



**Developing a Voluntary Roadmap for Next
Generation Emergency Messaging**

May 25th and 27th, 2021

REPORT

Message from the AWARN Alliance

Dear Future of Alerting Thought Leader,

Thank you for participating in the *AWARN Summit 2021: Developing a Voluntary Roadmap for Next Generation Emergency Messaging*. We are pleased to present this summary Report with links to associated videos of each session of our two-day event.

The Summit was the first time that broadcasters, alerting originators, government officials, and tech partners have gathered to plan for advanced alerting and informing using the powerful new technology of NEXTGEN TV. The level of expertise “in the room” was nothing short of exceptional. And the many expressions of support for creating a voluntary “network of networks” to improve public safety provided a terrific boost to our efforts.

Save lives and protect communities by leveraging advanced emergency alerting, news and information powered by ATSC 3.0 NEXTGEN TV. That is the AWARN vision. The Summit materially contributed to our collective efforts to advance that vision. It would not have been possible without members of the AWARN Alliance, the AWARN Advisory Council, our sponsors, and other supporters in government, business, and the non-profit sector. Thanks for your support and input.

We will continue to call on you to make Next Generation Emergency Messaging a reality for all Americans, and hopefully, many others across the globe.

With appreciation,

John Lawson
Executive Director
AWARN Alliance

Anya Shetler
Deputy Director
AWARN Alliance





Developing a Voluntary Roadmap for Next Generation Emergency Messaging

May 25th and 27th, 2021

In May 2021, the [AWARN Alliance](#) hosted a virtual Summit that, for the first time, brought together broadcasters and other media industry players with the nation's largest alerting authorities to discuss advanced emergency alerting.

Background – New Opportunities

Recent innovations in media and networking technology, together with a new focus on resilience in the face of natural and manmade disasters, have converged to create a unique moment in history for improving the delivery of emergency alerts and continuing emergency information:

- Next Generation Television ([NextGen TV](#))/[ATSC 3.0](#), with its powerful native capabilities to improve alerting, is being [deployed](#) across the country.
- The all-IP nature of NextGen TV makes possible its interoperability with other digital platforms in a new “network-of-networks” for emergency communications.
- The nation's broadcasters and the largest alert origination agencies and organizations have demonstrated repeatedly their willingness to work together to find voluntary solutions for using this technology.
- The increase in the frequency and severity of natural disasters is galvanizing all of us to increase our societal resilience.

The AWARN Alliance

- Arland Communications
- ATSC
- Baron Critical Weather Intelligence
- Capitol Broadcasting Co - WRAL/WRAZ/WILM
- Fox Corporation
- Houston Public Media
- Internet Initiative Japan
- ITV Alliance
- Kentucky Educational Television
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- ONE Media 3.0
- OpenZNet
- PBS North Carolina
- Pearl TV
- Public Media Venture Group
- Sinclair Broadcast Group
- Sony Electronics
- South Florida PBS
- The Spectrum Consortium
- The Weather Company/IBM
- T-NET Japan
- Wiley Rein LLP
- WKAR/Michigan State University
- WNET/THIRTEEN
- Zenith R&D Lab
- Zinwell

The AWARN Advisory Council



*Agencies on the AWARN Advisory Council are not AWARN Alliance members, but they provide input and guidance for the activities of the Alliance and its members.

A Roadmap for Achieving Next Generation Emergency Messaging

At the Summit, we discussed factors that will guide the development of voluntary model agreements at the local level between emergency managers and TV stations. These discussions were planned to support our next phase of convening regional "roundtable" discussions that will bring together key innovators across the emergency communications landscape who have pledged to create those model agreements. The Summit was a major step toward the ultimate goal of a voluntary, interoperable, multi-stakeholder framework for improving emergency alerting and informing in communities all across the nation.

High-level takeaways from the Summit

- The wide range of expert panelists, expert audiences, and high-level keynote speakers involved in the Summit is in itself an indication of broad interest in and support for advanced alerting.
 - The participants exhibited a high level of awareness around both alerting and ATSC 3.0/NextGen TV, which signals that we are now ready to move beyond "level-setting" towards discussions of actual collaboration.
 - We already have a strong foundation for deployment, as indicated by the fact that many of the stakeholders necessary to create an alerting ecosystem at the national level and in key markets were "in the room" at the AWARN Summit.
 - The repeated expressions of willingness to collaborate by many stakeholders speaks indicates voluntary agreements are possible.
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Major Challenges Remain

Challenges remain for creating a voluntary system. The biggest is achieving national scale. We believe the takeaways cited above can lead to agreements in some markets that can serve as models for others. However, achieving national scale that matches the urgency of the need to improve alerting across the United States could take many years without a broad scale industry commitment.

