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List of Publications

Refereed Publications

D. Leversage and E.J. Byres, "Comparing Electronic Battlefields: Using Mean Time-to-Compromise as a Comparative Security Metric," *Communications in Computer and Information Science - Computer Network Security, Proceedings of the Fourth International Conference on Mathematical Methods, Models and Architectures for Computer Network Security*, St. Petersburg, Russia, Springer, 2007, pp. 213-227.

E.J. Byres, D. Hoffman and N. Kube; "On Shaky Ground - A Study of Security Vulnerabilities in Control Protocols", *5th American Nuclear Society International Topical Meeting on Nuclear Plant Instrumentation, Controls, and Human Machine Interface Technology*, American Nuclear Society, Albuquerque, NM, November 2006

E.J. Byres and M. Franz; "Finding the Security Holes before the Hackers Do", *ISA Technical Conference, Instrumentation Systems and Automation Society*, Chicago, October 2005

E.J. Byres and A. Creery; "IEEE Paper No. PCIC-2005-DV45 - Industrial Cybersecurity For Power System And SCADA Networks", *Proceedings of the IEEE Petroleum and Chemical Industries Conference*, Institute of Electrical and Electronics Engineers, Denver, September 2005

E.J. Byres, B. Chauvin, D. Hoffman, J. Karsch and N. Kube; "The Special Needs of SCADA/PCN Firewalls: Architectures and Test Results", *The 11th IEEE International Conference on Emerging Technologies and Factory Automation*, Institute of Electrical and Electronics Engineers, Catania Italy, September 2005

BCIT Group for Advanced Information Technology, "Good Practice Guide on Firewall Deployment for SCADA and Process Control Networks - Policy and Best Practice ID. 00157", National Infrastructure Coordination Centre, London, UK, 23 February 2005

E.J. Byres, M. Franz and D. Miller ; The Use of Attack Trees in Assessing Vulnerabilities in SCADA Systems, *International Infrastructure Survivability Workshop (IISW'04)*, Institute of Electrical and Electronics Engineers, Lisbon, December 4, 2004

E.J. Byres and J. Lowe; "The Myths and Facts behind Cyber Security Risks for Industrial Control Systems", VDE 2004 Congress, VDE, Berlin, October 2004

E.J. Byres, J. Carter, A. Elramly and D. Hoffman; "Worlds in Collision: Ethernet on the

Refereed Publications Cont'd

Plant Floor", *ISA Emerging Technologies Conference*, Instrumentation Systems and Automation Society, Chicago, October 2002

L. Nietzel and E.J. Byres; "High Performance Applications Using HSE", *ISA Industrial Communications Conference*, Instrumentation Systems and Automation Society, Atlanta, September, 2002

E.J. Byres and C. Mitchell; "Design of High Speed Fiber Optics for Pulp and Paper Mills", *IEEE Industry Applications Magazine*, Institute of Electrical and Electronics Engineers, New York, Vol. 8, No. 3 p. 57 - 61, May/June 2002

B. Yu, C. Howey and E.J. Byres; "Monitoring Controller's "DNA Sequence For System Security", *ISA Emerging Technologies Conference*, Instrumentation Systems and Automation Society, Houston, September 2001

E.J. Byres; "Designing Secure Networks for Process Control", *IEEE Industry Applications Magazine*, Institute of Electrical and Electronics Engineers, New York, Vol. 6, No. 5 p. 33 -39, September/October 2000

IEEE Outstanding Industry Applications Article

E.J. Byres, and C. Mitchell; "Using Fiber Optics to Create a Unified Cabling System for Process Control", *Proceedings of the IEEE Pulp and Paper Technical Conference*, Institute of Electrical and Electronics Engineers, Atlanta, June 2000

E.J. Byres; "Network Security in Process Control Environments", *Proceedings of the IEEE Advanced Process Control Conference*, Institute of Electrical and Electronics Engineers, Vancouver, April 2000

E.J. Byres and T. Nguyen; "Using OPC to Integrate Control Systems from Competing Vendors", *Proceedings of the CPPA Technical Conference*, Canadian Pulp and Paper Association, Montreal, January 2000

E.J. Byres; "Protect that Network: Designing Secure Networks for Process Control", *Proceedings of the IEEE Pulp and Paper Technical Conference*, Institute of Electrical and Electronics Engineers, Seattle, June 1999

E.J. Byres; Network Alphabet Soup: A Primer on TCP/IP, UTP and Other Network Jargon, *Proceedings of the CPPA Technical Conference*, Canadian Pulp and Paper Association, Montreal, January 1999

