

ATSC 3.0 Future Roadmap

Madeleine Noland, President, ATSC

JANUARY 16, 2019

NEXTGEN TV SUMMIT

SMPTE – SBE – WETA

NEXTGEN TV

POWERED BY
ATSC 3.0

nextgentv **SUMMIT**

Produced by SMPTE and SBE with support from the NAB and ATSC



and the support of our host, WETA Television



JANUARY 16, 2020



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The Telestream logo, featuring a blue arc above the word "telestream" in a lowercase sans-serif font.

telestream

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WITHOUT THEIR VOLUNTEER EFFORTS THIS SUMMIT WOULD NOT BE POSSIBLE

Morning Program

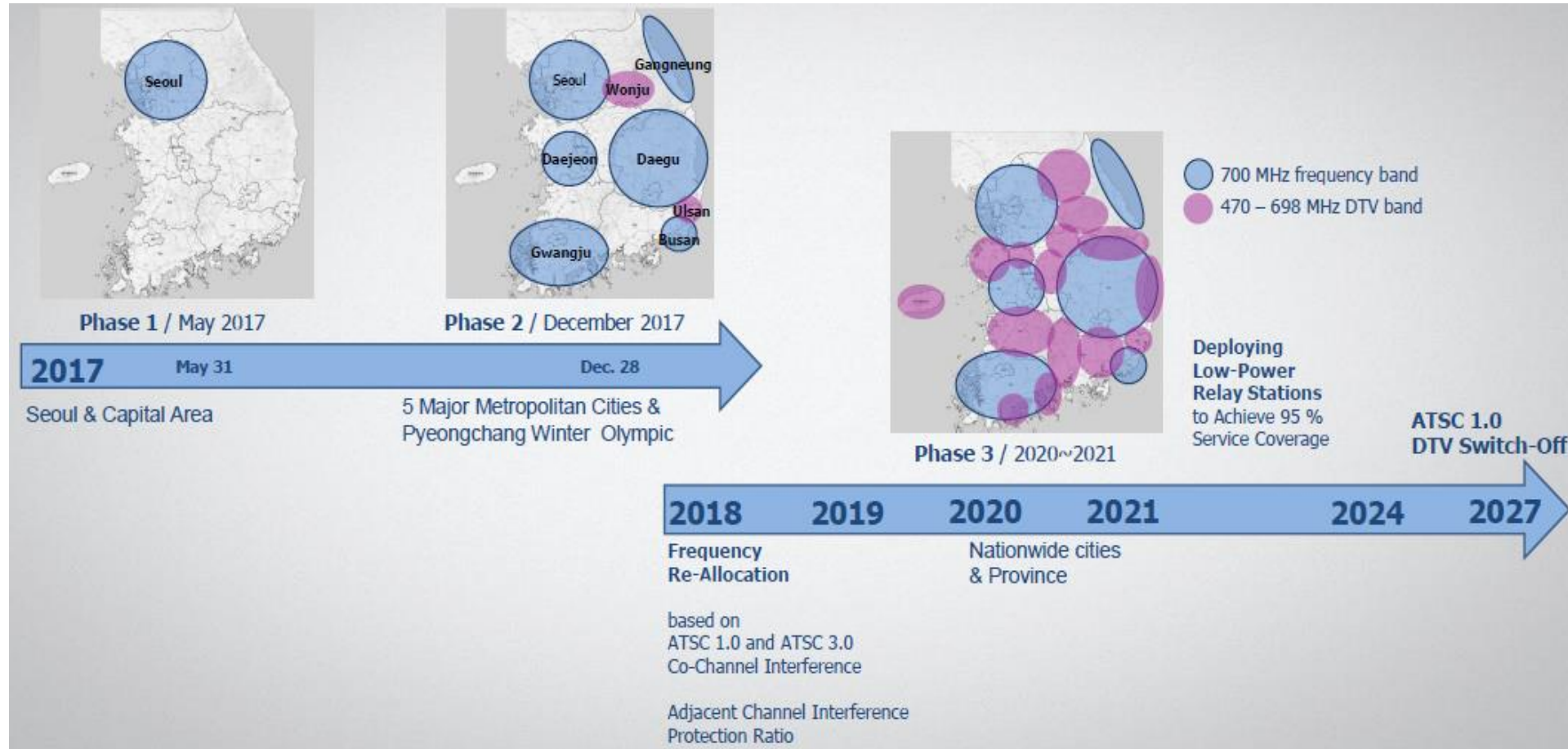


Afternoon Program

8:00 AM - 9:00 AM	Registration and continental breakfast
8:55 AM - 9:00 AM	Welcome from SMPTE, SBE and AES Fred Willard, SBE Washington Kishore Persaud, SBE Baltimore
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 <i>Implementing NextGen TV Distribution Systems</i> John Lynch, ERI Jeff Andrew, Osborn Engineering
