OWL Cyber Defense

RFTS

Remote File Transfer Service
Software Module

FEATURES & BENEFITS

• Securely Replicates and Transfers Files & Directories Across Network Boundaries

• Easily Incorporates Established Security Policies with User Authentication & Data Encryption

• Compatible with Cloud File Storage Systems and Applications

• Ensures End-to-End File Integrity Through Endpoint Message Digests & Hash Validation

• Owl Proprietary Protocol Break Ensures Network Privacy

REPLICATE COMPLETE DIRECTORY STRUCTURES

RFTS features the ability to securely replicate entire directory structures from one network domain to another. The application monitors for any changes to the source directory structure and seamlessly recreates them on the destination. This ability simplifies coordination and synchronicity of file directory structures between network domains, ensuring high accuracy and integrity.

Transfer Files & Directories Across Security Boundaries

In many one-way file replication/transfer scenarios, for backup, remote analytics, or other uses, files and directories must be regularly replicated and updated on the destination system. The Owl Remote File Transfer Service (RFTS) is a proprietary file transfer application that enables end-users to manually or automatically replicate and transfer files and directories to known destinations, via a client-server relationship. Operating in conjunction with Owl data diode hardware products, RFTS employs configurable TCP sockets for communication, transferring files and replicating entire directory structures to and from desktops and servers.

The Owl Solution

RFTS is designed as a secure file transfer application that doesn't have the inherent vulnerabilities of commonly used protocols like FTP and NFS, with the added benefit that files can be encrypted, scanned, and filtered before being transferred. Fully integrated with Owl Commercial & Government product lines, RFTS is a client/server architecture that identifies and securely moves files from the source network, across the network security boundary via the data diode solution to network directories on the destination network. RFTS can transfer single files, multiples files, and complete directory structures.
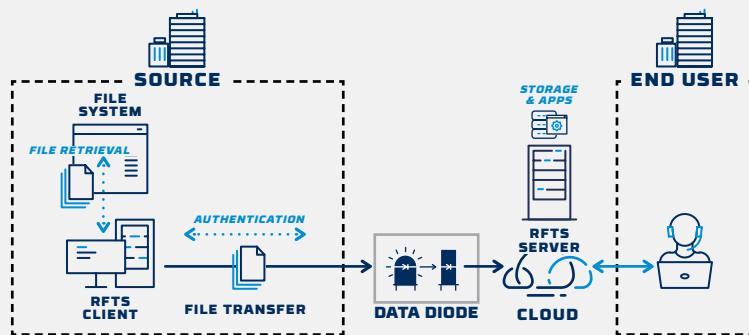
RFTS is available in two versions to enable manual and automated file transfers in a variety of environments and use cases.

1 **Cross Domain**- Cross domain applications often require content management and/or data filtering. In this version, the RFTS client-server configuration is established between the user source machine and the Owl data diode platform. There, data filtering, filter management, and custom schema checking can be performed and once the file is vetted, it is transferred across the data diode controlled interface.

2 **Network Security** - Standard network security applications typically require minimal delay with no scanning requirements. In this version, RFTS client-server applications may reside on user source and destination machines only, allowing files and directories to be replicated and transferred quickly over the data diode interface. User authentication and data encryption are also included in this version.

MANAGED FILE TRANSFER INTO CLOUD ENVIRONMENT

Many organizations now utilize cloud applications and storage for convenient shared access and analytics. However, these connections to the cloud can also open up threat vectors into source systems within the organizations themselves.

RFTS enables secure data transfer for organizations using cloud networking services by coupling user authentication & data encryption with Owl proprietary data packetizing. The source remains secure via the one-way connection, and the proprietary packet design, while still using standard TCP/IP transport & addressing formats, ensures that the Owl-formatted traffic cannot be compromised or misdirected.

SOURCE
FILE SYSTEM
FILE RETRIEVAL
AUTHENTICATION
RFTS CLIENT
FILE TRANSFER
DATA DIODE
STORAGE & APPS
RFTS SERVER
CLOUD
END USER

COMPATIBLE PLATFORMS

RFTS is compatible with the entire line of Owl Network Security Solutions – from the OPDS-100D DIN rail-compatible data diode to the EPDS commodity server-based cross domain platform. It is also compatible with all of Owl's file transfer-based Cross Domain Solutions.

Compatible platforms include:

- DiOTa
- EPDS
- OPDS-100D
- OCDS-FT15
- OPDS-100
- OCDS-MPP
- OPDS-1000
- V7 CARD KITS

All Owl data diode hardware is built around patented circuitry which physically only allows data to flow in one direction, thereby preventing all network based cyberattacks into the protected network.

All Owl data diodes are designed to include a protocol break which has the unique benefit of removing the IP and MAC address information and preventing any probing of the network from the outside world. This technology comes in different form factors depending on the operational environment.

Broad Functionality Support

Compared to standard protocols, RFTS supports a much wider array of features and functions.

FEATURE / FUNCTION	RFTS	FTP	SFTP	SCP
FILE TRANSFER	✓	✓	✓	✓
ENCRYPTION	✓	✓	✓	✓
USER AUTHENTICATION	✓	✓	✓	✓
DATA VALIDATION & SCANNING *ONLY AVAILABLE FOR CROSS DOMAIN*	✓	✗	✗	✗
USER-DEFINED PORT ASSIGNMENT	✓	✗	✗	✗
USER-DEFINED DATA FORMAT	✓	✗	✗	✗
ALTERNATE DESTINATION *RFTS – ALTERNATE SOCKET BASED ON PRIMARY SOCKET CLOSE*	✓	✗	✗	✗
REDUNDANCY OPTIONS *RFTS – FAILOVER TO SECONDARY PATH, IP NETWORK OR DATA DIODE TRANSFER*	✓	✗	✗	✗
TRAFFIC (QOS) SHAPING *RFTS – DATA PACING OVER VARYING LINK SPEEDS TO ENSURE RECEIPT OVER TIME*	✓	✗	✗	✗
USER-SPECIFIC MODIFICATION *RFTS – PROJECT-SPECIFIC TRANSFER TAILORING*	✓	✗	✗	✗
AUTO CONNECTION RE-TRY	✓	✗	✗	✗

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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