Another clear need that emerged during and after the Summit is bridging the technological gap between alert originators and NextGen TV stations. We expect institutional relationships will emerge that will bridge the gap. But the need for interoperability between the software platforms used by alert originators, such as Everbridge and AlertMedia, and the platforms used by TV newsrooms, such as Avid and Ross, will remain.

In his post-Summit remarks to the AWARN Alliance, FCC Commissioner Nathan Simington articulated this need for an entity or entities to create the API's that bridge the software platforms to create the alerting network of networks. This idea has also been articulated by AWARN members, including some on the AWARN Steering Committee. This topic should be a priority as the Alliance shapes the future direction of AWARN.

The AWARN Summit – A Collection of Experts

On Day One of the Summit, over 100 executives, practitioners, and other experts came together for a half-day of cross-industry education. On Day Two, we laid the foundation for voluntary partnerships through breakout discussions and cross-industry networking. We reviewed the current landscape of the public alerting and broadcast television ecosystems; identified what still needs to be accomplished for full deployment of next generation advanced alerting and informing; and we discussed how the unique capabilities of NextGen TV/ATSC 3.0 '[Broadcast Internet](#)' will improve our response to many types of emergencies with an all-digital, public-private 'network of networks'.

Summary of Day One of the Summit (May 25th)

Opening Remarks and Overview of AWARN

Presenters: John Taylor, SVP, LG Electronics North America and AWARN Steering Committee Chair; John Lawson, AWARN Alliance Executive Director

Overview: The Advanced Warning and Response Network (AWARN) Alliance is an international coalition of broadcast, consumer electronics, and other tech players. They share a common vision to save lives and protect communities by leveraging advanced emergency alerting, news, and information powered by ATSC 3.0 NEXTGEN TV. We have come together with the AWARN Advisory Council and other key national alert-originators and emergency communications experts to lay the foundation for voluntary adoption of NextGen emergency communications at the national level.

*Thanks to members of the AWARN Alliance and our sponsors for making this event possible free of charge to participants. Our sponsors are **ATSC, LG Electronics/Zenith, T-NET Japan, NAB, FOX Weather, Scripps, and Baron Weather Intelligence.***

Keynote: How ATSC 3.0/NextGen TV supports advanced alerting and messaging ([link](#))

Speaker: Madeleine Noland, President, Advanced Television Systems Committee (ATSC)

Overview: ATSC 3.0 – the powerful new standards behind NextGen TV – has the capability to greatly improve the way we communicate during emergencies and to serve as a resilient “backbone” for our national emergency communications. Advancements offered by ATSC 3.0 include: precise geo-targeting; enhanced indoor reception; ability to carry rich-media content; receiver “wake-up”; and “all-IP” interoperability with other networks, such as cellular and broadband.

State of Alerting with the AWARN Advisory Council ([link](#))

Moderator: John Lawson, AWARN Alliance Executive Director

Presenters: Wade Witmer, Deputy Director, FEMA IPAWS; Mike Gerber, Physical Scientist, NWS; Alan Nanavaty, Executive Director, Special Programs, NCMEC; Jeffrey Cohen, Chief Counsel and Director of Government Relations, APCO; Denis Gusty, PMP, Branch Chief, DHS S&T

Overview: Members of the AWARN Advisory Council – which includes FEMA IPAWS, NWS, DHS S&T, NCMEC, and APCO – discuss key strengths, gaps, and future hopes for our current alerting environment, as well as the role for NextGen TV in advanced emergency communications.

[Keynote: Industry leaders “Fireside Chat” \(link\)](#)

Speakers: Adam P. Symson, President and CEO, E.W. Scripps Company as interviewed by John Lawson, AWARN Alliance Executive Director

Overview: Mr. Symson and Mr. Lawson discuss Scripps Company’s recent acquisition of ION Media, which has made Scripps one of the largest TV station groups in the country; digital news innovation and what NextGen TV means in terms of OTA and OTT working together for emergency information and other news; the opportunity for local EMs and newsrooms to use the new capabilities of ATSC 3.0 to strengthen their relationships as well as their emergency news content; and the leadership role Scripps is taking in the NextGen TV space. Symson expresses support of the coming regional roundtables.

[Innovation in Weather Alerting \(link\)](#)

Moderator: Mark Taylor, weather technologist

Presenters: Kodi Berry, PhD, FACETs Program Lead, NSSL; Mike McClain, VP and General Manager, FOX Weather; Veronica Johnson, Lead Meteorologist, WJLA DC

Overview: Panelists discuss the new distribution capabilities of NextGen TV that can be used to improve weather alerting through. Topics include: the need for a “common look and feel” in alerts alongside station branding, how NWS alerts integrate with local TV weather alerts and forecasting, and new methods for communicating Probabilistic Forecasting.

