

# Operational Technology (OT) Cybersecurity, Key Insights – Part II (Continuation of Part I on January 28, 2025)

Walking Through Best Practice Requirements for Utility OT Cybersecurity

Tuesday, June 17, 2025, 3:00 - 4:30 PM ET

This training course is offered at no charge to our members.

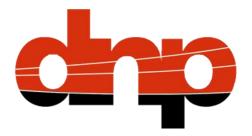


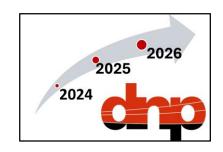
#### **Description**

The DNP Users Group (DNP-UG) is launching a series of training courses for our members led and instructed by industry and Users Group leaders addressing important topics relevant to our members and the industry. Training courses will often follow public workshops on related topics.

OT cybersecurity is an area that is receiving increased attention with a growing consensus that vulnerabilities exist that must be addressed. However, numerous challenges make achieving comprehensive defense-in-depth OT cybersecurity in mixed networks of IP and serial communications difficult if not unlikely, especially considering the many other priorities utilities face. In addition, typical IT security solutions do not address the requirements of the SCADA environment. Significant efforts are underway to develop new standards that will address many of the unique requirements of OT cybersecurity and facilitate broad adoption.

Our member training courses are being recorded and will be posted to our website as soon as possible.





#### The following topics were covered in Part I:

- 1. The Essential Security Problems (Theory and Requirements)
- 2. The Essential Security Problems (Theory and Practice)
- 3. Cryptographic Methods and Device Processing (Theory and Requirements)

#### Part II will cover the following topics:

- 4. Cryptographic Methods and Device Processing (Theory and Practice)
- 5. Selecting Layers and Supporting Serial (Theory and Requirements)
- 6. Selecting Layers and Supporting Serial (Theory and Practice)

Time will be allotted for audience participation and discussion.

#### Speakers (see bios below)

- John McDonald, Session Chair, JDM Associates
- Grant Gilchrist, Instructor, DNP Users Group, Tesco Automation

To receive periodic updates and news, click here: Enroll

The DNP-UG is a non-profit group with the mission to actively support measures to improve interoperability and cybersecurity in DNP systems by developing technologies and standards, implementing a conformance program, and providing education to the industry. Utilities and vendors benefit significantly with reduced project and development costs and risks due to a broadly adopted, well managed, highly interoperable and secure protocol (if implemented).

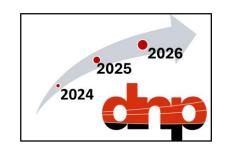
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For assistance or more information, contact Sara at <a href="mailto:membership@dnp.org">membership@dnp.org</a>





#### **Speaker Pictures and Short Bios**



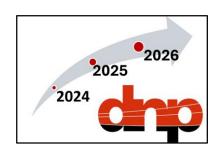
John D. McDonald, P.E., Founder & CEO of JDM Associates, LLC, Panel Chair

John D. McDonald has 50 years of experience in the electric utility transmission and distribution industry. John received his B.S.E.E. and M.S.E.E. (Power Engineering) degrees from Purdue University and an M.B.A. (Finance) degree from the University of California-Berkeley.

John is a Life Fellow of IEEE (member for 53 years), member of IEEE-HKN (inducted 53 years ago) and Tau Beta Pi (inducted 51 years ago), member of the Delta Sigma Phi Fraternity, and was awarded the IEEE Millennium Medal, the IEEE Power & Energy Society (PES) Excellence in Power Distribution Engineering Award, the IEEE PES Substations Committee Distinguished Service Award, the IEEE PES Meritorious Service Award, the 2024 CIGRE US National Committee (USNC) Philip Sporn Award, the 2016 CIGRE Distinguished Member Award, the 2016 CI GRE USNC Attwood Associate Award, the 2021 CIGRE Honorary Member Award, the Smart Energy Consumer Collaborative (SECC) Lifetime Achievement Award, and the Delta Sigma Phi Fraternity Career Achievement Award.

John received the 2009 Purdue University Outstanding Electrical and Computer Engineer Award and the 2023 Purdue University Distinguished Engineering Alumni Award. John teaches Smart Grid courses at the Georgia Institute of Technology and the University of Tennessee at Chattanooga, and Smart Grid courses for various IEEE PES local chapters as an IEEE PES Distinguished Lecturer (since 1999). John has published one hundred fifty papers and articles, has co-authored five books and has one US patent







# Grant Gilchrist, P. Eng., Systems Engineer, Tesco Automation. Founding Member of the DNP-UG Technical Committee, Panelist

Grant Gilchrist, P. Eng., is a Systems Engineer specializing in grid modernization for Tesco Automation. He is a member of several utility data communications standards groups including the IEC working groups for SCADA and utility protocol security. He is a founding member of the Technical Committee for the

Distributed Network Protocol (DNP3) and was secretary of that committee for seven years. Grant is an active member of the Cybersecurity Task Force. He was editor and primary author of several standards documents, including the IEC 62351-5 standard for cyber-security of the IEC 60870-5 and DNP3 protocols, the award-winning IEEE 1815.1 standard for gateways between IEC 61850 and DNP3, and the DNP3 Application Note AN2018-001, soon to become IEEE standard 1815.2 (in collaboration with MESA), which describes how to use DNP3 to communicate with Distributed Energy Resources (DERs). He has helped several major utilities develop technical requirements for their Advanced Metering Infrastructures (AMI) and other grid modernization programs, including some of the original use case definitions for AMI. He specializes in visualizations of the Smart Grid and developed the NIST Smart Grid Framework "cloud" diagrams.