NAB2013 Broadcast Engineering Conference Sessions

Sunday, April 7, 2013

PRESENTATION	PLAYBACK	BEC PROCEEDINGS
Opening Keynote Kevin Gage, Executive Vice President and Chief Technology Officer, National Association of Broadcasters	●	

Sunday, April 7, 2013
Advanced Technologies for Television
Chairperson: Robert Seidel, Vice President, Engineering and Advanced Technology, CBS

PRESENTATION	PLAYBACK	BEC PROCEEDINGS
The Future of Broadcast TV Initiative Technical Report Panel Mark Richer, President, ATS; Phil Laven, Chair, DVB Project; Peter Siebert, Director, DVB Project; Dr. Wenjun Zhang, Chief Scientist, National Engineering Research Center for DTV; Yiyan Wu, Principle Research Scientist, CRC	●	
"ATSC 3.0," The Next Generation Broadcast Television System James Kutzner, Senior Director, Advanced Technology, PBS; Luke Fay, Senior Staff Systems Engineer, Sony Electronics	●	●
The Future of TV—Project Fresco Simon Parnall, Director, New Initiatives, Service Provider Digital Technology Group, Cisco	●	●
Next Generation Broadcast Platform: Business Opportunities Enabled by Better Technology Mark Aitken, Vice President of Advanced Technology, Sinclair Broadcast Group	●	
DVB Next Generation Handheld: The Ultimate Air Interface for Mobile TV? Pete Siebert, Director, DVB Project	●	●
Use Cases for the New HEVC Standard Thierry Fautier, Senior Director, Telco Solutions, Harmonic Inc.	●	●
Terrestrial 4K-UHDTV Experimental Broadcasting in Korea Byungsun Kim, Principal Research Engineer, Korean Broadcasting System	●	●
ATSC 2.0: What Is It and How will It Benefit the Broadcaster Rich Chernock, CSO, Triveni Digital	●	
HEVC: Driving Disruption in Multiscreen Converged Service Delivery Architectures Ken Morse, CTO, Service Provider Video Technology Group, Cisco Systems	●	●
Which Broadcast Workflow Will Deliver Ultra High Definition to the Home? Ian Trow, Senior Director Solutions, Harmonic Inc.	●	●
Mobile Multimedia Broadcasting Based on ISDB –Tmm: A Future of Broadcasting, Available Today Masayuki Ishikawa, Member of the Board of Directors, General Manager of Corporate Strategy Department, mmbi, Inc.	●	●

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Sunday, April 7, 2013 **Advanced Technologies for Radio** Chairperson: Roswell Clark, Director, Technical Operations, COX Media Group—Tampa/Orlando Radio		

PRESENTATION	PLAYBACK	BEC PROCEEDINGS
Audio Reliability over the Public Internet: Designing Robust IP Streaming for Outside Broadcasts, STL and Program Distribution Kirk Harnack, Vice President of Telos Products, The Telos Alliance	●	●
*Put Your Audio on the IP Path: Integrating Audio over IP into Your Current or New Radio Facility Sam Caputa, Director of Engineering, Emmis Radio	●	
AES X192—An Emerging Standard for High-Performance Streaming Audio-over-IP Interoperability Andreas Hildebrand, Senior Product Manager, ALC NetworX GmbH	●	●
Audio Networking Interoperability: Advantages, Challenges and Standards Ted Staros, Director, Pacific Design Center,Harris Broadcast Communications	●	●
Advances in AoIP Connectivity for Extending the Radio Operation Beyond the Studio Andrew Calvanese, Vice President of Engineering, Wheatstone Corporation	●	●
The Open Control Architecture Jeffrey A. Berryman, Senior Scientist, Bosch Communications Systems	●	●
IP Audio in the Real-World: Pitfalls and Practical Solutions Encountered and Implemented when Rolling out the Redundant Streaming Approach to IP Audio Kevin Campbell, APT Sales Director, WorldCast Systems Inc.; Tony Peterle, Manager of the U.S. Office, WorldCast Systems Inc.	●	●
Taking the "Sting" Out of Evolving Digital Audio Networks Gregory F. Shay, Director of Technology, The Telos Alliance	●	●

