Monday, 29 February

**DBS WORKSHOPS**

**Parallel Workshops**

09:00-10:30  
**DVB: The Future of TV**

**SAFIR 2**

Session 1  
Latest Development and Future Directions for DTT

- Latest updates on DTT standardization in DVB  
  Peter Siebert, Executive Director, DVB Project Office

- The Status of Mobile Broadcast Reception  
  Kazuhiro Shimizu, Project Manager, SONY

- WRC 2015 and the Future of DTT  
  Simon Fell, Director of Technology & Innovation, European Broadcasting Union

10:30-11:00  
Tea Break

11:00-13:00  
Session 2  
UHD Beyond the More Pixels

- The Brave New World of Immersive Audio  
  Craig Todd, Senior Vice President and Chief Technical Officer, Dolby Laboratories

- What you always wanted to know about HDR  
  Khush Kundi, Head of Compression Solutions, APAC, Ericsson

- How to bring UHD to a TV Near You  
  Markus Fritz, Senior Vice President, Commercial Development & Marketing, Eutelsat

13:00-14:00  
Lunch

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**DBS WORKSHOPS**

**Monday, 29 February**  

**Parallel Workshops**

14:00-17:00  
**WorldDAB DAB+ Digital Radio Workshop**

**Workshop Title:** Moving Forward with DAB+

12:30-13:30  
Workshop Registration, Hotel Istana Kuala Lumpur, Safir 2

14:00-14:15  
Opening Welcome

Joan Warner, Vice President Asia Pacific WorldDAB and CEO  
Commercial Radio Australia

14:15-14:45  
International developments

- Regional and Country updates
- WorldDAB strategic focus
- Vehicle manufacturer
- Mobile phone integration
- Hybrid features and function

Speaker: Bernie O’Neill, Project Director, Lindsay Cornell,  
Technical Committee Chair, WorldDAB

14:45-15:30  
Building blocks for success

- EBU toolkit – Graham Dixon, Head of Radio, EBU
- Norway Case study digital switch over – Jorn Jensen NRK
- Progress in Australia – Joan Warner, CRA
- South African update – Lynn Mansfield, SABC

15:30-15:50  
Afternoon Break & Networking

16:00-16:45  
Breaking the stalemate and moving forward

Breakout groups will identify the common challenges in planning for digital migration. A nominated spokesperson from each group will present a summary of discussions and suggestions to the workshop participants

- Regulatory – Joan Warner CRA & Graham Dixon EBU
- Technical – Lindsay Cornell and Les Sabel, WorldDAB TC
- Content – Steve Ahern, AMT

Names represent discussion leader/s for each group

Facilitators: Kath Brown & Bernie O’Neill

16:45-17:15  
Wrap up and recommendations

Questions from the participants
Panel discussion with moderator
Recommendations on how to move forward

Moderator: Joan Warner
### DBS WORKSHOPS

#### Workshop on Management and Digitisation of Audio-Video Archives for Broadcasters

**“Preserving Heritage Archives”**

The workshop will address steps necessary towards digitisation of audio and video archives, beginning with ways to further extend the life of existing analogue tapes, choosing the appropriate technology, metadata schemas and storage requirements and options. It will also look into implementation of MAM systems, its benefits in efficient content management and workflow. Many advanced broadcasters from the region will present and share their experiences in this challenging process.

**DBS WORKSHOPS**

**Monday, 29 February**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>09:00-09:30</td>
<td>Welcome Address (ABU)</td>
<td></td>
<td></td>
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<tr>
<td>09:30-10:30</td>
<td>Preservation Techniques and Management of Existing Archives</td>
<td>Yasuhiro Iwaki, Senior Manager, Japan Broadcasting Corporation, NHK-Japan</td>
<td>The digital approach – policies, priorities and workflow</td>
</tr>
<tr>
<td>10:30-11:00</td>
<td>Modern Approach to Preservation of Audio Video Archives</td>
<td>Hiroshi Kinura, System Engineer, Engineering Administration Department, Japan Broadcasting Corporation, NHK-Japan</td>
<td>Choosing the Right Format and Media</td>
</tr>
<tr>
<td>11:00-12:00</td>
<td>Digital Solutions for Preservation and Modern Archiving Systems</td>
<td>Charles Sevior, CTO EMC Emerging Technology Division</td>
<td>Review of the latest technology options for archive – tape, disk &amp; cloud</td>
</tr>
<tr>
<td>12:00-13:00</td>
<td>Metadata and Management of Digital Archives</td>
<td>Nobu Yamashita, Senior Manager, Archives Division, Japan Broadcasting Corporation, NHK-Japan</td>
<td>Integrating the Archive Workflow (TBC)</td>
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<tr>
<td>13:00-14:00</td>
<td>Lunch</td>
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<tr>
<td>14:00-15:30</td>
<td>Case Studies: Sharing experiences from broadcasters</td>
<td>Lim Soh Kwang, Superintendent Engineering, (Technical Services), RTB-Brunei</td>
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<tr>
<td>15:30-16:00</td>
<td>Tea Break</td>
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<tr>
<td>16:00-17:30</td>
<td>Preserving Heritage Archives</td>
<td>Ayale Raza, Director, Whiteways Systems Pte Ltd</td>
<td>Cleaning and restoration techniques</td>
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</table>

