



One-Way Network Interface

GeNUGate Data Diode

Definition:

The GeNUGate Data Diode is a one-way gateway for red-black transitions. The components in the data diode run on three separate computers and together operate rather like a sluice, with one wide and one narrow channel.

Data from the black network is accepted and transferred to the red network via a new connection. However, only protocol information reduced to an absolute minimum is permitted to travel in the opposite direction.

The hardened OpenBSD operating system used guarantees a high security standard.

Typical Use:

- Secure, automated data transfer from black unclassified networks to red classified networks, with no data transfer in the opposite direction

Reasons to Choose the GeNUGate Data Diode:

- Dual separation of the data flow prevents any unintended data transfer from red to black; the possibility of timing and covert channel attacks is excluded
- Supported protocols: SMTP, FTP, TCP and UDP
- The system can check critical parameters for incoming data and active content using specific rules, and remove data or refuse acceptance
- Thanks to virus scanning, the red network can be reliably protected against harmful code
- Two application level gateways offer complex checking routines while the minimal packet filter system permits information transfer from black to red only
- Protection against misconfiguration
- The OpenBSD operating system used is hardened in order to resist attacks, and has therefore been optimized for use in a data diode
- Based on highly resistant GeNUGate firewalls (certified to CC EAL 4+)

Service:

- Customer service directly from the manufacturer
- Hotline service / update service
- Free hardware support for three years from date of purchase
- Comprehensive training courses

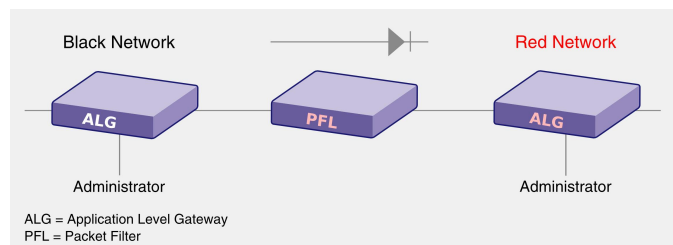
Reasons to Choose GeNUA:

- Leading German specialist for IT security
- Founded in 1992 – implementation of numerous major projects for industrial, government, and military organizations



Application Example

Classified military data such as situation reports, commands, or information about modern weapons systems needs to be handled in such a way that regulations pertaining to the protection of classified information are complied with. Such data must be processed only in the specially protected red networks, and must never be transferred to black networks.



GeNUGate Data Diode, consisting of a packet filter (PFL) and two application level gateways (ALGs)

For this application area, the GeNUGate Data Diode offers fully automated, unidirectional, real-time information transfer in 24/7 operation mode via SMTP, FTP, native TCP or UDP.

Specific examples of applications in both the public and private sectors include geographic information systems (GIS), enterprise resource planning systems (ERP), and control networks for large-scale technical facilities (e.g. for nuclear power plants, or for signal box systems for rail companies), which, for security reasons, are incorporated into red networks and simultaneously subjected to continuous data verification.

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Contact

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