



Symposium
Handbook

ABU DIGITAL BROADCASTING SYMPOSIUM 2014

EMBRACING TECHNOLOGICAL INNOVATIONS

4-7 March 2014
Hotel Istana, Kuala Lumpur



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About WorldDMB

WorldDMB is the global industry forum for digital radio, facilitating the implementation of digital broadcast radio based on DAB+ and DMB. Its global membership includes stakeholders from across the industry and from around the world and includes public and commercial broadcasters, network providers, car, receiver, chip and equipment manufacturers.

www.worlddab.org

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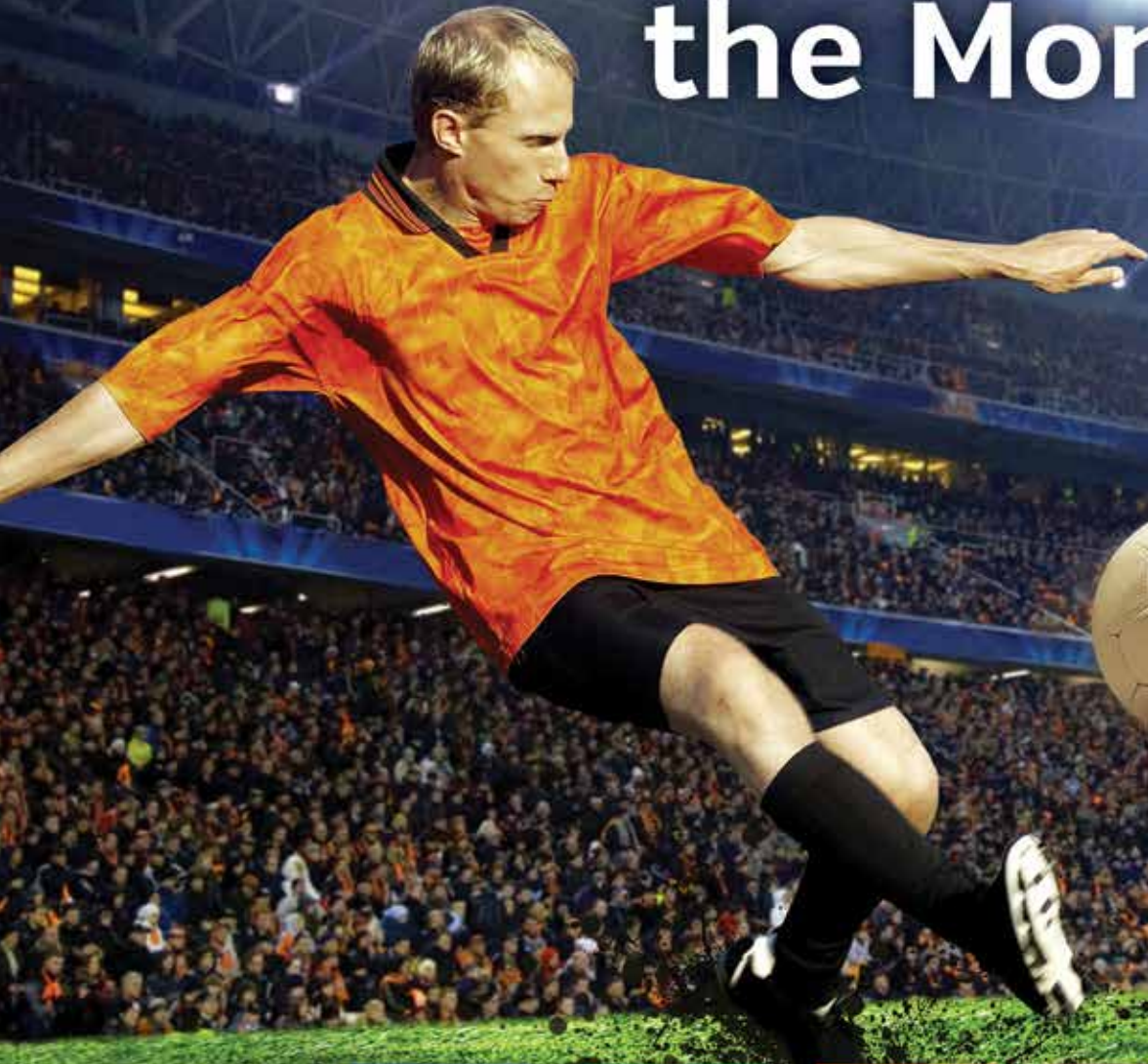


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WHERE CONTENT BEGINS

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BROADCAST



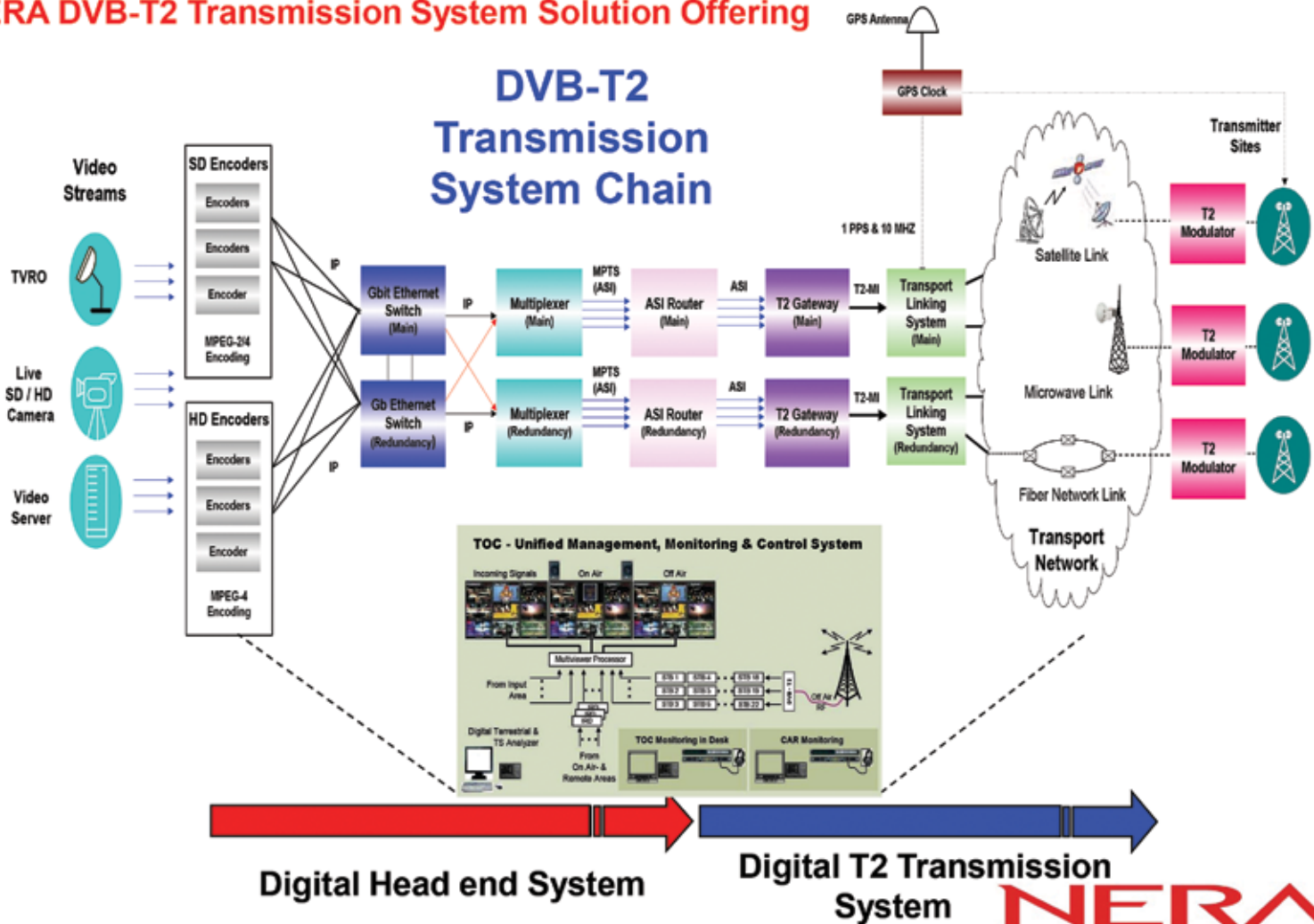
DVS has become a major player in the broadcast arena to offer new and future-shaping solutions for integrated, heterogeneous, filebased workflows. The Media Production Hub VENICE boasts all the qualities of a classic video server and it also offers users a large number of Intelligent options to empower both file-based and baseband workflows. The combined expertise of Rohde & Schwarz and DVS technology makes many exciting new ideas possible in file-based broadcasting.

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NERA DVB-T2 Transmission System Solution Offering





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Asia-Pacific Broadcasting (APB) has been the voice of the broadcast and multimedia industry for the past 31 years. It brings news of groundbreaking events and features interviews with decision-makers and professionals in the industry. The publication also tracks and reviews the hottest industry developments and technology trends.

Since 1998, APB has been the official publisher for the annual BroadcastAsia Show Dailies & Directory in Singapore, and a partner in other major trade events worldwide, including NAB Show, BIRTV, IBC, CCBN, InterBEE, Broadcast India, KOBA and CASBAA Convention.

With its vision and mission to become an integral part of the industry, APB has been organising CEO Roundtables, Forums & Seminars since 1999.

Fulfilling Needs

DigiWorkz was established by APB in 2002 in collaboration with Singapore's Ngee Ann Polytechnic. The regional training centre provides skills development training in broadcast engineering and production to broadcasters and production houses in Asia-Pacific.

APB

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NBTC

Thailand

The Office of the National Broadcasting Telecommunications Commission (NBTC) is Thailand's first independent state telecommunications regulator. Its duties and responsibilities are to regulate all telecommunication services in the country through formulating a Master Plan on Telecommunications Activities, setting criteria and categories of telecommunication services, permitting and regulating the use of spectrum for telecommunication services, and granting licences to the telecommunications operators.

A royal proclamation formally established the NBTC on 1 October 2004. It serves as Thailand's telecommunication regulator under the provisions of the Act on the Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunication Services B.E. 2543 (2000) and the Telecommunication Business Act B.E. 2544 (2001).

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Day 1

Tuesday 4 March

>>> DBS Workshops

09:00-10:30 WORKSHOP 1 & WORKSHOP 2

PARALLEL SESSIONS

09:00-10:30 **MAHKOTA 3**

WORKSHOP 1: Sponsored by WorldDMB



DAB+ Digital Radio Broadcasting Trials in Kuala Lumpur

Presenters:

Dr Les Sabel, Managing Director & Owner S Comm Technologies

Kathryn Brown, Strategic Development, Commercial Radio Australia

Wilson Ng, Digital System Technologist, Commercial Radio Australia

Also visit Booth #5

09:00-10:30 **SAFIR 2**

WORKSHOP 2: Sponsored by AXON



Topic: **TBC**

Presenter:

Geoff Love, Application Specialist, Axon Digital Design

Also visit Booth #45

10:30-11:00 Tea Break

11:00-12:30 WORKSHOP 1 & WORKSHOP 2

PARALLEL SESSIONS

11:00-12:30 **MAHKOTA 3**

WORKSHOP 3: Sponsored by WorldDMB



DAB+ Digital Radio Broadcasting Trials in Kuala Lumpur Continues

SAFIR 2

11:00-12:30 **WORKSHOP 4: Sponsored by SONY**



Topic: **TBC**

Presenters: **TBC**

Also visit Booth #46

12:30-14:00 Lunch

14:00-15:30 WORKSHOP 5 & WORKSHOP 6

PARALLEL SESSIONS

14:00-15:30 MAHKOTA 3

WORKSHOP 5: Sponsored by ERICSSON

Digital Broadcast – The Role of Efficient Multiplatform Ecosystem and Technologies”

Presenters:

Tony Moran, Head of TV for ANZ & SEA, APAC, Ericsson

Khush Kundi, Head of TV Compression Solutions, APAC, Ericsson



14:00-15:30 SAFIR 2

WORKSHOP 6: Sponsored by DigiTAG

Topic: TBC

Presenters:

Simon Fell, Director of Technology & Innovation, European Broadcasting Union

Tatjana Medic, Chief Commercial Officer, Funke



15:30-16:00 Tea Break

16:00-17:30 WORKSHOP 7 & WORKSHOP 8

PARALLEL SESSIONS

16:00-17:30 MAHKOTA 3

WORKSHOP 7

Topic: TBC

Presenters:

16:00-17:30 SAFIR 2

WORKSHOP 8

Topic: TBC

Presenters:

Day 2 Wednesday 5 March

>>> DBS Workshops

MAHKOTA 3

09:00-09:30 OPENING SESSION

Perspectives Name, Designation, Organisation

Welcome Address

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

Industry Keynote

Patrick Hannon, President, WorldDMB and Vice President Corporate Development, Frontier Silicon

Session 1 SYSTEM STANDARDS – NEW DEVELOPMENTS AND STANDARDS

09:30-11:00

&

12:00-12:30

Chairman: Name, Designation, Organisation

HEVC/H.265

Femin John, Technical Director – APAC, ATEME, France

MIMO Based Wireless Camera

Tuck Yeen Poon, Senior R&D Engineer, BBC-UK

Does Terrestrial TV have a Future?

Phil Laven, Chairman, DVB

Next Generation ISDB-T toward 8K Terrestrial Broadcasting

Kenichi Murayama, NHK Science & Technology Research Laboratories, Japan

Innovations in DVB-T2 distribution and Emergency Warning Systems

Colin Prior, APAC Sales Manager, ENENSYS

DAB and DAB+

Joan Warner, CEO Commercial Radio Australia and Vice-President of WorldDMB Asia Pacific

DRM Digital Radio Mondiale - Emergency Warning Feature (EWF): Efficiently Reaching the Masses

Alexander Zink, Senior Business Development Manager, Digital Radio Fraunhofer IIS, Germany, Vice-Chairman DRM Steering Board, DRM

Synchronous FM-Getting More out of Analog with Digital

Hermann Zensen, Sales Manager, DIGIDIA

10:30-11:00 Tea Break

MAHKOTA 3

Ministerial Session

11:00-11:30

Welcome Address?

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

Ministerial Address?

