



SecureAge Data Diode System

Securely Bridge Air-Gapped Networks

Tighter Security Doesn't Have to Mean Zero File Transfers

Closed networks, sometimes referred to as Air Gapped Security Networks, are a real option to completely secure against threats inside and out. With a clear separation between secure and unsecured networks & devices, organizations are able to conduct everyday tasks securely without the threat of data leakage or interception.

In order for organizations to operate smoothly, a means to safely transfer files between a secured and unsecured network without the risk of getting attacked is a necessary process to account for.

The SecureAge Closed Network System (CNS) provides a complete solution that facilitates organizations to effectively move files between securely air-gapped networks to open or unsecured networks.

Securing Transfers With 3 Core Components

File Transfer System (FTS)

The SecureAge File Transfer System (FTS) software facilitates the secure handling of files sent across multiple networks. The system readily works and is optimized for use in closed networks. Users are provided with an easy to use web console for uploading files on the source PC and easily download them via a URL sent to the receiving PC. FTS can be easily accessed through Windows login (single sign-on) authentication or with a dedicated account via local authentication.



Information Broker (IB)

Designed to smartly and securely interact with Data-Diode devices, the SecureAge Information Broker (IB) encrypts data at rest and in motion to ensure total confidentiality during data transfer. It also allows for retransmission of data whenever a transfer fails due to data-diode errors.



For larger deployments involving multiple air gapped networks, the IB can also function as a router that allows for redirecting data to multiple networks possible. It also supports application awareness making it possible for dedicated applications like ERP and HR software to communicate within closed networks without the need to supply dedicated connections.

Universal AV (UAV)

The Universal Anti-Virus (UAV) scans all files that are sent through the FTS to ensure that they are not infected with viruses and malware. By incorporating more than one engine, files are put into scrutiny by a wide array of samples for a much higher detection rate than simply using a single engine.



Air-Tight Security Features



Dual Diode Transmit

Enables High Availability for Data Diode appliance



Data Retransmission

Increase reliability of file transfers through Data Diode appliance



End-to-End Encryption

Ensures confidentiality of files at rest and in motion via encryption



SecureWipe

Supports DOD 3-Pass/7-Pass & Peter Gutmann algorithm



Content Disarm & Reconstruction

Removal of harmful elements of infected files while retaining usability



Log Management

Authorized users can access pertinent file transfer logs for investigation



Upload/Download History Report

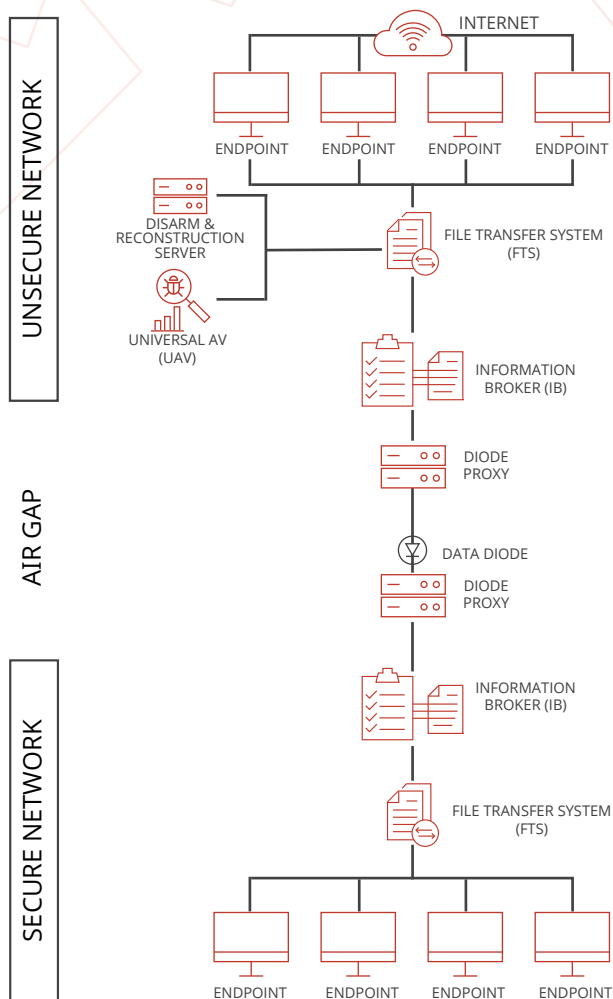
Users get complete information on the status of file transfers