10:35 AM - 11:15 AM	Benefits of a Converged Broadcast and IP Platform Lynn Claudy, SVP Technology, NAB and Chairman, ATSC Board of Directors Content Reception Enhancements Richard Lhermitte, VP Solutions and Market Dev, ENENSYS TeamCast
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 ▶

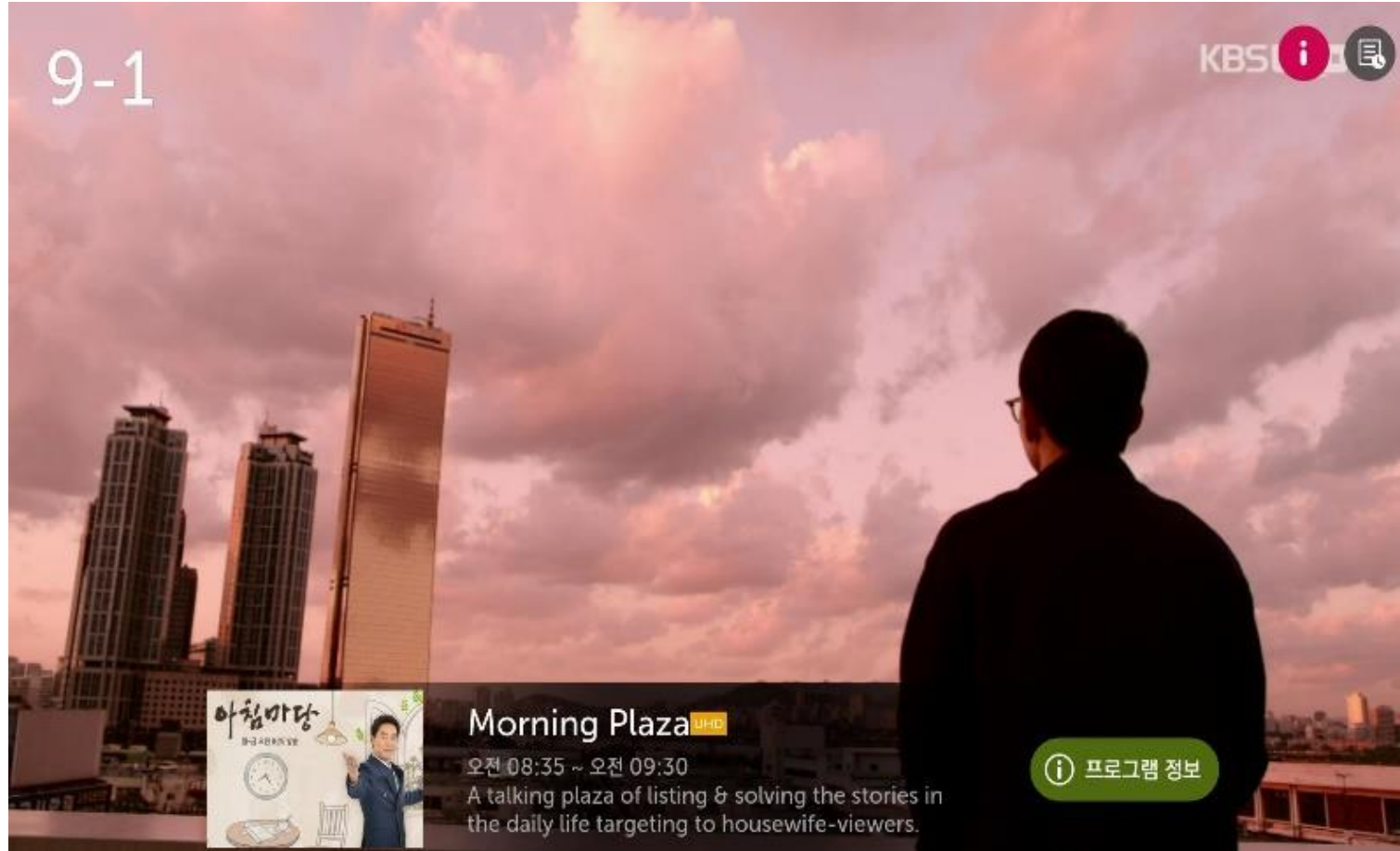
01:25 PM - 01:45 PM	Protecting the NextGen TV Consumer <i>Advanced EAS and AWARN Capabilities</i> John McCoskey, SpectraRep
01:45 PM - 02:15 PM	Monetizing the NextGen TV Consumer <i>Addressable Advertising and Analytics</i> Rick Ducey & Mark Fratrik, BIA
02:20 PM - 03:20 PM	Personalizing the Consumer Experience <i>Interactive and Personalized Features</i> 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 <i>Mobile & Automotive Applications and FeMBMS (5G Broadcast)</i> 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 <i>Advanced Capability Implementation Strategies</i> 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 <i>Heavy Hors d'oeuvres and open bar</i> ▶