Official Opening of Exhibition

11:30-12:30

Session 1 Continues

12:30-14:00

Lunch

14:00-15:30

WORKSHOP 2 & WORKSHOP 9

PARALLEL SESSIONS

MAHKOTA 3 >>> DBS CONFERENCE

Session 2

14:00-15:30

GOING BEYOND HD: OPPORTUNITIES AND CHALLENGES

Chairman: *Name, Designation, Organisation*

4K Live Production Case Study: FIFA Confederations Cup

Name & designation of speaker, SONY

Program Loudness – Be Ready for a New Era

Jean-Paul Moerman, International Projects and Application Manager, Salzburg Stagetec Mediagroup

Diagnosis of Korean Terrestrial 4K UHD TV

Won-Hyun Cho, Senior Engineer, Technical Planning Department, KBS-Korea

NHK's R&D Activity for 8K Broadcasting

Masakazu Iwaki, Senior Manager, Planning & Coordination Division, Science & Technology Research Laboratories, NHK-Japan

Immersive Audio for Next Generation Broadcast

Toni Fiedler, Director Marketing and Business Development APAC, Fraunhofer IIS

SAFIR 2 >>> DBS WORKSHOPS

14:00-15:30 **WORKSHOP 9: Sponsored by Tektronix**

Topic: **TBC**

Presenters: **TBC**

Also visit Booth #27

15:30-16:00 Tea Break



16:00-17:30 SESSION 3 & WORKSHOP 10

PARALLEL SESSIONS

MAHKOTA 3 >>> DBS CONFERENCE

Session 3 EFFECTIVE BUSINESS SOLUTIONS FOR THE EVOLVING MEDIA MARKET

16:00-17:30

Chairman: *Name, Designation, Organisation*

Securing Revenue for High Value Content Over Traditional and OTT Platforms

Stephen Lee, Sales Director, Conax AS

Platform Solutions Enabling Current and Emerging Content Delivery

Charles Seviar, Chief Technology Officer, EMC Isilon

Effective Business Models for Emerging Markets

Fintan McKiernan, CEO, Ideal Systems Singapore

Title of Presentation

Aale Raza, Managing Director, Whiteways

Title of Presentation

Ruhi TAS, Electronics Engineer, TRT-Turkey

Digitization: The way forward for media content monetisation

Sanjay Salil, Managing Director, MediaGuru

You have Traditional & OTT Platforms - what's next?

Andrew Yeo, Publisher, Editorial Director, APB

16:00-17:30 **SAFIR 2 >>> DBS WORKSHOPS**

WORKSHOP 10: Sponsored by DOLBY

Dolby Audio in DVB-T2, HbbTV and Case Studies

Presenters:

Mika Kanerva, COO, Sofia Digital

Greg Price, Broadcast Systems & Support Engineer, Dolby Laboratories, Inc.

Jerry Gui, Regional Senior Staff Engineer, Dolby Labs



Day 3 Thursday 6 March

09:00-10:30 SESSION 4 & WORKSHOP 11

PARALLEL SESSIONS

MAHKOTA 3 >>> DBS CONFERENCE

Organised by the ABU Programme Department

Session 4 FUTURE OF TV CONTENT

09:00-10:30

Chairman: *Haji Sayed Munawar Sayed Mustar, TV Host*

Title of Presentation

Shigeru Iino, NHK Science Program Division, NHK-Japan

Title of Presentation

Benjamin Grubbs, Head of Content Partnerships, News & Education, YouTube Asia-Pacific, Singapore

Title of Presentation

Jeremy Kung Eng Chuang, Executive Vice President, New Media/Chief Executive Officer, TM Net Sdn Bhd, Malaysia

Title of Presentation

KBS-Korea

SAFIR 2 >>> DBS WORKSHOPS

09:00-10:30 **WORKSHOP 11: Sponsored by DVB**

DVB-T2

Presenters:

Phil Laven, Chairman, Digital Video Broadcasting

Colin Prior, Asia Pacific Sales Manager, Enensys Technologies

Two 4K services over DVB-T2 and DVB-S2

Michael Van Dorpe, CEO, Village Island

10:30-11:00 Tea Break



11:00-12:30 SESSION 5 & WORKSHOP 12

PARALLEL SESSIONS

MAHKOTA 3 >>> DBS CONFERENCE

Session Sponsored by
**National Broadcasting and Telecommunications
Commission (NBTC), Thailand**



Session 5
11:00-12:30 **SPECTRUM FOR BROADCASTING –
NEXUS IN REGULATION AND BROADCASTING?**

Chairman: *Dr Natee Sukonrat, Vice-Chairman, National Broadcasting and
Telecommunications Commission (NBTC), Thailand*

**Digital Radio Mondiale (DRM) - Spectrum Efficiency Clear Possibilities and the Economic High Quality Broadcast
Solution**

Matthias Stoll, Head of Transmitter Product Development, Ampegon, Switzerland, Member of the DRM Steering Board

Title of Presentation

Simon Fell, Director of Technology & Innovation, European Broadcasting Union

Title of Presentation

Name & designation of speaker, MCMC

PMSE: The Hidden Side of Broadcast Spectrum

Lindsay Cornell, Principal Systems Architect, BBC-UK

Co-existence Issues between DVB-T2 and LTE in 800 MHz

Yahya Khaled, Senior RF Engineer, ATDI South Pacific Pty Ltd

Importance of RF Carrier monitoring for broadcasters and its advantages

Naveendran Murthy, CEO, AVIINDOS

SAFIR 2 >>> DBS WORKSHOPS

11:00-12:30 **WORKSHOP 12: Sponsored by Rohde & Schwarz**



4K Ingest and Delivery

Presenters:

Li Bin Eric, Regional Business Development Manager, AP, Rohde & Schwarz

Chan Tuck Kay, Sales & Market Development Manager, Rohde & Schwarz

Also visit Booths #1 & 6

12:30-14:00 Lunch

14:00-15:30 SESSION 5 & WORKSHOP 13

PARALLEL SESSIONS

MAHKOTA 3 >>> DBS CONFERENCE

Session 6

EMBRACING TECHNOLOGICAL INNOVATIONS

14:00-15:30

Chairman: *Simon Fell, Director of Technology & Innovation, EBU, Switzerland*

The Introduction of Hi-Motion2 as System Camera

Hidetake Kimotsuki, Chief Engineer, Ikegami

Multimedia Delivery of Radio and TV Content

Oliver Linow, Deutsche Welle-Germany

Cloud-based Technologies for Broadcasters

Marc Wharmby, Vice President of Sales Engineering, Front Porch Digital International

WOHLER, MPEG, ASI, SDI, SDI-HD and File Based Confidence Monitoring

Andy Stanton, Director Business Development, Wohler (APAC)

New Head-end Architectures to Increase Performance and Availability

Gunnar Nessa, Technical Sales Engineer, Appear TV AS

HDTV Network Deployment and New Business Models

Name & designation of speaker, Thomson Broadcast

SAFIR 2 >>> DBS WORKSHOPS

14:00-15:30 **WORKSHOP 13: Sponsored by DRM**

Digital Radio Mondiale (DRM) – Unique Benefits for Your Needs

Presenters:

Alexander Zink, Senior Business Development Manager Digital Radio, Fraunhofer

John Abdnour, Regional Manager/Asia-Pacific, Nautel

Matthias Stoll, Head of Transmitter Product Development, Ampegon AG

Hermann Zensen, Sales Manager, DIGIDIA

Lindsay Cornell, Principal Systems Architect, BBC-UK



15:30-16:00 Tea Break

16:00-17:30 SESSION 7 & WORKSHOP 14

PARALLEL SESSIONS

MAHKOTA 3 >>> DBS CONFERENCE

Session 7

IMPLEMENTING GREEN TECHNOLOGIES: EFFECTIVE SOLUTIONS AND CASE STUDIES

16:00-17:30

Chairman: *Name, Designation, Organisation*

Airborne Measurement as New & Green Technology to Verify and Enhance Broadcasting Networks

Luc Haeberlé, Managing Director, Colibrex (LS telcom group)

Efficiency in Digital Audio/TV Transmitter System

Nils Ahrens, Area Manager for Pacific and South-East Asia, Rohde & Schwarz

Make the Transmitter Site Green

John Abdnour, Regional Manager/Asia-Pacific, Nautel

New Technologies for Dramatically Reducing the Operating Costs of Digital Terrestrial Transmitters

Martyn Horspool, Harris Broadcast

16:00-17:30 SAFIR 2 >>> DBS WORKSHOPS

WORKSHOP 14

Topic: **TBC**

Presenters: **TBC**

Also visit Booth #

Day 4

Friday 7 March

09:00-10:30

SESSION 8 & WORKSHOP 15

PARALLEL SESSIONS

MAHKOTA 3 >>> DBS CONFERENCE

Session 8

MULTIPLATFORM DELIVERY OF RADIO AND TV CONTENT

09:00-10:30

Chairman: *Name, Designation, Organisation*

HbbTV in APAC

Reuben Verghese, Vice President Asia, Accedo, Hong Kong

Smart Apps in Australia

Joan Warner, CEO Commercial Radio Australia and Vice-President of WorldDMB Asia Pacific

What Fails in TV-Anywhere or OTT Video Delivery?

Klaven Siow, Regional Product Manager, Tektronix Southeast Asia

Hybridcast: Toward the Attractive Services by Integration of Broadcasting and Broadband Communication

Shigeaki Mitsuya, Engineer, Media Services Engineering Division, NHK-Japan

'iCon' : OHTV (Open Hybrid TV) Service of Korean Broadcasting System

Jin-Woo Kim, Senior Research Engineer, Technical Research Institute, KBS-Korea

The Role of HbbTV and Related Technologies in Next Generation Broadcasting

Khush Kundi, Head of TV Compression, Solutions, APAC, Ericsson

SAFIR 2 >>> DBS WORKSHOPS

09:00-10:30 WORKSHOP 15

Topic: **TBC**

Presenters: **TBC**

Also visit Booth #

10:30-11:00 Tea Break

MAHKOTA 3 >>> DBS CONFERENCE

Session 9
11:00-12:30

INDUSTRY DEBATE

EMBRACING TECHNOLOGICAL INNOVATIONS: WHAT CAN WE ACHIEVE IN THE NEXT THREE YEARS?

Moderator: *Dr Amal Punchihewa, Director ABU Technology*

Panelists:

Joan Warner, *CEO Commercial Radio Australia and Vice-President of WorldDMB Asia Pacific*

Chris Grey, *General Manager, Sony-Hong Kong*

Charles Seviar, *Chief Technology Officer, EMC Isilon*

Name, Designation, MCMC

Lindsay Cornell, *Principal Systems Architect, BBC-UK*

Simon Fell, *Director of Technology & Innovation, European Broadcasting Union*

12:30-14:45 Lunch

MAHKOTA 3 >>> DBS CONFERENCE

Session 10
14:45-15:30

FILE BASED WORKFLOW AND MEDIA MANAGEMENT SOLUTIONS

Chairman: *Name, Designation, Organisation*

Optical Disc workflows for TV Station Archive

Name & designation of speaker, SONY

System Operation of Large-Scale HD File-Based Systems at the NHK News Center

Go Koshii, Engineer, News Production & Network Engineering Division, NHK-Japan

Title of Presentation

Name & designation of speaker, P2 Panasonic

Next Generation Live Event Production and Delivery

Peter Bruce, Channel Management Director APAC, Grass Valley

15:30-16:00 Tea Break

MAHKOTA 3 >>> DBS CONFERENCE

Session Sponsored by

Session 11
16:00-17:30

DIGITAL SWITCH OVER: LEARNING FROM EXPERIENCES

Chairman: *Name, Designation, Organisation*

Post ASO Experience: LTE/DVB-T2 Interference Prediction - Planning & Issues

Milos Pavlovic, Sales Manager Broadcast, LS telecom AG

Switch from Analog to Digital in 18 Hours

Key Account Manager, Elti

IP Infrastructure at the Core of the Future Broadcast Facility

Glyn Bartlett, Head of Sales, Vector 3

IP Infrastructure at the Core of the Future Broadcast Facility

Mark Moore, Sr Regional Sales Manager - South East Asia, Evertz

Interference Challenges between LTE and DTT in the UHF Band

Mats Ek, Technical Director, Progiira

Title of Presentation

Tatjana Medic, Chief Commercial Officer, Funke

SYMPOSIUM CLOSSES

SPEAKERS' BIOGRAPHIES

Dr Javad Mottaghi



Secretary-General Asia-Pacific, Broadcasting Union

Dr Javad Mottaghi has been Secretary-General of the ABU since 2010. Before joining the ABU, he was Director of the Asia-Pacific Institute for Broadcasting Development (AIBD). He has 34 years of national and international broadcasting experience. He was the Director of Radio and TV Sports Department of IRIB for 18 years. Dr Mottaghi holds a PhD from the University of Teesside in England. He also holds a Bachelor's degree in Mechanical Engineering from Tehran Sharif University of Technology and a Master's degree in Management.

Dr Amal Punchihewa



Director Technology, Asia-Pacific Broadcasting Union

Amal is a Chartered Professional Engineer with nearly 30 years of experience in broadcast engineering. He worked in the three domains of academia, industry, and research & development. He is a Fellow of the Institution of Engineering and Technology of UK and a Senior Member of IEEE (USA). He was the head of Engineering at National TV in Sri Lanka. In 2002 he joined the Institute of Information Sciences and Technology at Massey University in New Zealand as senior lecturer and researcher.

Patrick Hannon



President, WorldDMB and Vice President Corporate Development, Frontier Silicon

Patrick Hannon is President of WorldDMB and is VP Corporate Development at Frontier Silicon, the leading provider of technology solutions for digital radio. He works with policy makers, regulators and industry players (including public and private broadcasters, network operators, device manufacturers, retailers and automotive manufacturers) to ensure that digital radio is successfully rolled out in as many territories as possible. Before joining Frontier, Patrick was a strategy consultant focused on broadcast/digital media. Previously, he held senior strategy/commercial roles at the BBC/BBC Worldwide.

Joan Warner



CEO Commercial Radio Australia and Vice-President of WorldDMB Asia Pacific

Joan Warner is the Chief Executive Officer of Commercial Radio Australia which represents 99 percent of all commercial radio broadcasters. Ms Warner was responsible for the planning, rollout and implementation of DAB+ digital radio in the five metropolitan capitals covering up to 60 percent of the Australian population and continues the DAB+ implementation for commercial radio broadcasters across regional Australia. She also oversees the whole of industry marketing campaign, Radio Codes of Practice, audience survey contracts and industry copyright agreements.

Dr Les Sabel



Managing Director & Owner S Comm Technologies

Les has over 30 years of experience in communications systems, including digital radio (DAB/DAB+/DMB and DRM), mobile communications (2, 2.5 and 3G), wireless broadband and satellite communications. Les founded S-Comm Technologies Pty. Ltd. in 2008 to work with the Australian radio industry on the introduction of DAB+ digital radio. S-Comm has provided services to many Australian and international companies and currently provides on-going independent engineering consultancy to Commercial Radio Australia.

Kathryn Brown



Strategic Development, Commercial Radio Australia

Digital Radio Project Manager, Kath Brown works with Commercial Radio Australia's digital technical advisory committee to further develop the DAB+ platform. She works with regional broadcasters and the regional digital working group to implement trials and develop the costing and technical framework for regional roll out in Australia. Kath, who has an Economics degree, works closely with retailers, manufacturers, the automotive industry and mobile phone manufacturers to introduce DAB+ into phones and cars.

Wilson Ng



Digital System Technologist, Commercial Radio Australia

Wilson has been with CRA for five years during which time the metropolitan DAB services were launched in Sydney, Melbourne, Brisbane, Adelaide and Perth. He has substantial expertise with Factum and Radioscape DAB+ multiplex systems, DAB+ data content generation, test equipment and field trials. He has been involved with regional trials in Canberra and Darwin researching better ways to deliver DAB+ service for regional areas which will be planned in Australia.

