-NWEM
- 515 - signer-not-authorized-for-event-code-EAS
- 615 - signer-not-authorized-for-event-code-CMAS
- 815 - signer-not-authorized-for-event-code-PUBLIC

- ▶ Response would be a “getResponseTypeDef” as currently defined, with all metadata for the COG, including authorizations for geography and event codes.

# 3.04 Message List Data

## ▶ Improved results from “getMessageList”

```
<getRequestTypeDef>  
  <requestAPI>REQUEST1</requestAPI>  
  <requestOperation>getMessageList</request Operation>  
</getRequestTypeDef>
```

## ▶ Added items

- The COG ID of the posting COG
- Signature Validated Flag
- Event Code
- IPAWS Profile Conformance

**Note: The first three are needed for the following change.**

## 3.04 Multi-COG Public Alert Retrieval (1 of 3)

- ▶ An expansion beyond “directed distribution.”
- ▶ Ability to retrieve CAP Alerts posted from any COG with element `<scope> == “Public”` and a verified digital signature.
- ▶ No Change to WSDL, but the “getMessage” and “getMessageList” calls get three added parameters that can be used to accomplish public Alert Retrieval from Multiple COGs:
  - requestType
  - sourceCog
  - eventCode
- ▶ Configurable limit to how far back the messages will be available.

## 3.04 Multi-COG Public Alert Retrieval (2 of 3)

▶ The first two are required. Here is an example:

```
<parameters>  
  <parameterName>requestType</parameterName>  
  <comparisonOp>equalto</comparisonOp>  
  <parameterValue>Public</parameterValue>  
  <logicalOp>and</logicalOp>  
</parameters>  
<parameters>  
  <parameterName>sourceCog</parameterName>  
  <comparisonOp>equalto</comparisonOp>  
  <parameterValue>120001 120026</parameterValue>  
  <logicalOp>and</logicalOp>  
</parameters>
```

This query pulls all Public, validly signed alerts posted by COGs 120001 or 120026.



## 3.04 Multi-COG Public Alert Retrieval (3 of 3)

- ▶ The third parameter allows restriction to particular event Codes:

```
<parameters>  
  <parameterName>requestType</parameterName>  
  <comparisonOp>equalto</comparisonOp>  
  <parameterValue>Public</parameterValue>  
  <logicalOp>and</logicalOp>  
</parameters>  
<parameters>  
  <parameterName>sourceCog</parameterName>  
  <comparisonOp>equalto</comparisonOp>  
  <parameterValue>120001 120026</parameterValue>  
  <logicalOp>and</logicalOp>  
</parameters>  
<parameters>  
  <parameterName>eventCode</parameterName>  
  <comparisonOp>equalto</comparisonOp>  
  <parameterValue>FLW TOR SVR</parameterValue>  
  <logicalOp>and</logicalOp>  
</parameters>
```

This query pulls all Public, validly signed alerts posted by COGs 120001 or 120026 with Event Code equal to FLW or TOR or SVR.

# Termination of CAP 1.1 Interfaces

- ▶ **Dedicated CAP 1.1 Interfaces are going away.**
  - CAP 1.1 exchange
  - Dedicated NWEM
- ▶ **This was first announced as “happening soon” back in June. With Version 3.04 it will happen.**
- ▶ **Functionality is already in place in the CAP 1.2 Aggregator interface:**
  - NWEM from CAP 1.2
  - CAP 1.2 COG-to-COG Exchange
  - (as well as all the push dissemination capabilities)
- ▶ **DE 1.0 capability continues to operate and is not considered deprecated.**

# Guidance and References

- ▶ **IPAWS-OPEN web Service Design Guidance for IPAWS open V3.02 is latest Guide.**
  - Will be updated for 3.04
  - Please see the tables (in particular) for how particular tags are used in IPAWS for the various dissemination channels.
  - Formal guidance on on both EAS and PUBLIC feeds will be included in the 3.04 guide.
  
- ▶ **We are true to the standards and other references used:**
  - CAP 1.2
  - IPAWS Profile
  - ECIG Recommendations (EAS)
  - ATIS-CTIA J-STD-101 (CMAS)
  - SOAP
  - WS-Security (Digital Signatures)



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# FEMA IPAWS Laboratory

- ▶ FEMA maintains a functional IPAWS Laboratory at the Joint Interoperability Test Command (JITC) in Indian Head, MD.
- ▶ JITC supports demonstrations, functional testing, operational assessments, discovery, interoperability testing, closed-circuit and live exercising of public warning systems and components, including table-top exercises. The laboratory can originate, process warning messages through IPAWS-OPEN, and simulate dissemination through numerous CAP EAS devices, electronic signage, desktop alerting systems and other methods.
- ▶ In addition to providing support for the Nationwide EAS Test, the FEMA IPAWS Laboratory has supported traditional EAS, CAP-EAS, CMAS/WEA tests, exercises, and integration of public warning systems for Alaska, Puerto Rico, Nevada, Virgin Islands and Nebraska, and RFI projects for DHS and FEMA.



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# FEMA IPAWS Laboratory



- ▶ The FEMA IPAWS Laboratory at JITC also has a state-of-the-art IPAWS Training and Conference Center to facilitate state and county level public warning training and exercises, accommodating up to 30 participants comfortably. Additionally, the facilities can host internet-based activities such as live webinars. Its proximity to the laboratory provides support for test and exercise control.

- ▶ FEMA and the JITC IPAWS staff is happy to support public warning initiatives at the State and Local levels.
- ▶ For more information on how IPAWS can assist with the development of CONOPS, SOPs, technical requirements, governance, tests and exercises, contact Manny Centeno at 202-646-4328, or [manuel.centeno1@dhs.gov](mailto:manuel.centeno1@dhs.gov).



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# Comments and Questions

## IPAWS Website

<http://www.fema.gov/emergency/ipaws>

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