E.J. Byres; "What Superintendents Need To Know About Fiber Optics", *Pulp and Paper Canada*, Canadian Pulp and Paper Association, Montreal, PC, August 1998

E.J. Byres and E. Hanschke; "Design of High Speed Fiber Optics for Pulp and Paper", *IEEE Industry Applications Magazine*, Institute of Electrical and Electronics Engineers, New York, Vol. 4, No. 4, p. 8 – 14, July/August 1998

E.J. Byres; Using Fiber Optics Backbones in the Mining Industry, CIM Annual General Conference, Canadian Institute of Mining, Vancouver, April 1997

Books

E.J. Byres; "Ethernet and TCP/IP Based Systems", *Instrument Engineers Handbook, Volume 3: Process Software and Digital Systems*, CRC Press, Chapter 4.15, 2002

E.J. Byres; "Fiber Optic Networks", *Instrument Engineers Handbook, Volume 3: Process Software and Digital Systems*, CRC Press, Chapter 4.18, 2002

Other Publications

Azbee Award

E.J. Byres; "Protecting your Plant" CHEMICAL PROCESSING Magazine, p.20-25, August 2008

E.J. Byres; "Wolves at the Security House Door(s) , Part 2." CONTROL Magazine, January 2008

E.J. Byres; "Wolves at the Door(s) of the House of Straw." CONTROL Magazine, December 2007

E.J. Byres, Jim Bauhs, and Brian Mason; "Forget the Silos, Build the Bridge." *InTech Magazine*, International Society of Automation, Research Triangle Park, NC, December 2007

E.J. Byres; "Making Cyber Security Work in the Refinery." *InTech Magazine*, International Society of Automation, Research Triangle Park, NC, October 2007.

E.J. Byres and M Franz; "Uncovering Cyber Flaws" *InTech Magazine* *InTech Magazine*, International Society of Automation, Research Triangle Park, NC, p.21 -25, Jan 2006

ISA Keith Otto Award

E.J. Byres and J. Lowe; "Insidious threat to control systems – The move to open standards is letting hackers take advantage of the control industry's ignorance", *InTech Magazine*, International Society of Automation, Research Triangle Park, NC, p. 76, January 2005

E.J. Byres and D. Miller; "Why we need Security Audits", *InTech Magazine*, Instrumentation, Systems and Automation Society, Research Triangle Park, NC, p. 76, March 2005

E.J. Byres; "Cyber Security Risks for Critical Infrastructure", *Innovations Magazine*, Association of Professional Engineers and Geoscientists of British Columbia, Burnaby, BC, p. 17-19, September 2004

E.J. Byres and J. Bauhs; "Who's the enemy? Don't look at IT", *InTech Magazine*, Instrumentation, Systems and Automation Society, Research Triangle Park, NC, p. 76, April 2004

E.J. Byres; "Securing Wireless Ethernet on the Plant Floor" *Industrial Networking*, Putman Publishing, Chicago, Vol. 3, No. 1, p. 11, Winter 2004

E.J. Byres; "The IT Department – Friend or Foe?", *Industrial Networking*, Putman Publishing, Chicago, Vol. 2, No. 4, p. 11, Fall 2003

E.J. Byres, R. Derynck and N. Sheble; "Cyber Security: SP99 Counterattacks", *InTech Magazine*, Instrumentation Systems and Automation Society, Research Triangle Park, NC, p. 50 – 52, October 2003

E.J. Byres; "Wireless Ethernet's Black Eye", *Industrial Networking*, Putman Publishing, Chicago, Vol. 2, No. 3, p. 13, Summer 2003

E.J. Byres; "Wireless Securities Shaky Foundation", *Industrial Networking*, Putman Publishing, Chicago, Vol. 2, No. 2, p. 13, Spring 2003

E. Byres, J. Carter, A. Elramly and D. Hoffman; "Cyber Security: Test Your System Five Ways", *InTech Magazine*, Instrumentation Systems and Automation Society, Research Triangle Park, NC, p. 24 – 27, March 2003

E.J. Byres; "Data Avalanche", *Industrial Networking*, Putman Publishing, Chicago, Vol.