Charles Sevier



Chief Technology Officer for the Isilon Storage Division of EMC² (APJ Region)

Charles Sevier is CTO for EMC-Isilon covering the Asia-Pacific-Japan Region. Prior to joining EMC, Charles provided independent infrastructure and business technology consulting services to vendors and media organisations. He has a long and distinguished career in Engineering, IT and Management at commercial television broadcaster Nine Network Australia, where he managed the transition to a digital file-based workflow and business & technology transformation. He has enjoyed hands-on experience at major outside broadcast events such as the Australian Grand Prix, Commonwealth Games and Olympics.

Femin John



Technical Director – APAC, ATEME, France

Femin John has been associated with the Broadcast and Cable TV industry for more than 15 years. He has worked in various roles where he focused on providing E2E solutions for the Broadcast and Cable industry. He subsequently moved on to focus primarily on the Pay-TV industry at Irdeto prior to joining ATEME as the Technical Director. He holds an Engineering degree in Electronics and a MBA in International Business.

Tuck Y Poon



Senior R&D Engineer, BBC-UK

Tuck Y Poon received a degree in electrical and electronics engineering from Imperial College, London, in 2001. His main research area is in MIMO systems for broadcasting with special interest in MIMO decoders. In 2009 he was attached to NHK Science & Technology Research Laboratories in Tokyo for six months researching sphere decoder and near-optimum decoders. He has also been developing MIMO decoding algorithms for realization in FPGA. He was involved in technical discussions on the standardization of DVB-NGH and other European collaborative projects.

Phil Laven



Chairman, Digital Video Broadcasting (DVB)

Philip Laven is Chairman of the DVB Project, Vice-Chairman of the FOBTv initiative and Treasurer of the WorldDMB Forum. Between 1997 and 2007, he was Technical Director of the European Broadcasting Union based in Geneva, Switzerland. (edited)

Kenichi Murayama



Senior Manager, Planning & Coordination Division Science & Technology Research Laboratories NHK-Japan

Kenichi Murayama joined NHK (Japan Broadcasting Corporation) in 2002. From 2002 to 2008, he worked at the NHK Engineering Administration Department/Transmission & Audience Reception Engineering Center. From 2008 to 2013, he worked at the Broadcasting Network Research Division in NHK Science and Technology Research Laboratories (STRL), engaged in research and development related to the next generation of digital terrestrial broadcasting. From 2013, he has been working at the Planning and Coordinating Division in NHK STRL. He is a member of FOBTv.

Colin Prior



Asia Pacific Sales Manager, Enensys Technologies

Colin joined Enensys in 2012 and is responsible for sales and business development of Enensys products throughout the Asia-Pacific region. He is based in Thailand and is assisting many broadcasters and operators with their deployment of DVB-T2/SFN transmission networks. Colin is a Chartered Engineer and holds a Bachelor of Engineering Honours degree in Electrical and Electronic Engineering from the University of Bradford. He is a member of the Institute of Engineering and Technology.

Jean-Paul Moerman



International Projects and Application Manager, Salzbrenner Stageteq Mediagroup

With an extensive 30-year background in broadcast Jean-Paul's career gave him the opportunity to use his skills in the best possible way for achieving the company's goals. Training and mentoring a team offered him the opportunity to share his experience and at the same time enhancing his presentation/communication skills. In his actual position, taking care of international customers and supporting international branches offers the chance to keep up with the cutting edge of technologies.

WonhYun Cho



Senior Engineer, Technical Planning Department, KBS-Korea

WonhYun Cho is a Senior Engineer in the Technical Planning Department of KBS(Korean Broadcasting System). Since joining KBS in 2006, he has worked on broadcasting network planning (including UHDTV) and management of terrestrial frequency.

Masakazu Iwaki



Senior Manager, Planning & Coordination Division Science & Technology Research Laboratories, NHK-Japan

Masakazu Iwaki joined NHK (Japan Broadcasting Corporation) in 1990. From 1994 to 2008, he developed electroacoustical transducers for broadcasting use (directive microphone for SHV sound pick up, for example) at the NHK's Science and Technology Research Laboratories. In 2008, was transferred to NHK's Engineering Administration Department engaging in media planning and international affairs. From 2012, he has worked as in charge of public relations and planning division in the NHK Science and Technology Research Laboratories.

Stephen Lee



Sales Director, Conax AS

Stephen joined Conax AS in 2009 to focus primarily on content security in the DTT and multi-channel TV operators sector. He has since actively participated and spoken in the broadcast industry on broadcasting trends with focus on content security. Stephen is also in the Advanced Solutions team that focuses on the advanced Conax integrated OTT solution called Conax Xtend Multiscreen. Stephen graduated in Electronics Engineering from Oxford Brookes University.

Ruhi Tas



Electronics Engineer, TRT-Turkey

Ruhi Tas is an Electronics Engineer. After receiving B.Sc and M.Sc degrees, he worked as a project leader and developer in the R&D department of TRT, and he is currently working in the IT department as a software chief engineer. He is skilled in microprocessor programming and hardware design, web programming, database design and other fields, and has attended many courses related to web and mobile programming. He is working on the HbbTV Project for TRT's HD channel.

Sanjay Salil



Managing Director, MediaGuru

Sanjay graduated from a prime time TV presenter in India to a media entrepreneur in 2004. He set up Media Guru which is a global media services company. He guided the launch of TV stations across India, Pakistan, Bangladesh, and Africa. He has worked both with new media players and some of the largest media companies in the process, and derives great pride in the fact that MediaGuru has helped change the media landscape in countries where it helped launch and run new channels.

Andrew Yeo



Publisher, Editorial Director, APB

As publisher/editorial director of APB, Andrew S.H. Yeo monitors the trends and technologies impacting the media industry and sets the tone and direction for Asia's leading broadcast publication. In 1999, Mr Yeo initiated the CEO Roundtable, an APB annual forum for top Asian executives to discuss the changes taking place in the broadcast arena. With the convergence of technologies, he founded DigiWorkz, the Asia Pacific Broadcast Training Centre in Singapore, in 2001.

Lindsay Cornell



Principal Systems Architect, BBC-UK

Lindsay Cornell is Principal Systems Architect for the BBC's Future Media division. He leads the work on The Future of Radio and on spectrum matters relating to Programme Making and Special Events (PMSE). He is currently chairman of the World DMB and DRM Technical Committees, and of the CEPT WGFM PT51 on PMSE, helping to define the future spectrum framework for wireless microphones and cordless cameras.

Hidetake Kimotsuki



Assistant Manager, Ikegami

Hidetake Kimotsuki has been Assistant Manager at Ikegami Tsushinki Co. since February 2009. He is engaged in hardware development for broadcasting cameras and is currently engaged in development of a broadcasting camera named HDK-97ARRI.

Oliver Linow



Deutsche Welle-Germany

Oliver Linow joined Deutsche Welle in 1998. At the Bockhacken monitoring station he planned monitoring scenarios for DVB and for DRM shortwave transmissions. As a result, he established DW's worldwide satellite monitoring system for which he developed tailor-made features such as feedback channels using Internet streaming technologies as well as a network management system. Since 2012, Oliver has managed the worldwide DW signal monitoring network and headed the quality assessment department.

Marc Wharmby



Vice President of Sales Engineering, Front Porch Digital International

Marc Wharmby has been the Vice President of Solutions Architects for Front Porch Digital International since September 2011. During the past years, Mr Wharmby has driven the Professional Services organisation of

Front Porch Digital International, leading a team of talented engineers responsible for implementation and post-sales support in Europe, Asia-Pacific, the Middle East, and Africa. He has 27 years of experience in the information technology industry in telecommunications and digital video and has held management positions for 12 years.

Andy Stanton



Director Business Development, Wohler (APAC)

Andy Stanton began his broadcast career at the Australian Broadcasting Corporation (ABC) in 1975 and since has worked in broadcast, post production, and new media enterprises. His career has focused on bringing

new solutions and technologies into the Asian marketplace. In engineering management and Sales management roles with companies including Wohler Technologies, OmniBus® systems, Odetics Broadcast, Discreet Logic, and Abekas, Incorporated, as well as his own consulting firm, ITS, he has focused on building business opportunities for leading-edge technologies in Asian markets.

Mark Moore



Sr. Regional Sales Manager, Evertz Microsystems

Mark brings over 15 years to the broadcast and telecommunications industry having spent half his career in Japan focused on IP based media transport solutions. He's been based in Burlington, Canada with Evertz for the

past six years managing their Asia Pacific region. Mark has been instrumental in high profile projects such as FIFA World Cups and building next generation IP contribution networks.

Luc Haeberlé



Managing Director, Colibrex GmbH (LS telcom Group)

Luc Haeberlé has over 15 years experience in the broadcasting field. He has been involved in various projects related to the transition from analogue to digital broadcasting, especially in Asia when he was Director Asia/Pacific

Broadcast for Rohde & Schwarz. He recently joined the German LS telcom group being in charge of developing a new subsidiary with specialised services in the areas of implementation, testing, operation and maintenance of wireless networks.

Fintan McKiernan



CEO, Ideal Systems Singapore

Fintan joined Ideal Systems Group in 2011 to establish Ideal Systems Singapore, who have built broadcast facilities and systems for leading operators including Sony Pictures, Fox Sports, Astro, Globecast, Encompass Digital Media and SingTel. Prior to joining Ideal, Fintan

established OmniBus Systems (Now Miranda) APAC head office in Kuala Lumpur and has worked in broadcast technology roles in the US and Europe.

Reuben Verghese



Vice President, Asia, Accedo

Reuben has 15 years experience of technology sales, systems design, project delivery and consulting in telecommunications and media companies across Europe, Asia, Australia and the United States. Reuben's expertise spans enabling new business models

through technology, creating innovative customer experiences and delivering new media solutions for the largest of clients. Prior to Accedo, Reuben has been an independent technology consultant, a lead architect at BEA Systems and a project consultant/technical marketing manager at Kenan Systems.

Shigeaki Mitsuya



Engineer, Media Services Engineering Division, NHK-Japan

Shigeaki Mitsuya joined NHK (Japan Broadcasting Corporation), Tokyo, Japan, in 2003. From 2009, he was engaged in the research and development of "Hybridcast" which is a system for integrated broadcast-

broadband services at its Science and Technology Research Laboratories (NHK STRL). He is currently working on development of Hybridcast applications for actual services at Media Services Engineering Division.

Jinwoo Kim



Senior Research Engineer, Technical Research Institute, KBS-Korea

Jinwoo Kim is a Senior Research Engineer in the Technical Research Institute of KBS (Korean Broadcasting System). He received a MS degree in electronics from Korea University in 2000. Since joining KBS in

2000, he has worked on Computer Graphics, Audio/Video Processing & Application, and Connected TV service. His current research issues are Open Hybrid TV (OHTV) and TV-centric 2nd Screen service.

Go Koshii



Engineer, News Production & Network Engineering Division, NHK-Japan

Go Koshii received the B.E. and M.E. degrees from Waseda University, Tokyo, Japan, in 2001 and 2003 respectively. Following graduation, he joined NHK (Japan Broadcasting Corp) and has built his career as a video engineer through studio programme production and live telecasts. He has been working as an engineer at the News Production & Network Engineering Division, and he is mainly engaged in the technical operation and maintenance of file-based systems at the NHK News Center.

Milos Pavlovic



Sales Manager Broadcast, LS telcom AG

Milos Pavlovic has a diploma in Electrical Engineering/Telecommunications. He received his Dipl. Ing and MSc degrees from University of Belgrade, Faculty for Electrical Engineering.

After seven years in the broadcast industry,

Milos joined the Sales & Marketing department of LS telcom AG in 2012. Since joining LS telcom, he has taken over responsibility for broadcast customers worldwide.

Boštjan Bedekovič



Key Account Manager, Elti

Boštjan Bedekovič is Key Account Manager at the company ELTI d.o.o. He has a Bachelor of Science in the fields of electro technique and economy and has over 10 years' experience in the broadcasting industry, specialised in antenna systems design. Together with

broadcasters in European, African and Asian countries he has contributed to complete state-of-the-art analogue and DTT solutions.

Mats Ek



Technical Director, Progira

Mats holds an M.Sc.EE (Electronic Engineering) in 1986 from the Royal Institute of Technology (KTH) in Stockholm. He has been active in the broadcasting industry since 1989, when he joined Teracom, the national broadcast network provider in Sweden. He has been involved in

digital system standardisation of the T-DAB and the DVB-T, primarily within the area of network and frequency planning. He has taken part in planning projects in a large number of countries.

Greg Price



Broadcast Systems & Support Engineer, Dolby Laboratories, Inc.

Based in San Francisco, Greg Price is responsible for supporting broadcast and post-productions facilities in North and South America as well as the Asia Pacific region.

He works closely with broadcasters such as

HBO, Starz, Comcast and AT&T to support the implementation, continuing use and delivery of high quality Dolby platforms. Mr Price has worked with Dolby since 2010 and has contributed and supplied support to events such as the Grammys and Academy Fantasia.

Toni Fiedler



Director Marketing and Business Development APAC, Fraunhofer IIS

Toni Fiedler represents Fraunhofer IIS in the Asia-Pacific region. He joined Fraunhofer IIS, the main inventor of MP3, and the co-developer of AAC, MPEG Surround and many other widespread audio innovations, in 2011, after seven

years with Dolby Laboratories and Coding Technologies. He is based in Beijing, China. As a consultant to broadcasters, mobile carriers, chip manufacturers and content aggregators he has been involved in many projects aiming at future-proof technology ecosystems across the entertainment industries.

Dr Natee Sukonrat



Vice-Chairman, NBTC, Thailand

Dr Sukonrat is Vice-Chairman of the National Broadcasting and Telecommunications Commission (NBTC) of Thailand and also the chairman of the National Broadcasting Commission. The main responsibilities are licensing, promoting and regulating

the broadcasting sector in Thailand. He has been working in the broadcasting and telecommunications sector for more than 20 years. He has a Bachelor's degree of Science in Electrical Engineering, and a PhD in Electrical Engineering from the University of South Florida in the United States.

Ray Sanders



VP Business Development, Gencom Technology

Ray has 40 years' experience in broadcast engineering having started his career with the NZBC. In 1987 Ray joined Gencom Technology in a sales capacity and in 1990 was appointed General Manager. Following an

MBO in 1999 Ray became CEO. Gencom Technology is a specialist integrator and equipment supplier in all aspects of broadcasting and communications. In 2013 Gencom was sold and Ray remains with the company in the role of VP Business Development.

Aale Raza



Managing Director, Whiteways Systems Pte Ltd

Aale Raza has been Managing Director of Whiteways Systems Pte Ltd since July 2013. Based in Singapore, Whiteways is a distributor and electronic store for broadcast, professional video production and post production. Among other services, it provides video cameras, non-linear editing systems, audio/video converters, newsroom systems, video servers, broadcast automation systems, data media, monitors, encoders and multiplexers. Before joining Whiteways Holdings in 2012, Aale Raza was President of Benchmark Telecast Integration Private Ltd.