Korean Deployment Roadmap



Korean Feature Roadmap – Priority 1a

4K UHD



KBS (2018 UHD global Conference)

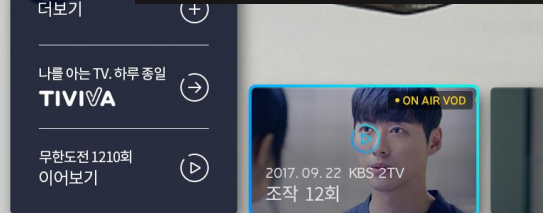
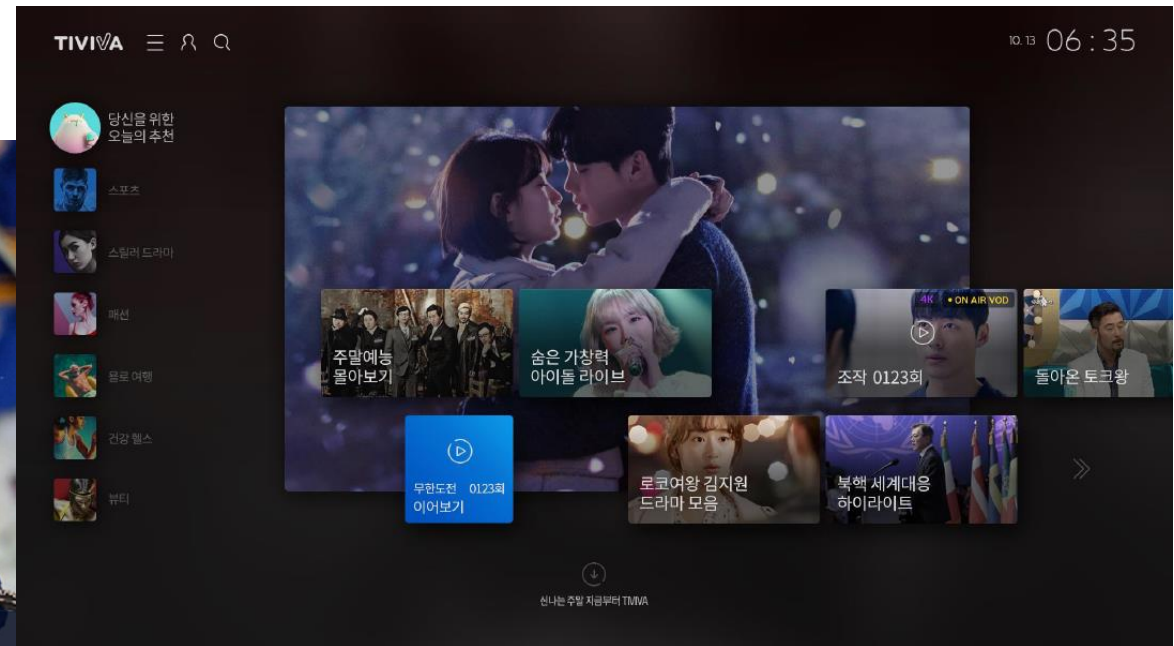
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Korean Feature Roadmap – Priority 1b