[All Emergencies Are Local \(link\)](#)

Moderator: Ron Prater, Executive Director, Big City Emergency Managers

Presenters: Mark Annas, Emergency Services Administrator for the City of Riverside, CA; Becca Baudendistel, Director of Public Warning, NYC Office of Emergency Management; Mike Fabac, Director of News & Marketing, News-Press & Gazette Company; Josh Gordon, Consultant, Sinclair Broadcast Group/ONE Media 3.0

Overview: Panelists discuss new survey data examining where people turn for information in emergencies and how that could affect their responses to disasters; the formal and informal ways that emergency managers and newsrooms collaborate during emergencies; who will provide what content for NextGen Emergency Messaging; and ways to leverage hybrid over-the-air (OTA) and over-the-top (OTT) distribution for more effective and robust communication channels.

[Keynote: A Call for "IPAWS 3.0" \(link\)](#)

Speaker: Lt. Gen. Reynold Hoover, USA (ret)

Overview: Gen. Hoover, by asking members of our expert audience how they would react in the event of an incoming missile with only fifteen minutes to spare, illustrates just how crucial it is to tell people exactly what to do, where to go and what steps they can take to save lives in the aftermath of a major disaster. He explains why alerting networks need to be survivable in any situation so that we may relay critical messages not just during a disaster, but also after the incident has occurred – “We are going to save more lives when we think about how we can apply ATSC 3.0 post-event than in some cases we might have saved pre-event with a warning that might cause chaos.”

Summary of Day Two of the Summit (May 27th)

[Keynote: FEMA, National Resilience, and Advancing Emergency Communications \(link\)](#)

Speaker: Alex Amparo, Senior Official Performing the Duties of Deputy Administrator for Resilience at FEMA

Overview: Emergency alerting and post-alert information is a key component of climate change resilience and national fortitude. Mr. Amparo discusses FEMA's support for voluntary, multi-stakeholder initiatives like the AWARN Alliance and Next Generation Emergency Messaging (NGEM), as private sector infrastructure and voluntary cooperation for alerting have always been vital for the FEMA mission; the unique capabilities of NextGen TV to amplify broadcasting's vital role as survivable infrastructure; and FEMA's continued support of AWARN and the AWARN roundtables through membership on the AWARN Advisory Council.

[Advanced Alerting Beta Launches \(link\)](#)

Presenters: Pete Sockett, Director of Engineering and Operations, WRAL/CBC; So Vang, VP of Emerging Technologies, ONE Media 3.0; Fred Engel, CTO, PBS North Carolina

Overview: Panelists offer progress reports and launch plans in their DMAs; discuss advances and challenges in technical integration of NextGen TV services; effective methods for maintaining collaborative relationships with local alert originators as they roll-out advanced emergency messaging, news, and information; and the use of broadcast datacasting as a method to reach first-responders with encrypted messaging.

[Reaching people across platforms and end-user devices \(link\)](#)

Moderator: John Taylor, SVP LG Electronics North America and AWARN Steering Committee Chair

Presenters: Kerry Oslund, VP of Strategy and Business Development, EW Scripps Company; Peter Riordan, Head of Worldwide Broadcast Go To Market Strategy, Media & Entertainment, Amazon Web Services; Imad Mouline, CTO, Everbridge

Overview: Panelists discuss the positive outlook for NextGen TV sales and projections; the history behind the NextGen TV brand; vehicular deployment at the "Motown 3.0 Test Track," which is testing ATSC 3.0 services for connected cars; Amazon Web Services' perspectives on alerting and the promising future of NextGen TV; and how opportunities for integration across platforms create more a dynamic, secure, informative, and intelligent emergency communications landscape.

Roadmap for Model Local Agreements

The primary goal of the Summit was to lay the groundwork for eventual agreements between TV stations and local emergency managers for NextGen Emergency Messaging. The next step will be regional "roundtable" discussions to begin exploration of possible agreements, which we hope will be models for other markets.

The Summit and post-event conversations identified key factors that can help guide these discussions:

- TV GMs, news directors, weather forecasters, non-news station GMs, and local EM's should be at the table; tech partners, such as vendors, will be invited at the discretion of the principals.
- The roundtable discussions potentially could be coordinated with meetings of the State Emergency Communications Committees (SECCs), pursuant to pending rules from the FCC.
- The roundtables will seek to outline best practices for deployment of NextGen Emergency Messaging. Topics for discussion may include:
 - Technical interoperability, including security and authentication
 - Procedures for communication between key alert and station personnel
 - Consistent look and feel of alerts, along with station branding as desired
 - Responsibility for providing geo-codes and rich media content
 - Types of urgent alerts, if any, that may qualify for automated pass-through
 - Options for passing alerts to non-news stations.

For more information about the Summit or the AWARN Alliance, please contact:

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