Hermann Zensen



Sales Manager, Digidia

Hermann joined Digidia in 2008 as a Sales Manager. His previous experience includes sales, service management, process engineering, purchasing and some R&D for companies like Vodafone, SAGEM and Mitsubishi Electric in Germany and France.

Digidia specialises in digital radio transmission with a strong expertise in IP transport and COFDM. Its product range includes modulators, content servers and professional receivers for DRM/DRM+, as well as multiplexers, encoders, and tunnel rebroadcasting systems for DAB/DAB+/DMB.

Nils Ahrens



Area Manager for Pacific and South-East Asia, Rohde & Schwarz

Nils Ahrens has been with Rohde & Schwarz since 2004 and has been Area Manager for Pacific and South-East Asia since January 2012. He holds a Dipl.-Ing. from the University of Cologne in Communication/Information

Technology and has more than 25 years in the broadcast field. Before joining Rohde & Schwarz, he was Head of Sales Project Management at Bruel & Kjaer for Sound and Noise Measurement & Monitoring Solutions.

Chan Tuck Kay



Sales & Market Development Manager, Rohde & Schwarz

Chan Tuck Kay is Sales & Market Development Manager, DVS APAC, Rohde & Schwarz Regional HQ Singapore Pte Ltd. He has experience in almost every aspect of a typical broadcast studio eco system; ingest (cameras), video & audio production (NLE, MAM, NRCS), storage (SAN, archive) and playout (video servers). Mr Chan entered the broadcast industry in 2002 with a local system integrator. He later worked for Dalet Digital Media, Digigram and Panasonic Systems Asia Pacific.

Li Bin, Eric



Regional Business Development Manager, AP, Rohde & Schwarz Regional

Li Bin is a regional business development manager with Rohde & Schwarz, supporting broadcast products in the Asia Pacific region. Prior to joining Rohde & Schwarz, he was the broadcast function manager in Philips, in charge of broadcast related requirement and tests for digital TV products. He has comprehensive knowledge of STB and iDTV compliance tests for all major DTV standards, and has over 11 years' experience in the broadcast industry.

Hock Leong Tan



Manager, Broadcast Solutions, Rohde & Schwarz Certified Trainer Company, Rohde & Schwarz

Leong is a Manager with Rohde & Schwarz supporting Broadcast Solutions in Asia Pacific, Middle East and Africa. As a Rohde & Schwarz Certified Trainer, Leong has conducted various seminars and workshops for the broadcasting industries in the region. He has delivered seminars for RTM, SMPTE Hong Kong, Mediacorp Singapore, TVRI Indonesia, the ABU Digital Broadcasting Symposium 2009, 2010 & 2011 in Kuala Lumpur, AIBD Regional Seminars and the Arab States Broadcasting Union.

Simon Fell



Director of Technology & Innovation, EBU

Simon Fell has been Director of Technology & Innovation for the European Broadcasting Union since September 2013. He has more than 35 years' experience in senior broadcasting technology roles, including at British broadcaster ITV, where he was Director of Future Technologies (2008-2009) and Controller of Emerging Technologies (2004-2006). Mr Fell, prior to joining the EBU, was Chairman of the Technical Council at the Digital Television Group, the industry association for digital television in the UK.

John Abdnour



Regional Sales Manager, Asia Pacific, Nautel

John Abdnour is Regional Sales Manager, Asia/Pacific for Hackett's Cove, NS, Canada and Bangor, ME, USA based Nautel. In his capacity he is responsible for the organisation of the sale of Nautel AM / FM / TV transmitters in this region. He is in regular attendance at national and regional broadcast conventions, seminars and meetings. He is a veteran of the radio broadcast industry having worked in radio for nearly half a century.

Jeremy Kung Eng Chuang



Executive Vice President, New Media/Chief Executive Officer, TM Net Sdn Bhd

Jeremy holds an Honours Degree in Computer Science from the University of Ottawa, Canada. He carries with him 20 years of working experience in a number of senior positions covering technical expertise and management roles in IT systems development for media, telecommunications and B2C business. He assumed his current position as Executive Vice President, New Media in July 2010. His position as the CEO of TM Net remains. Jeremy also sits on the board of several subsidiaries in TM.

Geoff Love



Application Specialist, Axon Digital Design

Geoff Love's career started as an Electronic Maintenance engineer at TVS (an ITV contractor), moving to be a senior engineer in the broadcast projects department. Geoff has held a number of senior positions including Manager, Engineering Projects at Channel4 TV, Controller of Technology at LNN (providing facilities for ITV's national and regional playout operation), and Chief Engineer BBC World News. Currently he is Application Specialist with responsibility for transforming customer requirements into practical solutions.

Michael Van Dorpe



President, Village Island

Michael Van Dorpe holds a Master Degree in Telecommunications & Computer Science from UCL, Belgium. After winning IEEE's Belgium Best Electrical Engineer award for his final thesis, Michael was granted the "Vulcanus program" in Japan, offering a one-year internship, cooperating on video projects in Asahi Kasei. His career in the broadcast industry has seen him work for Barco, Panasonic and SCSK. Michael is a passionate broadcast engineer and expert in all broadcast technology fields.

Shigeru Iino



Principal Program Director, Science Programs Division, Program Production Department, NHK

Shigeru Iino joined NHK in 2000. He has been engaged in the production of science programmes including "Try and Gatcha", NHK's long-running infotainment show that explores various topics from a scientific perspective. He also works on the production of ABU Robocon. Currently he is in charge of content development for web and mobile services, with the aim of actualising the convergence of broadcasting and telecommunication by utilising NHK's new technologies such as Hybridcast.

Peter Bruce



Channel Management Director APAC, Grass Valley

As the Channel Management Director for Grass Valley, Peter Bruce has responsibility for the channel partners' sales strategy and business development activities across the Asia Pacific region. Based in Singapore, Peter has over 25 years of experience in the broadcasting industry. His extensive experience covers stints with various business units in sales, marketing, operations, customer service and product strategy. Peter holds higher National Diploma in Broadcast and Communications Engineering from Ravensbourne College in London.

Matthias Stoll



Head of Transmitter Product Development, Ampegon AG

Mr Stoll has been active in the broadcasting business since 1996. During this time, he has devoted his efforts to the development of high power AM broadcast transmitters for Ampegon AG business unit in Switzerland. In 2004 he became Product Manager of the Medium Wave Transmitter Family. From 2006, Mr Stoll led the development group of this product family. Since 2009 he has led the transmitter development group for shortwave and medium wave transmitters.

Tatjana Medic



Chief Commercial Officer, Funke Digital TV

Tatjana Medic studied Marketing at University and dedicated herself to International business, continuing on to a postgraduate study of Management. She went on to take an MBA on a specialised course for International Business in Maastricht, the Netherlands. At Funke, Ms Medic is involved in all global international digital television projects. She is a strong believer in the future of digital terrestrial television and the development of smart digital terrestrial solutions a major part of her focus in Funke.

Alexander Zink



Senior Business Development Manager Digital Radio, Fraunhofer

Since 2000, Alexander Zink has worked at the Fraunhofer Institute for Integrated Circuits (Erlangen, Germany) as Senior Business Development Manager Digital Radio and vice group leader for the work group 'Broadcast Applications'. Since 2002 he has been project director for Journaline, an interactive text based information system for digital radio. For Digital Radio Mondiale (DRM) he acts as vice president of the DRM Association, member of the Steering Board, treasurer, and vice chairman Technical Committee.

Dato Abu Bakar bin Ab Rahim



Deputy Director-General (Broadcast Operations), Radio Television Malaysia

Dato Abu Bakar joined RTM after graduating from the University of Reading, UK, in Electrical Engineering in 1980. He is responsible for the planning and operations of the broadcasting technology for RTM. Dato Abu Bakar led

the team undertaking the digitalisation programme for the radio engineering division and the RTM Digital TV trial conducted in 2006. In the international arena, he is the Acting Vice-Chairman, Technical Committee, World Broadcast Union and Chairman, Technical Committee, ABU.

Klaven Siow



Regional Product Manager, Tektronix Southeast Asia

Klaven Siow is responsible for the Tektronix test and measurement and video network management solution. He has accumulated more than nine years of wide experience in the broadcasting industry. Klaven has worked

in various capacities in digital video broadcast network monitoring solutions, product management and technical consultancy, and has been in the field with worldwide customers, including European and Asian countries, to resolve a variety of real transmission and quality error issues faced in the broadcasting world.

Naveendran Murthy



Sales Director, Aviindos (M) Sdn Bhd

Naveen has over 10 years of experience in RF related test and measurement systems within the mobile communication, digital terrestrial radio (TETRA) and satcom industry. Aviindos is founded to provide a comprehensive range of test instrument solutions to the industry with the latest technology from Europe and

North America. Aviindos has provided services to several local major industry players and is currently expanding the services into neighbouring countries.

Gunnar Nessa



Technical Sales Engineer, Appear TV AS

Gunnar Nessa is part of the technical sales team at Appear TV in Oslo. He is experienced in technical design, and training and support of head-end systems including content aggregation, compression, processing and

distribution for IPTV/OTT, DVB-C, DVB-T/T2 and DVB-S/S2 systems. Gunnar works closely with the sales team to design Appear TV head-end systems for end clients and business partners, as well as holding technical presentations and training on broadcast technology and the Appear TV solutions portfolio.

Yahya Khaled



Senior RF Engineer, ATDI South Pacific

Yahya is a Senior RF Engineer at ATDI South Pacific. From his experience as a technical lead in projects for DVB-T2 rollout and private 2G and 4G networks, he gained in-depth knowledge in spectrum management issues; frequency assignment, interference analysis

and technology co-existence issues. Today, Yahya is in charge of ATDI's technical consulting and training programmes for regulators, military agencies and radio communications operators in Asia Pacific region.

Tony Moran



Head of TV for ANZ & SEA, APAC, Ericsson

Tony Moran is the Regional Head of TV for Australia, New Zealand & South East Asia, Ericsson. He is responsible for Ericsson's business and leading commercial operations in the region, which include sales, engineering,

and customer support. Prior to his current role, Tony was Regional Head of TV Sales in Australia and New Zealand, a position he held from 2005 to 2011 with both Ericsson and TANDBERG Television.

Khush Kundi



Head of TV Compression Solutions, APAC, Ericsson

Khush Kundi heads up all Business Development and Technical Pre-sales activities for Ericsson's Compression Business across APAC. Working in the industry for almost a decade, he has worked with some of the world's

largest broadcasters, operators and services providers in Europe and Asia in providing a range of services including consulting, business development and strategic planning. He is currently an active member of several industry bodies including SMPTE and CASBAA.

Chris Grey



General Manager, Broadcast & Content Creation Solutions Asia Pacific Division, Professional Solutions Asia Pacific Company (Hong Kong), Sony Corporation of Hong Kong Ltd

Chris Grey is the Head of Broadcast and Content Creation Solutions overseeing the marketing of Sony's broadcast products and solutions in the Asia Pacific region. Prior to his current role, Mr Grey was working in Sony Professional Europe where he held various senior roles in product marketing of broadcast solutions for editing, transmission, acquisition and news production in the European market. He is an industry veteran having spent the last 29 years working for Sony within the broadcast and professional division.

Glyn Bartlett



Head of Sales, Vector3

With more than 20 years of experience in international solution selling in broadcast and technology solutions, Glyn Bartlett brings his experience of being an early pioneer of digital cinema, digital intermediate workflows and IT platforms in the broadcast industry. Glyn has always looked to innovations in other industries and how these developments might apply and produce advantages for broadcast clients. At the forefront of this search have been the key issues of suitability, efficiency and value for money.

Jerome David



Senior Marketing Manager (PMP), ARELIS - THOMSON

Jerome David holds an MSc degree in electronics and communications, and PMP certification. He joined Thales in 2001 to work on OFDM transmissions and deployments, e.g. DTT rollout SFDMA and SFN deployment. As project leader and system architect for Thomson, he coordinated the R & D team that contributed to the several successful DVB-T2 networks roll out and to huge energy savings in transmission systems. Since 2010, he has managed Strategic Marketing and Innovation Programmes for Thomson-Broadcast and ARELIS Group.

Mathias Bendull



Senior Director, Broadcast Consumer Audio, Dolby

As Senior Director, Broadcast Consumer Audio, Mathias Bendull oversees Dolby's consumer audio playback solutions worldwide, including Dolby Digital Plus™ technology in HDTV and set-top-boxes. He guides Dolby's strategy and support for terrestrial television launches as well as the company's engagement with pay-TV operators globally. His team is responsible for developing and launching new playback features that enhance audio for consumer entertainment. Mathias has been in the digital TV industry since 1997.

Mika Kanerva



Co-Founder and Chief Operating Officer, Sofia Digital Ltd

Mika Kanerva has over 10 years of experience in development of added-value services for television. He has been one of the key persons in Sofia Digital since 2000. The company specialises in digital TV services and software development for smart devices. Mr Kanerva is also Chairman of the Finnish HDTV-Forum HbbTV working group. He has extensive knowledge about service development for HbbTV and connected devices, and has been closely involved in interactive TV standards development in Europe.

Takeshi Shibagaki



4K Live Production System Specialist, Product Planning Department, Professional Solutions Group, Sony Corporation, Japan

Takeshi Shibagaki joined Sony in 1999, handling Sales for Professional Audio Visual products. In 2002, Mr Shibagaki moved to the marketing management team for Professional Camcorder for the Japan market.

In 2007, Mr Shibagaki was transferred to Professional Solutions of America and joined the Professional Audio Visual Product and Marketing management for the USA market. In 2012, Mr Shibagaki returned to Sony Corporation in Japan to take up his current position.

Jacky Chung



Product Marketing Manager, Professional Solutions Asia Pacific Company, Sony Corporation of Hong Kong Ltd

Jacky Chung has experienced the transformation of tape based broadcast to the current file based operation. Being actively involved in various operational departments, namely Satellite Transmission, Traffic System Development and Post-Production (Video Editor) within a broadcasting facility, it gives him insights into the importance of workflow efficiency. Working with the Sony regional headquarter in Asia Pacific, he takes up the role of Product Marketing to introduce innovative technology throughout the region.

David Porter



General Manager - News & Public Affairs, Seven West Media Australia (Channel Seven)

David has overseen a 60 percent growth in production of news content at Channel Seven in the past eight years. Channel Seven is Australia's number one news station and David has implemented industry leading workflows to maximise the efficiency of news operations to retain leadership. Prior to joining Channel Seven in 2001 David worked as a management consultant assisting major companies with strategic change, operational cost management and business development.

Neil (Noriaki) Ugo



Product Manager, Imaging Networks Business Division, AVC Networks Company, Panasonic Corp., Osaka, Japan

Neil Ugo started his career as a technical instructor for VHS video systems in the early 1980s, when Panasonic launched their DVCPRO system in the ENG market. In the 1990s, he took responsibility for the product planning to design the laptop editor and 4x transfer video editing system. Now, with over 35 years of experience in Panasonic, he is a product engineer for all professional AV products including 4K Video Equipment.