#### DBS WORKSHOPS

**Tuesday, 1 March**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>14:00-15:30</td>
<td>WORKSHOP 1</td>
<td>Steve Ahern, Managing Director, Ahern Media &amp; Training, Australia</td>
<td>New Developments in Audio Content Production</td>
</tr>
<tr>
<td>14:00-15:30</td>
<td>Socialising your Sound Recordings</td>
<td>Steve Ahern, Managing Director, Ahern Media &amp; Training, Australia</td>
<td>Consumers now demand that sound is used to its full potential in any audio production format. Learn about why socialising sound is important and how to do it. Plus how social audio fits into the modern content creation workflow.</td>
</tr>
<tr>
<td>16:30-17:30</td>
<td>Korea Radio Promotion Association (RAPA)</td>
<td>Lee Sangjin, Director, Seoul Broadcasting System</td>
<td>Trends in UHD Broadcasting Equipment</td>
</tr>
</tbody>
</table>

### Programme

**ABU Digital Broadcasting Symposium 2016**

3

Programme

**ABU Digital Broadcasting Symposium 2016**

4

Programme
Wednesday, 2 March

09:00-10:30  WORKSHOP 3  EMC Corporation

Designing a Cloud-enabled Infrastructure for your Media Digital Transformation

Many traditional media companies in Asia are grappling with the need to stay relevant and be agile in the face of competitive threats from streaming content delivery platforms such as Netflix, and other new local market entrants. But it is important to control and manage your most valuable asset - high quality content - whilst still leveraging the power and economics of Cloud computing.

EMC Isilon has recently introduced new technology to directly integrate cloud storage into your high-bandwidth media workflow with full security. In addition, the EMC Elastic Cloud Storage solution provides highly resilient and low cost object storage that can be leveraged directly or via a service provider partner to build a secure hybrid media cloud.

This workshop will go into depth on the requirements for a digital transformation, showing new architectures for cloud-enabled media technology infrastructure and investigating the sizing and alternative options for long-term media archives. Integrating this directly into a modern file-based workflow built on Media Asset Management applications will equip your company with the tools needed to compete in 2016 and beyond.

The workshop will include some brief solution updates from application partners, and insight from a guest speaker who has been going through this process. You will also learn about the power of big data analytics, and how this is being used to extract greater business value and open up new revenue streams.

Presenters:
Charles Sevior, CTO, EMC Emerging Technology Division
Richard Jones, File-based Solutions Specialist, Grass Valley

10:30-11:00  Tea Break

11:15-13:00  WORKSHOP 4  Digital Radio Mondiale

DRM - For Full and Efficient Country Coverage

Presenters:
Alex Zink, Senior Business Development Manager Digital Radio, Fraunhofer
John Abdour, Regional Sales Manager - Asia/Pacific, Nautel
Gerhard Filip, Ampegon
Radu Obreja, Marketing Director, DRM Consortium

13:00-14:00  Lunch

14:00-15:30  WORKSHOP 5  Rohde & Schwarz

Broadcast Live Quality Monitoring and Control

Eric Li Bin, Business Development Manager, Rohde & Schwarz

Delivering an Immersive Viewing Experience to a Global Audience made possible by IMF in Higher Dynamic Range

Simon Roehrs, Regional Manager Broadcast Applications and Solutions, Rohde & Schwarz

15:30-16:15  Tea Break

16:15-17:30  WORKSHOP 6  Caton Technology

Open Internet IP Delivery Make Possible for Live Video Transmission and Fast Files Transferring

Presenter: Wu YuTa, VP of Technology, Caton Technology Group

Friday, 4 March

09:00-16:00  Regional Workshop on Advanced Technologies for Digital Inclusion

Sponsored by the Organisation of Islamic Cooperation

Advances in digital technologies, including broadcasting, have improved immensely the lives of many persons with disabilities and marginalised people across the world. The workshop aims to familiarize broadcasters, media organisations, development agencies and NGOs with existing advanced broadcast technologies to provide equal accessibility to broadcast services to women, persons with disabilities, elderly and extremely poor people. It will provide examples and understanding of:

- Automatic sign language generation systems developed and deployed by ABU leading members such as NHK, KBS, TRT etc.
- Speech recognition and closed captioning systems, that are normally deployed in Europe, USA, Canada and Australia.
- Smart Village concept – employing advanced digital technologies for community capacity building even in the most remote places.

