Enhancing Public Safety with the Advanced Warning and Response Network (AWARN)

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Next Generation Television
ATSC 3.0: World’s First IP-Based TV Transmission Standard

1. Flexible Use of Spectrum
2. Robustness
3. Mobile
4. Ultra HD
5. Hybrid Services
6. Multi-view/Multi-screen
7. 3D Content (Video)
8. Enhanced & Immersive Audio
9. Accessibility
10. Advanced Emergency Alerting
11. Personalization/Interactivity
12. Advanced Monetization
13. Common World Standard
Launched in South Korea, Spring 2017

PyeongChang 2018
FCC NPRM on Next Generation Television
Reply Comments Due June 8

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of:

Authorizing Permissive Use of the “Next Generation” Broadcast Television Standard

GN Docket No. 16-142

COMMENTS OF AMERICA’S PUBLIC TELEVISION STATIONS, THE AWARN ALLIANCE, THE CONSUMER TECHNOLOGY ASSOCIATION AND THE NATIONAL ASSOCIATION OF BROADCASTERS

COMMENTS OF THE AWARN ALLIANCE
Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554
Imagine a world in which every consumer’s smartphone could serve as an over-the-air programming device, allowing viewership on the go. And imagine a world in which our emergency alert system was far more advanced, tailoring alerts to particular neighborhoods and waking up sleeping devices to warn consumers of imminent emergencies.

- FCC Chairman Ajit Pai before unanimous vote to approve Next Gen TV NPRM, 2/23/17
AWARN Alliance

- TV broadcasters – commercial and public
  - Over 420 stations
  - Reaching >85% of U.S. households
- Consumer electronics companies
  - Representing $285 billion industry
  - Global TV, smartphone, and chip makers
- Professional equipment and service providers
AWARN Advisory Committee  
(as of May 2017)

Alert Originators Wanted!
Mitigating Current Alerting Limitations
“If you tell people to evacuate in 90 characters without giving them instructions, all you’re going to do is make the situation worse.”
Widespread Need for a Better System
AMBER Alert
Annandale, VA AMBER Alert: LIC/XJG1035 (VA) 2011 Blue Toyota Sienna
JOHN TEST SMITH - MISSING

AGE  5 years old
SEX   Male
RACE African American
HEIGHT 44 inches
HAIR Short/Black
CLOTHES Blue coat, tan corduroy pants

<< AMBER ALERT >>
IF SEEN CALL 555-555-5555

AWARN

VICTIM
SUSPECT
CAR DESCRIPTION
LAST SEEN
CONTACT & MORE INFO
Joe Jones - Suspect

AGE: 37
SEX: Male
RACE: Caucasian
HEIGHT: 6 feet
HAIR: Short/Black
CLOTHES: Dark hoodie, pants and gloves

<< AMBER ALERT >>

IF SEEN CALL 555-555-5555

AWARN: Addressing Warning and Response Through Network
BREAKING NEWS
VA AMBER ALERT

MAKE MODEL: Toyota Corolla
PLATE COLOR: VA: TEST-555 Black
DESCRIPTION: The car has a broken taillight and a dented bumper on the right side

<< AMBER ALERT >>
IF SEEN CALL 555-555-5555

CONTACT & MORE INFO VICTIM SUSPECT CAR DESCRIPTION LAST SEEN
CONTACT & MORE INFO

- CALL 911 Emergency Assistance
- CALL 555-555-5555: Virginia State Police
- GO TO www.missingkids.org/amber: NCMEC.

AMBER ALERT
BREAKING NEWS

JOHN TEST SMITH

TEXT PHONE # & LOCATION | TEXT MORE INFO | WATCH VIDEO | SEND TWEET

<< AMBER ALERT >> | IF SEEN CALL 555-555-5555

CONTACT & MORE INFO | VICTIM | SUSPECT | CAR DESCRIPTION | LAST SEEN
<<< AMBER ALERT >>>

MISSING
5 Year, Male
African American
<<< AMBER ALERT >>>

TEST-555

1607 • 400th Anniversary • 2007

CHILD ABDUCTION
WARN Tornado warning banner overlays program. AWARN can wake up a device. Select or exit choices
Doppler radar and the warning polygon allow geo-targeted alerting.
Icons explain the message quickly and can be understood regardless of primary language.
Active Shooter Alert Simulation in Production

- Produced by WRAL-TV in Raleigh, NC
- Support from UNC-TV & NC Public Safety
- Alert content and instructions for public
- Encrypted content for First Responders
Alliance Goals for 2017

• Continue to grow membership
• Build AWARN Advisory Committee
• Create and refine alert simulations
• Support FCC adoption of Next Gen TV
• Convene public safety/social science and Alliance user groups
• Create alerting templates/protocols (beta version)
• Continue discovery for AWARN service/business models
Helmuth von Moltke

“No plan of operations extends with any certainty beyond the first contact with the main hostile force.”

- Prussian Military Chief of Staff, 1857-1888
The Business Upside of ATSC 3.0 Alerting

How Saving Lives Is Paving the Way for Next Gen TV

Wednesday April 26, 8-9am
Conference Room 1-2, Westgate Las Vegas Resort
Defense Industrial Base

Term used in political science to refer to the industrial assets that are of direct or indirect importance for the production of equipment for a country's armed forces.
A Voluntary System Needs Volunteers
AWARN Advisory Committee  
(as of May 2017)

Alert Originators Wanted!
AWARN Needs Your Expertise and Support

- File in FCC NPRM on Next Generation Television (GN Docket 16-142)
  - Comment on how Next Gen TV can serve emergency communications
  - Reply comment due June 8

- Join AWARN Advisory Committee
  - Help define system protocols and templates for IPAWS delivery
  - Inventory your own rich-media assets and how to aggregate them

- Join AWARN Alliance
  - Develop new apps and use cases
  - Build the Next Gen TV “ecosystem” for alerting
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