



Fox DataDiode

secure one-way communication

Sharing Secrets

Various organizations collect sensitive information and store this in (classified) internal networks. These organizations can benefit from each others by exchanging information efficiently without compromising the confidentiality of their entire internal network. This application sheets describes how to exchange classified information over the internet without leaking information.

Current approach

Information about e.g. suspicious individuals, is collected and stored in (classified) internal networks which are physically segregated from other networks. To exchange information media carriers are used e.g. USB-sticks or CDs. The downside to this approach is the cumbersome process of exchanging information: it has to be done manually, it is not real time and introduces additional security risks.

Secure approach

Connect various organizations over the Internet securely with each other requires the use of Virtual Private Networks (VPN). The result is a secure tunnel which prevents adversaries to view communication between the organizations. To prevent unintended leakage of information from the classified network a Data Diode is used. The advantage is that exchanged information is allowed to go inside the classified network while ensuring that no information can leak. For storage of shared information a mutually agreed network location is added, which is accessible by all organizations through VPN.



Case

Sharing Secrets creates the possibility to efficiently and securely exchange information between various organizations and enables to:

- Share information securely using a shared server
- Forward information to other organization directly to their internal network e.g. files, streaming content or emails,

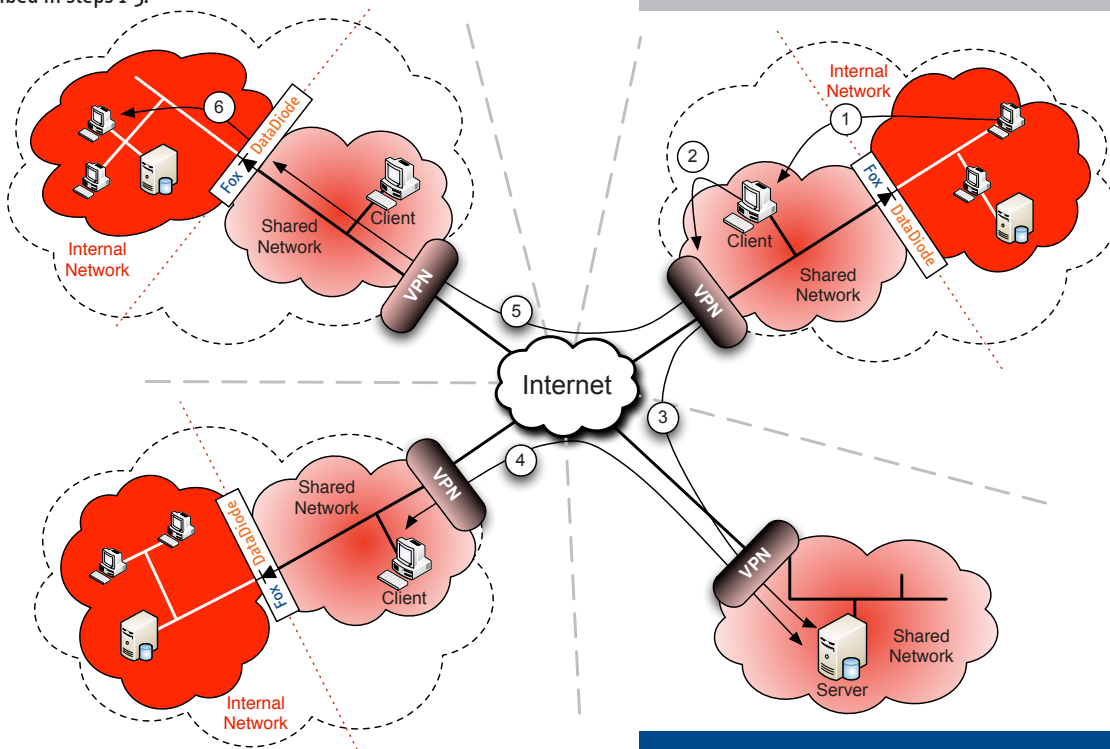
Sharing information securely

Step 1: Confidential information is declassified and placed on the Client, using the organizational declassification procedures.

Step 2: The client connects to the shared network through the VPN gate way inside his organization.

Step 3: Information is transmitted securely from the clients internal shared network to the shared network server over the Internet.

Step 4: Other clients can access the shared information in a similar was as described in steps 1-3.



Forward information

Step 5: After connecting to the shared network (steps 1-2) the client is able to forward the shared information via the VPN Gateway.

Step 6: Through the Fox DataDiode the information can be directly forwarded inside the internal network, with the assurance that no classified information can be accessed by other organization.

The Fox DataDiode, a perfect 100% secure solution, transfers data -online, in real-time and continuously- between two networks of varying security levels without compromising the security of the receiving network.

Key features

- Efficiency
 - Information can be shared instantly
 - No need to use media carriers to transport information between various organizations
 - Always access to the latest information
- Security
 - VPN connection ensures that eavesdroppers are unable to view or manipulate classified information
 - The Hardware Data Diode is a Common Criteria EAL 4+ (Norwegian Scheme), Common Criteria EAL7+ (Netherlands Scheme), NL-NCSA, BSI and NATO evaluated high-assurance device which ensures physical segregation between the internal network and the shared network

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