

PRODUCTION TECHNOLOGY SEMINAR 2014

SPEAKER BIOGRAPHIES & SYNOPSES

Day 1 - Tuesday 24 June

INTRODUCTION



Hans Hoffmann
(EBU)

Dr. Hans Hoffmann is EBU Senior Manager and head of unit on media fundamentals and production technologies in the EBU Technology and Innovation department. He has been for 9 years with the Institut fuer Rundfunktechnik (IRT) as research staff in new Television production technologies department until moving to the EBU in 2000. In the EBU he has been leading many activities on media integration, production technologies, video codec evaluations, he established the EBU HDTV testing lab, and work with EBU Members on IT based digital workflows and recently UHDTV. He has been author of many EBU Technical documents; IEEE papers and is a standing speaker and contributor to international conferences.

Hans is a fellow of the SMPTE and a member of the SID and FKT and IEEE and was the SMPTE Engineering Vice President from 2011-13.

A year in networks - Overview of EBU work since NTS 2013



Félix Poulin
(EBU)

Félix is Senior Project Manager of multi-disciplinary work groups related to media production networks and storage at the EBU Technology and Innovation in Switzerland.

Félix has “grown up” in studios as his parents worked in TV production. His inherited curiosity for technology led him to a diploma in electrical engineering at the École Polytechnique de Montréal completed by a research project at the Massachusetts Institute of Technology. After graduating he began work as a wireless and digital audio expert on international productions, including at Cirque du Soleil. Prior to the EBU, he has worked for national broadcaster CBC/Radio-Canada as engineer in Radio-TV production technologies.

Félix is Member of the SMPTE and co-chair of the Joint EBU/SMPTE/VSF Task Force on Networked Media.

Back to the IT Studio

- The possibilities of the studio of tomorrow
- The latest developments
- The remaining steps the gets there

SESSION 1: NEW STUDIOS



Phil Tudor
(BBC)

Phil Tudor is a Principal Engineer at BBC Research & Development, London, U.K. He read Electrical and Information Sciences at Cambridge University. Phil's technical background includes video compression research, software engineering, digital television standardisation, and the development and standardisation of professional media file formats.

Phil leads a team of researchers looking at file-based workflows for production & archives, high-speed IP networking for live production, capturing richer production data sets, and the development of open standards.

He is a board member of the Advanced Media Workflow Association and vice-chair of the EBU Strategic Programme on Future Network and Storage Systems (FNS). Phil is a SMPTE fellow, a Chartered Engineer and a member of the IET.



Geoff Woolf
(BBC)

Geoff has worked in media technology for over 25 years encompassing the BBC, audio mixing console manufacturer Solid Sate Logic, commercial radio station Jazz FM, and a 5 year period as a Special Effects Engineer for London's Natural History Museum.

Geoff's achievements include project managing for SSL audio consoles for Abbey Road and Warner Brothers, and the BBC's project director for the transformation of the national radio stations to file-based production and playout. Since 2007 Geoff has worked on the BBC's technology development including migration to IP-based newsgathering (as discussed at NTS 2010) and more recently the centralisation and virtualisation of local radio broadcast technology.

Virtual Local Radio

- At the 2012 NTS conference the BBC reported on the ViLoR concept
- ViLoR posed the question – “could we build a radio station in the cloud?”
- Find out at NTS 2014 whether the BBC made this possible



François Legrand
(CBC / Radio-Canada)

François Legrand - Senior Project Manager, Information (News) - French ServicesCBC/Radio-Canada

François Legrand has been with CBC/Radio-Canada for more than a decade. He joined the Corporation as a system designer of broadcast systems and became an electronic engineer in 2005. During the course of his career, he has been involved in a plethora of projects and has had a variety of different responsibilities including, the preparation of drawings and specifications, the design of TV/Radio/Digital systems, as well as the financial management and supervision of large-scale projects. He has held the position of Operations Manager, Regions of Quebec, where he coordinated the technological development of Quebec's regional stations. Since the fall of 2012, he is a Senior Project Manager at CBC/Radio-Canada's French Services News Department

Changes in the Control Room

Automated production control systems (APCS) have existed with great success for almost 10 years at various regional sites within CBC/Radio-Canada. However, bringing this technology to high profile national news shows came with it's own set of technological and human challenges.

During this presentation you'll learn how the French Network of CBC/Radio-Canada makes use of APCS to:

Help control the costs news production without sacrificing on quality or flexibility.