Mohd Fauzi Bin Kamaruzaman



Technical Manager, TekMark Broadcast Sdn Bhd

Fauzi brings with him more than 13 years of experience in the broadcasting industry. He is currently the Technical Manager at TekMark Broadcast Sdn Bhd. He is responsible for Tektronix test and measurement and video network management solutions.

Haji Zulkifli Bin Abdul Rahim



Principal Assistant Director, Radio Production Section, RTM

Haji Zulkifli is Principal Assistant Director in the Radio Production Section of Malaysia's public broadcaster, Radio Television Malaysia. He joined RTM in November 1984. Haji Zulkifli has 16 years experience in radio and TV transmitters, six years in radio studios and five years in research.

Martyn Horspool



Product Manager, Television Transmission, Harris Broadcast

Martyn Horspool is Product Manager for Television Transmission at Harris Broadcast in Mason, Ohio. He has been in the broadcast industry for 40 years and moved to Harris Broadcast in 1980. Martyn has a well-rounded understanding of analogue and digital transmission techniques and standards as well as RF product knowledge. He has also authored and presented technical papers and participated in all major worldwide broadcast conferences, including NAB, SET, IBC, Broadcast Asia and BIRTV.

James Jinhak Jeon



Chief Producer, Entertainment Department, KBS, Korea

James Jinhak Jeon has been a TV producer at KBS since 1994. He has held his current position as Chief Producer in the Entertainment Department since 2010. Before joining KBS, James was a TV producer at EBS-Korea and a reporter for Hankook Daily. He holds a National Certificate of TV and Film Production from New Zealand. In 2008 he was seconded to the ABU Secretariat in Kuala Lumpur.

Tushar Kothari



Director & Co Founder, WASP3D (Beehive Systems Pvt Ltd)

Backed by over 25 years of experience in broadcast technology, Tushar Kothari has pioneered in developing a Real-Time Broadcast 3D Graphics Solution. His innovations in the area of content display include: WASP3D - On Air Graphics Solution; WASPi Mimosa - an interactive touch screen based presentation tool; and virtual sets and virtual simulations to benefit broadcasters and enrich the viewer's experience.

Pasi Toiva



Managing Director, Labwise Ltd

Pasi Toiva is the Managing Director of Labwise Ltd. Labwise specialises in digital TV equipment certification, testing and verification. Pasi has a 20 year long history in digital TV from different angles: manufacturing, content production, broadcasting, value-added service creation, testing, test procedures and managing the analogue switch off. In the past Pasi has worked for Nokia, the Finnish Broadcasting Company (YLE), Ortikon Interactive and Bitwise.

WORKSHOP SPONSOR LISTING



WorldDMB

WorldDMB is the global industry forum for digital radio, facilitating the adoption and implementation of digital broadcast radio based on DAB, DAB+, and DMB. Its global membership includes public and commercial broadcasters, network providers, receiver, professional equipment, chip and car manufacturers. WorldDMB delivers tailored solutions and advice on all aspects of the switch from analogue to digital radio including regulation, licensing, technical trials, network build out, marketing and production of new digital radio content. Solutions are delivered through leading-edge industry events, car manufacturers' workshops, tailored workshops and seminars, and via the WorldDMB website and members-only information portal.

www.worlddab.org



AXON

Axon is one of a rare breed of technology pioneering companies. Over 25 years, from its base in the Netherlands, it has grown to become a global leader in broadcast network infrastructure products and solutions. Axon brings to market the widest and most advanced range of ultra compact modular systems and equipment for the processing of audio and video signals, amongst others: AVB (Audio Video Bridging) , Master control, Routers, Multiviewers, Loudness control, Modular SPG, MADI, Dolby Digital Plus, Long time video delay, Fiber, Integrity checking, Legalization, Compliance recording and Facility control and monitoring.

As a result, Axon continues to provide its customers with the capability to differentiate their products and services. For many, Axon is the difference. We understand what makes our customers' businesses tick and we can provide solutions that are not just fit for purpose but which are uniquely adapted to the application - from live production to play-out and master control.

Axon is active and growing on every continent. It has regional offices in Brazil, China (Beijing and Shanghai), Germany, Russia, UAE (Dubai), Singapore, UK and USA. Also, it has an extensive network of specialist systems integrators that work with many of the world's leading broadcasters.

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Contact Asia HQ:

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SONY

Professional Solutions Company (PSAP), Sony Corporation of Hong Kong Ltd

Sony is a leading manufacturer of audio, video, game, communications, key device and information technology products for the consumer and professional markets. Sony's Broadcast & Content Creation Solutions Asia Pacific business is established under Professional Solutions Company (PSAP), a division company under Sony Corporation of Hong Kong Ltd. It markets Sony's leading broadcast systems, professional video and audio products in Asia other than Japan. It also provides customized business solutions, comprehensive technical support and after-sales service to help Sony's customers stay at the forefront of their business.

URL: pro.sony-asia.com

Contact us: pro.info@ap.sony.com



ERICSSON

ERICSSON

Ericsson is the world's leading provider of communications technology and services, enabling the networked society with efficient real-time solutions. Our offering comprises services, software and infrastructure within information, entertainment and communications technology for all content owners, broadcasters and service providers.

More than 40 per cent of the world's mobile traffic goes through Ericsson networks and we support customers' networks, servicing more than 2.5 billion subscribers. Our television solutions have pioneered the developments within the media industry for over 20 years. Ericsson is the world's greatest change agent for digital entertainment, communications and information in a society of global connectivity.

DigiTAG



WASP3D

WASP3D offers cutting-edge solutions in the area of content display and presentation for television broadcasters globally. WASP3D's innovative solutions include workflow based On-air graphics solution; Interactive presentation, WASPi Mimosa; Virtual Set.

With over 500 installations and presence in 40+ countries, WASP3D has helped several broadcasters to package and present their content to improve the viewer experience. Some of our customers include: RTM, Astro Awani, CNBCe, MBC, MTN, Televisa, Ten Sports, TV9, YTN.

WASP3D employs more than 100 highly qualified professionals and is headquartered in New Delhi (Noida), India and has offices in USA, UAE, South Africa, Singapore, Mexico and Brazil.

8.



Tektronix

About Tektronix For more than sixty-five years, engineers have turned to Tektronix for test, measurement and monitoring solutions to solve design challenges, improve productivity and dramatically reduce time to market. Tektronix is a leading supplier of test equipment for engineers focused on electronic design, manufacturing, and advanced technology development. Headquartered in Beaverton, Oregon, Tektronix serves customers worldwide and offers award-winning service and support. Stay on the leading edge at www.tektronix.com.



DOLBY

About Dolby Digital Plus

Dolby Digital Plus has already been included in broadcast standards around the world for HDTV services, including key terrestrial specifications in China, France, Italy, Poland, Singapore, Sweden, and the United Kingdom, and it has been included by operators in emerging markets such as India and the Middle East. It supports up to 7.1 channels of discrete audio for terrestrial television, IPTV, cable, and direct broadcast satellite and is the preferred audio technology of online streaming services such as Amazon Instant Video, Netflix® and Vudu™. To date, Dolby Digital Plus has been included in more than one billion products worldwide, including TVs, set-top boxes, Blu-ray Disc™ players, audio/video receivers, and mobile devices.

About Dolby Laboratories

Dolby Laboratories (NYSE: DLB) creates audio, video, and voice technologies that transform entertainment and communications in mobile devices, at the cinema, at home, and at work. For nearly 50 years, sight and sound experiences have become more vibrant, clear, and meaningful in Dolby. For more information, please visit dolby.com.

Dolby and the double-D symbol are registered trademarks of Dolby Laboratories. Dolby Digital Plus is a trademark of Dolby Laboratories. All other trademarks remain the property of their respective owners.



DVB

Many ABU members have chosen DVB-T2 because of its unrivalled performance, flexibility and cost-effectiveness. This interactive workshop will start with a brief overview of the key features of DVB-T2, followed by explanations of how broadcasters can benefit from its flexibility. As a demonstration of the future-proof nature of DVB-T2, the workshop will include a demonstration of two 4k services being delivered simultaneously via a single DVB-T2 transmission. If you have any questions about DVB-T2, the experts in this workshop will be on hand to answer them.

Contact: dvb@dvb.org
www.dvb.org



ROHDE & SCHWARZ

Rohde & Schwarz

For more than 80 years, **Rohde & Schwarz** had stood for the highest quality, precision and innovation in the fields of: **Test and Measurement, Broadcasting, Secure Communications, Radio-monitoring** and **Radiolocation**. Passionately creating and building products for wireless communications, the broadcasting and electronics industry, aerospace and defense, homeland security and critical infrastructures.

As an independent, family-owned company, R&S generates its **long term growth** from its own resources. As of June 30, 2013, the company had over 9300 associates, with 5650 in Germany. In the 2012/2013 fiscal year (July to June), the company generated a net revenue of EUR 1.9 billion.

Contact details:

ROHDE & SCHWARZ Malaysia Sdn Bhd
Kuala Lumpur Main Office

No.2, Jln Pengaturcara U1/51
Temasya Industrial Park,
40150 Shah Alam
Selangor Malaysia
Phone: +603 5569 0011

Fax: +603 5569 0088
Website: www.rohde-schwarz.com.my
Online Shop: www.rohde-schwarz.com.my/surf-in



visit www.drm.org

DRM

The DRM (Digital Radio Mondiale) Consortium is an international not-for-profit organisation made up of over 100 broadcasters, network providers, transmitter and receiver manufacturers, universities, broadcasting unions and research Institutes. DRM was set up in Guangzhou, China in 1997. Digital Radio Mondiale is the universal, openly standardised digital broadcasting system for all broadcasting frequencies. It comprises two major configurations: 'DRM30' intended for broadcasts on short, medium and long wave up to 30 MHz The configuration for the VHF bands above 30 MHz is called 'DRM+', tailored for local and regional coverage with broadcaster-controlled transmissions. The Consortium's Aim and Objective is to make DRM standard accepted and used at regional, national and international level.

www.drm.org
Contact: projectoffice@drm.org



Media Beach

Media Beach has been jointly created by Australia's number one news channel, Seven Network, and the leading provider of enterprise video solutions, VideoShip. We are proud to launch Media Beach at ABU DBS 2014.

Media Beach is the content exchange and distribution solution for the media industry. Unlike other content exchanges, Media Beach is built on a broadcast standard file transfer platform designed for large video files and live streaming, also providing a multi-tiered, scalable network solution for media companies large and small.

Media Beach is the product of Seven Network's multi-media news leadership and VideoShip's innovative expertise in file transfer acceleration and transcoding technology.

We look forward to meeting members to explain the opportunities Media Beach provides for new revenue streams, access to international news content and cost effective networks.

Contact:
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General Manager – News & Public Affairs
Seven West Media (Channel Seven) Australia
dporter@seven.com.au
+ 61 2 8777 7777

EXHIBITOR LISTING



ROHDE & SCHWARZ

Booth # 1 & 6 Rohde & Schwarz

For more than 80 years, Rohde & Schwarz had stood for the highest quality, precision and innovation in the fields of: Test and Measurement, Broadcasting, Secure Communications, Radio-monitoring and Radiolocation. Passionately creating and building products for wireless communications, the broadcasting and electronics industry, aerospace and defense, homeland security and critical infrastructures.

As an independent, family-owned company, R&S generates its long term growth from its own resources. As of June 30, 2013, the company had over 9300 associates, with 5650 in Germany. In the 2012/2013 fiscal year (July to June), the company generated a net revenue of EUR 1.9 billion.

Contact details:

ROHDE & SCHWARZ Malaysia Sdn Bhd
Kuala Lumpur Main Office

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Phone: +603 5569 0011 Fax: +603 5569 0088
Website: www.rohde-schwarz.com.my
Online Shop: www.rohde-schwarz.com.my/surf-in



grass valley

Booth # 2 GRASSVALLEY

Grass Valley is changing the way live television is made and delivered. Recognized with 18 Emmy® awards for technology innovation, Grass Valley's product portfolio—from image acquisition to playout—offers a complete end-to-end workflow of flexible, forward thinking solutions which enable broadcasters and content owners to build multiscreen, multiplatform futures. By simplifying and enhancing the way content is produced and distributed, Grass Valley gives customers the freedom they need to be creative in the studio, the field, and the newsroom. Merging optimizations of IT technologies with best-in-breed media systems, Grass Valley's next generation solutions deliver higher quality and greater efficiencies. Customers include world-leading broadcasters, teleproduction facilities, service providers, government, religious, educational, corporate, and independent video professionals. Grass Valley is headquartered in Hillsboro, OR, and maintains local presence across the globe with offices throughout North and Latin America, Europe, the Middle East, and Asia-Pacific regions.

Company contacts: Grass Valley
83 Clemenceau Ave, 07-01 UE Square, 239920 Singapore
Contact: peter.bruce@grassvalley.com www.grassvalley.com



Booth # 3 HARRIS BROADCAST

Harris Broadcast is an industry leader in delivering the most advanced, content-rich media experiences available for a wide spectrum of radio, television and private media networks around the globe. With more than 25 leading brands including Versio™, Selenio™ and Maxiva™, the company enables media organizations to tap into one of the broadest, integrated product and solution portfolios in the industry. Headquartered in Frisco, Dallas, the company is widely recognized for its product quality and reliability, engineering excellence and customer service, and has earned nearly 100 technological firsts and more than 50 awards for technical innovation.

For more information, please visit www.harrisbroadcast.com



Booth # 4 ATDI

ATDI is a global leader in software solutions for radio communications network design and management. The company's expertise embraces all technologies in the frequency range 9kHz to 400GHz including all the analogue to digital technologies - DVB-T/T2, T-DMB, T-DMB, ISDB-Tand DAB+.

ATDI offers the automatic planning of radio networks using a goal-seek algorithm which enables RF engineers to plan and model RF networks efficiently and to manage network development seamlessly. Whether the issue is spectrum regulation, modelling, planning or measurement of networks, radio professionals find their solutions at ATDI.

More information: www.atdi.com
Contact: +61 (0)2 9213 2205 email: jhwang@atdi.com



Booth # 5 WorldDMB

WorldDMB is the global industry forum for digital radio, facilitating the adoption and implementation of digital broadcast radio based on DAB, DAB+ and DMB. Its global membership includes public and commercial broadcasters, network providers, receiver, professional equipment, chip and car manufacturers. WorldDMB delivers tailored solutions and advice on all aspects of the switch from analogue to digital radio including regulation, licensing, technical trials, network build out, marketing and production of new digital radio content. Solutions are delivered through leading-edge industry events, car manufacturers' workshops, tailored workshops and seminars, and via the WorldDMB website and members-only information portal.

www.worlddab.org



Booth # 7 EMC Corporation

EMC Corporation is a global leader in enabling businesses and service providers to transform their operations and deliver IT as a service. Fundamental to this transformation is cloud computing. Through innovative products and services, EMC accelerates the journey to cloud computing, helping IT departments to store, manage, protect and analyze their most valuable asset - information - in a more agile, trusted and cost-efficient way. Additional information about EMC can be found at www.EMC.com.