Interactive Portal **TIVIVA**



KBS (2018 UHD global Conference)

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Korean Roadmap

1. Phase 1

1. 4K UHD – world's first – commercial deployment May 2017
2. Interactive portal – TIVIVA – commercial deployment November 2017

2. Phase 2

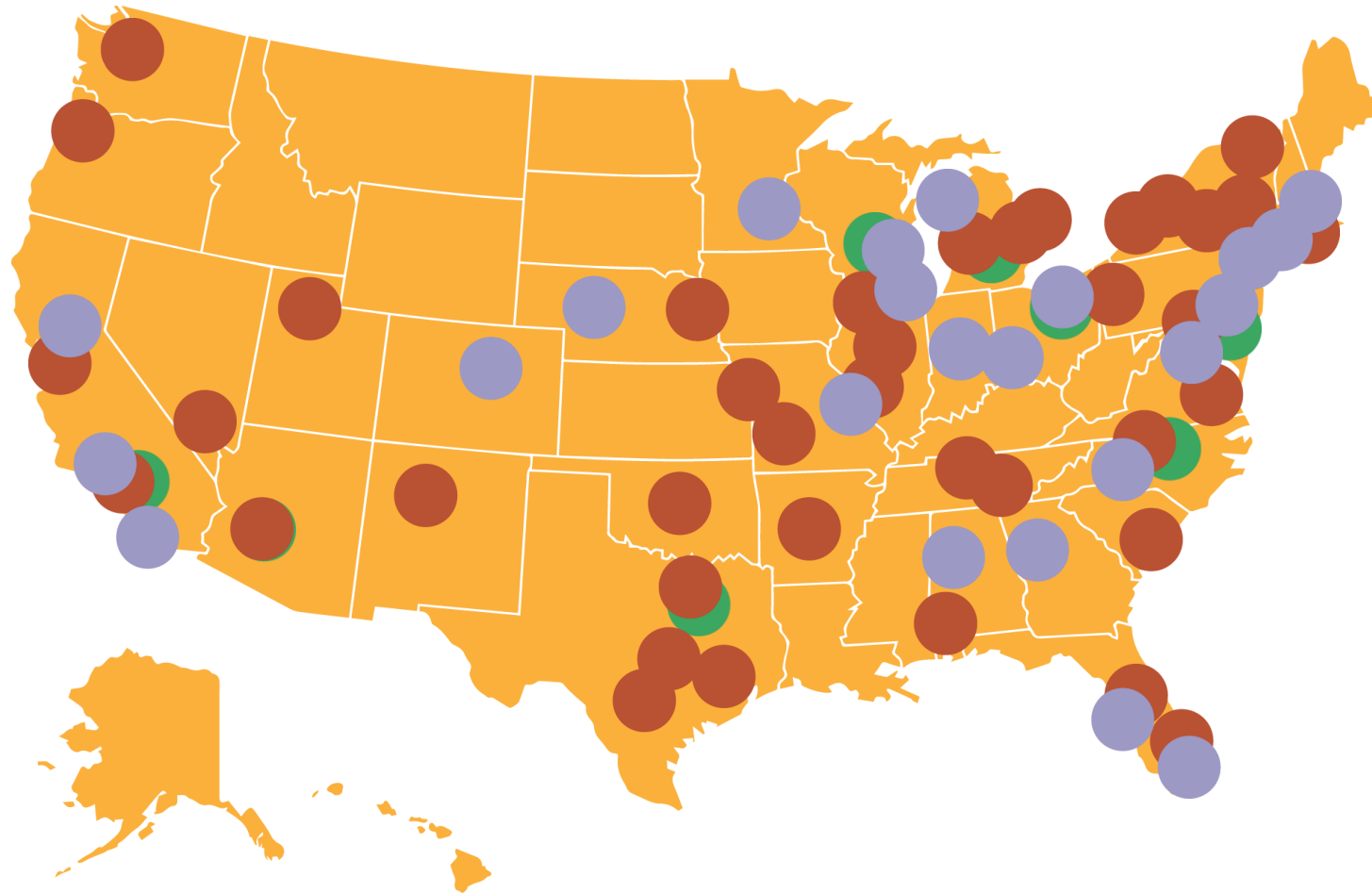
1. Mobile HD – showcase demonstration 2018 Winter Olympics
2. Advanced Emergency Messaging – announcement in 2019
3. Real-world field tests including service scenarios in 5G and ATSC 3.0 convergence environment – facility proposed for Jeju