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Sunday, April 7, 2013
IP for Radio
Chairperson: Tom R. Ray, III, President, Tom Ray Broadcast Consulting

PRESENTATION	PLAYBACK	BEC PROCEEDINGS
Deploying Artist Experience (Album Art) via HD Radio™ Alan W. Jurison, Senior Operations Engineer, Clear Channel Media + Entertainment	●	●
Standards for Hybrid Radio Nick Piggott, Chairperson, The RadioDNS Project	●	●
Program Associated Data Deployment at Wisconsin Public Radio Steve Johnston, Director of Engineering and Operations, Wisconsin Public Radio	●	●
*In-Car Hybrid Radio Joe Harb, Founder, Quu Interactive	●	

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Monday, April 8, 2013	
Audience Measurement Technologies	
Chairperson: Roswell Clark, Director, Technical Operations, COX Media Group – Tampa/Orlando Radio	

PRESENTATION	PLAYBACK	BEC PROCEEDINGS
Nielsen Watermarking: The Value of Nielsen Content Identification Practices Scott Brown, Senior Vice President, Engineering and Strategic Relations, Nielsen	●	●
Integrating Television with Mobile Suresh Narasimha, CEO and Founder, TELiBrahma Technologies Inc.	●	●
Audience Measurement for iPad Scott Brown, Senior Vice President, Engineering and Strategic Relations, Nielsen	●	●

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Spectrum Matters

Chairperson: Gary Nadler, General Manager, Telecommunications and Affiliate Services, ABC TV Network

PRESENTATION	PLAYBACK	BEC PROCEEDINGS
Television Spectrum Repacking—What It Will Mean for Your Station and How to Prepare Jay C. Adrick, Vice President, Broadcast Technology, Harris Broadcast Communications	●	●
Incentive Auction Repacking Using OET-69 Bill Meintel, Senior Partner, MSW	●	
Spectrum Efficiency and Eight Pole Mask Filters Daniel S. Fallon, Senior RF Engineer, SPX Communication Technologies	●	●

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Monday, April 8, 2013
Radio Receiver Technologies
Chairperson: Glynn Walden, Senior Vice President, Engineering, CBS Radio

PRESENTATION	PLAYBACK	BEC PROCEEDINGS
Three In-Car Trends Broadcasters Need to Know About Robert Acker, General Manager, Aha by Harman; Chia-Lin Simmons, Vice President Marketing & Content, Harman International	●	
RDS Station Workshop Barry Thomas, Vice President of Engineering, Lincoln Financial Media; Alan Jurison, Senior Operations Engineer, Clear Channel Media and Entertainment	●	
Adaptive Impedance Matching (AIM) for Electrically Small Radio Receiver Antennas Brian Kroeger, Chief Scientist, iBiquity Digital Corporation	●	●
Advances in HD Radio—Improving Coverage and Reception Quality Branimir Vojcic, Professor, The George Washington University; Mark Fowler, Managing Member, Digital PowerRadio, LLC	●	●

Monday, April 8, 2013
Broadcast Mobile TV Technical Status
Chairperson: Sterling Davis, Broadcast Technology Consultant

PRESENTATION	PLAYBACK	BEC PROCEEDINGS
Mobile DTV Overview Jay C. Adrick, Vice President, Broadcast Technology, Harris Broadcast Communications	●	
Mobile TV System: Status of Technology and Implementation Dennis Wallace, Co-Founder, MSW	●	
Technology Overview of Dyle Mobile TV Rajan Mehta, Executive Director of Advanced Technology, NBC Universal	●	
Mobile500 Alliance Soft Launch Findings Brian McHale, Vice President of Technology, Fisher Communications	●	
Mobile Emergency Alerting via ATSC MDTV James Kutzner, Senior Director, Advanced Technology, PBS; Wayne Luplow, Vice President of HDTV Standards and Promotion, Zenith Electronics LLC	●	●
Audio for Mobile TV, iPad and iPod Thomas Lund, HD Development Manager, TC Electronic A/S	●	●
Practical Audio Issues for Mobile Digital Television Tim Carroll, President, Linear Acoustic Inc.	●	
Single Frequency Network over ATSC M/H Framework Henry Rodrigues, Senior Staff Engineer, Hitachi Kokusai Linear	●	●