Patrick Dutton
EMC Isilon Channels - South East Asia
Email: Patrick.dutton@emc.com



Booth # 8 PlayBox Technology

PlayBox Technology is the #1 International TV Channel in a Box' manufacturer with Interactive CG & Graphics & MAM available SD, HD and DVB(ASI/IP). PlayBox Technology has innovative and scalable solutions to fit your workflow and offer you the solution you want at your price. From a Single Channel Playout Server to a Multi-Channel Turn-Key Broadcast Centre, please contact PlayBox Technology.

PlayBox Technology Broadcast Automation System consists of Ingest Server, Automated Playout Server, Graphics Insertion Server, TX Database Server with TX Management Software, Networked File Storage Server and Networking Peripherals.

PlayBox introducing also the new product as ProductionAirBox, which provides content playout for News, Live shows, Studio screens and video walls, live production broadcasts and other places where video/audio content have to be displayed. It is designed to meet the high reliability requirements of broadcast playout.

Company contact: +603-79543400/+019-3613100
Website: www.playbox.tv
Email: sales.asia@playbox.tv



Booth # 9 MEASAT

MEASAT is a premium supplier of satellite communication services to leading international broadcasters, DTH platforms and telecom operators. With capacity across five satellites, the company provides satellite services to over 150 countries representing 80% of the world's population across Asia, Middle East, Africa, Europe and Australia.

The MEASAT fleet includes the state-of-the-art MEASAT-3 and MEASAT-3a satellites at 91.5°E which support Asia's premium DTH and video distribution neighbourhood, MEASAT-2 at 148.0°E, MEASAT-5 at 119.5°E and AFRICASAT-1a at 46.0°E. The MEASAT fleet at 91.5°E will be further strengthened with the addition of MEASAT-3b in Q1 2014 and MEASAT-3c in H2 2015.

For more information, please visit www.measat.com.



Booth # 10 NAUTEL

Nautel offers the industry's broadest portfolio of digital/analog solid-state transmitters including 1kW to 2000kW AM and 300W to 88kW FM models. Visit Nautel to learn about award winning solutions including:

Digital Radio: Nautel's comprehensive solutions for DRM and HD Radio offer end-to-end digital radio capability.

Award-winning FM solutions: Nautel's NV Series has made radio industry history with the first 44kW solid-state, single-cabinet transmitter. The VS Series from Nautel features industry first innovations such as IP audio I/O, Livewire™ support and Nautel's Advanced User Interface (AUI).

Industry-leading Medium Wave Transmitters: Nautel is redefining the high power market with cool-operating, compact, cost-effective solutions from 1kW to over 2000kW.

www.nautel.com
info@nautel.com



Booth # 11 LS telcom

LS telcom is the leading supplier of frequency planning, coordination and optimisation solutions for digital and analogue broadcast networks.

Its portfolio includes network planning software, consulting, engineering and measurement services. Training on technologies, standards, and regulations as well as transmitter container installations complete its area of expertise. LS telcom now also provides an unprecedented service; it carries out very cost-effective antenna measurements via remote controlled miniature helicopter.

Its cutting-edge broadcast planning software CHIRplus_BC for TV, DVB-T (& T2 & T2-lite), ISDB-T, ATSC, DTMB, CMMB, FM, LF/MF DAB(+), DRM(+) was the first of its kind on the market for these technologies.

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web: www.LStelcom.com



Booth # 12 I-Media Broadcasting Solutions Sdn Bhd (I-Media)

I-Media Broadcasting Solutions Sdn Bhd (I-Media) was established in May 1999.

We provide integrated systems and solutions for the IT and broadcasting industry. The company also provides technical maintenance and support systems, solutions and application software related to content management, multimedia, data, broadcasting, ERP and office automations.

I-Media works closely with collaborative partners BERNAMA Systems & Solutions Advisor Sdn Bhd (BESSAR) and High Definition Technology Sdn Bhd (High Def) to offer the following products and services to its customers:

- i. Network and Technical Services
- ii. Broadcasting Equipment & Software
- iii. TV/Radio Transmitters
- iv. Content Management System/Content Syndications Systems

I-Media is a company driven to provide customers with complete solutions to their entire content, software, hardware and private network needs. The company's customer base includes government organisations, private companies and individuals.

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Fax: +603-42705883



Booth # 13 Content + Technology Asia

For over ten years Content+Technology magazine has been serving content production and delivery professionals throughout Australia, New Zealand, Southeast Asia and beyond. In 2012, to better serve those readers, we established two separate editions - Asia and Australia/New Zealand.

C+T has always acknowledged the interconnected nature of the Asia Pacific - in technology dissemination, project collaboration and, especially, in the flow of knowledge and people. C+T Asia (Circ. 3250) is distributed from Singapore, while C+T ANZ (Circ.3770) is produced from Sydney. Both are supported by our weekly C+Tmail eNewsletter.

Phil Sandberg, Publisher
Tel: +61 (0)414 671 811
Email: papers@broadcastpapers.com
www.content-technology.com



Booth # 14 FRONT PORCH DIGITAL

Front Porch Digital is the global leader in solutions for managing large and complex tapeless workflows to Migrate, Manage and Market your media, on site or in the Cloud.

- Migrate SAMMArobot and SAMMASolo products automate the migration of videotapes into a digital environment.
- Manage DIVArchive Content Storage Management and DIVAdirector Media Asset Management products manage assets reliably and efficiently on distributed digital storage infrastructures.
- Market DIVApublish provides complete online distribution and scheduling of assets.
- Cloud LYNX is the industry's first enterprise-scale cloud implementation of Content Storage Management (CSM) as a Service (CSMaaS) allowing organizations to replace capital-intensive equipment with private or hybrid cloud services.

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KATHREIN
Antennen · Electronic

Booth # 15 KATHREIN

KATHREIN-Werke KG is an international enterprise active in antenna and communications technology. For more than 90 years the group of companies has been developing, producing and marketing a wide range of antenna systems and signal processing products. Always being one step ahead in technology has ensured that Kathrein is among the leading companies in the world market. The Kathrein Group is active in the following product ranges:

- Radio and TV broadcast antennas, filters and combiners
- FM, TV, DAB, DAB+, DMB, DVB-T, DVB-T2, DTV, and DVB-H antenna systems · CATV systems and signal processing equipment
- Broadband communication systems, HFC nets and headends
- IPTV Solutions
- Signal meters and test equipment
- Mobile communication antennas and reception systems
- Combiners and amplifiers for mobile communication base stations
- Car antennas and electronics
- RFID systems

Offering over 4,500 different products covering many different fields of telecommunication technology, Kathrein is one of the largest and oldest antenna manufacturers world-wide. One of our basic principles is to constantly look for perfect solutions to all our customers' requirements, assisted through our traditional Quality Assurance System which is certified according to DIN EN ISO 9001/14001.

KATHREIN-Werke KG
Product Division Broadcast Antenna Systems
P.O. Box 100 444, 83004 Rosenheim
Phone: +49 8031 184-958 Fax: +49 8031 184-495
E-Mail: broadcast@kathrein.de Internet: http://www.kathrein.de



Booth # 16 & 17 ORBAN

Quality engineered in the USA and manufactured to the highest standards in Germany.

Orban with its world renowned OPTIMOD is a leading manufacturer of Television Loudness Controllers and AM, FM, Streaming Audio Processors.

Our engineering team is headed by the companies founder Bob Orban.

Since 2009 the manufacturing for our worldwide sales, and technical support, is under the supervision of Orban Europe GmbH in Germany.

Orban introduced the first FM Audio Processor in 1975. In 1981 we introduced the very first TV Loudness Controller the OPTIMOD TV 8180A of which we sold thousands to Broadcasters around the globe.

From the BBC to CNN many Broadcasters rely on the OPTIMOD to ensure that their audio quality is perfect, their levels under control with no artifacts.

At Orban we are proud to have been successfully engineering and manufacturing Loudness Controllers and FM Processors for more than 40 years in a market which is constantly evolving.

Orban Europe GmbH
Monreposstrasse 55
D 71634 Ludwigsburg
Germany
T: 49 7141 22660
E: plee@orban.com
Website: www.orban.com



Booth # 18 & 19 Light Way Electronics & Systems Sdn Bhd

Light Way is a Radio (FM, SW, MW) and TV (Analog, Digital, DAB+) Systems Integrator in Malaysia. We not only supply Equipment but also Install, Test and Commission and maintain the equipment to peak perfection at the request of the customer. We are the first Systems Integrator in Malaysia.

Light Way has successfully Supplied, Installed, Tested and Commissioned numerous Projects in Malaysia, for RTM (including Sabah & Sarawak), TV3, NTV7, Telekom Malaysia Bhd, Suria FM and Star Rfm Sdn Bhd, as well as Internationally, in Sri Lanka, Ghana, Africa, Papua New Guinea and Philippines. This has been possible with the collaboration with several internationally reputable equipment manufacturers.



Booth # 20 WOHLER Technologies

Wohler has been delivering forward-looking broadcast solutions since the company's 1983 introduction of the industry's first in-rack audio, video, and data monitoring category. Working continually to address new challenges and opportunities in broadcast, Wohler has launched a host of award-winning signal management and monitoring solutions for video, audio, captioning, MPEG, and loudness applications, as well as solutions for ancillary data management. Today, the company continues its pioneering work with the Wohler RadiantGrid Intelligent Media Transformation Platform, which facilitates efficient file-based content creation and distribution, quality control, and faster-than-real-time transcoding and standards conversion.

Andy Stanton
Sales Director APAC, Wohler
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Booth # 21 Asia-Pacific Broadcasting

News You Can Use
Editec International is the publisher of Asia-Pacific Broadcasting (APB), a monthly publication that has been the voice of the broadcast and multimedia industry for more than 25 years. APB brings to decision-makers and professionals in the field, news of groundbreaking events, the hottest developments and the latest in technology trends, as well as interviews with key industry players.

In 2002, APB established DigiWorkz, the Asia-Pacific Broadcast Training Centre based in Singapore's Ngee Ann Polytechnic, to provide broadcasters from around the region with short, practical broadcast engineering and production courses. DigiWorkz also develops customised training for broadcasters in the region. It has conducted in-house courses for broadcasters in Hong Kong, Malaysia and the Philippines.

61 Tai Seng Avenue
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Singapore 534167

Website: www.apb-news.com
Contact: info@apb-news.com



Booth # 24 Asia-Pacific Broadcasting Union

About the ABU

The Asia-Pacific Broadcasting Union (ABU) is a non-profit, non-governmental, professional association of broadcasting organisations, formed in 1964 to facilitate the development of broadcasting in the Asia-Pacific region. It provides a forum for promoting the collective interests of television and radio broadcasters, and engages in activities to encourage regional and international cooperation between broadcasters. It currently has over 260 members in 60 countries, with its broadcaster members reaching a potential audience of about 3 billion people. The ABU is the third largest of the world's eight broadcasting unions, but covers the largest geographic area of the world. For more information, please visit www.abu.org.my

Booth # 22



Booth # 25 & 26 GENCOM TECHNOLOGY

Gencom Technology is a leading global System Integration company with over 40 years experience in the broadcast and new media markets. The company offers world class integration services; Consultation/ Budgeting, Engineering Design, Project Management, Installation Services, Logistics, Commissioning, Documentation Training and on-going Support. Areas of expertise are studio and control rooms, complete television stations, play-out centre, outside broadcast & SGN vehicles, ITPV solutions, head ends for cable and satellite, linking systems and telecommunications. Gencom's head office is in Auckland New Zealand. Regional offices in Wellington, Sydney, Singapore and Johannesburg provide design and support services globally. The company has a design centre and factory in Auckland with a similar factory in Singapore providing end to end technology solutions.

Visit Gencom on booths 25 & 26 or email info@gencom.com to set up an appointment during the show.

Booth # 23



Booth # 27 TEKTRONIX

About Tektronix For more than sixty-five years, engineers have turned to Tektronix for test, measurement and monitoring solutions to solve design challenges, improve productivity and dramatically reduce time to market. Tektronix is a leading supplier of test equipment for engineers focused on electronic design, manufacturing, and advanced technology development. Headquartered in Beaverton, Oregon, Tektronix serves customers worldwide and offers award-winning service and support. Stay on the leading edge at www.tektronix.com.



Booth # 28 CALREC AUDIO

Since 1971 Calrec Audio has manufactured high quality production and live to air audio mixing consoles exclusively for live broadcast. Calrec understands what is most important to modern broadcast facilities, and has constantly strived to ensure our customers are kept one step ahead of the changing needs of the broadcast environment.

Its reputation for build quality, long-term reliability and excellent audio performance has made its consoles the benchmark for broadcast facilities across the world.

Calrec's expertise, experience and technology is trusted and endorsed by the world's most successful broadcasters. For putting sound in the picture, broadcasters trust in Calrec.

Contact details:

Graham Murray - Regional Sales Director - APAC
Graham.murray@dmh-global.com



Booth # 29 BERNAMA Systems & Solutions Advisor Sdn. Bhd.

BERNAMA Systems & Solutions Advisor Sdn. Bhd. (BESSAR) is a leader in providing software and integrated systems and solutions to the IT and Broadcast industry. BESSAR has serviced over 2000 customers in more than 5 countries. In the essence, BESSAR as a one-stop source for content related technology right from content creations, software development, systems integrations, transmissions and distributions vital content or data to end-users via state-of-the-art software and telecommunication networks. BESSAR also functions as a provider of technical maintenance and support systems, solutions and application software related to multimedia, data, broadcasting, ERP and office automations.

BESSAR today is well represented in 12 branch offices strategically located throughout Malaysia. BESSAR also have its branch offices in Singapore and Jakarta, Indonesia.

Contact Details:

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Tel: 03-89963500
Fax: 03-89963536
Email: business@bessar.com.my



Booth # 30 Thomson Broadcast

Thomson Broadcast has pioneered many developments that have shaped the industry, leading innovation in solid-state technology, Digital Adaptive Pre-correction (DAP), Digital Radio Mondiale (DRM), winning multiple Emmy® Awards and gaining more than 50 patents in technologies that have become fundamental to broadcasting.

THOMSON Broadcast is building on this great heritage with a market-leading portfolio of transmission products for terrestrial television, radio broadcasting, and state-of-the-art products for scientific applications, combined with world-class systems integration services. With more than 50,000 active transmission systems deployed worldwide, THOMSON Broadcast continues to forge technologies for the future.

As part of the **Arelis Group**, a key European provider of microwave electronics, energy conversion and testing with complete capabilities ranging from R&D to production, THOMSON Broadcast reinforces its internal manufacturing capacities and now has an excellent platform for growth and development as a world-leading manufacturer of television and radio transmitters

Address:

THOMSON Broadcast
1 rue de l'Hautil
78700 Conflans-Ste-Honorine-France.
www.thomson-broadcast.com
Contact: jean-pierre.rutteau@thomson-broadcast.com



Booth # 31 Radio Frequency Systems

RFS is a global designer and manufacturer of cable and antenna systems plus active and passive RF conditioning modules, providing total-package solutions for wireless infrastructure RFS serves OEMs, distributors, system integrators, operators and installers in the broadcast, wireless communications, land-mobile and microwave market sectors.

