Public alert and warning organizations that originate public warning messages use IPAWS-compliant Common Alerting Protocol (CAP) Alert Originating Tools to create and transmit warning messages. These Alert Originating Tools use software to send messages from alert and warning originators to a FEMA "IPAWS Server" that aggregates and disseminates the messages to the nation's Public Alert and Warning Systems, which then distribute them to the general public.

For full details of how the system works, see the IPAWS Architecture graphic below.

The IPAWS Architecture – Standards Based Alert Message data exchange format, alert message aggregation, shared, trusted access & distribution networks, alerts delivered to more public interface devices.
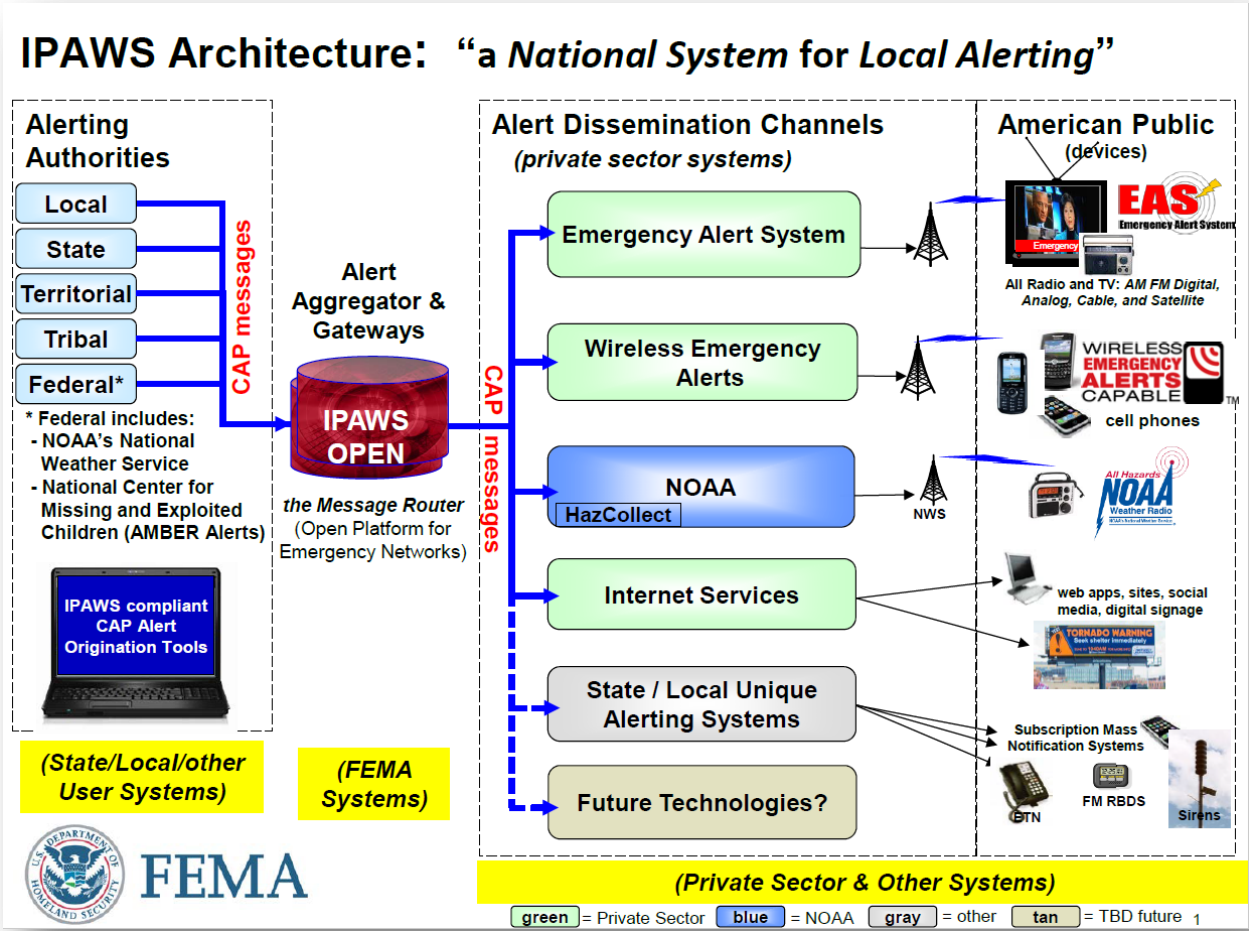
Every Alert Origination Tool has the ability to disseminate alert messages using "Text to Speech" software. This technology can automatically read the message text in a "computer voice". Text to Speech can be a powerful tool – but it comes with significant challenges that the alert message originator needs to understand and mitigate using the guidelines provided by the software platform vendor. If the guidelines are not followed exactly, the effectiveness of the alert message can be greatly diminished.