Presenters:
Aqeel Qureshi, Founder & CEO, Techability
Natalia Ilieva, Executive Assistant to the Secretary-General, ABU
Welcome Address

Dr Javad Mottaghi, Secretary-General, ABU

Industry Keynote:
How the Powerful Mix of Talent and Technology can Future Proof Broadcasting
Joan Warner, Vice President Asia Pacific WorldDAB and CEO Commercial Radio Australia

Evolving Technologies: Towards Enhancing Experience

Chairman: Masakazu Iwaki, Head of Human Interface Research Division, NHK Science and Technology Research Laboratories and Chairman of the ABU Technical Committee, NHK-Japan

The industry is witnessing an enhancement of currently established standards and the emergence of new features at an accelerated pace. Some of these improvements offer a major step forward in efficient and cost-effective delivery of digital services as well as an increase in quality of experience. This session looks at the enhancements as well as the intended results from these in terms of its application and implementation.

Digital Radio – Improving the Radio
Graham Dixon, Head of Radio, European Broadcasting Union

The More and the Better Pixels – Reinvention of TV
Dr Peter Siebert, Executive Director, DVB Project Office

8K Live Production with New OBvan has started!
Yoshitoshi KONDA, Video Engineer, Outside Broadcast Engineering Division, News Technical Center, Broadcast Engineering Department, Japan Broadcasting Corporation, NHK-Japan

Update on New DAB+ Standards and from WRC15
Lindsay Cornell, Principal Systems Architect, BBC-UK and WorldDAB TC

Ministerial Session

Welcome Address
Dr Javad Mottaghi, Secretary-General, Asia-Pacific Broadcasting Union

Ministerial Address and Official Opening of Exhibition
YB Datin Seri Dr Saleh Said Keruak
Minister of Communications and Multimedia
Ministry of Communication and Multimedia, Malaysia

Beyond HD: What changes can broadcasters expect

Chairman: TBC

While HDTV brought major changes in image capture and production, it also presented the broadcasters with a complex environment filled with challenges of handling multiple formats and standards. Now the industry is facing further significant developments in imaging and production technologies of UHD and beyond. This session looks at the advances in image capture and other developments in processing and delivery of the services.

Progress towards Next Generation Audio/Video for Broadcasting
Craig Todd, Senior Vice President and Chief Technical Officer, Dolby Laboratories

Transmission Technology for Next Generation Terrestrial Broadcasting
Seo Jaehyun, Senior Researcher, Electronics and Telecommunications Research Institute (ETRI)

"Blurring the Lines” How to Maximize your Technology Initiatives
Dennis Brekenridge, Managing Director, Advanced Broadcast Solutions – Asia Pte Ltd

DRM Digital Radio on the Move – Time for Action
Alexander Zink, Senior Business Development Manager Digital Radio, Fraunhofer

Satellite Transmission for 4K
Johnny Ng, Sales Director, Sales & Business Development, AsiaSat

Is HDR+ the most significant technology in boosting TV viewing experiences?
Khush Kundi, Head of Compression Solutions, Ericsson APAC

The current changing media landscape offers broadcasters the opportunities of increasing technological developments, digital services, IP delivery of content, HD and beyond. However this progress is also associated with growing challenges. Does today's scenario present itself as the opportune time for stakeholders to change their business strategies? Are the current business models applicable or is change inevitable? This session explores several established and emerging business models enabling the stakeholders to empower in setting up their business plans and identifying new revenue streams.

Digital Transformation of the Media Industry
Charles Sevior, CTO, EMC Emerging Technology Division

Why Setting a Digital Switchover Date is Important
Jørn Jensen, Senior Advisor, NRK, Norway

Social Media for Broadcasters: EMBRACING THE CONTENT CONSUMER
Poonam Sharma, Director, MediaGuru

Do the Right Choices when Launching OTT Services
Vidar Sandvik, Director Products, Partners and APAC Operations, CryptoGuard AB

Five Ways to Monetize OTT: Make OTT pay with expanded reach and better viewer engagement that reduces churn and delivers incremental profits
Dave Ulmer, Sr. VP & GM, Asia Pacific, SeaChange

Surviving the OTT Minefield
Stephen Lee, Sales Director, Conax AS
Cloud Technologies in Media
Chairman: Dr Ahmad Zaki Mohd Salleh, Group GM, Engineering, Television Networks, Media Prima
How are cloud technologies making their way into the media environment where storage and bandwidth requirements are high and operations are highly time critical? How could broadcasters and media operators make use of these technologies to make their workflow more effective and efficient? This session will look at the type of applications cloud technologies are suited for media operations and how these are changing the contribution and distribution systems.