AM Band Revitalization
Chairperson: Glynn Walden, Senior Vice President, Engineering, CBS Radio

PRESENTATION	PLAYBACK	BEC PROCEEDINGS
*AM Band Revitalization Panel Featuring FCC Commissioner Ajit V. Pai The Honorable Ajit Pai, Commissioner, Federal Communications Commission; Ben Downs, Vice President and General Manager, Bryan Broadcasting; Diane Warren, Founder and President, BounceOLOGY, Inc.; Glynn Walden, Senior Vice President, Engineering, CBS Radio; John Garziglia, Radio and TV Communications Law Attorney , Womble Carlyle Sandridge & Rice, LLP; Melodie Virtue, Owner, Garvey Schubert Barer	●	
WBCN All-digital AM IBOC Field Test Project David Layer, Senior Director, Advanced Engineering, NAB	●	●
*HD Radio Update Session Glynn Walden, Senior Vice President, Engineering, CBS Radio	●	
New Life for AM with Digital Transmission (A Look at the Options) Hal Kneller, Regional Sales Manager, Europe, Nautel Limited	●	●

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Monday, April 8, 2013
IEEE BTS Tutorial: IP in the Broadcast Plant
Chairperson: Rich Chernock, CSO, Triveni Digital and Bob Surette, Director of Sales Engineering, Shively Labs

PRESENTATION	PLAYBACK	BEC PROCEEDINGS
Maximizing STL Robustness Through Intelligent Interplay of RF and IP Junius Kim, Hardware Engineer Harris Broadcast Communications	●	●
*Broadcasting in New York City: The Reestablishment of Broadcasting at the World Trade Center in a Post 9/11 World John Lyons, Assistant Vice President and Director of Broadcast Communications The Durst Organization	●	
Enhanced Emergency Alerting Delivery Mechanism Over HD Radio™ Signals Marek Milbar, Senior Director for Advanced Programs Engineering iBiquity Digital Corporation	●	●
***Proper Bonding and Grounding in a Broadcast Environment** David Brender, National Program Manager Copper Development Association	●	
Using Public Domain and Open Source Software to Derive Base Drive Voltages for AM Method of Moments Models Tom Cox, Senior Vice President of Engineering Clear Channel Media	●	●
Tomorrow's STL Today Jeff Holdenrid, Sales Engineer DoubleRadius, Inc.	●	●
*Digital Advancements in AM Directional Antenna Monitoring Jim Dalke, CEO Dalke Broadcast Services, Inc Stephen Lockwood, Senior Electrical Engineer Hatfield and Dawson Engineers	●	
Integrated Content Presentation at the Canadian Broadcasting Corporation Jeff Vella, Director, Media Engineering Canadian Broadcasting Corporation Scott Stewardson, Director, Media Presentation Canadian Broadcasting Corporation	●	●
A Way of Improving T-DMB/DAB Reception Performance by Obtaining Diversity Gain In Legacy Single Frequency Networks Yong-Tae Lee, Principal Researcher ETRI	●	●
*Structural Evaluation of Pipe Leg Tower Structures and the Engineering and Execution of the Controlled Demolition of Guyed Structures James Ruedlinger, Vice President, Structural Division ERI-Electronics Research, Inc.	●	