Alert Origination Tools typically also provide the originator the means to make an audio recording of the alert message to distribute via the CAP server. Experience shows that the **HIGHLY PREFERRED METHOD is to record the alert message and attach it as an MP3 file to the alert message for dissemination through IPAWS**. Recording the message brings numerous benefits, including:

1. Adding credibility to the message
2. Ensuring that local names and locations are properly pronounced
3. Making the message much more understandable to the audience
4. Lending increased urgency to any instructions provided

In order to remain compliant with FCC rules, text to speech cannot be disabled in your IPAWS software, since not all alerts have attached audio files. Harold Price, President of Sage Alerting Systems, points out that when CAP alerts do *not* contain recorded audio, the text-to-speech feature automatically 'reads' all elements of the message: the EAS Originator, the EAS Event, the Location Codes, and the valid Time Period of the alert. The exact format produced varies by IPAWS software manufacturer and affects both audio dissemination and TV crawls.

However, an alert produced by Text to Speech almost invariably represents a compromise. **We re-emphasize: for an alert message to be properly aired, understood, and acted upon by your target audience, it needs to be recorded and attached to the alert message as an mp3 sound file for dissemination through IPAWS**. Doing so will provide **profoundly** more effective communication with the public.

Attached are guidelines from software platform vendors on how to properly develop text to speech output. Key examples include techniques on how to properly pronounce phone numbers, individual's names, license plate numbers, and unique geographic names. Some vendor software platform packages also include multi-language options.

Attachments:

Alert Sense - Text to Speech Guidelines.pdf

Text-to-Speech Best Practices - IPAWS

Text-to-Speech is rendered, or performed, by a computer. To get the best quality text-to-speech conversion, it helps to know some basic best practices for message creation.

Listen to your message several times to ensure clarity using *Preview Text-to-Speech*. Clicking this link will allow you to hear the message through speakers on your computer or device. Phonetic, spacing and other changes can be made in this section. Click *Save Audio* when finished editing.

IMPORTANT – Punctuation and spelling have the most significant impact on any text-to-speech conversion. Use the Preview Text-to-Speech function to change phonetics. Changes made in this section will NOT change your screen crawl for EAS.

IMPORTANT – Always use the *Preview Text to Speech* feature to listen to and improve your message prior to sending to ensure correct message is heard by your recipients over TV and Radio.

Audio Message   Preview Text to Speech
                   Select Existing File
                   Upload File

- ALWAYS include an introduction at the beginning of your message and a conclusion at the end. This gives authority to your message.

  Example: Beginning - "This message is from the Jefferson County Sheriff's Office." End - "This concludes this message from the Jefferson County Sheriff's Office."

- Use clear, complete, short sentences that are well-formed.

- Avoid abbreviations if possible. If you must use abbreviations, make sure to type out the words in the Text-to-Speech preview.

  Example: Height: Instead of 5'10", type 5 feet 10 inches in Text-to-Speech preview

  Time: If you need to include a time, format 3:00pm or 3pm, not 3:00

- Use extra spaces, commas, and semicolons to slow down the message or create pause between words or letters (such as web addresses, license plate numbers, height, weight indication or phone numbers).

