

MEDIA CYBERSECURITY SEMINAR 2018



SECURITY BY DESIGN

BIOS – SYNOPSIS

TUESDAY 16 OCTOBER

MODERATED BY JOHN MOYLAN (RTE)



After graduating from university, John established his own company in 1998 selling hosting and web development services. He has worked for rté, Ireland's state broadcaster since 1999 and has been heavily involved in the development and support of rté internet presence and security infrastructure. With a strong technical background, John has extensive experience in building secure, high availability and high-performance web infrastructure. John has been rté's information security officer since 2016 and is an ISACA certified CISM.

KEYNOTE

Cybersecurity - what the current threats and trends mean for the media industry



In this keynote Matthias Bossardt provides an overview of the current cyber threats and trends. He further discusses their impact on the media industry and highlights areas of focus to mitigate these cyber risks.

Matthias Bossardt is a KPMG Partner, Head of Cyber Security and Technology Risk practice in Switzerland. He brings over 20 years of engineering and consulting experience. Matthias is the lead editor of KPMG's annual thought leadership publication "Clarity on Cyber Security". He has chaired or served on advisory boards of Economie Suisse, Crypto Valley Association and the Swiss Academy of Engineering Sciences (SATW) and fosters innovative technology startups as an angel investor. Prior to joining KPMG he conducted research on communications systems and cyber security at the Swiss Federal Institute of Technology (ETH Zurich). Matthias holds a Ph.D. in Information Technology and Electrical Engineering from ETH Zurich and a M.Sc. in Electrical Engineering from EPFL.

SESSION 1: CYBERSECURITY FOR OUTSIDE EVENTS

Security by Design: Technology and the Human Side of Cyber

The challenges of implementing a secure system by design - when humans are involved - makes for an interesting proposition when considering the integrity of such systems with off-network or off-system issues. These "issues" will be considered with the EBU membership in mind, demonstrating how cross-correlated activities have, and will continue to pose, a significant security risk to broadcasters in all their forms (push media, streaming and internet platforms).

Pete Watson (XCyber Group) has spent the last 30 years immersed in operational research for the British Government, specialising in platforms and technologies around network security, telecom systems and internet services. Pete is Director, co-founder and CTO of XCyber Group Ltd, a cyber intelligence and security start-up who specialise in cyber operations for organisations within both the private and public sector. His insights into the human side of cyber have allowed Pete to gather a wealth of fact-based evidence around the persistent, relentless and wholly human issues that undermine the security of systems in most modern and reliable technologies. Pete has a BSc (Hons) in IT and Computing and has investigated & tested security for multiple telecoms providers from the Far East, Middle East and Europe.

Information Security Awareness and best practices for media field operations.



This session will cover best practice advice for Journalists, teams in the field including hostile environments, primarily based on the threats and everyday experience faced by field operators across the BBC.

Ben Thornton (BBC) has more than 15 years' experience in the management, implementation, development and design of cyber security systems. He currently leads the BBC Information Security Architecture team reporting to BBC CISO with the remit of ensuring BBC information systems are secure by design.

Ben has previously worked for Nortel Networks providing design support and new product deployments of SDH/SONET products. Three mobile building and operating content management, download and media streaming to mobile devices, Vodafone, Ericsson providing managed security services across applications, servers, networks, firewalls, identity management and SIEM, the BBC managing large scale InfoSec deliveries including the personalisation of the BBC website.

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Before joining the BBC full-time in his current role, Ben co-founded Full Frame Technology, a cybersecurity consultancy working predominantly in the media sector. The company continues to work with some of the world's biggest broadcasters, providing training and technology services.

Ben has extensive experience encompassing Security Initiatives, Media Delivery and Telecommunications. He is passionate about delivering security initiatives to enable business strategy. Ben believes, now more than ever, security is a means of enabling business to function quicker, smarter and more effectively.

SESSION 2: SECURING SERVICES & INFRASTRUCTURE

Reality Check: Media Systems Security – Where are We?



Modern production equipment is increasingly networked, either as dedicated hardware for IP-based production environments, or to add management and control functions to SDI-based units. Unfortunately, security measures against potential cyber threats have not always kept up with this increased connectivity. Many devices still exhibit a low security threshold inherited from the era of non-connected broadcast hardware – when cybersecurity due diligence was often not a top priority for manufacturers and users.

To help detect potential vulnerabilities in media equipment, the EBU Media Cybersecurity Strategic Program has established a minimum set of security tests for networked media appliances, defined in Recommendation R 148. These tests can be performed proactively by broadcasters and by system vendors alike, in order to detect potential security vulnerabilities.

In this short joint presentation, Adi Kouadio and Brad Gilmer (Executive director of the JTNM – Joint Taskforce on Networked Media) will show the importance of security due diligence by vendors and users as described in EBU R148. They will show the summary results of a minimum vulnerability test performed during an interoperability test on networked media devices.