- Do breaking news on our all news network without additional "coding" delays.
- Define modern, fast and efficient workflows allowing possibilities that weren't possible before.
- Automate delivery of news content to digital platforms.

Additional aspects that will be discussed during the presentation:

- How listening to your employees can lead to unexpected results (in the positive way) - the example of the triangular shaped control room.
- Why it isn't a good idea to simply replicate your manual workflows with an APCS.
- Why a good change management process is a key element for the success of major transformation projects.



Paul Calleja
(Eurovision)

Paul Calleja graduated from the Royal Melbourne Institute of Technology with a diploma of Audiovisual systems in 2003. Upon graduation, he worked for Sky Channel Australia as a master control engineer and in 2005 relocated to the UK. After briefly working on contracts with Ascent Media and Technicolor network services in systems engineering roles, Paul joined in 2006 Siemens Business Solutions working as a broadcast systems engineer at BBC television centre London. In 2008, he joined the EBU, designing and project managing many different technical projects, for both sports and news applications.

Low Bandwidth Remote Production

- Can we make a high quality multi camera remote production with an STM1?
- Is bandwidth really a barrier on deciding to make a remote production or not?

SESSION 2: TECHNO IN THE STUDIO



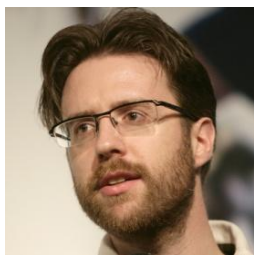
Sonja Langhans
(IRT)

Sonja Langhans graduated from the Technical University of Ilmenau in 2007 with an engineer's degree (Diplom) in Media Technology. Since then, she has been working at the Institut fuer Rundfunktechnik in Munich. As part of the department of Network Technologies, she conducts research in the fields of Audio over IP (AoIP/ACIP, AVB, AES67 etc) and network management.

In addition, she is chairwoman of the EBU ACIP2 (Audio Contribution over IP) Group that deals with audio over IP interoperability.

Jan Weigner
(Cinegy)

The Challenges of IP Production And how new Standards can help us overcome them



Thomas Kernen
(Cisco)

Thomas Kernen is a Consulting Systems Engineer working for the office of the CTO in Cisco's European Enterprise Networking Team. His main area of focus is defining video architectures and transmission solutions for content providers, broadcasters, telecom operators and IPTV Service Providers. Thomas is a member of the IEEE Communications and Broadcast Societies, and the Society of Motion Picture & Television Engineers (SMPTE). He is an active contributor within the Digital Video Broadcast (DVB) Project, SMPTE and various European Broadcasting Union (EBU) groups.

Time & Sync over Networks Use cases - Overview of the current technology proposals



Mark Yonge
(AES)

Mark Yonge has held the post of AES Standards Manager since 2001, shepherding professional-audio standards through an open consensus due process.

Previously he was in marketing and product-management roles at Solid State Logic in Oxford for 14 years, specialising in audio consoles for broadcast & film.

Before that, he spent 10 years at Dolby Laboratories specialising in television sound, and soundtracks for film and videotape.

Audio over IP – New AES 67 The new AES/EBU in the network era?

- Why do we need a standard?
- Competent audio in a network context
- AES67-2013 standard for audio over IP

Day 2 - Wednesday 25 June

SESSION 3: CONTRIBUTION



John Ellerton
(BT)

John Ellerton is Head of Media Futures at BT Media and Broadcast. An alumni of Salford University in the UK, he has since gained over 17 years' experience creating specialist network and workflow solutions for broadcasters and media companies worldwide. He now leads BT M&B's future thinking in broadcast and media services, which includes next-generation networks and cloud-based production services as well as UHD TV. He represents BT M&B at SMPTE and is an active contributor to the work of the EBU.



Andy Rayner
(Nevia)

Andy Rayner is director of product management for Media Networks at Nevia. His responsibility is for providing technical direction for the evolution of the company's media transport capabilities. Andrew also heads up the Nevia UK development team based at Adastral Park, Martlesham. Prior to joining Nevia in November 2010, Andrew was head of the Broadcast Solutions team at BT. In this role he was responsible for the design of the BT Global Media Network and oversaw the development of key video interfacing, monitoring and protection technology. During his time with BT he held several patents and was awarded the Martlesham Gold Medal for technical innovation.

