Data Diode Cybersecurity Implementation Protects Operations Network and Facilitates Transfer of Operations Information to Business Users

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Data Diode, Cybersecurity, data transfer, network segment, screen sharing

ABSTRACT

This session describes the use case of the integration of one-way data diode technology as part of a water utilities' cybersecurity solution for their operations technology (OT) network.

The client, a water utility serving over 1 million customers, needed to protect their operations facilities (pumps, generators, SCADA system) from cyber threats. The initial solution to protect their OT network was to segment and isolate plant operations from the Internet and business IT network access. This provided the cybersecurity protection they needed but prevented reporting and monitoring data from reaching locations outside of the plant. This inability to transfer critical proprietary business data out of the OT network was a significant barrier to efficient operations.

They addressed this problem and restored operational efficiency, by implementing a data diode solution that maintains the secure perimeter created by isolating the OT network but allows critical reporting information and plant monitoring data to reach resources outside of the plant. They utilized capabilities to both transfer data from the Operations Center to the business network and to do remote screen sharing so remote engineers could "see" into the plant remotely while maintaining a secure, one-way only outbound data flow.

ABOUT THE AUTHOR

Dennis Lanahan, *Director, Sales & Customer Service, joined Owl in the Fall of 2007, after four years as Director of Sales Operations at iRobot. During the time of rapid growth at iRobot, from 2003-2007, he was responsible for overseeing Sales Operations and Customer Service for the Home Robots Division. His responsibilities included global supply-chain operations, customer fulfillment and North American consumer help-desk service and support.*

He started his career at Seagate Technology in Scotts Valley, CA and has held Sales and Sales Management positions in various technology companies selling computers, computer peripherals and internet services. He holds a Bachelors Degree of Individual Concentration (B.D.I.C.) from the University of Massachusetts from 1986, with a concentration in Business Management and Computer Information Science. Contact: dlanahan@owlcti.com.