Adi Kouadio (EBU) is a technologist and venture developer with more than 11 years in experience leading technology strategic programs in media and information technology. He joined the EBU in 2007 and is currently Senior Technology Project Manager managing the EBU's strategic programme on Cybersecurity since 2014. In parallel to the cybersecurity topic, he managed the EBU's video R&D and standardisation activities. He represented EBU's interest within various top media technology alliance such as DVB, MPEG UHD Alliance, including board seat at the VR Industry Forum (VRIF).

In addition, Adi is a technology advisor to the Eurovision Media Services, the business arm of the EBU and a business/fundraising advisor to various high-tech start-ups on the Swiss start-up scene.

Adi is an Executive MBA graduate from IMD business school (Switzerland) and obtained his M.Sc. in communication systems at the Swiss Federal Institute of Technology in Lausanne – EPFL (Switzerland).

Running a Security Operations Centre in a media company



The BBC has been running a Security Operations Centre for around 3 years now. It provides the BBC with 24x7 security incident management, and offers protective monitoring, threat intelligence and vulnerability identification capabilities to the business. This presentation will take you through how we got here, what we're doing now, what we've learned so far and what we hope to do next.

Andrew Sands is the Head of Infosec Operations at the BBC, responsible for oversight of its SOC and IT Forensics teams.

Attack Surface Visibility - Keeping the wolf from 1000 doors....



Eoin shall discuss cybersecurity approaches to keeping pace with change in an environment which constantly changes. Full stack security, keeping pace with development & constant change. Pitfalls with point in time testing and approaches to enterprise visibility on a continuous basis.

Eoin Keary is the CEO and founder of edgescan.com a managed full stack vulnerability and threat detection service which is a top scoring Application Security Testing (AST) solution on Gartner Peer Insights. Edgescan is also a listed "Sample vendor" and "Notable vendor" in the Gartner Application Security Hypecycle and Magic Quadrant for Web Security testing. Eoin previously was on the international

board and vice chair of OWASP (2009-2014), The Open Web Application Security Project. Eoin has presented at Information security Europe and RSA (USA), OWASP EU/USA and delivered application security training to hundreds of individuals globally over the past 10 years. Eoin was voted "OWASP Security Person of the year 2015 & 2017" and also awarded "Tech Excellence Rising Star 2016".

Finding the best threat intelligence provider for a specific purpose: trials and tribulations

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We undertook a large project to evaluate the quality of APT T/IoC sources and encountered multiple expected and unexpected challenges. We will present our approach, the challenges encountered and the results.

Dror-John Roecher (DCSO) has over 20 years experience in the IT-Security field, background in IP-networking, penetration testing, SOC/CERT consulting and now Head of Threat Intelligence at the "Deutsche Cyber-Sicherheitsorganisation - DCSO".

SESSION 3: CONTENT SECURITY & ANTI-PIRACY

Secure Media File Ingest for Media Companies

Martin Jacober (SRG)

Mitigating Fake News



Derek Bowler is Head of Social Newsgathering at the European Broadcasting Union and founder of the Eurovision News Exchange Social Newswire. Previously a senior journalist and news projects lead at Storyful., he specialises in conflict zone verification from the Middle East and has worked on projects with the New York Times, Washington Post and Google News Labs

Trusted Partner Network for Content Protection



Kurt Fischer (The Trusted Partner Network) is a Media and Entertainment professional with over 25 years experience as an executive in a variety of areas of the media value chain. His current roles are Chief Operating Officer for The Trusted Partner Network and Director of Content Security at the Motion Picture Association of America. He has a degree from the University of California, Irvine, is a member of a variety of professional organizations, a certified information systems auditor (CISA), certified project management professional (PMP), and a member of Mensa. Kurt has served as an executive advisor in the Global Supply Chain Management program at the Drucker / Ito School of Management at Claremont Graduate University and currently also serves on the Governance Council for NASBITE International

& **Ben Stanbury** (TTPN)

TUTORIALS / WORKSHOPS

Networked Equipment Security Tests – Hands-On (R148)

Hands-on session to learn how to use some of the tests and tools from EBU recommendation 148 on security tests for networked media equipment.

Gerben Dierick is an information security officer at VRT, and teaches cyber security at the University College Leuven Limburg.

& **Adi Kouadio** (EBU)

Securing Software Defined Media Networks – a Look to the Future

- **Andrew Heal** (XCyber)
 - **Pete Watson** (XCyber)
 - **Harsha Vardhan** (STORDIS)
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Cloud Security Overview



Alain Pannetrat (Cloud Security Alliance) is product manager for the STARwatch SaaS platform of Cloud Security Alliance (CSA). He also supports CSA's research contributions in national and EU funded projects as well as in cross-industry European R&D initiatives. He is a security and privacy expert, specialized in cryptography, cloud computing and smart-cards. He is the technical lead of CSA's "Cloud Trust Protocol" project. Before joining CSA, he worked as a IT Specialist for the CNIL, the French data protection authority. He started his career as an IT Security consultant specialized in bankcard systems. He received a PhD in Computer Science after conducting research at Institut Eurecom on cryptographic protocols for multicast security. In his spare time, he develops embedded systems and microelectronics for IoT.

