PERSONALIZING THE CONSUMER EXPERIENCE
INTERACTIVE AND PERSONALIZED FEATURES

MARK CORL, TRIVENI DIGITAL
GREG JARVIS, FINCONS
SO VANG, NAB
PETE VAN PEENAN, PEARL TV
Produced by SMPTE and SBE with support from the NAB and ATSC

and the support of our host, WETA Television
Event Recording courtesy of the following sponsors:

- NextgenTV
- Panasonic
- Telestream
THANK YOU TO THE SMPTE DC, SBE AND NAB TEAM MEMBERS WHO PRODUCED THIS EVENT

Fred Willard  Univision
Rick Singer  Singer Media Engineering
Skip Pizzi  NAB
Tom Hackett  Diversified Systems
Melissa Davis  Evertz
Louise Shidler  Chesapeake Systems

Maciej Ochman  CPB
James Snyder  US Library of Congress
Nephi Griffith  BMG
Greg Smalfelt  Ch 16 Fairfax
Alex Snell  BCI Digital
Peter Wharton  Happy Robotz

WITHOUT THEIR VOLUNTEER EFFORTS THIS SUMMIT WOULD NOT BE POSSIBLE
8:00 AM - 9:00 AM  Registration and continental breakfast

8:55 AM - 9:00 AM
Welcome from SMPTE, SBE and AES
Kishore Persaud, SBE Baltimore
Fred Willard, SBE Washington

9:00 AM - 9:05 AM
Introduction
Peter Wharton, SMPTE Membership VP
Chris Lane, Chief Engineer, WETA

9:05 AM - 9:35 AM
NextGen TV: Transforming the Consumer Experience
Lynn Claudy, SVP Technology, NAB and Chairman, ATSC Board of Directors
Madeleine Noland, President, ATSC

9:35 AM - 10:00 AM
Creating New Opportunities with NextGen TV
Joonyoung Park, VP and Fellow, DigiCAP

10:00 AM - 10:35 AM
Improved Television Reception for Consumers
Implementing NextGen TV Distribution Systems
John Lynch, ERI
Jeff Andrew, Osborn Engineering

10:35 AM - 11:15 AM
Benefits of a Converged Broadcast and IP Platform
Content Reception Enhancements
Richard Lhermitte, VP Solutions and Market Dev, ENENSYS TeamCast
Lynn Claudy, SVP Technology, NAB and Chairman, ATSC Board of Directors

11:15 AM - 11:30 AM
Morning Break

11:30 AM - 11:50 AM
Consumer Applications for Combined 5G & NextGen TV Networks
Josh Arensberg, M&E Business Development, Verizon Media

11:50 AM - 12:15 PM
Case Study: Hybrid Services at "Chicago 3.0"
Jean Macher, Harmonic

12:15 PM - 01:20 PM
Buffet Lunch

01:25 PM - 01:45 PM
Protecting the NextGen TV Consumer
Advanced EAS and AWARN Capabilities
John McCoskey, SpectraRep

01:45 PM - 02:15 PM
Monetizing the NextGen TV Consumer
Addressable Advertising and Analytics
Rick Ducey & Mark Fratnik, BIA

02:20 PM - 03:20 PM
Personalizing the Consumer Experience
Interactive and Personalized Features
Mark Corl, Triveni Digital
Greg Jarvis, Fincons
So Vang, NAB
Pete Van Peenan, Pearl TV

03:25 PM - 03:40 PM
Afternoon Break

03:40 PM - 04:10 PM
The Consumer Out-of-Home Experience
Mobile & Automotive Applications and FeMBMS (5G Broadcast)
Thomas Janner, Product Management & R&D Director, Rhode & Schwarz

4:10 PM - 4:35 PM
The ATSC 3.0 Roadmap
Lynn Claudy, SVP Technology, NAB and Chairman, ATSC Board of Directors
Madeleine Noland, President, ATSC

4:35 PM - 5:00 PM
The Consumer Technology Roadmap
Brian Markwalter, SVP Research and Standards
The Consumer Technology Association

5:00 PM - 6:00 PM
Station Group and Industry Deployment Plans
Advanced Capability Implementation Strategies
Skip Pizzi, VP Technology Education & Outreach, NAB (Moderator)
Michael Bouchard, VP Technology Strategy, ONE Media / Sinclair
Stacey Decker, CTO, Public Media Group
Sasha Javid, COO, The Spectrum Co

6:00 PM - 8:00 PM
Cocktail Reception
Busboys and Poets
4251 S. Campbell Ave., Shirlington
Heavy Hors d'oeuvres and open bar
ATSC 3.0 AEA in Context

• ATSC creates standards and recommended practices for terrestrial broadcast emissions

• ATSC 3.0 Advanced Emergency InformAtion (AEA) is not intended to replace current FCC emergency messaging regulations or industry practices

• It is expected that stations will fulfill their obligations regarding EAN in the same way as with ATSC 1.0
  ➤ Stations that employ “burned in” banners and audio for non-EAN emergency messages will continue with that practice

• AEA is \textit{optional} and is supplemental to today’s practices

• ATSC 3.0 AEA system enables broadcasters to deliver timely, in-depth emergency-related information, which can strengthen the connection between the community and the station and provide critical information in times of need
ATSC 3.0 AEA Features

Wake-up Field

• Carried in the Bootstrap allowing receivers in stand-by mode to monitor for AEA messages

Advanced Emergency informAtion Table – AEAT

• Signals “everything the receiver needs to know” about the AEA message and associated rich media

Interactivity

• HELD table signals receivers to manage Broadcaster Applications (BA)
• Apps run in ATSC 3.0 Runtime Environment and can access AEAT info and rich media

Watermarks

• Enable critical information to traverse legacy ecosystems
AEA Template Manager

Proof-of-Concept project funded by NAB PILOT

- Goal: Create APIs and Open Source Software to demonstrate concepts and expose issues

  - Enable workflow to manage AEA Templates consistent with Look and Feel / Interactivity AWARN User Experience recommendations
  - AEA triggering based upon active AEAT and associated media
  - Ability to enhance / preview Templates with augmented media / live feeds
  - Template and associated configuration / media files delivery in-band with corresponding transport
AEA Manager Architecture

- **External Authorized Alert Sources** (FEMA, EMNet, etc)
- **EAS Receiver**
- **HEVC Encoder & OTT Package**
- **ATSC 3.0 Transport Encoder**
- **API Extensions**
- **AEA Manager Server**
- **AEA Manager Web Client**
- **Internet Distribution**
- **Scheduler & Exciter**
- **NAB / PILOT Receiver Framework**
- **AEA Component**
Alert: Debris Flow Risk for Santa Barbara County

Evacuation Order for Risk Areas

Live Coverage | Dismiss
EVACUATION ORDER FOR RISK AREAS

Shelter location:
Goleta Valley Community Center,
5679 Hollister Ave

Road Closures:
Hwy 101 closed from Milpas St. Santa Barbara to Hwy 150 in Carpinteria

Twitter updates follow:
ALERT: Debris Flow Risk for Santa Barbara County

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@SBCountyOEM

Text shelter address
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Live Coverage  Evacuation Map  Shelters  Dismiss
FROM THE SMPTE WASHINGTON DC SECTION

THANK YOU