ITV X-Net - A next-generation national IP broadcast contribution network

J.E.:

- A network to enable ITV's business transformation
- A network designed to provide high-capacity, flexible and reliable managed services
- A network built of next-generation standards-based hardware and software



Kevin Moolenschot
(VRT)

Driven by and passionate about technology, **Kevin Moolenschot** has started his career at the VRT eight years ago. During his first job as a telecommunications engineer, he got hands-on experience in the latest telecommunication technologies such as CWDM/DWDM, Video-over-IP and IP multicast.

With his next function as a telecommunication and IT project manager, he further broadened his knowledge in technology and mastered his project management skills. He managed several exciting projects including VRT LAN for corporate and production applications, contribution over internet and the next generation news vans.

Currently, Kevin is head of the Telecom WAN department and is responsible for VRT's telecom network. Aside this function, he is responsible to layout the future architecture and strategy of the VRT contribution domain including fiber, radio links, satellite and all mobile means.

contribution vans @VRT news

- New SNG van's for file & live transmission
- Journalist contribution
- Multimedia van's



David Chalmers
(BBC)

David Chalmers is a Principal Technologist working for BBC Scotland with responsibility for all areas of broadcast production technology. His background is in Electronic product design having worked previously for NCR, VLSI Vision & STMicroelectronics. He joined BBC Scotland 7 years ago as Acquisition Technology Lead where he specialised in IP-based contribution and Newsgathering projects

Moving to IP for KA-band satellite

- This will be a case study of BBC Scotland's migration of their VSAT IP Newsgathering fleet to Ka-band.
- It will outline the perceived benefits for the migration and outline both technical and operational issues that arose and how we handled them.
- After the first year of operation I will report on our experience so far and our future plans, as well as recommendations for those considering this approach.



Ward De Cooman
(VRT)

After my studies of Master of Science in Electronics in 1998, I started working at VRT as a systemengineer for the radio department.

In 2010, I became teamlead of the audiosystems support team.

AoIP with QOS over standard VDSL- Goodbye ISDN

- Cheap IP lines with QOS are possible
- Perfect alternative for ISDN in Belgium
- Talk to other telecom providers to do the same

SESSION 4: STORAGE



Ivar Poijes
(SR)

Ivar Poijes works as a development engineer at Swedish Radio (SR). Starting as a music-loving maintenance engineer at SR in the late seventies, he gained a great experience in testing and troubleshooting both analogue and digital audio equipment. When the first implementations of computer-based digital audio editing started in 1994, he became heavily engaged in tuning and troubleshooting issues related to streaming media in network environments. Over the years, he has worked on several projects concerning the tuning, optimization and architecture of high-availability solutions for streaming media storage. Currently he is engaged in future long term strategies for SAN and storage at SR.

Media Storage Demands - New EBU Tech 3359" presentation:

- Your challenging quest is to find good enough media storage at reasonable costs
- The first challenge will be to define when media storage is good enough for you
- The second challenge will to identify when your costs are reasonable



Nicola Minnaia
(RAI)

Nicola Minnaia: Engineer at RAI. He is graduate in Electronical Engineering (microwave device) in 1991 in Rome - University of Tor Vergata. Has joined RAI Television in 1992 within the Engineering - TV Production Department in Rome working as specialist in CGI, Virtual Set and complex IT systems for TV production. From the 2000 he was involved, as System Architect and Project Manager in the major large scale projects related to the archive and content restoring and digitalization, content production for internet and IPTV, teletext and interactivity. From the 2009 he taken the role as technical project leader and project manager responsible of the enterprise projects related with in Media Asset Management and TV Production's workflow: "Digital Asset Repository" enterprise storage and "T3 - Transition To Tapless project".

The enabling role of the storage infrastructure - The T3 project

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SESSION 5: NETWORK TECHNIQUES



Niels Laukens
(VRT)

As a telecommunications engineer, **Niels Laukens** has an academic background in modern telecommunication systems, including IP-multicast, cryptographic and other technologies.

As a sr.researcher in the R&D department of VRT, he worked on network neutrality issues and contribution connectivity technologies.

Currently, his main focus is on personalization of media content and enhanced live event experiences.

Aggregating bandwidth with Multipath TCP - Speeding up file based contribution by combining Wifi, cellular data, satellite and more.