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Design Parameters for FM Signal Repeaters Based on Listener Testing John Kean, Senior Technologist NPR Labs	●	●
New Findings on FM Multipath Control Jeffrey A. Keith, Senior Product Design Engineer Wheatstone Corporation	●	●
SNMP and Me: Real World Experiences of Using an Ancient Protocol in a Modern Broadcast Facility Tony Peterle, Manager, U.S. Office WorldCast Systems, Inc.	●	●

Monday, April 8, 2013
Radio Engineer's Forum
Chairperson: Sam Caputa, Chief Engineer, Emmis Communications

PRESENTATION	PLAYBACK	BEC PROCEEDINGS
*IP's Acronym Soup & Network Architecture: Things You Need to Know Joel Wilhite, Marketing Solutions Manger for Broadcast and Satellite Systems, Harmonic Inc.; Pat Waddell, Manager for Standards and Regulatory Matters, Harmonic Inc.	●	
*Overview of SMPTE 2022 Family of Standards John Mailhot, Director of Product Architecture , Harris Broadcast	●	
*Audio Distribution in an IP-based Multiplatform Broadcast Plant Guy Bouchard, Senior Manager, New Broadcast Technologies	●	
*IP Control in the Broadcast Facility Troy English, CTO, Ross Video Ltd.	●	
*Media Streaming to Small Screen Devices Joel Wilhite, Marketing Solutions Manger for Broadcast and Satellite Systems, Harmonic Inc.; Pat Waddell, Manager for Standards and Regulatory Matters, Harmonic Inc.	●	

Tuesday, April 9, 2013

Television Technical Challenges in Need of Solutions

Chairperson: Louis Libin, President, Broad Comm, Inc.

PRESENTATION	PLAYBACK	BEC PROCEEDINGS
Intelligent Uses of Speech Analysis Tools in the Ancillary Data, Metadata and Captioning Areas of Broadcast to Reduce Costs and Cater to Dramatically Increased Media Throughout Sam Pemberton, CEO Softel	●	●
*Preventing CALM Compliance from Killing Audio Quality Tim Carroll, President Linear Acoustic Inc. Jeffrey Riedmiller, Senior Director of the Sound Platform Group Dolby Laboratories	●	
Live Closed-captioning System Using Hybrid Automatic Speech Recognition for Broadcast News Akio Kobayashi, Principal Research Engineer NHK	●	●
Program Metadata: Accuracy and Timely Distribution Matters Mick Rinehart, Senior Vice President of Data Services and Product Development Broadcast Interactive Media		●
*Easing Loudness with A/V Monitoring and Logging Andrew Sachs, Vice President, Product Management Volicon	●	

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Tuesday, April 9, 2013 **Video Production** Chairperson: Larry Oaks, Vice President of Technology, Meredith Corporation		
PRESENTATION	**PLAYBACK**	**BEC PROCEEDINGS**
*Expanding Radio Controlled Aerial Cinematography for Film, TV, Web and Commercials Michael McLaurin, Owner MMMedia 3D, LLC	●	
Red Bull Stratos—Remote Production at the Edge of Space Thomas Riedel, CEO Riedel Communications GmbH & Co. KG	●	●
FIMS, a Framework for Interoperable Services in Media Production: What the Market Wants! Jean-Pierre Evain, Senior Project Engineer EBU	●	●
Elections 2012, Cambodia Streaming Web Video from the Trenches Gordon Burnett, Production Engineer Radio Free Asia	●	●
*Beyond Instant Replay: A Look at the Technology Behind Sports Broadcasting Rich Gentile, Head of Multimedia New York Jets	●	
*Building a World-Class Video Capture and Replay System Chris Witmayer, Director of Broadcast, Production, and New Media Technology NASCAR Media Group	●	
*Live HD Video Production via IP Networks across Multiple Locations Thiemo Kastel, Professor University of Applied Sciences St. Poelten Alexander Sus, Dipl.-Ing. University of Applied Sciences St. Poelten	●	
Super Hi-Vision Public Viewing Sessions at the 2012 London Olympics Hayato Fujinuma, Principal Engineer Japan Broadcasting Corporation Koji Nishida, Principal Engineer Japan Broadcasting Corporation	●	●
*3G/4G Cellular ENG: Lessons Learned from the London Olympics Paul Shen, CEO TVU Networks	●	

