

NETWORK SECURITY SOLUTIONS

Securing Hospitals with Owl Data Diodes

Overview

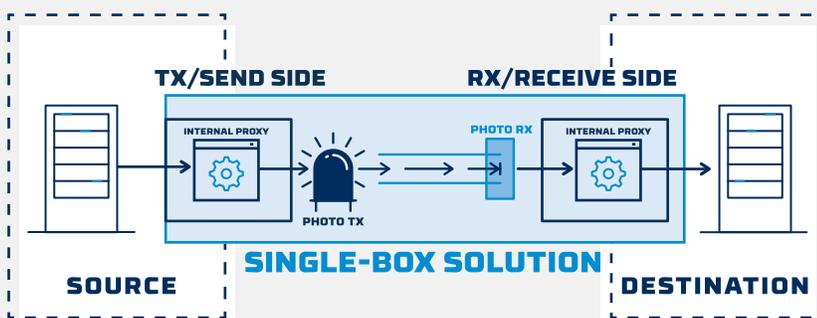
In this era of healthcare digital transformation, the digitization of medical records and lab tests has made it easier to access patient information and drive care processes. And the use of digital medical devices has brought more accurate and time-saving efficiencies to the patient experience. At the same time, this movement has made health systems more vulnerable to various forms of cyberattacks that can impact their business, partners, and patients.

Yet, healthcare organizations are struggling with this increased risk of cyberattacks. For example, 4 in 5 U.S. physicians have experienced some form of cyberattack.¹

And by affecting an organization's ability to provide care, cyberattacks have had a large financial impact. U.S. healthcare systems lost \$6.2B in 2016 due to data breaches, on average \$2.2M per breach.¹ Adding to this cost, breaches also led to a 64% increase in advertising spending to stem loss of business and to regain reputation and patient trust.²

Owl Cyber Defense (Owl) manufactures data diode cybersecurity products for hardware-enforced one-way data transfer and assured network security against malware, ransomware, control override, and other forms of cyberattack. Our products are used by the U.S. intelligence, military, and government communities; and critical infrastructure (including nuclear, oil, and gas) and commercial enterprises.

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 Diodes in Healthcare

Owl's data diode solutions reach beyond the government and critical infrastructure markets. Our products can be deployed anywhere there is a need to securely send or collect data. Owl data diodes can also protect against disruption of digital asset controls to streamline automated processes, so your team can focus more time on patient care.

Learn how our solutions can secure the sensitive data and assets in your hospital's network:

- 1 Managed File Transfer:** Secure and shield your trusted network by preventing direct connectivity between external partners and internal servers. A data diode ensures files can be sent from your internal network to your application DMZ or Gateway, or the open internet, through a one-way link that can't be breached. Owl works with leading MFT vendors to assure easy integration of our enhanced security solution with your choice of MFT platform.
- 2 Networked Clinical Devices:** Isolate your operational Clinical Technology (CT) network from your business and public Information Technology (IT) network. Data diodes allow you to securely stream clinical device data, including from hard to secure legacy clinical devices, from your CT to your IT domain and drive business processes and decisions. Owl data diodes provide hardware-enforced security to network segments, supporting DHS, HHS, and FDA best practices in network management, intrusion prevention, and device security.
- 3 Image Archiving and Management:** Ensure data integrity, availability, and confidentiality of your PACS. To limit network entry points, improve your cybersecurity, and protect your PACS from a cyberattack, a data diode can secure the transfer of high-definition diagnostics images to remote centers for analysis. Owl's one-way connection can validate protocols across the network to enforce legitimate traffic and reduce chances of illicit network actions.
- 4 Telehealth:** Confidently use video and home health devices to send data back to your healthcare organization. Data diodes make sure that the path used to stream the data is not used as an entry point to your network, or your patient's. The reliability of Owl data diodes streaming video and device data is based on years of experience with mission-critical streaming data applications in different industries.
- 5 Clinical and Research Data Centralization:** Tightly control the flow of research or clinical data in your central data repositories, such as payer databases, hospital-wide EHRs, and research databases. Data diodes help you decide the entry routes for data from other systems, and how the data leaves the repository, giving you control and protecting your data repositories from penetration. Implementing and validating standard healthcare protocols, Owl's data diodes help you easily integrate and implement automated updates to your selected EHR without introducing new risks to your clinical or research network.



¹ <http://www.phe.gov/405d>

² <https://healthitsecurity.com/news/hospitals-spend-64-more-on-advertising-after-a-data-breach>

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