

# Data Diode vs-diode

High-speed one-way data transfer  
in SECRET classified networks



## Diodes

Strong protection against cyber risks and  
production downtime

### One-Way Data Transfer to Red Networks

Do you want to transfer data to networks classified as SECRET – so-called "red" networks – from "black" networks, which are not classified or classified at a lower level? For these types of data transfers, we have developed the Data Diode vs-diode with approval up to the SECRET classification level.

- The Data Diode vs-diode transmits user data in one direction only – from black to red.
- Data transmission in the opposite direction is consequently prevented.

With a throughput of up to more than 8 Gbit/s, the IT security application is very efficient and reliable for the one-way transfer of data.



### Your Benefits at a Glance



One-way data transfer from  
black to red networks



Supported protocols:  
Lumberjack v1, v2 and HTTP(S)-  
PUT for Logstash/ELK Stack, TCP,  
UDP, SMTP(S), FTP(S), syslog



Performance up to  
more than 8 Gbit/s



Complete package of  
hardware and adapters  
(protocol converters)



Security by Design guarantees  
the highest security level



Approval up to the classification  
levels German SECRET, SECRET UE/  
EU SECRET, and NATO SECRET

**Interested? Contact us:**

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» The diode function is implemented  
on a minimalistic microkernel system.  
Due to its low complexity, it is verifi-  
able and guarantees absolutely reliable  
one-way data transfers.

Secur|Ty  
made  
in  
Germany

Secur|Ty  
made  
in  
EU

## Fast and Reliable Data Transfer

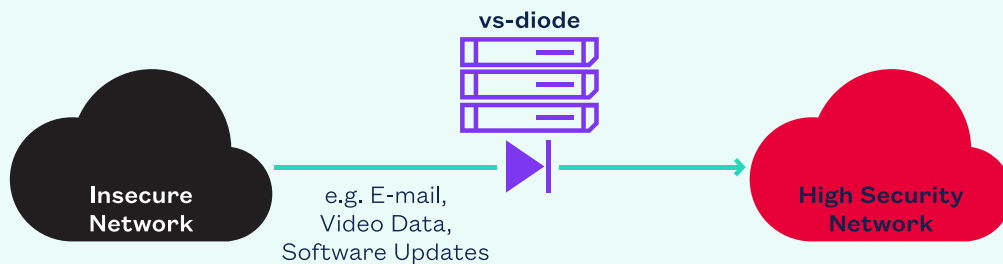
How vs-diode works: A firewall connected to the black network receives data from the sender. The data is checked for malicious software in order to protect the red network. The data is then sent via the filter system to the second firewall, which is connected to the red network.

The filter system categorically prevents any data from flowing in the other direction. The only exception is the status message that confirms the correct arrival of the data. This minimal feedback ensures quick and reliable transmission e.g. for the FTP(S), SMTP(S), and TCP protocols.

## Security by Design for Maximum Security

Does feedback affect security? Other diode solutions are designed to avoid feedback in order to physically prevent any data leakage.

vs-diode solves this problem with state-of-the-art technology. The central diode function has minimal programming and runs on a low-complexity microkernel operating system. This makes the diode process easy to analyze. The entire code can be examined to exclude the possibility of errors in this decisive component.



Transfer from black to red network via vs-diode

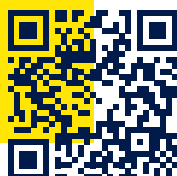
## Reasons Why

- Experts for the IT security of companies and public organizations
- Offer of a comprehensive, modular IT security portfolio
- Quality without compromise for all products, services, and processes

## genua – Excellence in Digital Security

genua develops innovative, reliable as well as market-shaping products and solutions. Whether in the public sector, for the operators of critical infrastructures, in industry or in the protection of classified information: we provide answers to the IT security challenges of today and of tomorrow.

Further information:  
[www.genua.eu/vs-diode](http://www.genua.eu/vs-diode)



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