NAB2013 Broadcast Engineering Conference Sessions

Wednesday, April 10, 2013		
Television Quality Assurance		
Chairperson: Gary Nadler, General Manager, Telecommunications and Affiliate Services, ABC TV Network		

PRESENTATION	PLAYBACK	BEC PROCEEDINGS
Is Quality Control in the File-Based Workflow a Necessary Evil? Simon Adler, Vice President of Technology AmberFin Ld.	●	●
*Measuring Automatic Loudness Controller Performance with the ITU BS.1770-2 and Jones & Torick Loudness Meters Robert Orban, Vice President and Chief Engineer Orban	●	
*In-service Lipsync Measurement Paul Briscoe, Manager of Strategic Engineering for the Workflow, Infrastructure, and Networking Harris Corporation	●	
*Fingerprints for Measuring and Correcting A/V Synchronization Sara Kudrle, Senior Software Engineer Miranda Technologies	●	
*Improving Workflow Efficiencies with Remote Monitoring of Broadcast Operations Jan Weigner, Co-Owner and Managing Director Cinegy	●	
Opportunities and Challenges of TV Anytime, Anywhere Gary Learner, CTO Volicon	●	●

Wednesday, April 10, 2013
Technical Regulatory Matters for Broadcasters
Chairperson: Milford Smith, Vice President of Radio Engineering, Greater Media, Inc.

PRESENTATION	PLAYBACK	BEC PROCEEDINGS
*EAS, Superstorm Sandy, and Accessible Emergency Warnings—A Discussion of Broadcasters' Role as First Informers Larry Walke, Associate General Counsel National Association of Broadcasters Ann Bobeck, Senior Vice President and Deputy General Counsel National Association of Broadcasters David Donovan, President and Executive Director New York State Broadcasters Association, Inc. Greg Cooke, Associate Chief, Public Safety Homeland Security Bureau Federal Communications Commission Michael O'Hare, Deputy Director State of Alaska, Department of Military and Veterans Affairs Wade Witmer, Deputy Director, IPAWS Division Federal Emergency Management Agency	●	
*But Can You Actually See the Captions? The Practicalities of Putting Captions on IP- Delivered Content Dominic Jackson, Product Manager for enterprise Media Technologies Telestream	●	
Two Steps Forward: A Voluntary Path for Local/State EAS Richard Rudman, Core Member The Broadcast Warning Working Group	●	●
How the FCC's Repacking of the TV Band Will Affect Your Station William Godfrey, Consulting Engineer Kessler and Gehman Associates, Inc.	●	●

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Wednesday, April 10, 2013 **The Web and TV** Chairman: Joe Snelson, Vice President and Director of Engineering, Meredith Corporation		
PRESENTATION	**PLAYBACK**	**BEC PROCEEDINGS**
Internet-Delivered Television using MPEG DASH: Opportunities and Challenges Lars George, Scientist and Project Manager, FAME Fraunhofer Institut FOKUS	●	●
Protected Content Pipeline—Delivering Protected Content in the Windows Ecosystem Using HDCP, OPM and PlayReady with Your Media Stream Jonathan Tanner, Senior Support Escalation Engineer Microsoft	●	●
The Media Warehouse Concept for Electronic Media Content Distribution Ahmet Ozalp, Vice President of Product Management, Media Akamai Technologies, Inc. Steven Chester, Vice President, Film Akamai Technologies, Inc.	●	●
The Fast Maturing Apps for TV and Web for TV Market Terry Hughes, Managing Director AppCarousel	●	●
*Anytime, Anywhere, Same Quality: Multiscreen Streaming Workflows for Broadcasters Chris Knowlton, Vice President of Product Management Wowza Media Systems	●	
HbbTV—Status and Prospects Klaus Illgner, Managing Director IRT	●	●

