NextGen TV: Transforming the Consumer Experience

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and the support of our host, WETA Television

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WITHOUT THEIR VOLUNTEER EFFORTS THIS SUMMIT WOULD NOT BE POSSIBLE
### Morning Program

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 AM</td>
<td>Registration and continental breakfast</td>
</tr>
<tr>
<td>8:55 AM</td>
<td>Welcome from SMPTE, SBE and AES</td>
</tr>
<tr>
<td>9:00 AM</td>
<td>Introduction</td>
</tr>
<tr>
<td>9:05 AM</td>
<td>NextGen TV: Transforming the Consumer Experience</td>
</tr>
<tr>
<td>9:35 AM</td>
<td>Creating New Opportunities with NextGen TV</td>
</tr>
<tr>
<td>10:00 AM</td>
<td>Improved Television Reception for Consumers</td>
</tr>
<tr>
<td>10:35 AM</td>
<td>Benefits of a Converged Broadcast and IP Platform</td>
</tr>
<tr>
<td>11:15 AM</td>
<td>Content Reception Enhancements</td>
</tr>
<tr>
<td>12:15 PM</td>
<td>Buffet Lunch</td>
</tr>
</tbody>
</table>

### Afternoon Program

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>01:25 PM</td>
<td>Protecting the NextGen TV Consumer</td>
</tr>
<tr>
<td>01:45 PM</td>
<td>Monetizing the NextGen TV Consumer</td>
</tr>
<tr>
<td>02:20 PM</td>
<td>Personalizing the Consumer Experience</td>
</tr>
<tr>
<td>03:25 PM</td>
<td>Afternoon Break</td>
</tr>
<tr>
<td>03:40 PM</td>
<td>The Consumer Out-of-Home Experience</td>
</tr>
<tr>
<td>04:10 PM</td>
<td>The ATSC 3.0 Roadmap</td>
</tr>
<tr>
<td>04:35 PM</td>
<td>The Consumer Technology Roadmap</td>
</tr>
<tr>
<td>05:00 PM</td>
<td>Station Group and Industry Deployment Plans</td>
</tr>
<tr>
<td>06:00 PM</td>
<td>Cocktail Reception</td>
</tr>
</tbody>
</table>
NextGen TV: Transforming the Consumer Experience

ATSC 3.0

POWERED BY ATSC 3.0
NextGen TV: Transforming the Consumer Experience
ATSC Overview

• Advanced Television Systems Committee
  • Standards development organization for digital television
  • Founded in 1983 by CEA, IEEE, NAB, NCTA, and SMPTE
  • Focused on terrestrial digital television broadcasting

• ATSC is an open, due process organization
  • Approximately 140 member organizations
  • Broadcasters, broadcast equipment vendors, cable and satellite systems, consumer electronics and semiconductor manufacturers, universities

• ATSC Mission Statement:
  • To create and foster implementation of voluntary Standards and Recommended Practices to advance terrestrial digital television broadcasting, and to facilitate interoperability with other media.
ATSC 1.0

ATSC DTV Standard (A/53)
- First digital broadcasting standard
- High-definition video
- Multicasting capabilities
- 5.1 digital surround sound
- Electronic program guides
- Closed captioning services
- Extensibility

DTV was revolutionary in 1995!
10 Years of All-Digital Television Broadcasting

Analog TV was shut off in the U.S. on June 12, 2009

Beginning June 13, 2009 all stations were broadcasting only digital signals using ATSC 1.0
Today: Rapid Advances in Technology
Evolution of the Broadcast Service is Necessary for Survival
The Path to ATSC 3.0

Planning 2010 - 2011

Requirements 2011 - 2013

Development 2012 - 2016

Completed Standards 2017 – 2018 (and beyond)
ATSC 3.0

Next Generation Broadcast TV Standard

- Complete new system
- Non-backwards compatible
- Significant performance improvements
- New Capabilities and new services
ATSC 3.0: What is the goal?

To improve the television viewing experience
- Higher audio and video quality, more accessibility
- Personalization and Interactivity

To address changing consumer behavior and preferences
- TV content on all devices, both fixed and mobile

To add value to broadcasting’s service platform
- Extending reach, adding possible new business models
ATSC 3.0: Why is this change worth doing?

Technology marches on
◦ ATSC 1.0 is over 20 years old

Audience expectations are growing

New competition and disruptive forces

More efficient use of spectrum

Leveraging power of Over-the-Air + Online

New revenue streams
ATSC 3.0: What’s in it for broadcasters?

- Maintaining and building audience
- Putting content where viewers are
- Benefiting from new technologies
- Quantitative and qualitative growth
- Developing new revenue streams
Requirements-- Qualitative

Higher Quality

More Efficient

Mobile

Personalized

On Demand

Interactive

Result of Requirements: ATSC 3.0
The ATSC 3.0 Suite of Standards was Released in January 2018

Next Gen TV Reaches Major Milestone with Release of ATSC 3.0 Standards

January 9, 2018, Las Vegas

LAS VEGAS--(BUSINESS WIRE)--Jan 9, 2018--The Advanced Television Systems Committee (ATSC) today commemorated the achievement of a major milestone in TV history, with final member votes being tallied for approval of remaining standards that together comprise the ATSC 3.0 suite of next-generation TV standards.
ATSC 3.0 Standard Status

• Full suite of ATSC 3.0 Standards completed
• Each standard continues to evolve at its own pace with new versions
• A/300: 2019 defines which versions of the individual standards are included in the 2019 standard set
• Standard set will be updated on an approximate annual basis
Consumer Facing Logo for ATSC 3.0 Products

Announced at CTA Fall Forum on September 26
ATSC: First Time Exhibitor at 2020 CES

NEXTGENTV

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Thanks
FROM THE SMPTE WASHINGTON DC SECTION

THANK YOU