FEND

Physically block cyberattacks

Safely Opening the Door to the Cloud for Critical Manufacturing Facilities

A large, Fortune 100 manufacturer needed to keep energy and maintenance costs under control. Equipment at their factories use millions of dollars of energy and water each year, and when equipment performance starts to slip, costs can add up quickly. Unexpected equipment failure could also lead to a stop in factory production, resulting in lost revenue with each hour of downtime.

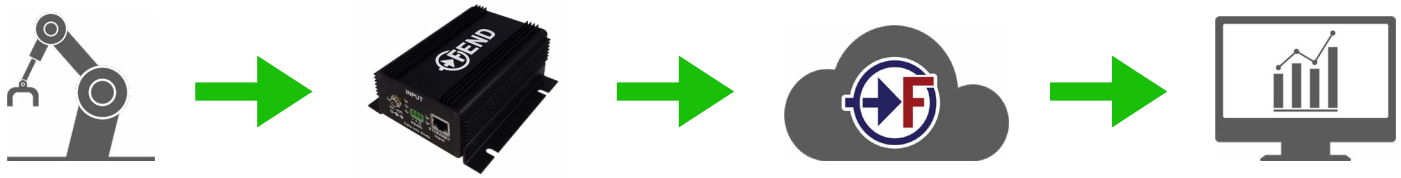
The manufacturer wanted to use third-party analytics platforms to help their maintenance teams stay on top of the critical equipment at each facility, prioritize tasks, and direct investment. However, internal IT security teams saw tremendous cybersecurity risk in connecting the factory floor to the internet. One of Fend Incorporated's analytics partners introduced the data diode concept to the manufacturer. A data diode - also known as a one-way communication diode - is a device that allows information to travel in only one direction. Data diodes use light to send data while physically protecting key assets. They provide system visibility while prohibiting malware, ransomware, and other attacks from breaching the network connection.

With the help of data diodes, data is now flowing directly from multiple factory floors to Fend's Amazon Web Service-based Cloud service, which the analytics partner uses to monitor equipment in real time.

Fend pairs its one-way communication diode hardware with Fend Cloud, a data ingestion platform built on AWS. The platform allows for rapid onboarding of legacy IIoT devices in a consistent, scalable fashion. Fend's devices turn legacy protocols, like Modbus, into more modern formats like MQTT which are then sent to AWS. The platform uses several AWS services for ingestion, hosting, and API access. AWS IoT Device Defender integration provides alerts about device status, for example when connectivity is interrupted.

By using Fend's one-way communication diodes, along with AWS Cloud services, the customer now gets the operational insights they need and the security they deserve. The combination of unhackable physical protection with the power of the cloud allows customers to safely integrate new and legacy industrial equipment into cloud-based applications while protecting them from current and future cyber threats.

Example: Critical Industrial Equipment



Powered by: aws partner network

Learn more about how data diodes work and get product specifications at www.fend.tech/products

CISA Recommendation

In September 2021, The Cybersecurity & Infrastructure Security Agency recommended the use of one-way communication diodes to protect industrial control systems from cyberattack. Read more at https://www.cisa.gov/control-systems-goals-and-objectives

For More Information

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