Wednesday, April 10, 2013

Cloud Based Storage and Distribution

Chairperson: Larry Oaks, Vice President of Technology, Meredith Corporation

PRESENTATION	PLAYBACK	BEC PROCEEDINGS
LTO-6 Technology with LTFS in the Media and Storage Industry Bruce Master, Senior Program Manager IBM	●	●
*Monetizing Content: Data Archiving and Management Strategies for an Evolving Media Landscape Clyde Smith, Senior Vice President of New Technology Fox Networks	●	
*Cloud-Based Broadcast Automation Device Control Paul Briscoe, Manager of Strategic Engineering for Workflow, Infrastructure, and Networking Harris Broadcast Communications	●	
*CDN Mechanics: Managing Your Origin Server Danny Wilson, President and CEO Pixelmetrix Corporation	●	
How to Master Media Production in a Multi-Cloud Environment with Social Network Technologies Stephan Schneider, CEO Reelway GmbH	●	●
Using the Cloud and Edge Video Servers as an Alternative to Satellite for the Distribution of Linear Channels Pablo Salomon, CEO Inetsat	●	●
*Liberating Media Assets: A Media-Enabled Front-End for Cloud Archiving Joe Foxton, Vice President of Business Development MediaSilo	●	
*Rethinking Large Video Files in the Cloud Jon Dahl, Vice President of Encoding Services Brightcove	●	

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Thursday, April 11, 2013 **IP for Television** Chairperson: Al Grossniklaus, Director of Engineering & Operations Dispatch Broadcast Group		

PRESENTATION	PLAYBACK	BEC PROCEEDINGS
When Will Plants Go 100% IP Routing Stan Moote, Vice President of Business Development Harris Broadcast Paul Greene, Product Manager Harris Broadcast	●	●
Towards an All-IP Master Control Thomas Edwards, Vice President of Engineering and Development FOX Network Engineering and Operations	●	●
From Super Bowl to Collegiate: Live Sports Coverage Using Cellular Bonding Technology Ken Zamkow, Director for Sales and Marketing LiveU, Inc.	●	●
Cellular ENG Comes of Age: Aggregating Multiple Wireless Transmission Technologies to Deliver Highly Reliable Live HD Video Bogdan Frusina, CTO Dejero Labs Inc.	●	●
QoS Improvements in Cellular News Gathering Systems Michael Payne, Chief Executive Vislink	●	●
Simplifying the Management of Video over IP Jan Helgesen, Director of Product Management Nevion	●	●
IEEE 802.1 AVB Ethernet Protocols and their Applicability to Broadcast Systems Henning Kaltheuner, Head of Product Management Riedel Communications	●	●

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Thursday, April 11, 2013

Planning for Safety

Chairperson: Martin Stabbert, Vice President of Engineering, Citadel Communications Corporation

PRESENTATION	PLAYBACK	BEC PROCEEDINGS
LED Obstruction Lighting Systems Reduce Energy and Maintenance Costs Jerry Ehlers, Sales Manager—Americas| Aviation Obstruction Lighting Dialight Corporation John Peck, Director of Engineering Dialight Corporation	●	●
RF Radiation Measurement Improvements Robert E. Johnson, Director, Instrument Products Narda Safety Test Solutions	●	●
Tower Contractors' Qualifications, Safety Checklists and Guidelines—What to Look for … and Why? Don Doty, President Stainless David Anthony, Owner Shenandoah Tower Service, Ltd. Jim Coleman, President and CEO Southern Broadcast Services, LLC	●	●
*Disaster Planning and Insurance: How to Survive a Devastating Fire Cliff Shank, President and General Manager Ad Astra per Aspera Broadcasting, Inc.	●	
*Practical Application of the ANSI/IEEE RF Safety Program Standards to Radio /TV Broadcast Antenna Sites Robert Curtis, President Curtis Engineering	●	