



Guaranteed one-way communication

# **Fox DataDiode** **For protecting secrets**

Handling confidential information poses a challenge to organizations. Restrictive measures are often taken to ensure that secrets remain secret. Some organizations employ measures to achieve high levels of physical security which offer great protection at the cost of productivity. Other organizations take a waiting stance toward implementing security requirements, favoring a more fluent but insecure workflow.



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[fox-it.com/datadiode](https://fox-it.com/datadiode)

Rules and regulations for handling confidential information require a level of security that is often considered impractical. Fox-IT offers the Fox DataDiode, a cross-domain solution reconciling the seemingly contradictory requirements of high assurance and free information flow. Organizations around the globe trust the Fox DataDiode for its unidirectional requirements, as supported by the numerous certifications such as NATO SECRET and Common Criteria EAL7+.

### The Fox DataDiode solution

Confidential information is usually stored on disconnected, isolated networks to prevent data leakage. Often this is mandated by rules and regulations. The act of adding information to this network typically involves offline transportation of data on removable media such as optical discs, portable USB storage devices, etc. This is not real-time, not 24/7 and cumbersome, making it an unpopular method. Moreover it's error prone and the actual level of perceived security is debatable, as is demonstrated by high-profile cases of compromised security.

The Fox DataDiode prevents any data (secrets) from leaving the high secure network through its connection. It automates and streamlines the process of transporting information to confidential networks at the same time lifting the security levels to new heights. It offers guaranteed one-way network connectivity so that you can securely and smoothly transfer information in real-time, 24/7. The Fox DataDiode is the highest certified product in the world in terms of security. Even for a host of applications that rely on two-way communication the Fox DataDiode has built-in support. This way you have immediate access to the most recent acquired intelligence in your confidential environment.

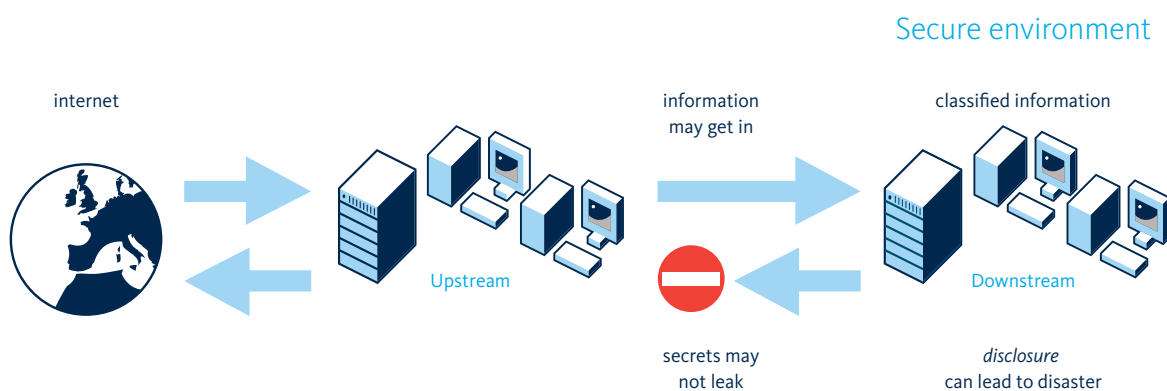
### How it works

Strict one-way communication breaks benefits from full duplex communication, most importantly flow-control, error detection and error correction. Fox-IT developed a special one-way protocol that restores these benefits. A typical Fox DataDiode setup includes a receiving proxy, a hardware Fox DataDiode and a sending proxy. Data is received using various commonly used protocols. The proxy sends it using the one-way protocol via the hardware Fox DataDiode to the other proxy. Error correcting codes are added to the transfer, as are data integrity checksums. The sending proxy checks every transfer, ensuring reliable data delivery in the high security network.

The Fox DataDiode hardware is the key element that guarantees that the information can flow in one-way only. The powerful combination of specialized electronics and optics, is a proven technology for securely keeping data in the high security network.

### Highest Certification Levels

The Fox DataDiode is certified by NATO for use up to SECRET level and under the Common Criteria scheme up to level EAL7+. In addition the Fox DataDiode hardware has been accredited by local authorities such as the Dutch General Intelligence and Security Service (AIVD), and the German Bundesamt für Sicherheit in der Informationstechnik (BSI).



### **Fortify and secure your network connections**

A wealth of information on the different applications and scenarios for the Fox DataDiode is available on our website. The Fox DataDiode is delivered through a global network of certified and trained partners who are knowledgeable in handling confidential information. For more details, including partner information, please go to [www.foxdatadiode.com](http://www.foxdatadiode.com).

### **The Fox DataDiode feature list**

- Guaranteed one-way network connection to automate transfer of information into confidential networks.
- Numerous certifications such as NATO SECRET and the Common Criteria EAL7+.
- Extensive protocol support, such as
  - File Transfer Protocol (FTP, FTPS, FTPES)
  - Windows file sharing (SMB/CIFS)
  - UDP
  - Email (SMTP)
  - TCP
  - Network Time Protocol (NTP)
  - SFTP and SCP.
- Extensive application support such as
  - Windows update monitoring (WSUS)
  - Antivirus update mirroring
  - Database mirroring
  - Remote monitoring (Nagios, syslog and SNMP)
  - Lawful interception (ETSI)
  - Controlled declassification.
- Trusted by governments worldwide.

### **Fox-IT**

Fox-IT prevents, solves and mitigates the most serious threats caused by cyber attacks, data leaks, or fraud with innovative solutions for governments, defense agencies, law enforcement, critical infrastructure and banking and commercial enterprise clients worldwide. Fox-IT combines smart ideas with advanced technology to create solutions that contribute to a more secure society. We develop products and custom solutions for our clients to guarantee the safety of sensitive and critical government systems, to protect industrial networks, to defend online banking systems, and to secure confidential data.



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