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Risk Management Workshop



Brian Honan (BH CONSULTING) is a recognised internationally as an expert on cybersecurity. He has acted as a special advisor to Europol's Cybercrime Centre (EC3), 1 founder of Ireland's first CERT, and sits on the advisory board for several innovative security companies. Brian is the author of several books and regularly contributes to various publications. For his contribution to the cybersecurity industry Brian has been awarded the "SC Magazine Information Security Person of the Year" and was also inducted into the Infosecurity Hall of Fame."

WEDNESDAY 17 OCTOBER

MODERATED BY CLAUS BAYER (ZDF)



Claus Bayer (CISO German Television ZDF) has more than twenty years of experience in the area of IT-Security. He started studying Computer Science ending with an Master Degree. In his former professional life, he worked as an IT-Security Consultant for a number of German enterprises, until he started his career as IT-Security manager in 2003 at a German Broadcaster. Since 2007 he held the position of the CISO from ZDF. Since 2012 he is also an (ISC)2 Certified Information System Security Professional. His main subjects at ZDF are IT-Security-Governance, Audit and Risk analysis, but he is also a passionate Threat hunter and Incident responder. Since 2015 Claus Bayer is a permanent member of the Media Cyber Security Group.

SESSION 4 – GDPR

GDPR is now in force – now what?

Brian Honan (BH CONSULTING)

Panel Discussion - Learnings from companies addressing GDPR



Moderator: **Sheila Fitzpatrick** is President and Founder of FitzPatrick & Associates, a strategic global data privacy and protection compliance consulting firm. Sheila is considered one of the world's leading experts in data privacy laws and works closely with the DPAs and around the world. She provides expertise and hands-on experience in the areas of global data protection compliance, data sovereignty, and cybersecurity regulations and obligations. She is one of the foremost experts on the EU GDPR and was identified as one of the 2017 EMEA 50 recipients, an honor bestowed on the 50 most influential people in EMEA. Sheila was also honored as one of Silicon Valley's Women of Influence 2017.

Joos Negenman is Privacy Officer at NPO, with a demonstrated history of working in several fields in the online and broadcast media industry. Possesses a strong technical and e-marketing background. Specially skilled in privacy issues concerning ad-tech, e-marketing, social media, mobile and other interactive apps and of course cookies and consents.

Sabine Mersch (LCM Services) is a legal consultant with more than 10 years of experience in the area of data protection law, a legal expert accredited by EuroPrise (www.european-privacy-seal.eu) and a Certified Information Privacy Professional/Europe (CIPP/E) accredited by the International Association of Privacy Professionals (IAPP). Her consulting firm, The Privacy Office (www.tpo.solutions), is providing privacy consulting & management services as ont

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stop shop for small, mid-sized and large companies in Europe. Before becoming a consultant, Sabine worked 7 years for a global consumer goods company as respectively M&A, legal and compliance director in Belgium and Germany.

John Moylan (RTE)

Brian Honan (BH CONSULTING)

SESSION 5 - DISRUPTIVE TECHNOLOGIES IN CYBERSECURITY

Using Blockchain to Secure IoT



for IoT.

The Internet of Things (IoT) has long been associated with security weaknesses and challenges, and experts and organizations have begun exploring the use of blockchain to securing the IoT. CSA Research takes a look at developing ideas in this new area of information security.

Alain Pannetrat (Cloud Security Alliance) is product manager for the STARwatch SaaS platform of Cloud Security Alliance (CSA). He also supports CSA's research contributions in national and EU funded projects as well as in cross-industry European R&D initiatives. He is a security and privacy expert, specialized in cryptography, cloud computing and smart-cards. He is the technical lead of CSA's "Cloud Trust Protocol" project. Before joining CSA, he worked as an IT Specialist for the CNIL, the French data protection authority. He started his career as an IT Security consultant specialized in bank card systems. He received a PhD in Computer Science after conducting research at Institut Eurecom on cryptographic protocols for multicast security. In his spare time, he develops embedded systems and microelectronics

AI & Machine Learning Use-Cases in Cybersecurity

Andreas Dewald is an IT security researcher, managing director of ERNW Research GmbH, and associated post-doc at the Friedrich-Alexander University Erlangen-Nuremberg (FAU).

From 2012/13 to 2016, Dewald worked as a researcher and lecturer at the FAU and headed the university's research group on "Applied Forensic Computing". He received a doctorate in engineering in 2012 with his dissertation on the "formalization of digital traces and the integration into forensic computer science".

Between 2012 and 2013 he oversaw the establishment of Germany's first master's degree in digital forensics, as the FAU's principal representative on a joint programme run at Albstadt-Sigmaringen University.

How to attack a Blockchain?

What does it mean when a Cryptocurrency is being attacked? What risks arise and is the blockchain technology secure? Various attacks happen over the last years on Blockchain, in particular Cryptocurrencies. We'll explain what elements of the blockchain are typically more exposed to attacks and which ones less. In a live demo, we'll show you how hackers misuse companies CPU power for mining and give advice how to protect yourself against such attacks or how to detect it.

Michele Daryanani & Carlos Anastasiades

Wrap-Up

Adi Kouadio (EBU)