- MPTCP enables aggregation of bandwidth of multiple internet connections, even using widely different technologies
- MPTCP provides failover and mobility between different internet connections
- MPTCP can be "bolted on" without modifications to server or client software



Emanuel Etienne
(BT)

Emanuel (Senior Technical Consultant – BT Media and Broadcast) joined BT as an apprentice over 30 years ago and has worked in varied roles throughout his career ranging from field engineer, fault diagnostics officer and technical design architect.

He joined Media and Broadcast 16 years ago keen to build on his experiences and continued his career path by his roles in future technology solutions, platform configuration and network design teams with experiences in ATM, MPLS and IP, to his present role as a Senior Technical Consultant.

Emanuel has been involved in the design of several major broadcast networks and is currently driving technology developments for BT's Media networking platforms including the global broadcast MPLS network carrying live contribution and distribution services.



Måns Nilsson
(SR)

Måns Nilsson works at Sveriges Radio in the network operations department as Network Strategist. He's been at Sveriges Radio since 2008, and before that worked with Internet backbone technologies since 1996, and before that devoted himself to analog audio in sound reinforcement and installation. He's finally found a place with both XLR and RJ-45 connectors.

MPLS as deployed for broadcast

- Reasons why MPLS is used for Broadcast networks
- Network performance and priorities within secure MPLS networks
- How MPLS is operationally managed in broadcast environments



David Butler
(BBC)

David Butler has 22 years end to end experience in the communication and broadcasting industries, from RF design, digital design to network infrastructure and virtualization.

Following a career designing terrestrial, satellite and cable products, he joined BBC Research and Development in 2002 to work on a wide variety of research projects. During the last 12 years he has worked on advanced reception technologies, GRID, cloud and high performance network storage. Currently he is leading work on software defined networks for automated TV production over IP networks.

What does SDN mean for production and media?

- Live TV production on IP networks is extremely difficult. The desire for high video resolution, colour depth, frame rate and even uncompressed video are driving up bit rates for live video contribution.
- If the network becomes overly congested during a live TV production, live TV feeds will be lost.
- The use Software defined networks allow TV production to making best use of network capacity and know when the capacity is reached before live TV feeds fail.

SESSION 6: OPENING OF THE FUTURE



Tony Cass
(CERN)

Tony Cass joined CERN's Information Technology Department in 1987 after completing a PhD in Particle Physics at the University of Liverpool. After initial assignments in the CERN Program Library and working with CERN's IBM/VMCMS service, Tony played a leading role in the development of workstation based interactive computing, led the refurbishment of a 30-year old computer centre to meet the needs of LHC computing and has had major responsibilities in the operation and management of large scale batch processing, data storage systems and for corporate, research and accelerator databases. Tony currently leads CERN's Communication Systems Group with a remit covering an extensive wired and wireless campus network, a dedicated network supporting control systems for the LHC accelerator, high-performance networking for the LHC experiments and the data centre, dedicated 10Gbps and 100Gbps international links, fixed and mobile telephony services, and radio communications.

Physics Computing at CERN

Lessons from 15 years of the Large Hadron Collider

- A worldwide Grid Computing environment (WLCG) was a vital component in the discovery of the Higgs particle.
- The network was the most reliable component of WLCG.
- Yet more reliance is being placed on our international network links as the LHC community prepares for the LHC restart in 2015.

TUTORIALS



Jan Eveleens
(Axon)

On April 1, 2009 **Jan Eveleens** was appointed as CEO of the Axon group (www.axon.tv) and is based in Gilze, the Netherlands. Axon is one of the worlds leading suppliers of broadcast infrastructure solutions and compliance recording systems.

Prior to joining Axon, Jan worked for Thomson Grass Valley where he started in January 2002 as General Manager for the Camera business unit, based in Breda, the Netherlands. In July 2006 he became a member of the Grass Valley executive management team, responsible for Cameras, Switchers and Post Production Solutions.

Prior to joining Thomson, Jan worked for Philips Electronics for 14 years in various positions. He started his career in 1987 in the computer division as a software engineer, developing advanced PC-based document imaging systems.

Jan joined Philips' Communications Systems division in 1990, working as a systems architect and project manager on the first products for several new transmission standards (including D2-MAC, HD-MAC, PALplus, MPEG/DVB). Subsequently, he served as General Manager for Philips' Digital Transmission Systems (DTS) division, which became a major supplier of DVB/MPEG-2 transmission equipment.

In 1999 he setup a new group in Philips which designed content protection solutions (such as conditional access and video/audio watermarking systems). During this time he also setup a joint venture in China that developed a conditional access system tailored to the Asian market.