  Example: H C 9 3 7 5 or H,C,9,3,7,5

- Use commas and spaces to ensure website addresses are pronounced correctly

  Example:
  www.alertsense.com looks like w w w dot alert sense dot com

  or to include pauses by adding additional punctuation w,w,w. dot,alert. .sense. dot,com

  Some proper names, places, cities, states or locations might be mispronounced, or may be pronounced differently in your area than how the computer renders it. In those instances, you may need to insert a phonetic spelling instead

  Example:
  In the town of Bellefontaine, Ohio, the locals say it as BELL-FOWN-TIN, not BELLY-FON-TANE, or Owyhee would be O Y hee.
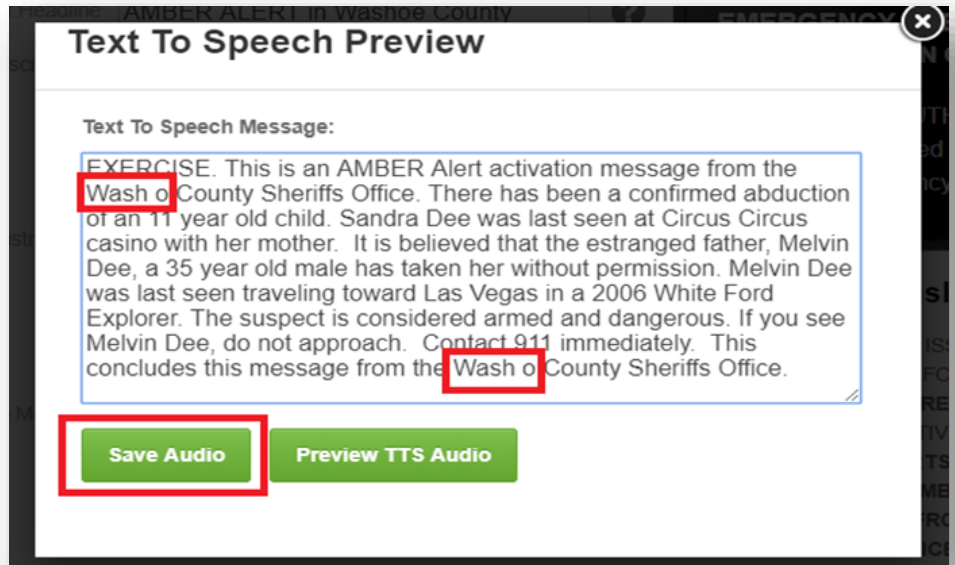
- Phone numbers should be typed with a 10-digit format, including parentheses or dashes. This way, the number is read properly.

  Example:
  (208) 639-6770 or separate such as 208-639-6770

- 911 should to be spaced out as 9 1 1 with spaces between each number.

Making the Voice Different

- To make your EAS voice message different than your written text for pronunciation purposes, you can click the *Save Audio* button once you have finished previewing the voice and have made phonetic changes using the *Preview TTS Audio* button. The written text will stay the same for the EAS crawl, as entered in the original message, but your speech will be converted to an .mp3 file and will sound exactly as your preview for distribution over radio.   This way, you can make phonetic changes without making the crawl unreadable. You can choose to upload a pre-recorded audio file instead of making changes to the text if desired.

Text To Speech Preview

Text To Speech Message:

EXERCISE. This is an AMBER Alert activation message from the Wash o County Sheriffs Office. There has been a confirmed abduction of an 11 year old child. Sandra Dee was last seen at Circus Circus casino with her mother. It is believed that the estranged father, Melvin Dee, a 35 year old male has taken her without permission. Melvin Dee was last seen traveling toward Las Vegas in a 2006 White Ford Explorer. The suspect is considered armed and dangerous. If you see Melvin Dee, do not approach. Contact 911 immediately. This concludes this message from the Wash o County Sheriffs Office.

Save Audio   **Preview TTS Audio**

Other Helpful Tips

- Create pre-defined Templates for common emergencies or notifications that contain the main parts of the message. Only small customization may be required, based on the incident, before the message is sent.

AlertSense Technical Support is available 24/7/365.

Please call 877-840-2041 if you need assistance in creating or sending an alert.

Templates

Selected Template: None

None

Testing Scenarios
Flood Warning TEST

Testings
DEMO

Weather
Flood Alert

Message Type

IPAWS-O