Web Console User Interface

Flexible deployment to endpoints with usage that requires minimum training

SecureAge Closed Network System - Basic Architecture



1. User on Unsecured Network opens the FTS Console to upload files to be sent & picks a destination network.
2. Universal AV scans uploaded files for threats. All file contents are disarmed and reconstructed by the Disarm and Reconstruction Server. Clean files are then sent to the Information Broker (IB).
3. The IB checks file content. Files are then encrypted & transferred to the outgoing file server.
4. The FTS Sender server sends the file over to the secure network via the Data Diode.
5. The IB checks the Incoming Diode Proxy, decrypts the file and sends it to the FTS server for storage in the Download Folder.
6. The FTS Receiver server sends a download URL to the receiving PC via secure mail server.
7. After initial download, the sent file remains downloadable during a set interval. A one-way acknowledge message is sent back to the sending FTS server.
8. On interval expiry, the file is no longer accessible by the recipient & is moved from the Download Folder to the Archive Folder on the FTS server.

High Availability Architecture

SecureAge Closed Network System supports High Availability Architecture in order to ensure optimal operational performance even at times of high volume file transfers on closed networks.



File Transfer System



Universal AV



Information Broker



Diode Proxy

Access & Management

Access Rights	User	User Admin	User Manager	Admin	Super Admin	Auditor
Submit File	✓					
View Upload/Download History	✓					
Transfer-In/Transfer Out Report		✓				
Upload/Download Overview Report		✓				
Detailed Upload/Download Report		✓				
View Logs			✓	✓	✓	✓
All Users Upload/download				✓	✓	✓
User Management				✓	✓	
System Settings				✓	✓	
Key & Cipher Management					✓	
Download (Upload/Download) File History						✓

All-In-One Turnkey Solution

Software + Hardware

The SecureAge Closed Network System provides a complete solution that encompasses both hardware and software. The solution includes the powerful File-Transfer System, Information Broker, Content Disarm & Reconstruction, and Universal AV bundled together and ready to work with accompanying Diode Proxy and Data-Diode hardware.

For Existing Hardware

The SecureAge CNS also supports data diode devices from a wide range of hardware providers. This allows interoperability of powerful security features from the File Transfer System, Information Broker, and Universal AV on existing diode-proxy configurations.

Closed Network Solution Benefits from SecureAge Technology



Convenient User Access

Includes support for Single Sign-On Authentication and Microsoft Active Directory (AD) that allow users to readily access secure file transfers.



Protected Files Every Step of the Way

The SecureAge CNS provides end-to-end encryption of your data at rest with full network encryption and the ability to securely wipe residue data.



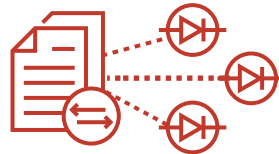
Power in Visibility

Get clear reports as to what, where, and when files are transferred over and between closed networks. Users have access to reports to confirm data delivery results.



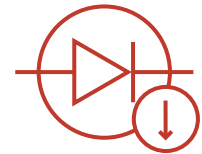
Hardware and Software in Perfect Harmony

SecureAge CNS provides a turnkey solution for air gap networks that consists of a readily available setup of Data Diode device and file transfer system.



Just as Flexible for Industry Standard Hardware

The powerful SecureAge CNS works with all Data Diode appliances available in the market.



Tighter Security where Less is Actually More

Get the most out of your Data Diode devices by reducing the number needed to operate multiple air gap networks in your organization.



Tried Technology & Trusted Support

Get trusted technology that has been deployed for more than a decade with a team of expert security engineers.

Need More Information?



www.secureage.com



protect@secureage.com