End-to-end Live Streaming in the Cloud
Jew Kok Lim, Director of Sales, APAC, ASPERA
KBS World Caption Production System NCPS (Network File-based Caption Production System)
Taehyun Ihm, Senior Engineer, Korean Broadcasting System
Internet Playout for a Traditional Broadcaster
Oliver Linow, Operations Engineer, Distribution Department, Deutsche Welle
The IABM Surveys, Tracking the Progression to Digital and onto the Cloud
Peter Bruce, Director IABM APAC, IABM

Daily Lucky Draw Winners’ announcements
Session 7
14:00-15:30
Innovating Digital Connections
Chairman: Simon Fell, Director of Technology & Innovation, EBU
This session aims to look at the integrated environment of IP and traditional broadcast. Looking at the complete broadcast chain the involvement of IT technologies in production and IP in media movement is becoming more prevalent. But are media organisations looking at this the right way? Are broadcasters compromising on quality in favour of costs?

Session 8
16:15-17:30
Immersive Media Technologies
Chairman: Dr Peter Siebert, Executive Director, DVB Project Office
Higher dynamic range (HDR) providing wider and more vibrant colour pictures, higher frame rates providing more smoother viewing experiences, and further advancing multichannel audio providing all new listening experiences are some of the next generation systems emerging from the industry. The experiences for audiences are evolving from typical viewing and listening to experiencing media. The session will look into the developments towards next generation media systems and how they enhance audiences viewing experiences.

Session 9
09:00-10:30
Media Management and Workflow enhancements
Chairman: TBC
With media contribution and distribution systems increasingly employing IP platforms the broadcast and production workflows are moving quickly to expand its functionality. With new and advanced equipment ready to work in the IP domain, there is a huge drive to further enhance productivity and efficiency of workflows within the media environment. The session will look into how key technologies can be used within broadcast and media environments to leverage the benefits of file-based workflow and automation.

Session 10
11:15-13:00
Industry Debate Panel “Digital Radio for the Future”
Is digital radio industry moving slower in the Asia-Pacific region compared to others? How can broadcasters move forward with implementation? What are the opportunities and does it outweigh the challenges? How does the roadmap for digital radio implementation look in the region? The Panel will discuss on the future of radio going digital.

Daily Lucky Draw Winners’ announcements
DBS CONFERENCE

Session 11: 14:00-15:30

Session Sponsored by
Organisation of the Islamic Cooperation

Advanced Solutions for Inclusive Broadcasting

Chairman: Hiroshi Kawamura, Research Advisor, National Rehabilitation Center for Persons with Disabilities Research Institute, Vice President, Assistive Technology Development Organization, President, DAISY Consortium

Automatic Sign Language Animation System for Weather News
Makiko Azuma, Research Engineer, Human Interface Research Division, NHK Science & Technology Research Laboratories, Japan Broadcasting Corporation, NHK-Japan

Smart Village of the Future
Natalia Ilieva, Executive Assistant to the Secretary General, ABU

File-based Closed Captioning System without Captioning Delay
Yunhyoung Kim, Research Engineer, Technical Research Institute, Korean Broadcasting System

A Real-time Automatic Captioning System with High Efficiency
Shoei SATO, Senior Research Engineer, Human Interface Research Division, NHK Science & Technology Research Laboratories, Japan Broadcasting Corporation, NHK-Japan

15:30-16:00 Tea Break

Session 12: 16:00-17:15

Towards Digital and Alternate Delivery Platforms in Broadcast

Chairman: TBC

Going digital is the way forward and few have successfully completed the transition. Most of the broadcasters in the region are moving ahead with their plans. This is not the only challenge faced by broadcasters, the growth of media delivery over IP and its demand has given broadcasters a new avenue to grow their services. Some broadcasters have launched their own dedicated OTT portals. Many broadcasters have explored the new media platforms and implementing these technologies can help increase the broadcaster’s reach, brand loyalty and at the same time provide an enhanced experience for the audience. This session will explore the challenges in going digital and the possibilities and opportunities OTT and IBB technologies could provide.

Face the Future, Accept the Changes
Helmut Jung, Channel Manager, Dimetis GmbH

Quality control and Certification of reception devices
Tatjana Medic, Chief Commercial Officer, Funke Digital TV

IBB: Influence on TV Design
Dr Leon Mun, W Y, Head of Content Delivery Department, Sony R&D Centre, Malaysia

TV anywhere, anytime, for all
Charles Disneur, Director Commercial Development, Marketing – APAC, Eutelsat

Status of Digital Radio & TV in Turkey
Ozgur Cosar, Chief Engineer, R&D Department, Turkish Radio Television Corporation

Daily Lucky Draw Winners’ announcements
Announcement of the Best Booth Award
Closing