

World Broadcasting Unions' Cyber Security Recommendations

**Content Protection and Cyber
Security Summit**

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John C. Lee, P. Eng.

Chairman, NABA Technical Committee



NORTH
AMERICAN
BROADCASTERS
ASSOCIATION



Cyber Security

“Using open and standards-based IP network and delivery for a device a consumer wants to use is certainly good business: it allows a direct, more personal – and ideally, more profitable relationship with those who purchase and consumer content.

But, it also opens up significant new risks that could lead companies’ content, data and business systems to be compromised. And those risks, if not mitigated, represent a true existential risk”

Accenture “Are Media and Entertainment Companies Ready”

Cyber Threats to the Media/ Broadcasting Industries



- TV5 Monde, Sony, Comcast, HBO are all examples of major attacks to our industry
- Potential damage that can be inflicted:
 - Reputational damage (news organization)
 - Content hack, including pre-release material (e.g., “Game of Thrones”)
 - Data leakage (Sony, financial information, personal data, e-mails, etc.)
 - Software/file corruption or encryption (TV 5 Monde, etc.)
- Some of these could result in a media/broadcast operation’s inability to operate

Cyber Security Today



- Now a Board of Directors' and C-Suite issue due to risk to the enterprise
- Cyber Security Program must be implemented throughout the enterprise, including on-going governance and risk assessment
- Requires continuing education to staff
- Requires on-going investment in Cyber Security
- Requires risk mitigation and response plans be in place before an incident occurs



NABA

- Not-for-profit association of broadcasting and content distribution organizations in Canada, the United States and Mexico committed to advancing their interests locally and internationally
- Provides a forum to share information and best practices, discuss common challenges and opportunities, and reach consensus on key issues.



NABA

- Has an NGO status with the World Intellectual Property Association (WIPO), the International Telecommunications Union (ITU) and the Inter-American Telecommunications Commission (CITEL)
- One of the seven members of the World Broadcasting Unions, or WBU
- Headquartered in downtown Toronto at the CBC/Radio-Canada's Canadian Broadcasting Centre



NABA's Current Mandate

- Developing effective perspectives and proposals as Television evolves to its next generation, including content creation, collection and multi-platform distribution
- Protection of broadcast services on any platform from piracy or interference
- Provide a forum for education
- Exchange best practices in non-competitive areas to improve efficiency and effectiveness

NABA's Current Mandate



- Promote free speech and a free press and protect those who work in journalism
- Share regulatory views and positions and make submissions to regulatory bodies when appropriate
- Provide a forum for Radio-specific issues
- Ensure that North American broadcast interests are acknowledged, respected and seriously considered at the international level.

FULL MEMBERS



www.nabanet.com

NABA and Cyber Security



- In NABA, Cyber-Security was first addressed by the Risk Awareness and Continuity Committee (RACC)
 - Produced “Cyber Security Requirements for Vendor Products, Hardware, Software and Services” in October 2015
- NABA held its Cyber Security Symposium in December 2016 in New York
 - Raised awareness in broadcasting/media industry in North America
- As a result, NABA established a Cyber-Security Sub-Committee of its Technical Committee

NABA Cyber Security Sub-committee Mandate



- Share threat data, successful defence methodologies and technologies, best-practices and architectures
- Address third-party vendors:
 - Inspire them to take action to keep up with broadcasters' needs, including moving to virtual solutions rather than hardware
 - Focus on vendors of hardware/software, and suppliers of cloud services, of all types.
 - Move towards more concrete contractual language with vendors and suppliers.
 - Provide NABA members with guidance on issues to be aware of when outsourcing



- Outline a basic cyber control or “hygiene” program: provide information on the core security operations and minimum requirements to implement a successful security program.
- Provide input to technical standards: educate technical departments to ensure core security principles are embedded in core architecture, equal in importance to other initial considerations, when adopting new IT systems.
- Collaborate with other organizations’ cyber security groups. NAB, EBU, the WBU (and the DPP) all have established cyber security committees.

European Broadcasting Union (EBU) and Cyber Security

- EBU has a well-established Cyber-Security Committee and has developed numerous Recommendations in recent years:
 - R141 – Mitigation of distributed denial-of-service (DDoS) attacks
 - R142 – Cybersecurity on Connected TVs
 - R143 – Cybersecurity for media vendor systems, software and services
 - R144 – Cybersecurity governance for media companies
 - R145 – Mitigating ransomware and malware attacks
 - R146 – Cloud security, including procurement, architecture and cloud service provider assessment

World Broadcasting Union(WBU)

World
Broadcasting
Unions



- African Union of Broadcasting (AUB)
- Arab States Broadcasting Union (ASBU)
- Asia-Pacific Broadcasting Union (ABU)
- Caribbean Broadcasting Union (CBU)
- European Broadcasting Union (EBU)
- International Association of Broadcasting (IAB/AIR)
- North American Broadcasting Association (NABA)

WBU Cyber Security Recommendations



- Combined EBU, NABA, ABU and other Union input to produce “**WBU Cyber Security Recommendations for Media Vendors’ Systems, Software and Services**”, released in January 2018
 - Recommendations to industry, not requirements
 - To be included in RFI’s, RFP’s and RFQ’s to industry to ascertain a potential supplier’s or product’s level of cyber maturity
 - Free-of-charge “living” document, to be reviewed and updated regularly by the WBU

WBU-TC Cyber Security Recommendations



- 34 recommendations in total
- Identifies priorities of recommendations: P1 (critical), P2 (important), P3 (best practice)
- Recommendations address: Communications, Authentication, Controls, Documentation, Encryption and Network Configuration
- Available at: <https://worldbroadcastingunions.org/>

Priority 1 Examples



- Release of information automatically and immediately when a security weakness in its product(s) becomes known
- Support authentication, authorization, accounting logging on a centralized logging server
- Software development must follow industry-standard development policies and prevent cross-site scripting and SQL injection
- Be able to protect effectively against virus, malware and exploits on both the server and client side
- Password policy must be supported, including forced change of default passwords, complex passwords and automatic expiration

Priority 2 Examples



- Communications between trusted/un-trusted sources must be restricted to source and destination IP addresses
- Option to disable USB ports and as well as auto-start of any media devices
- Must support the encryption of sensitive data
- Vendor must provide/support its own security control guidelines when providing any service, including cloud services
- Vendor must describe its patch management program, specifically with respect to security

Priority 3 Examples



- Applications shall use modern protocols and services which can be heavily secured
- Vendor shall track and address all vulnerabilities and maintain an up-to-date register of this process
- Vendor shall make recommendations on integration in a secure architecture

WBU Cyber Security Recommendations



- “WBU Cyber Security Recommendations for Media Vendors’ Systems, Software and Services” dated January 2018
- Available at: <https://worldbroadcastingunions.org>
- Upcoming WBU cyber security recommendations:
 - Basic Cyber “hygiene”
 - Cyber security considerations when using cloud services



THANK YOU



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John C. Lee, P. Eng.
Chairman, NABA Technical
Committee

Vice-Chair, WBU Technical Committee

johnlee464@gmail.com