

Enterprise Packet Transfer Solution

The Owl EPTS is a 10Gbps, enterprise-scale Perimeter Defense solution that is certified, accredited and serving DoD missions. It was specifically designed for extremely high performance data transfers of Ethernet packets. Serving as a network traffic collection device, EPTS transfers all Ethernet network traffic from the source network to an isolated destination network for real-time analysis.

The Owl Solution

EPTS is a two-server, enterprise solution, using a dedicated send-only server and a dedicated receive only server. The servers are connected with Owl's proprietary DualDiode Technology to create a deterministic one-way only data transfer path.

To support the maximum throughput of a 10Gbps network, EPTS operates two DualDiode pairs running in parallel serving a single internal data transfer channel. All Ethernet frames are ingested from the source network and relayed to the destination network unchanged. To achieve the stated objective of the mission, no filtering is done.

This defense-in-depth solution includes security features mapped to the UCDSMO ICD-503 (which includes NIST SP 800-53), and to the Risk Decision Authority Criteria (RDAC), and to the DCID 6/3. Both servers run a STIG-compliant Certifiable Linux Integration Platform (CLIP) operating system based on CentOS/RHEL 5.

Features

- Networking Monitoring & Reporting
- Intrusion Detection Support
- Communications & Protocol Analysis
- SPAN Traffic Monitoring to an Network Intrusion Detection System

Benefits

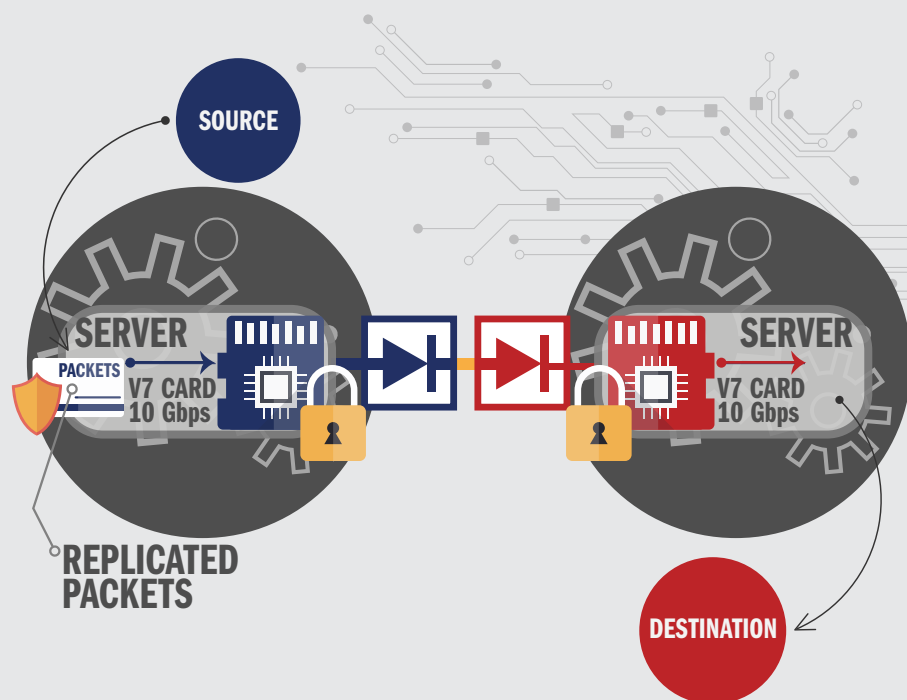
- Drop-in Deployment Transparency
- Red Hat LinuxOS®
- Robust Audit Logging
- 1Gbps on 2500 Communication Cards
- 10Gbps Line Rate Packet Capture
- Tested with a Number of Network Switches; Cisco & Gateway



Network Monitoring for Security

The monitoring of network health, and of network traffic, are key tasks for many organizations seeking to maintain the highest levels of network domain security. Network managers use a variety of analysis/sniffer tools to diagnose network problems, to gather & report network statistics, and to debug communications and protocols.

Domain security policies require network analysis to detect network intrusion attempts -- perhaps, even to gain information for affecting a network intrusion. Such analysis often occurs on highly secure control networks; hence, the need for isolation of the destination network by hardware-enforced one-way information transfer technology.



Hardware Specifications

DualDiode® Technology hardware:

Server-mounted custom-designed communication cards – one Send-Only, one Receive-Only

Owl V4 Communication Cards:

Fiber-optic multimode, 62.5/125 ST-ST – 155.52 Mbps link speed; 15 Mbps user throughput

Owl V6 Communication Cards:

Fiber-optic single mode, LC-LC 2.488 Gbps link speed

Clear-channel 2500 – 270+ Mbps user throughput

Channelized 2500 – Supports up to 8 discrete application connections across 1 physical link; User throughput 65+ Mbps per connection

Owl V7 Communication Cards:

DualDiode® Technology OCCs, and drivers enable one-way-only data transfer with upgradeable bandwidth up to 10 Gbps

Owl CDS Small Form Factor:

Two custom-designed communication cards – one Send-Only, one Receive-Only in PC104 form factor, each integrated with independent servers within an Owl CDSFF chassis -- fiber optic link speed 155Mbps, with user throughput at 10 MBytes per second

Owl Perimeter Defense Solution:

Two Owl-designed communication cards – one Send-Only, one Receive-Only in PC104 form factor, each integrated with independent servers within an Owl PDS chassis -- fiber optic link speed 26-155Mbps.

DualDiode Communication Card Software:

Secure Transfer System Send/Receive drivers & Send/Receive install software

User Application Software:

A wide range of Owl applications for file/directory, TCP/IP, UDP, and UNIX syslog message & SNMP TRAP one-way transfer

Compatibility:

Dell PowerEdge, Sunfire and Sun Blade, HP ProLiant (for other platforms, contact Sales)

Operating Systems:

RED HAT® LINUX® SE LINUX®
Microsoft WINDOWS® CENTOS®

DualDiode Technology®

Owl's DualDiode Technology is built around patented circuitry which only allows data to physically flow in one direction thereby preventing all network based cyber attacks. The design also includes a deep protocol break which terminates all Ethernet traffic, transfers the payload via the ATM protocol and then converts it back to Ethernet. This has the unique benefit of hiding all the IP and MAC address information from the outside world and preventing any probing of the network. This technology comes in different form factors depending on operational environment.

About Owl

For over 16 years Owl Computing Technologies has been implementing next generation cybersecurity solutions for critical networks. Owl's DualDiode Technology®, a proprietary data diode, boasts 24 technology patents and has over 2,000 successful deployments globally across intelligence, government, military, financial services, utility, energy, and other critical infrastructure networks. Owl's hardware-enforced technology ensures secure networks and enables the reliable and robust transfer of all data types and file sizes.