We provide RF Systems solutions for cell-based mobile communications, in-building, in-tunnels, television & radio, radio-link networks, LMR/PMR and HF & defence.

RFS telephone +61397518400
Ashley Bicknell, Sales Engineer +61413200680
www.rfsworld.com



Booth # 32 Canara Lighting

Canara Lighting is the leading manufacturer of broadcasting studio lighting system. Fully integrated manufacturing facility is located at Mangalore, India. They offer end to end solution. Their products and services consist of consultancy, design, manufacturing, research & development, installation, commissioning and training and after sales service. Product range includes LED Fresnel, Panel, PAR, Wash, Remote Phosphor Panel, ENG Kit, Cyclorama, Halogen, CFL and HMI lighting fixtures, grid/rigging equipment, fixed and motorised, cable management system, dimmers, consoles and accessories. Their lighting system is being used by leading TV channels all over the world. These products are world class at competitive prices and CE certified.

Contact Person: Mr. Ajeet Khare
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Email: ajeet@canaralighting.com
Website: www.canaralighting.com



transmittingtogether

Booth # 33 ELTI

ELTI draws on its 60 years' experience in providing broadcasting ELTI

ELTI draws on its 60 years' experience in providing broadcasting products and network solutions with complete RF digital DVB-T/H, DVB-T2 and analogue FM and TV products:

- Transmitters and repeaters (air or liquid cooled),
- Redundancy systems (N+1, dual-drive),
- Gap-fillers,
- Filters and combiners,
- Patch panels and
- Antenna systems.

Our equipment is currently in operation in more than 55 countries all over the world and we were one of the first suppliers for digital broadcasting equipment. Our primary advantages are high quality and high level of innovation. To provide this, one quarter of our employees are dedicated to research and development. We specially designed also Doherty type amplifiers in order to lift efficiency of our devices to an excellent level.

Knowledge we have, technological innovations and commitment to our customers brings us to further development of our products in order to satisfy needs of our customers.

transmittingtogether with Elti

ELTI d.o.o.
Panonska cesta 23, SI-9250 Gornja Radgona, Slovenia, Europe
Phone: +386 2 564 32 00
Fax: +386 2 564 32 22
e-mail: info@elti.com
web: http://www.elti.com



Booth # 33 & 34 NERA

Established in 1981, Nera has played a prominent role in the development of Malaysia's telecommunications and information technology infrastructure.

- NERA aspires to be your local Technology Partner
 - SI for full DVB-T2 turnkey system delivery
 - Equipment supplier
 - Local sub-contractor offering engineering services
- NERA is able to competently deliver Sub-systems
 - Headend System
 - Video Transport Linking System
 - Digital RF Transmitters
 - IP Digital Microwave Radio for distribution links
 - Digital T2 Set Top Boxes
- RF Digital Gap Filler / Repeater System (Outdoor & Indoor)
 - Digital Gap Filler
- In building Transmission System
 - Single Platform to Support Digital TV UHF Band & 2G/3G/4G(LTE) Cellular Mobile Reception

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Fax: +6 03 5569 0266



Booth # 36 Spinner GmbH

SPINNER is a global leader in state-of-the-art RF-Systems and components for Broadcasting, with more than 65 years of experience. Our portfolio includes all passive components required between transmitter and antenna. SPINNER leverages its know-how to deliver tailored and innovative RF system designs that meet the requirements of the most demanding projects.

Our filters, combiners, patch panels, dummy loads and switches have become the standard for many transmitter manufacturers and operators in Europe, Asia, North and South America and the Far East. SPINNER is also well-known for the delivery of solutions for mobile communication, radar & satellites and industry & sciences.

SPINNER GmbH
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E-Mail: ads@spinner-group.com
Homepage: www.spinner-group.com
Facebook: www.facebook.com/SPINNERGmbH
Twitter: twitter.com/spinnergmbh



Booth # 37 & 38 IDEAL SYSTEMS

Ideal Systems, Asia's largest broadcast systems integrator, is a multinational organization providing innovative media and design solutions to all sectors, including broadcasting, telecoms, and enterprise. Ideal Systems provides services that range from consultancy and conceptualization to complete design, build, and after-support of broadcast systems and studios.

Celebrating its 25th anniversary this year, Ideal Systems has grown from its head office in Hong Kong to a Pan-Asia-Pacific organization with 10 regional offices in eight countries. The company employs almost 200 staff members in its offices in Hong Kong, China, Taiwan, India, Japan, Singapore, Thailand, and soon Malaysia.

www.idealsys.com



Booth # 39 ENENSYS

ENENSYS Technologies has many years of experience in the design and manufacturing of Digital TV transmission systems. ENENSYS is the world leader in DVB-T2 technology and the product range covers Broadcast Network Equipment for Digital Terrestrial TV, Mobile TV and TSolP Distribution, and also Test & Monitoring solutions. Customers range from Broadcast & Network Operators, Chipset Vendors to Receivers Manufacturers.

ENENSYS is headquartered in Rennes, France, in the heart of the European Digital Broadcast Cluster.

w: www.enensys.com
e: contact@enensys.com
p: +33 1 70 72 51 70



Booth # 40 & 43 MAHAJAK & STUDER

The MAHAJAK Group (Malaysia, Thailand and Singapore) is the renowned market leader in professional audio & broadcast production system in the region, specializing in consultation, design, supply and installation of broadcast, AV and live sound industries for more than 50 years. We are the authorized sole distributor for HARMAN PROFESSIONAL in Thailand, Malaysia and Singapore and we provide one-stop solution for all the audio needs in the audio industries.

STUDER designs and manufactures the most advanced digital Audio Consoles for TV and Radio broadcasters world-wide. Highly skilled workforce in Zurich and London offering bespoke development, networking, service, support and training. Over 1Billion people are listening to STUDER consoles at any times.

HARMAN PROFESSIONAL is a US based conglomerate and is probably the world's largest and famous professional audio company. Harman Professional companies include Studer®, Soundcraft®, AKG Acoustics®, BSS Audio®, Crown International®, dbx Professional®, JBL Professional®, Lexicon Pro®, HiQnet®. These companies design, manufacture and market leading professional audio products for recording and broadcast, musicians, cinema, touring sound, commercial sound and contracting applications.

Contact:
TEL: + 65 6848 4888 TEL: +662-2560020-9
TEL: +603 80608676



Booth # 41 Appear TV

Appear TV is dedicated to designing and producing world class equipment for the delivery of professional video services. Appear TV works closely with customers to ensure that it is at the forefront of technology and at the same time offers user friendly equipment. Appear TV has a wide range of input and output modules that can be installed in the unique Chassis platform. On the ABU event, Appear TV will demonstrate DVB-S2 reception, Descrambling, Scrambling, T2 gateway and T2 modulation. We will also be demonstrating Transcoding and Encoding.

Visiting Address
Appear TV AS, Lilleakerveien 2b, 0283 Oslo, Norway

Contact
Tel: +47 24 11 90 20 Fax: +47 24 11 90 21
Email: info@appeartv.com



Booth # 42 Dimetis GmbH

About Dimetis Based in Dietzenbach, Germany, Dimetis is passionate about an amazing customer experience. Their standards-based Broadcast OSS solutions are beautifully designed, easy to use, and highly scalable.

- **BOSS LINK Manager®** dynamically configures, schedules, monitors and controls video/audio/data connections across any network.
- **BOSS FILE TRANSFER Manager®** moves large media files over wide area networks faster, more reliably and securely than conventional methods.
- **BOSS BROADCAST Manager®** elegantly configures and monitors devices within a broadcast facility.

Dimetis software products are used by many of the world's largest broadcasters, telecommunication providers, and media carriers. For more information, please visit www.dimetis.com.

Contact:

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Phone: +49 6074 3010 411
Fax: +49 6074 3010 301



Booth # 44 Radio Television Malaysia

RTM - the pioneer Free-To-Air broadcasting station, leads the way in Digital Terrestrial Television Broadcasting (DTTB), aligned with Malaysia's National Digitalisation drive. Hence, RTM will be technologically ready to launch SDTV and HDTV channels in 2014, in-line with the Television Digitalization Master Plan.

Armed with the mission to disseminate current issues accurately and precisely from local to global, RTM makes the concerted effort to deliver information intensively and extensively through its multiplatform transmission via 33 radio stations, 3 television channels (TV1, TV2 & TVi) besides webcasting and mobile services.

Having multichannel and multilingual services, four prime news bulletin in Malay, English, Mandarin and Tamil languages are aired daily in tandem with the tagline - RTM Is Every Where (Di Mana Jua).

Established since 1946 as the premier broadcasting organisation, RTM broadcast ratio is 30% information on government policies and development programmes while 70% is on entertainment.

As the government's official media, RTM is entrusted with the responsibility in making the 1Malaysia concept dubbed, "People First, Performance Now", a success.

Being a founding and active member of ABU, RTM collaborates with worldwide broadcasting stations in co-production, programme exchanges and human capital development.



Booth # 45 AXON

Axon is one of a rare breed of technology pioneering companies. Over 25 years, from its base in the Netherlands, it has grown to become a global leader in broadcast network infrastructure products and solutions. Axon brings to market the widest and most advanced range of ultra compact modular systems and equipment for the processing of audio and video signals, amongst others: AVB (Audio Video Bridging) , Master control, Routers, Multiviewers, Loudness control, Modular SPG, MADI, Dolby Digital Plus, Long time video delay, Fiber, Integrity checking, Legalization, Compliance recording and Facility control and monitoring.

As a result, Axon continues to provide its customers with the capability to differentiate their products and services. For many, Axon is the difference. We understand what makes our customers' businesses tick and we can provide solutions that are not just fit for purpose but which are uniquely adapted to the application - from live production to play-out and master control.

Axon is active and growing on every continent. It has regional offices in Brazil, China (Beijing and Shanghai), Germany, Russia, UAE (Dubai), Singapore, UK and USA. Also, it has an extensive network of specialist systems integrators that work with many of the world's leading broadcasters.

Contact Southeast Asia:

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Email: info-sg@axon.tv

Contact Asia HQ:

Mr Liming Fu
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No 1 Building Beijing
Image
No 115, Fucheng Road,
Haidian District,
100036 Beijing, China
Phone: +86 10 8814 4199
Email: info-cn@axon.tv



Booth # 46 Professional Solutions Company (PSAP), Sony Corporation of Hong Kong Ltd.

Sony is a leading manufacturer of audio, video, game, communications, key device and information technology products for the consumer and professional markets. Sony's Broadcast & Content Creation Solutions Asia Pacific business is established under Professional Solutions Company (PSAP), a division company under Sony Corporation of Hong Kong Ltd. It markets Sony's leading broadcast systems, professional video and audio products in Asia other than Japan. It also provides customized business solutions, comprehensive technical support and after-sales service to help Sony's customers stay at the forefront of their business.

URL: pro.sony-asia.com
Contact us: pro.info@ap.sony.com



Booth # 47 & 50 STAGETEC

Salzbrenner StageteC Mediagroup Asia office which is located at Cyberjaya, Malaysia is centrally located in the East Asia region. This office is the central distribution, service and support for the entire Asian region for Salzbrenner StageteC Mediagroup. The office has been established since 2004 has been earmarked to market and distribute all Mediagroup product ranges in the Asia region. Since 2004, Salzbrenner StageteC Mediagroup Asia has been successfully making a brand name among all the broadcasters and live sound organizations in the Asian region. After years of establishing the StageteC brand, StageteC Asia has begun to move from distributing

its own product to work exclusively with partner and complement products to bring the best solution to the end users. Since 2009, we have been closely working with exclusive partner such as DHD, Junger Audio, Zenon Media, Prodys and recently Sonifex, ADAM Audio and Merging Technologies to penetrate into the East Asia market. Stagetec Asia has not only involves in sales and marketing of the partner products but we also provide the full service, support and spare parts to the end-users. Stagetec Asia has been recognized and respected in true audio solution provider as well as efficient service and support to all customers around Asia.

Company name:
Salzbrenner Stagetec Mediagroup Sdn Bhd (Stagetec Asia)
Address: Level G-3A, SME 3, Persiaran APEC, Cyber 8,
Cyberjaya 63000, Selangor, Malaysia.
Phone: +603-8318 2820 www.stagetecasia.com

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Booth # 48



Booth # 49 CANON SINGAPORE Pte Ltd

Canon Singapore Pte Ltd is the headquarters for South & Southeast Asia driving sales, marketing & service strategies. The company leads 13 countries including Thailand, Indonesia, Bangladesh and etc.

A recognized leader in imaging technology, Canon's professional still & motion acquisition products are engineered to satisfy users from major broadcasters, directors, producers and DoPs in the television and motion film industry globally.

1 HarbourFront Avenue
#04-01 Keppel Bay Tower
Singapore 098632
T : 65 6799 9999 F : 65 6221 7577
Email : professional_imaging@canon.com.sg
Website : www.canon-asia.com

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Booth # 51 WASP3D

WASP3D offers cutting-edge solutions in the area of content display and presentation for television broadcasters globally. WASP3D's innovative solutions include workflow based On-air graphics solution; Interactive presentation, WASPi Mimosa; Virtual Set.

With over 500 installations and presence in 40+ countries, WASP3D has helped several broadcasters to package and present their content to improve the viewer experience. Some of our customers include: RTM, Astro Awani, CNBCe, MBC, MTN, Televisa, Ten Sports, TV9, YTN.

WASP3D employs more than 100 highly-qualified professionals and is headquartered in New Delhi (Noida), India and has offices in USA, UAE, South Africa, Singapore, Mexico and Brazil.

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Booth # 52 LYNX Technik Pte Ltd



Booth # 53

Booth # 55 **APT Satellite Company Limited**

APT Satellite Company Limited is a wholly owned subsidiary of APT Satellite Holdings Limited, a listed company on The Stock Exchange of Hong Kong Limited (Stock Code: 1045), collectively known as APT Group.

APT Group commenced its operation in 1992. It currently owns five in-orbit satellites, namely, APSTAR 1, APSTAR 1A, APSTAR 5, APSTAR 6 and APSTAR 7 (APSTAR Satellite System) covering regions in Asia, Middle East, Europe, Africa, and Australia, approximately 75% of the World's population and providing excellent quality "one-stop-shop" services for transponder, satellite telecommunications, and satellite TV broadcasting and transmission to the top-notch broadcasters and telecommunication customers.

aptmk@apstar.com
www.apstar.com
Tel:+852 2600 2100
22 Dai Kwai Street,
Taipo Industrial Estate,
Taipo, N.T.,
Hong Kong

Booth # 54



Booth # 56 **Whiteways Systems Pte Ltd**

'Whiteways' are Technology partners for broadcasters and professional video production/post production house. At Whiteways we are focused on providing an end to end solution to their broadcast customers. From planning to design to supply, integration, testing and commissioning and training. White ways takes responsibility from beginning to hand over.

Whiteways has 4 principal activities:

1. Equipment sales
2. System integration
3. Training
4. Warranty and after sales support

Whiteways can provide solutions for:

- Studios
- Post production
- News production
- Master control Room
- Satellite uplink system
- Media Asset Management
- Business management systems
- Graphics systems

And other similar systems.



