DELL Technologies

OWL Cyber Defense

SOLUTION BRIEF

# Owl Data Diodes for Dell PowerProtect Cyber Recovery

Hardware-enforced security for Cyber Recovery vault visibility and management

## THE SOLUTION

Protecting your vital data from cyber attacks requires proven and modern solutions. PowerProtect Cyber Recovery and Owl Data Diodes can give you confidence that you can quickly identify and restore known-good data and resume normal business operations after a cyber attack.

## CYBER RECOVERY KEY FEATURES:

- Automated operational air gap for network isolation
- Synchronization of data between production systems and the vault to create immutable copies with locked retention policies
- Full-content indexing and machine learning to detect signs of corruption
- Automated integrity checks
- Automated restore and recovery procedures

## OWL DATA DIODE KEY FEATURES:

- Physical separation
- Secure, one-way transfers
- Dual administration
- Multi-protocol support
- Role-based access control
- Separate administrative and data interfaces
- Hardened Linux operating systems

## The Challenge: Visibility and Management of an Air-Gapped Vault

A key challenge of operating an air-gapped data vault is the lack of operational visibility to the systems inside the vault. The lack of connectivity means that data from conventional system monitoring and threat detection cannot be integrated into routine data center operations. The solution is a secure, one-way transfer of critical vault data to any destination, without introducing new threat vectors to the vault. The combination of Dell Technologies PowerProtect Cyber Recovery and Owl Data Diodes achieve both vault protection and visibility, without direct access to the vault. Together, Dell Technologies PowerProtect Cyber Recovery and Owl Data Diodes provide air-gapped protection for vaults, while delivering malware detection reports and system health information to the people who need it. By creating an air gap and gaining visibility to critical data from the vault, conventional system monitoring and threat detection data can both be transferred for routine data center operations.

## Secure Remote Monitoring

Monitoring the vault is extremely important to identify suspicious activity and monitor performance and system health information. However, with an air-gapped vault architecture, reporting would typically need to be performed in person at the physical location of the vault for the highest level of security. The OPDS-1000, Owl's multi-purpose data diode, eliminates the need to be at the vault site and provides hardware-enforced, one-way data transfers of malware detection reports and system health information to security staff. This hardware-enforced data diode securely transfers data in real-time via SMTP (emails), Syslog, and SNMP traps through a one-way only, optical connection to a security operations center for secure remote monitoring. Unlike software-based solutions, hardware-enforced data diodes prevent threats from entering back into the air-gapped security network. An additional OPDS-1000 unit can be deployed for a one-way transfer of Network Time Protocol (NTP) information into the vault. The data diode relays a time source on the production side to an NTP server on the vault side of the data diode. Owl data diodes provide the highest level of security to remotely monitor the vault.

## Secure Remote Access

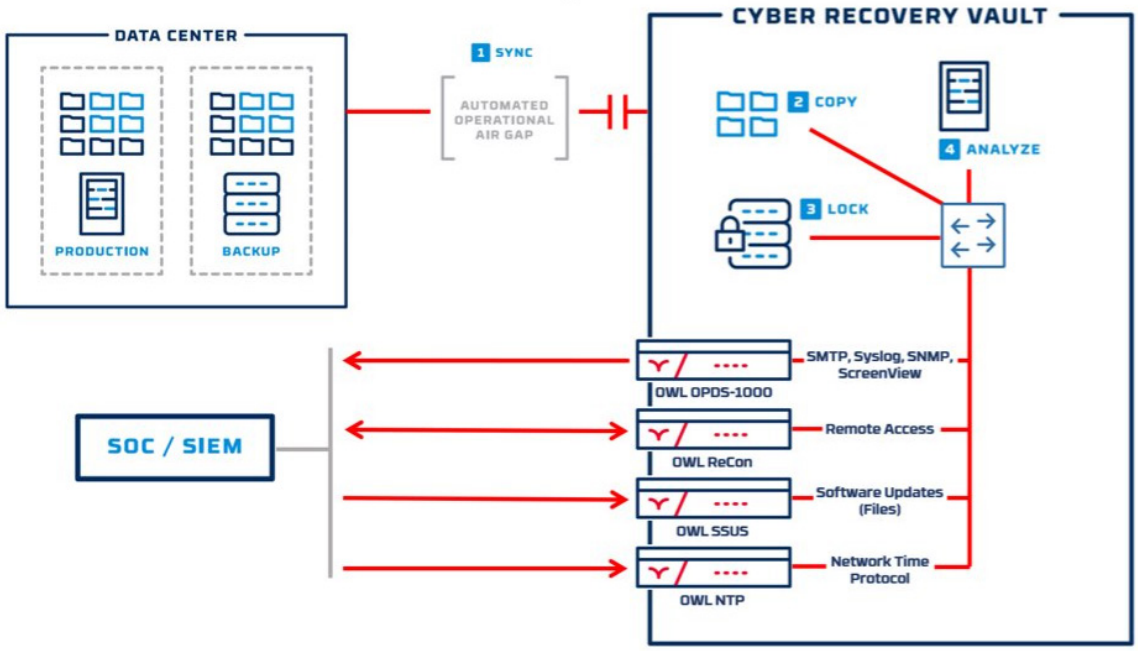
In addition to remotely monitoring the vault, some organizations require remote access to the vault. Software-based, bidirectional solutions, like firewalls, can pose risk to the air-gapped architecture of the vault and introduce new threat vectors to the environment. Software-based solutions can be configured for connections and protocols of any type, initiated from either side of the vault, increasing the risk of being hacked. ReCon, Owl's bidirectional data diode, is comprised of two, one-way data diodes pointed in opposite directions, all in a 1U rack-mountable device. No routable information crosses the security boundary and configuration is separated for the source and destination sides, providing an additional level of administrative segmentation. Connections can only be initiated from the source side and both sides need to agree on the configuration for a TCP session to work end-to-end.

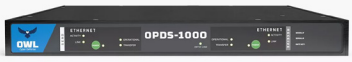
## Secure Software Updates

For organizations that need a reliable and secure method to verify and transfer software patches into the vault, Owl's SSUS solution provides hardware-enforced one-way transfers for files. An administrator maintaining the vault would request a hash code from the software vendors which are then independently entered into a manifest on SSUS. When a file is copied onto the SSUS solution for transfer, SSUS calculates the hash of the file, compares it to the hash in the manifest, and if it matches, then it is transferred to the secure vault through the hardware-enforced SSUS data diode.

## The Combined Solution

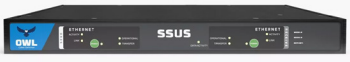
Protecting your vital data from cyber attacks requires proven and modern solutions. Cyber Recovery can give you confidence that you can quickly identify and restore known good data and resume normal business operations after a cyber attack. The addition of Owl Data Diodes provide confidence that the Cyber Recovery vault can be monitored remotely, accessed remotely, as well as updated remotely, without introducing new threat vectors to the air-gapped network architecture of the vault.




**OPDS-1000**
Secure Remote Monitoring


**ReCon**
Secure Remote Access




**SSUS**
Secure Software Updates

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**

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