OWL Cyber Defense

OV2S
Owl Virtual Screen Service
Software Module

Owl Virtual Screen View Service

Owl Virtual Screen View Service (OV2S) is a software application for Owl data diodes that collects real-time screen images from monitoring computer platforms within segregated networks. OV2S delivers this information to client platform screens outside the discrete network boundary. Secure one-way transfer of screen content enables operators and administrators in different security networks to monitor activity, to troubleshoot systems, and to recommend process changes. An OV2S Server installed on the segregated network platforms to be monitored. The application gathers display changes, and sends them as a UDP datagram stream to the Owl data diode solution. The Owl solution applies the Owl proprietary protocol break to this data, and securely transfers it to a platform or platforms on which OV2S Client is installed. OV2S can support multiple segregated network inputs, and can deliver screen updates to unicast, multicast and broadcast user destinations.

The Owl Solution

OV2S is a software application that allows HMI screens within a plant or facility to be replicated at a remote location. OV2S collects real-time HMI screen images from within the secure network and uses the Owl data diode platforms to transfer those images across the security boundary of the plant to end-users on other networks. The secure one-way transfer of screen content by an Owl data diode solution enables operators and administrators in different networks to monitor activity, troubleshoot systems, and recommend process changes.

OV2S is comprised of a Server component and a Client component. The OV2S Server is installed within the secure network on the computer platform(s) to be monitored. The application gathers display changes as they occur, and sends them as a UDP datagram stream to the source side of the Owl data diode platform for transfer. Owl securely transfers the data to end-user platforms where the OV2S client is installed. The client then renders the original HMI screen in its own window on the user's computer. OV2S can support multiple segregated network inputs and outputs, and supports unicast, multicast and broadcast user destinations.

FEATURES & BENEFITS

• Transfers Screen Captures as UDP Streams

• Multiple OV2S Clients Can Connect to the Same Server

• Smart Screen Technology -- Server Sends Partial Screen Data as it Changes, with Full Periodic Screen Updates

• Clients Can Connect and Disconnect at Any Time without Restarting Server

• Client Can Connect to Multiple Servers with Simultaneous Display of Multiple Screens

• Client Display May be Cropped and Scaled to Accommodate Screen Size

• Low CPU Usage Permits Multiple Applications Support

OWL DATA DIODE TECHNOLOGY

Owl's data diode 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 operational environment.

DATA DIODE

SOURCE SCREEN

DESTINATION SCREENS
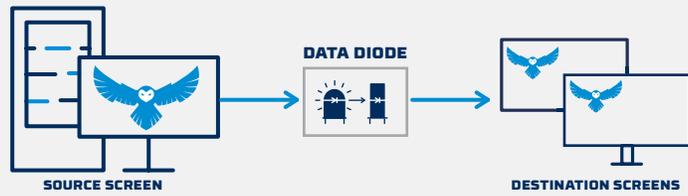
Compatible Platforms

OWL DIFFERENTIATORS

• EAL 4+ Certified Data Diode Technology

• Accreditation Expertise

• Data Filter Integration & Management

OPDS-100D
OPDS-100
OPDS-1000

OWL ENTERPRISE PERIMETER DEFENSE SOLUTION (EPDS)

Owl uses a pair of Dell PowerEdge servers or equivalent.

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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