



Fox DataDiode

secure one-way communication

Fox DataDiode for Microsoft Windows Server

Secure Information Sharing for Higher Assurance in MS Windows Environments

The Fox DataDiode solution supporting MS Windows Server Operating Systems as part of a range of supported platforms and hardware. In all variants of the product Fox DataDiode supports the cases where a network will be connected to an external source, like another network, to transfer electronic data. In High-Security environments, it is often forbidden to make a physical connection between different networks. The present form of data transfer (using USB sticks, CDs, humans) is never real-time and, more important, creates security risks. However, it is used in order to prevent data leakage from the High Security Level (Red) network to the Low Security Level (Black) network (also called 'Air Gap'). The reception of email or browsing the internet on the Red network is also impossible.

The Data Diode connects two networks with different security levels providing a one-way data path. It prevents information from being transferred (including covertly) from the High Security Level network to the Low Security Level network.



Easy-to-use

A common DataDiode setup consists of two proxies. One of the proxies is placed in the Black network (which can be directly connected to the Internet). The other proxy is placed in the Red network. A one-way physical connection is made between the two proxies to prevent data leakage and guarantee the security of the red network. Each proxy has an easy-to-use web interface that allows authorized users to configure what is to be transferred from where (Black side) to where (Red side). A transfer can contain files, streaming video, or incoming email. This greatly increases the possibilities of people working on the red network.

Secure one-way connection

As the physical connection between the Red and Black network is one-way (hardware), any software malfunction (possible bug or tampering) will never compromise the security of the red network. In addition, all transfers are logged. Error detection and correction will further enhance data integrity and security.

Endless possibilities

The Data Diode was primarily developed for use by governmental organizations, especially those that have to assure a certain security level. The Data Diode is used in environments that require state secret security solutions. Commercial organizations with critical infrastructures, that want to perform one-way transfers between two physically separated networks can make excellent use of the Data Diode. It is possible to add (custom made) 'connectors' for other (proprietary) protocols, guaranteeing one-way data flow under all circumstances. The Data Diode increases the possibilities in classified networks and critical infrastructures without compromising security.

Fox DataDiode for Windows Software requirements

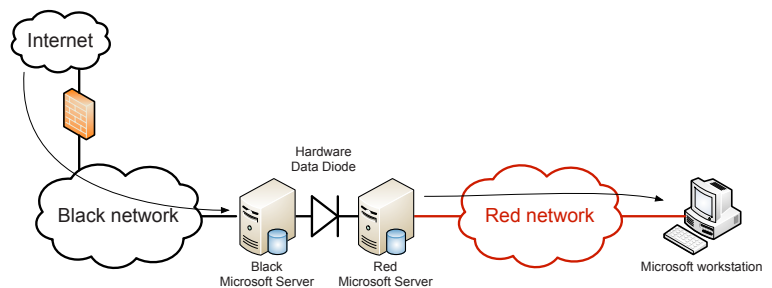
- Intel x86 (32-bit) or x64 (64-bit) architecture server.
- Microsoft Windows Server operating system
- 2003 or 2003 R2/ 2008 or 2008 R2 (preferred)
- Microsoft .NET framework version 3.5 SP1 or later.
- WinPCAP version 4.1 or later.

Fox DataDiode for Windows Hardware requirements

- 1 x Hardware data diode
- 1000Base-SX input connector (SC)
- 1000Base-SX output connector (SC)
- 2 x Server hardware
- x86 or x64 architecture
- At least 2GB internal memory
- At least 40GB free disk space
- 1000Base-SX fibre optic network adapter (LC or SC)
- 2 x Fibre optic cables
- LC/SC (network adapter) to SC (hardware data diode)

Microsoft Server Integration

- File and Folder transfers
- Raw socket UDP or TCP
- Heart beat time Sync
- Event logs
- SMB Transfer
- FTP Trasfer
- SMTP / MS Exchange
- Content Filter and AV integrated products
- Common Criteria EAL 7+ (2010 certified)
- Common Criteria EAL 4+ Norwegian Scheme
- Approved by NATO (NS) - Green Scheme
- NL-NCSA and BSI (Secret)



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