



## Owl File Integrity Orchestration Engine

The Owl File Integrity Orchestration Engine FIOE is an integrated suite of software functions designed to conduct the examination of files by data filters, anti-virus scanners, and content management utilities. When used in conjunction with an Owl Cross Domain Solution CDS, FIOE may be installed in either Send-only or Receive-only CDS environments, or on both sides of the secure DualDiode® one-way transfer. A wide variety of filtering mechanisms can be supported by an FIOE instance, and in an Enterprise Services CDS, multiple FIOE instances can be supported – each tailored to the security policy required of the individual Enterprise Services user.

### FIOE Operation

An Owl CDS most often contains:

- Owl DualDiode® transfer hardware, and Owl software application proxies to the user’s network domains
- Instances of FIOE and a suite of filtering/content management tools, and
- A “hardened” OS environment within which the DualDiode transfer and the FIOE function. The filter suite can include best-practice commercial anti-virus scanners, content examiners, third-party custom filters, and Owl-designed filtering applications -- the FIOE application program interface (API) operates with an extensive range of content management choices.

At the CDS Send-only inlet, files for transfer are delivered by Owl ScanFile Management System (OSMS) or Remote File Transfer Service (RFTS), landing in an examination directory. The FIOE Orchestration Engine process polls this directory to discover the file and move it to FIOE for testing. FIOE “calls” the appropriate filter or filters which then examine the file in a user configured sequence. FIOE receives a filter test result. FIOE examination indicating a file is suitable for processing releases the file for unconditional transfer. If an FIOE instance is installed at the CDS Receive-only outlet as well, positive examination of a transferred file releases it for further post-processing. Sample actions may be file transport to destination via TCP (with Owl RFTS), FTP, SFTP, etc.

A negative file examination result may be configured for a number of subsequent actions:

- File is deleted from the system
- File is sent to a quarantine directory for admin disposition
- File is sent to a “re-try” queue for re-examination.

### Problem process

Conditions can arise in which FIOE does not receive a filter test result at all, due to some processing anomaly. In these cases, the file enters a problem process queue. It is re-discovered, and returned to the examination process for testing.

### FEATURES:

- Modular API manager of filters and file content examiners
- COTS, program-specific, & Owl filter support
- Filtering suite and filter process configuration

### BENEFITS:

- Integrated filter management hardens content examination
- Ensures non-bypassable examination before data transfer
- Provides integrated operations flexibility

*In the Enterprise Core  
At the Tactical Edge*



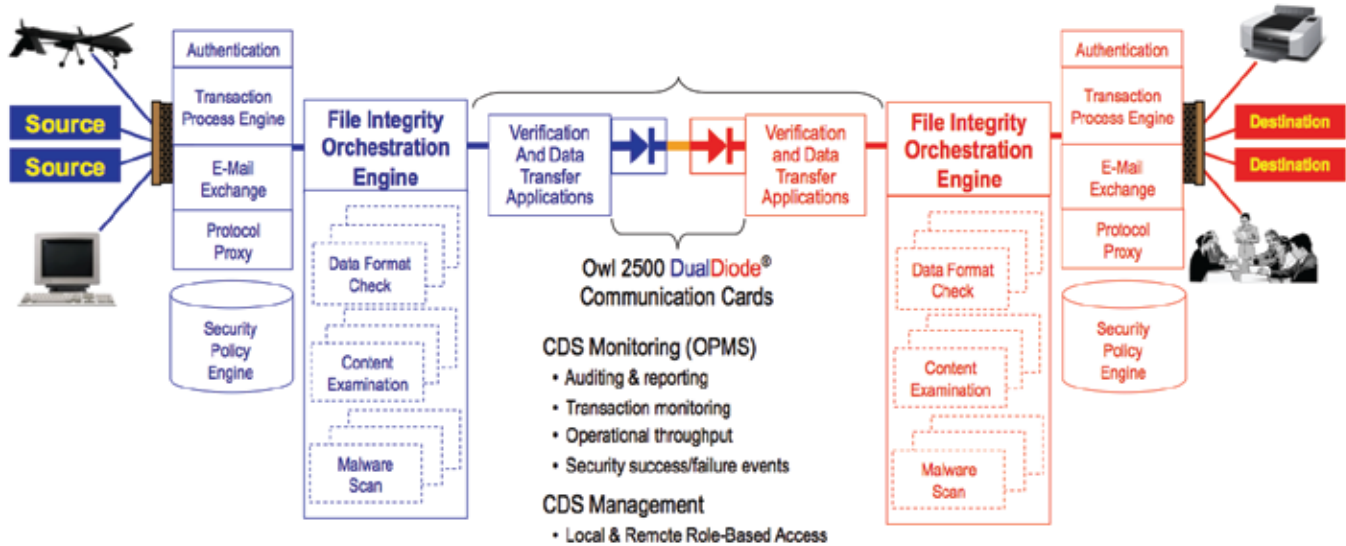
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# FIOE



Enterprise CDS with FIOE

## DualDiode® Technology

A pair of Owl Communication Cards (Send-only and Receive-only), with Owl internally developed drivers, forms a Dual in-line Diode; each card is custom-manufactured to permit one-way-only data transfer. Security for the one-way transfer is enforced at both the send and receive nodes in this exclusive Owl design - neither diode requires a trusted state with the other. Application-specific software (for files, TCP packets, etc.) completes the individual Owl product offering.

Owl One-Way DualDiode Technology design securely protects the send- and receive-network domains. No information of any kind, including handshake protocols (TCP/IP, SCSI, USB, serial/parallel ports, etc.), pass from the destination computer/network back to the source computer/network. Owl's one-way transfer is a dedicated point-to-point link and requires no additional machine configuration (such as IP). This "trust-nothing" design ensures that data residing on each isolated network is fully protected.

Owl products have "Authorization-to-Operate" ATO status within many government agencies. There are over 1000 deployments Secured by Owl throughout the Department of Defense and the US Intelligence community, and the industrial control system industry.

## About Owl Computing Technologies:

A U.S.-owned & operated Small Business Owl Computing Technologies, Inc., based in Ridgefield, Connecticut, is a privately funded US company.

Owl has an exclusive licensing agreement with Sandia National Laboratories, with worldwide rights to develop and market products originally based on Sandia's patented data diode technology. Sandia National Laboratories is a U.S. National Laboratory operated by Sandia Corporation, for the U.S. Department of Energy.

Owl Computing develops and markets Secure Information Transfer Systems for files and directories, UDP- and TCP-based traffic, for multiple streaming video sessions, and other formats — please call for more information.