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2, No. 1, p. 13, Winter 2003

E.J. Byres and D. Hoffman; "IT Security and the Plant Floor", *InTech Magazine*, Instrumentation Systems and Automation Society, Research Triangle Park, NC, p. 76, December 2002

I. Verhappen and E.J. Byres; "Building the Right Network", *InTech Magazine*, Instrumentation Systems and Automation Society, Research Triangle Park, NC, p. 44 – 47, October 2002

E.J. Byres and G. Gillespie; "Plan for Security", *Industrial Networking*, Putman Publishing, Chicago, Vol.1, No.4, p. 24-27, Fall 2003

E.J. Byres; "The Myth of Obscurity", *InTech Magazine*, Instrumentation Systems and Automation Society, Research Triangle Park, NC, p. 76, September 2002

E.J. Byres and G. Gillespie; "Is Wireless Ethernet Safe to Use?", *Sensors Magazine*, Advanstar Communications Inc, Cleveland, July 2002

E.J. Byres; "Can't Happen at Your Site? Network Security on the Plant Floor", *InTech Magazine*, Instrumentation Systems and Automation Society, Research Triangle Park, NC, p. 20 – 22, February 2002

E.J. Byres; "Moving the Internet Forward", *Innovation*, Association of Professional Engineers and Geoscientists of B.C., Burnaby, BC, p. 10 - 13, December 2001

E.J. Byres; "Ethernet's Achilles Heel – The Weak Spot of Network Interface Cards and Software Drivers", *Manufacturing Automation*, Kerrwil Publishing, Toronto, ON, p. 20, September 2001

E.J. Byres; "Don't Skimp on Switches – Shopping for Factory Automation Network Hardware", *Manufacturing Automation*, Kerrwil Publishing, Toronto, ON, p. 22, June 2001

E.J. Byres; "No Parrots on the Plant Floor", *Manufacturing Automation*, Kerrwil Publishing, Toronto, ON, p. 26, May 2001

E.J. Byres; "Are Buses Traveling Dead-end Roads?", *World Bus Journal*, Instrumentation Systems and Automation Society, Research Triangle Park, NC, p. 18 - 19, April 2001

E.J. Byres; "Working in The Dark – Industry is Slow of the Mark with Network Tools", *Manufacturing Automation*, Kerrwil Publishing, Toronto, ON, p. 8, March/April 2001

E.J. Byres; "Industrial Networking Part 1: Shootout at the Ethernet Corral", *InTech Magazine*, Instrumentation Systems and Automation Society, Research Triangle Park, NC, p. 49 – 52, February 2001

E.J. Byres; "Plant Floor Hacking", *Manufacturing AUTOMATION*, Kerrwil Publishing, Toronto ON, p. 12, December 2000

E.J. Byres; "Industrial Ethernet Connector Wars", *Manufacturing AUTOMATION*, Kerrwil Publishing, Toronto ON, p. 18, October 2000

T. Nguyen, and E.J. Byres; "Two Degrees of Separation – Using OPC to Integrate Process Control Networks from Competing Vendors", *Manufacturing Automation*, Kerrwil Publishing, Toronto ON, p. 24-26, September 2000

E.J. Byres; "One Big Happy Ethernet?... Not So Fast!", *Industrial Computing Magazine*, Instrumentation Systems and Automation Society, Research Triangle Park,

Other Publications

NC, June 2000

E.J. Byres; "Tough Enough for the Plant Floor?", *Industrial Ethernet Book*, GGH Marketing Communications Ltd, Hampshire, UK, No.3, Summer 2000

E.J. Byres; "Foundation Fieldbus: Networking Smart Plant Floor Devices with Fieldbuses", *Scientific Computing World*, Cambridge Publishers Ltd, Cambridge, UK, June 2000

E.J. Byres; "Chasing the Holy Grail of Ethernet", *Manufacturing AUTOMATION*, Kerrwil Publishing, Toronto ON, May 2000

E.J. Byres; "Fieldbus Part 4: Troubleshooting - Hired Guns Stalk Network Villains", *InTech Magazine*, Instrumentation Systems and Automation Society, Research Triangle Park, NC, December 1999

M. Olsen and E.J. Byres; "Fieldbus Part 3: Smart Instruments - Not just smart, they're sassy", *InTech Magazine*, Instrumentation Systems and Automation Society, Research Triangle Park, NC, p. 53 -55, September 1999

E.J. Byres; "Ethernet to Link Automation Hierarchy", *InTech Magazine*, Instrumentation Systems and Automation Society, Research Triangle Park, NC, p. 44 – 47, June 1999

M. Olsen and E.J. Byres; "Fieldbus Part 2: Configuration Tools - Removing The Complexity From Start-Up Is Goal", *InTech Magazine*, Instrumentation Systems and Automation Society, Research Triangle Park, NC, p. 43 – 46, April 1999

E.J. Byres; "Network Secures Process Control", *InTech Magazine*, Instrumentation Systems and Automation Society, Research Triangle Park, NC, October 1998

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