3. By 2027 all content will be 4K and ATSC 1.0 will be shut off

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U.S. Deployment Roadmap – 2020 Goal



8

Experimental
Stations



40

Stations
Identified

35,770,460 TV Homes Covered



21

Station To
Be Decided

42,946,950 TV Homes Covered

71.4% - 2020 US Population Coverage

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U.S. Television Feature Roadmap

1. TV Service Features in 2020
 1. Consistent loudness and voice boost for broadcast networks
 2. 4K and HDR video and immersive audio on select programming
2. TV Service Features in 2021 and beyond (MBG* estimate)
 1. Consistent loudness and voice boost on additional networks and other platforms like cable
 2. More content in 4K and HDR video and immersive audio
 3. Enriched content, advanced emergency information, multiple audio tracks

And continued pursuit of mobile, datacasting, 5G convergence, international recognition

*Maddie's Best Guess

ATSC 3.0 Planning for the Future

PLANNING TEAM 7 ON ATSC 3.0 SERVICE EVOLUTION ROADMAP

- “ATSC Planning Team 7 (PT-7) on ATSC 3.0 Service Evolution Roadmap will develop an ATSC 3.0 service evolution roadmap for the deployment of features enabled by A/300:2019/2020....”
- <https://www.atsc.org/subcommittees/planning-team-7-on-atsc-3-0-service-evolution-roadmap/>

PLANNING TEAM 5 – AUTOMOTIVE APPLICATIONS

- “The Planning Team on Automotive Applications (PT5) will assess opportunities and challenges related to delivery of ATSC 3.0 services (including video, audio and other data) to vehicles...”
- <https://www.atsc.org/subcommittees/planning-team-5-automotive-applications/>

PLANNING TEAM 4 – FUTURE BROADCAST ECOSYSTEM TECHNOLOGIES

- “The Planning Team on Future Broadcast Ecosystem Technologies (PT4) will assess the potential advantages and range of improvements that new ... technologies might provide to the future Broadcast Ecosystem...”
- <https://www.atsc.org/subcommittees/planning-team-4-future-video-technologies/>

Join the discussion!

- <https://www.atsc.org/membership/join-atsc/>

Thank you

ADVANCED TELEVISION SYSTEMS COMMITTEE

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FROM THE SMPTE WASHINGTON DC SECTION

THANK YOU