

Fox DataDiode

secure **one-way** communication

Newsletter

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New Data Diode website www.datadiode.eu

The new Fox DataDiode website is up and running. We have updated the complete website and have put tons of new content online. The diode markets are expanding from government and defence to business and process control. In order to explain the concept of the diode we have created a technology page explaining the solution more in-depth and the numerous certifications it holds. To show the potential of the Fox DataDiode there is extensive information regarding the protocols the software can forward and the various applications supported. The latest news and events are listed. Most of the information is now also available for download for further reading.

Data Diode earns NATO Green Scheme



After undergoing the NATO evaluation the Fox DataDiode has been recognized under the NATO Information Assurance Product Catalogue (NIAPC) Evaluation Scheme: GREEN. The Fox DataDiode was already recognized for the NATO classification level: Up to and including NATO SECRET (NS). The NATO evaluation scheme was the only missing evaluation which we have been working on for the last years.

With the Data Diode being recognized by the NATO Green Scheme, the product is positioned stronger in the NATO market. It gives more assurance to all NATO nations for creating unidirectional connections with their national networks. More information is available at: <http://www.ia.nato.int/niapc/Information/NIAPC-how-to-use>

New movie: "Fox DataDiode Explained"

"The guy who works with secrets" explains in less than 4 minutes the basic concept of data diodes in government/defence environments. This short stop-motion movie was created by our marketing department to provide a quick and simple way of showing why and how data diodes are being used. <http://www.datadiode.eu/technology/diode-explained>

New software release version 1.5.4

Every 6 months we release a new version of our core Fox DataDiode software (OpenBSD). These releases consist of OS patches, bug fixes and new (minor) features. Our current version is 1.5.3 which was released in April 2010 was replaced in December 2010 by our latest version 1.5.4.

The changes to version 1.5.4 are:

- Update of the OpenBSD operating system to version 4.7 for better hardware support and improved stability.
- New SFTP support (SSH)
- New SCP support (SSH)
- Improved brute-force protection of the web interface where administrators have more control of time delaying or locking users out when trying to brute force access to the web interface.
- Changes to the license implementation. Due to some problems with the hardware copy control token we have removed the token requirement completely from the software and replaced this with a software licence key. We found that this makes the overall Fox DataDiode more reliable.
- Support for the new Dell PowerEdge R210 proxy servers. The R210s are smaller and lighter than our high-end Dell PowerEdge R610 proxy servers. The R210s are perfect for proof of concept, demonstration or cold spares.

We strongly advise all our current 1.5.x customers currently using version 1.5.x to upgrade to the latest software version. Using the backup and recovery process the update can be done within a short time with limited downtime. If any assistance is required, please contact your local partner reseller or contact us at: support@datadiode.eu.

End-Of-Life (EOL) Software version < 1.4.x

In April 2009 we released version 1.5 of the Fox DataDiode proxy software. Although some of our customers are still working with software version 1.4.1 or before, we have decided to issue an End-of-Life notice regarding all software versions up to and including version 1.4.1. We will support these software versions until 31 December 2011.

Version 1.5 is a huge improvement in stability, features and performance over earlier releases. More protocols are supported, improved web-interface and better remote management options. We have various upgrade options for hardware and software available. Please contact your local reseller or email us directly at: info@datadiode.eu.

Case study: secure Data mining

Fox-IT has recently completed a project in which data from multiple sources was collected, inspected and forwarded through a datadiode. In this setup the data's integrity is ensured by inspection with antivirus software. The confidentiality of the sources is guaranteed as there is no direct connection between them. In the high-level secure network the data is combined and analysed.

The main advantage of this solution is that the various sources are never directly connected to each other. Furthermore, the integrity of the transmitted data is checked in the DMZ before sending it to the sensitive premises of the customer.

CEPNIC

In September 2010 Fox-IT actively participated in the CEPNIC exercise together with the Dutch Defence, NC3A and 'Public Order and Safety' organisations such as local police. Multiple data diodes were deployed to transport location information from public or closed networks to the NATO Joint Common Operation Picture (JCOP) command centre. The goal of CEPNIC was to extend last year's exercise 'Purple Nectar' and to show that various defence systems could all stream their information into a joint information centre (JCOP).

With this exercise we have implemented various applications:

- Location information of public order and safety organisations e.g. real-time location information of all ambulances in the Netherlands.
- Streaming video with location metadata from helicopters and airplanes.
- MS SQL database mirroring.
- Location information of all participating defence units.
- Location information of all commercial shipping carrying AIS in the North Sea.
- Incident information.

The exercise was a huge success and we are looking forward to participate again in the upcoming years where we can show all the capabilities of the Fox DataDiode for real-life crisis situations.



Support for RSS Applications

RSS feeds are a popular medium to publish and receive blog entries, news headlines, audio and video. Various customers have indicated the need for up to date information in their classified environment and RSS feeds are suitable to be used since they are standardized.

The RSS Application Module is capable of replicating an RSS server from a low classified domain to a high classified domain. The low RSS server periodically retrieves the latest RSS feeds and pushes this automatically through the Fox DataDiode to the RSS server in the high classified domain. All clients in the high classified domain are now able to subscribe to the RSS server and receive the latest information from e.g. the Internet.

DNP3 Smart Grids

Power plants, water treatment facilities, gas and oil refineries and public transport are using the Fox DataDiode to protect their process control systems. Within these environments various (proprietary) Supervisory Control and Data Acquisition (SCADA) systems are being used such as PI, DNP3, ICCP, Modbus, etc. Recently the IEEE organization has finalized the draft for the protocols being used within smart grids i.e. Distributed Network Protocol (DNP3). DNP3 is already being widely used in the energy sector. This sector is stimulating the standardization of protocols within new and upcoming solutions such as smart grids.

The Fox DataDiode solution supports a wide variety of SCADA protocols such as DNP3. Therefore the Fox DataDiode is ready for the future where smart grids are being used.



Partnership with Honeywell / Matrikon

Data diodes are more and more deployed within critical infrastructures such as (nuclear) power plants, the transport sector and gas/oil industry. The need for a proven hardware based solution has also been recognized by Honeywell / Matrikon, one of the world leaders in automation and process control solutions. Honeywell / Matrikon names Fox-IT as the preferred security solution for their SCADA systems.



Fox DataDiode

- Unique hardware based solution
- Designed for Top Secret environments
- 100% one-way communication
- Real-time, 24/7 connection
- Easy-to-use web interface
- Proven solution against data leakage and online attacks
- Approved and certified by:
 - NATO (Secret)
 - Common Criteria EAL 7+ (Dutch Scheme)
 - Common Criteria EAL 4+ (Norwegian Scheme)
 - NL-NCSA (Secret)
 - BSI (Secret)

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