Booth # 57 & 58 SKYLINE COMMUNICATIONS

Skyline Communications is the global leading supplier of multi-vendor network management solutions for the HFC broadband, satellite, IPTV and broadcast industry. Our flagship DataMiner network management platform, which received various prestigious awards, enables end-to-end integration of the most complex technical ecosystems and has been deployed by leading operators around the world. DataMiner is today already integrated with over 3500 devices and systems from more than 400 key industry suppliers, and offers a plethora of functionality.

Skyline Communications
Zandstraat 14 | 8870 Izegem | Belgium Tel. +32 51 31 35 69 |
Fax +32 51 31 01 29 www.skyline.be Contact : Ben Vandenberghe/
Sales & Marketing Director



Booth # 59 AVIINDOS (M) Sdn Bhd

Founded in 2010, Aviindos (M) Sdn Bhd specializes in delivering products and solutions in the field of test and measurement, with wide range of services that include customization and system integration apart from the company's in house training and repair services. With over 10 years of combined experience and its business representation of technological partners from the European and North American continent, Aviindos bring to the industry the latest technological advancement to suit the various industries' need, from Wireless, Satellite/Broadcast, Passive Devices, IP/VOIP/TDM, Electronic test & infrastructure solutions to Noise Sources.

www.aviindos.com



Booth # 60 VILLAGE ISLAND

Village Island, established in Japan in 2005 with a regional sales office based in Singapore is dedicated to deliver state-of-the-art solutions to every sector of the broadcast industry. Our team of experienced engineers strives to identify customer needs and respond through the use of top quality products from leading manufacturers such as DekTec and Sencore.

Our solutions include standalone units ready to be integrated into existing workflows, or full systems combined with our in-house multiplexing platform, VillageFlow. Utilizing this powerful technology, we are able to provide a unique, state-of-the-art HEVC decoder providing full frame 4k 60p content, which we can successfully transport over a single fiber link using the Barn Find platform, the BarnOne.

www.village-island.com



Booth # 61 NEVION

Neveion is a leader in media transport from the camera to the home. Through long-term strategic relationships with partners and customers, Neveion delivers content for major sporting and live TV events worldwide. Some of the world's largest media networks are built on Neveion technologies.

Neveion fully manages all network types - from legacy infrastructure upgrades to entirely new digital systems - with intelligence, automation and security built-in, helping customers monetize content, save resources, and open doors to new revenue streams.

Following its merger with T-VIPS, Neveion now offers advanced DVB-T2 solutions, enabling terrestrial operators to launch powerful new services.

Hans Hasselbach
SVP Sales APAC & ME
Espen Myhre
Sales Director
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T: +65 6872 9361
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#02-05 The Franklin
Singapore 118223



Booth # 62 MSA Focus International Limited

MSA Focus International Limited a world-leading developer of broadcast management systems, with solutions successfully installed at client sites in at least 30 countries, across four continents, since 1988. Worldwide market presence has led to the establishment of a global support network with offices in Europe, America and Asia. As part of MSA Inc, MSA Focus is unique among BMS suppliers. MSA, which celebrates its 50th anniversary this year, services several market sectors, specializing in the development of common principles of best practice in data management and analysis. For 50 years it has remained true to its research-driven roots, while consistently nurturing a spirit of innovation. This has provided MSA Focus the ability to concentrate on developing leading-edge applications for the broadcasting sector. Experienced, international teams of broadcast analysts, integration specialists and developers leverage cutting-edge technologies and modern development tools for the development, implementation and support of our solutions. Integration to systems from complementary suppliers remains an important factor, but the main strategy for MSA Focus is delivering business process solutions to improve the productivity and profitability of our clients. This is achieved by specialization in a single class of product while drawing on expertise within MSA.

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47301 PJ, Selangor
Tel: 603 7806 1358
Email: marketing@msafocus.com
Website: www.msafocus.com



Booth # 63 CONAX

Conax provides future-oriented security solutions empowering multi-screen digital TV content providers to deliver premium content over the combined Over-The-Top scenario of broadcast, broadband and connected devices securely and eliminate potential revenue threats. Conax Contego™ portfolio of solutions furnish content providers, cable, satellite, IP, mobile and terrestrial operators with solutions that offer a competitive advantage - reduced hardware costs, easy deployment and upgrade. Conax Contego™ bundles 25 years of pioneering experience into one unique solution to guide operators in navigating and realizing new business models. Conax technology secures content for operators representing 140 million pay TV consumers in over 85 countries.

ABU DIGITAL BROADCASTING SYMPOSIUM 2014

EMBRACING TECHNOLOGICAL INNOVATIONS

The present media landscape is changing rapidly in multiple perspectives. Technological changes have given rise to new challenges for broadcasters especially in their investment plans, in meeting the audiences' growing demands of delivering the content beyond traditional platforms, and in adapting towards the fast evolving transmission technology.

With better resolution in pictures, better quality in sound, better devices, and savings in operations at every point in the broadcast value chain, stakeholders are required to be proactive in responding to market trends and demands.

The key to doing well, to sustain, and to be relevant in the industry, requires stakeholders to be innovative and be adaptive.

This year ABU's Digital Broadcasting Symposium will address how broadcasters could embrace latest developments in technology that can be used to survive and thrive in this dynamic digital media environment. The various sessions of the Symposium will address issues relating to the fragmented media market, new delivery mechanisms, quality of experience, and second-generation transmission technologies among others. There will also be panel discussions on multi-platform delivery and physical layer processing advancements.

Embracing technological innovations can help broadcasters in achieving spectrum, production and power efficiencies that could make a difference in performance of a media organisation. Therefore, we look forward to your participation and fruitful discussions during the Symposium as stakeholders of the media industry.

Let's collaborate to achieve success.

SAVE THE DATES
4-7 MARCH
KUALA LUMPUR

CONTACT: DR AMAL PUNCHIHEWA
amal@abu.org.my
WWW.ABU.ORG.MY/DBSYMPOSIUM



ABU TECHNICAL AWARDS 2013

The ABU 2013 Broadcast Engineering Excellence Award was presented to Mr Lee Jong Ok, Executive Managing Director, Technology, Korean Broadcasting System, KBS-Korea. In his earlier position as Executive Director of the Broadcast Facility Department, he successfully completed the transition of KBS from analogue to digital, finalising the 100 percent digitalisation of its nationwide production and transmission systems. Mr Lee is now



playing a major role in developing new technology for UHDTV as a member of Korea's next generation broadcasting technology committee. In the field of international cooperation, Mr Lee has overseen the recycling of KBS broadcasting systems, providing an analogue OB van and production system for ABU members.



2000 until 2012, he played a major part in MediaCorp's technological development, including HDTV production, a file-based news production system and 3D TV production. Mr Yeo was a leader of the ABU Technical Committee and Technical Bureau, serving as Vice-Chairman from 2006 to 2010 and as Chairman from 2010 to 2012. In 2012, he was appointed to oversee the infrastructure development for MediaCorp's new campus at Mediapolis which is scheduled to be ready in 2015.



The ABU Green Broadcast Engineering Awards for 2013 was presented to joint winners, Nippon Hoso Kyokai (Japan Broadcasting Corporation) and to Digital Video Broadcasting Project (DVB).

05.20-23.2014
COEX, SEOUL

NHK won the award for establishing environmental protection as a basic philosophy and for its efforts to reduce carbon dioxide emissions. In addition to broadcasting programmes on environmental protection to raise awareness and influence the behavior of viewers on environmental issues, NHK seeks to employ environment-friendly operations. NHK has already brought about a large reduction in CO2 emissions through environment-friendly broadcast centres and the development of energy efficient equipment for broadcasting. This includes the use of wind and solar power in its transmitting facilities and programme production. In 2012, NHK achieved a 31,000-ton CO2 reduction compared with 2010.



Mr Myung Nam Kim representing Mr Lee Jong Ok receiving the award from Mr Tran Dung Trinh, Vice President of Vietnam Television

The 2013 ABU Engineering Industry Excellence Award was awarded to Mr Yeo Kim Pow, Senior Vice President, MediaCorp Singapore. Mr Yeo has served the broadcasting industry since 1979 and contributed a great deal to its development. From



Mr Seon-Woong Kim of KBS represented KOBAS and presented the award to Dr Yoshiaki Shishikui of NHK-Japan.



Dr Javad Mottaghi presented the award to Mr Yeo Kim Pow

DVB was selected for the ABU Green Broadcasting Award in recognition of DVB-T2 as a revolutionary technology that, compared with other terrestrial distribution technologies, has the highest potential to reduce





Mr Phil Laven accepted the award on behalf of DVB

transmission related greenhouse emissions. The tangible benefits that can accrue from the implementation of DVB-T2 by a broadcaster include the fact that transmitters can be reduced in power output. This results in significant reductions in capital expenditure and reduced operational costs resulting from much reduced energy consumption. The implementation of DVB-T2 also offers significant reduction of the carbon footprint. The ABU Green Broadcast Engineering Award is sponsored by KOBA.



Mr Chris Grey of Sony presented the award to Mr Mohotty

The inaugural ABU Developing Broadcasters' Excellence Award 2013 was awarded to Mr Tharaka Gajaba Mohotty, Director Engineering, MTV/MBC Channels (Pvt) Ltd. Mr Mohotty has provided long and outstanding service to Sri Lanka's broadcasting industry. He joined MTV in 2002 after working for more than 15 years at the national broadcaster, SLRC. At the time, MTV's facilities had been badly damaged by fire. He helped restore the MCR and studios, and was responsible for introducing innovative technologies across the whole spectrum of broadcast engineering. Mr Mohotty has brought operational savings to MTV through new services, proper resource management and the training of both technical and production staff.



The Best Article Technical Review Prize was awarded to Dr Ngo Thai Tri, Nguyen Chien Thang and Nguyen Manh Duc of Audio Visual Global JSC of Vietnam, AVG-Vietnam for the article titled SFN Interference (DVB-T2 Standard) AVG's Experiences. Dato' Abu Bakar presented the award to Dr Ngo Thai Tri.



The First Commended Article award was presented to Zungkon Yim, Sungho Jeon, Sanghun Kim, Sangjin Hahm and Byungsun Kim of Korean Broadcasting System for the article titled Experimental Broadcasting for 4K UHD TV via Terrestrial Network in Korea. Mr Masakazu Iwaki presented the award to Soo-Hyun Wang who represented KBS.



The Second Commended Article award was presented to Cemal GAZALCI, Doğuş ÇİFTELER, İbrahim, İzlem GÖZÜKELEŞ and Zeynep YENİARAS PAZAR of the Turkish Radio Television Corporation for the article titled e-Radio.



Mr Raşit BAŞTAŞ accepted the award on behalf of TRT.

We are 10

This year's Digital Broadcasting Symposium is the 10th in this series of annual events. And my, how we've grown.

The first symposium, in October 2005, was co-organised by the ABU and the Singapore-based trade publication Asia-Pacific Broadcasting (since 2006 the ABU has been the sole organiser). Under the theme 'Challenges for the Broadcasters', it offered guidance for broadcasters as they prepared to embark on the digital transition. It attracted a total of 245 participants.

Since then the number of participants has grown steadily despite fluctuations in the global economy. The biggest growth has come in the past three years. By 2011 the total number of participants had reached 724, including 369 symposium delegates. In 2012 the total was 1,018 and in 2013 it reached 1,027, including 561 symposium delegates.

Equally striking has been the rise in the number of exhibitors. In 2005, DBS attracted four exhibitors: a small number but a start. By 2008 this had risen to 20, and by 2011 to 29. In 2013 the number of exhibitors reached 40.

The content of the symposium has changed year by year, reflecting the rapid changes taking place in the broadcast industry. In 2005, many Asian broadcasters had not yet gone digital. Many more have now made the transition, or are in the process of doing so. And over the past decade, a whole new range of digital technologies has become available, offering exciting new opportunities – but also difficult decisions – for broadcasters. The role of the symposium remains to provide them with the information needed to help them make the right decisions and stay ahead of the curve.

The growth in participation reflects the relevance of the issues covered at the conference and workshops, and the strong interest in the products and services showcased at the exhibition.

The ABU deeply appreciates the support for the symposium shown by those who take part each year: the sponsors, the conference speakers, the exhibitors and the workshop organisers. The symposium's success is your success. We thank you and are delighted to welcome you to DBS 2014.



A Decade of DBS

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The ABU turns 50

The Asia-Pacific Broadcasting Union, the ABU, celebrates its 50th anniversary this year.



The ABU was established on 1 July 1964 as a non-profit, non-government, professional association to promote the development of broadcasting in the Asia-Pacific Union.

It began with member broadcasters in just 11 countries but by the time of its first General Assembly in November 1964, the number of members had risen to 26. Today it has more than 255 members in over 60 countries and regions. Its broadcaster members reach a potential audience of more than 3 billion people.

The ABU covers the largest geographic area of the world's eight broadcasting unions, encompassing a region that stretches from Turkey in the west to Samoa in the east and from Russia in the north to New Zealand in the south.

In addition to its broadcaster members, it has nearly 100 affiliate members, including satellite providers, telcos, production companies, equipment vendors and regulators.

The ABU works closely with international and regional organisations, and with its other partners, to exchange information on the latest developments in broadcasting and undertake activities to improve the skills and technologies of its members. The annual Digital Broadcasting Symposium is an essential part of this process.

The ABU's other activities include:

- * Asiavision, a daily satellite TV news exchange
- * co-production and exchange of programmes
- * negotiating rights for major sports events and organising coverage
- * technical, programming and management consultancy services
- * advising members on copyright and legal matters
- * rights-free content acquisition for developing countries
- * representing members in international forums
- * international frequency planning and coordination

The ABU Secretariat is located in Kuala Lumpur, Malaysia. It has over 30 staff, including broadcast professionals recruited from among the ABU members within the region. The chief executive of the Secretariat is the Secretary-General, who is appointed by the General Assembly.

For further information, please contact:

Dr Javad Mottaghi, Secretary-General, Asia-Pacific Broadcasting Union
P O Box 12287, 50772 Kuala Lumpur

Tel: +603 2282 3592 Fax: +603 2282 5292, Email: javad@abu.org.my

Website: www.abu.org.my

Announcing the next
ABU Digital Broadcasting Symposium
Kuala Lumpur
3-6 March 2015



ABU DIGITAL BROADCASTING SYMPOSIUM 2015

**ABU Technology Department's Assistance to
Members for the Implementation of Digital
Broadcasting Services in the Asia-Pacific Region**

• **Major Forums**

Digital broadcasting symposiums with implementation themes

• **Seminars, Workshops, Webinars**

Digital studio design workshops and technology seminars

• **Safeguarding Broadcasting Spectrum**

Representing the region on spectrum issues to ensure availability for digital services

• **Techno-economic Studies**

Analysis of individual country readiness for digital broadcasting services and developing implementation roadmaps

• **Technical Monographs**

Publication and distribution of technical monographs and reports on digital technology

• **Digital Implementation Trials**

Assisting members conduct trials for digital TV and Radio