

# Securing Pharma Operations with Owl Data Diodes

## Overview

The digital transformation of the pharmaceutical industry is driving more efficient production and supply chains, novel research, and better clinical trials. Yet, the business and social value of pharmaceutical data and products mean this industry is a prime target for malicious cyberattacks and industrial espionage.

**So how do pharmaceutical organizations balance securing validated production systems against unauthorized access, while allowing the flow of critical operational and security data from manufacturing infrastructure to external users and systems?**

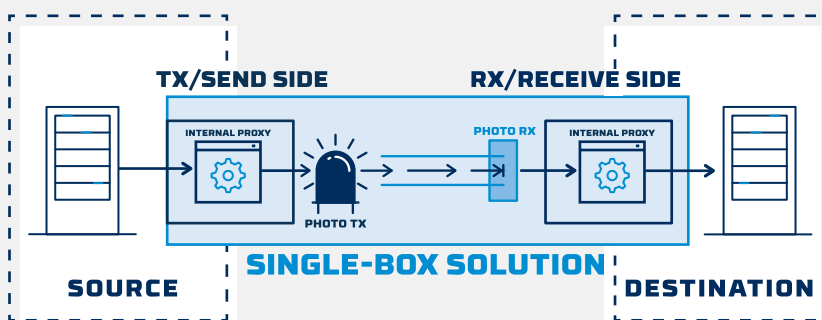
## Data Diodes in Pharma Manufacturing

Owl data diodes are used to secure critical systems in pharma manufacturing environments that need to stream operational data, security, and safety alerts to enterprise networks or to the cloud. They can be deployed anywhere there is a need to securely send or collect critical operational, safety, and security information. Owl data diodes can also protect against the disruption of digital assets, freeing business and operational teams to confidently focus on their production goals.

### SPECIFIC USE CASES INCLUDE:

- Sharing Process Control Data
- Cloud Connectivity
- Software Updates & Patching
- Secure Remote Monitoring
- File Transfer

## What is a Data Diode?



Owl data diode products are designed using a multi-layered, patented approach. Each data diode solution is a hardware-enforced cybersecurity device designed with two separate circuits – one send-only, and one receive-only. These circuits physically constrain the transfer of data to one direction only, from a source network to a destination network.

Owl data diode cybersecurity products provide hardware-enforced one-way data transfer and assured network security against malware, ransomware, control override, and other forms of cyberattack. Owl products are currently in use by hundreds of customers in the U.S. intelligence, military, and government communities; utilities and energy; and commercial enterprises.

# Data Diode Pharma Use Cases

**1 Share Process Control Data:** Securely transfer data from validated manufacturing systems and plant infrastructure to external users and systems while preventing unauthorized access and intrusion.

Owl products support all standard industrial protocols, such as OPC, Syslog, and Modbus, and leading industrial control platforms, including OSIsoft, Schneider Electric, AVEVA, GE, and Rockwell Automation.

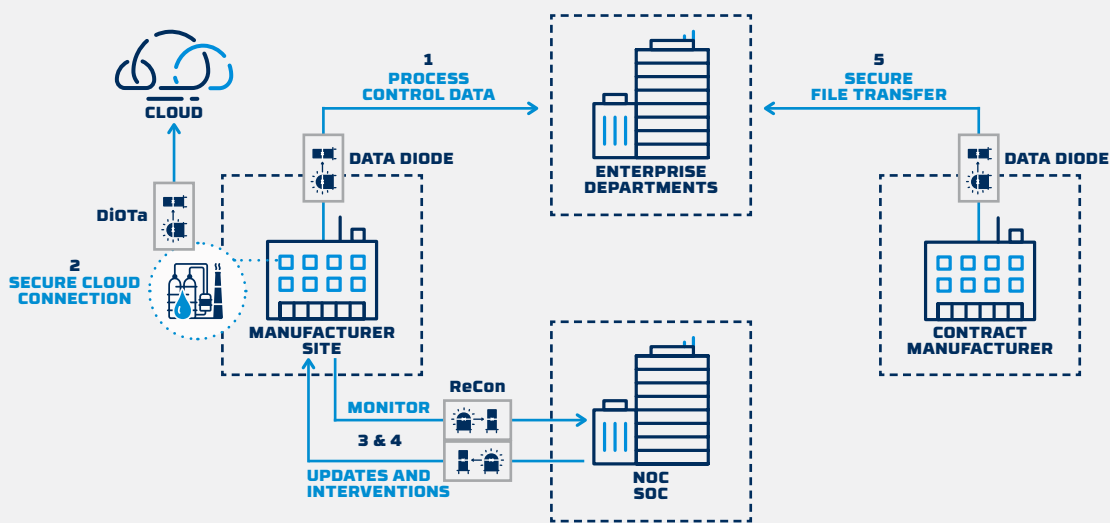
**2 Cloud Connectivity:** Shield trusted networks from external exposure, including private, public, or hybrid cloud systems, while enabling secure data export from operational resources.

**3 Software Updates & Patching:** Safely vet, transfer, and install software updates on systems and devices within secured networks.

*Note on legacy devices: Legacy systems are a significant concern because they are often no longer supported for security updates. Owl data diodes allow legacy devices to act as good cyber-citizens, transferring data out while securing any external access.*

**4 Secure Remote Monitoring:** Enable real-time remote screen monitoring of secure network computers and ensure visibility and awareness of important events across the manufacturing infrastructure.

**5 File Transfer:** Reliably transfer files across secure network boundaries.



[Learn More at owlcyberdefense.com/pharma](https://www.owlcyberdefense.com/pharma)

## OWL Cyber Defense

Owl Cyber Defense Solutions, LLC leads the world in data diode and cross domain network cybersecurity. With a constant focus on customers in the military, government, critical infrastructure, and commercial communities, Owl develops market-first, one-way data transfer products to meet a variety of operational needs, from entry level to enterprise.

For more information on Owl, or to schedule a demo, visit [www.owlcyberdefense.com](https://www.owlcyberdefense.com)