



Integrated Public Alert & Warning System



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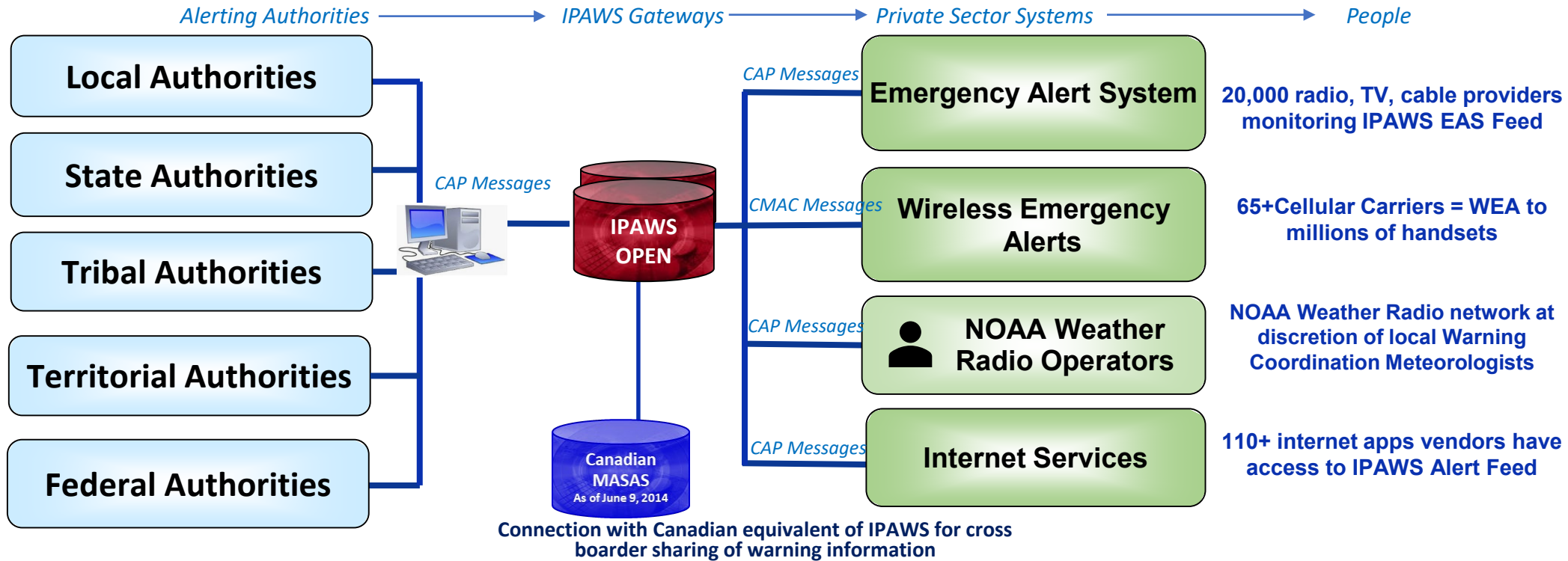
IPAWS-OPEN  
CAP Implementation, Benefit, and  
Future

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# IPAWS-OPEN CAP IMPLEMENTATION



FSTTL



Common Alerting Protocol, v. 1.2 USA Integrated Public Alert and Warning System Profile Version 1.0



# What System Use CAP



- Alert origination software providers follow CAP v1.2 and USA IPAWS Profile v1.0
- All Emergency Alert System (EAS) participants have been upgraded to support CAP-formatted alerts since 2012
- Wireless Emergency Alerts (WEA) are transmitted to IPAWS-OPEN in CAP format.
- National Weather Service (NWS) uses CAP to relay NWS-originated warnings via IPAWS.
- NWS enhanced the NOAA Weather Radio to relay CAP format alert message from public officials in February of 2021
- United States Geological Survey (USGS) generates CAP format ShakeAlert message and disseminate to wireless devices via WEA since March of 2019
- National Center for Missing & Exploited Children (NCMEC) uses CAP to send Amber Alert to IPAWS for dissemination



# Benefit of CAP



- Increase interoperability between various public warning systems
- Support photographs, maps, streaming video and audio
- Support geographically target emergency alerts
- Serve the needs of people who are deaf, hard of hearing, blind or low vision
- Support multiple languages



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# When is IPAWS Used?



Anytime a local authority determines local need to communicate emergency info to the public

- Severe Weather
- Wildfires
- Earthquakes
- Missing Persons
- Water Supply Issues
- 911 Outages
- Power Outages
- Hazardous Spills
- Volcanos
- Shelter-In-Place Orders
- Curfew Lockdowns
- Dam Failures
- Chemical Spills
- Law Enforcement Situations
- Radiological Incidents
- Road Closures
- Disaster Relief Info



- COVID-19 Usage – started March 2020 and ongoing
- Civil Unrest/Curfew Usage – Late May and Early June, again in late August and early September

In 2020:	WEA	EAS	Total
COVID	508	89	597
Civil Unrest	257	40	297

- Wildfire emergencies
- Law Enforcement emergency information
  - Missing people
  - People of interest
  - 92 missing children have been safely recovered directly attributed to Amber Alert since 2012



# IPAWS Disseminate Channels



- **Current**

- Cable TV, Radio via EAS
- Mobile device via WEA
- Display board, Siren, Website, Social media via Public Feed

- **Future Potential Disseminating End Point**

- Computers
- Streaming Device
- Smart TV app
- AI Assistant Service
- WIFI enabled Device
- Gaming Devices
- Smart Kiosk



Internet based  
Application/Devices



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# CAP Future Use Case

- **Smart Home Technologies**
  - Connected devices have the capability to ingest IPAWS alerts and display information



- **Smart Buildings**
  - Signage
  - Speakers
  - Mobile apps
  - Desktop alerting



- **Smart Appliances**
  - Visual display of emergency information



- **Smart kiosks**
  - Display emergency information on outdoor and indoor kiosks
  - Campuses, Malls, Airports
  - Are capable of pulling IPAWS alerts similar to radio and television





**QUESTIONS or COMMENTS?**

**Please contact us at [IPAWS@fema.dhs.gov](mailto:IPAWS@fema.dhs.gov)**



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