Jan holds a masters degree in Electrical Engineering (computer science) from the University of Technology in Delft (NL). He graduated at Philips Research Labs in Eindhoven, the Netherlands, in the area of object oriented parallel computing.

Currently Jan also serves as Chair of the Members Board of the International Association of Broadcast Manufacturers (IABM, www.theiabm.org). Furthermore he is an active member of the AVnu Alliance (www.avnu.org) where he chairs the Pro Video working group.



Thomas Riedel
(Riedel)

Thomas Riedel CEO Riedel Communications was born 1968 in Wuppertal and is an entrepreneur since 1987. Riedel is founder and managing director of the Wuppertal based Riedel Communications GmbH & Co. KG. Riedel Communications develops, manufactures and distributes leading edge real-time networks for video, audio and communications for broadcast, event, theatre, sports and industry applications worldwide. The company today employs over 350 people located within 9 locations in Europe, Australia, Asia and North America.

Christian Diehl is working as a Product Manager with Riedel Communications based in Wuppertal, Germany. He has a degree in communications engineering and a passion for AV transport technologies. Before his current employment Christian has worked in several roles including Project Manager and Senior Developer for broadcast equipment manufacturers. In his previous role at Mayah Communications he was active participant of the EBU N/ACIP group where he contributed to the TECH3326 and TECH3329 documents.



Christian Diehl
(Riedel)

Markus Berg joined the IRT's Digital Networks department in January 1997 after he graduated in



Markus Berg
(IRT)

communication engineering at the Technical University of Saarbruecken. He worked as a research engineer and project leader in the field of adaptation of broadcast applications on high speed networks, especially ATM and IP, leading projects dealing with co-operative postproduction over ATM/IP networks, Wide Area Networking Technologies and research on QoS issues for broadcasters. Since April 2002 he is head of IRT's "Network Technologies" department. Markus is a regular speaker on national and international conferences and seminars on networking and is the chairman of the EBU's (European Broadcasting Union) Strategic Program on Future Networks and Infrastructure (SP-FNS)

Franz Baumann received his engineer's degree (Diplom) in Media Technology with a special focus on communications engineering and computer science from the Deggendorf Institute of Technology.

He has experience in distributed applications, sound engineering and media networks. Since 2012, he has been working in the department of Network Technologies at the IRT in Munich. Franz is project manager for the EC-funded project TV-Ring, where advanced connected-TV scenarios over NGAs will be tested. In addition, his passion for audio led him to the main focus of his work: in the project Audio-over-IP he is deeply involved in the investigation of audio- and video data transmission over real-time networks in broadcast environments.



Franz Baumann
(IRT)



Uwe Dahlmann
(Tallac Networks)

Uwe Dahlmann is a Senior Network Engineer at Tallac Networks. For more than 10 years, Uwe Dahlmann has been involved in design, implementation and operation of large-scale networks in public and private sectors. Uwe's work experience has centered on security, networks and their application. He designed VoIP Systems for the University of Mainz, taking part in Internet2's SIP.EDU project. In the private sector, he was responsible for the national and international networks of a company specializing in alternative energies. For several years, his focus was on testing and verification for SDN systems and OpenFlow implementations, working on defining test cases and processes for OpenFlow conformance testing.

Uwe holds a bachelor of science in Business Information Systems from the University of Applied Sciences in Mainz / Germany and a Master of Science in Security Informatics from IU Bloomington. In 2012 he received an award as outstanding technical contributor from the Open Networking Foundation for his work on the OpenFlow testing and performance workgroup.

- SDN is different from traditional IP/Ethernet networks, not just a patch on a problem
- API access allows the network to integrate with existing (production) systems
- Packet forwarding is more deterministic, allowing for precise traffic steering



Andreas Hildebrand
(ALC Network)

Andreas Hildebrand is acting as Senior Product Manager for the RAVENNA technology developed by ALC NetworX, Germany. His experience is based on more than 20 years of occupation within the Professional Audio / Broadcasting industry. He received a graduate diploma in computer science and worked as a software engineer and Head of Development for companies in Germany and the US for several years. Later engagements included senior project management responsibilities for a news system implementation at CNN-SI / Atlanta and WNPR / Washington D.C. Before joining ALC NetworX, he was leading the Product Management at DAVID Systems, an internationally operating software company in the Professional Audio / Broadcast market. He was a full-time participant in the AES X192 Task Group defining the new AES67 standard.

Mark Yonge
(AES)