

Forcepoint Data Diode

Segment and defend networks with automated uni-directional transfer

Securing one-way data flows

Government organizations need to gather and share data across oceans, battlefields, and offices rapidly and securely. Meanwhile, regulations such as Raise the Bar and GDPR have dictated a move to hardware-based data separation and require a solution that provides one-directional data flow.

Data diodes meet this regulatory standard while enabling rapid, automated data transfer that protects network segments of all sizes. These hardware-based devices, which are far more cost-effective and efficient than manual data transfers, allow the flow of data in one direction only through physical means, such as optical isolators. They provide an absolutely strict physical separation between networks. The air gap between networks can't be jumped with electronic tools.

Data diodes are particularly useful for organizations that require data to be ingested into a higher sensitivity network while ensuring that there is absolutely minimal risk of data coming back out of that network. For example, data can be securely

transferred from an unclassified (e.g. NIPR) or High-Threat Network (HTN) to a Secret one, or from unclassified to Top Secret. Data can also be sent from a secured segment to external systems and users (e.g. the cloud, a remote monitoring facility, regulatory bodies) without any risk of creating an external threat vector. This is beneficial for federal government agencies and system integrators, and regulated industries like oil and gas.

Forcepoint Data Diode

The Forcepoint Data Diode is configurable for simplified operations and maintenance while offering security, flexibility, usability, and reduced total cost of ownership. The Forcepoint Data Diode enables rapid, uni-directional, automated transfer of highly complex data to segment and protect networks, devices, and other digital assets (including databases, historians, SCADA, PLCs, DCS, and more) from external cyber threats. It's cost-effective, easy to use, and ideal for any size organization. The solution can also be configured for bi-directional use, while additional diodes can be easily deployed for increased throughput.

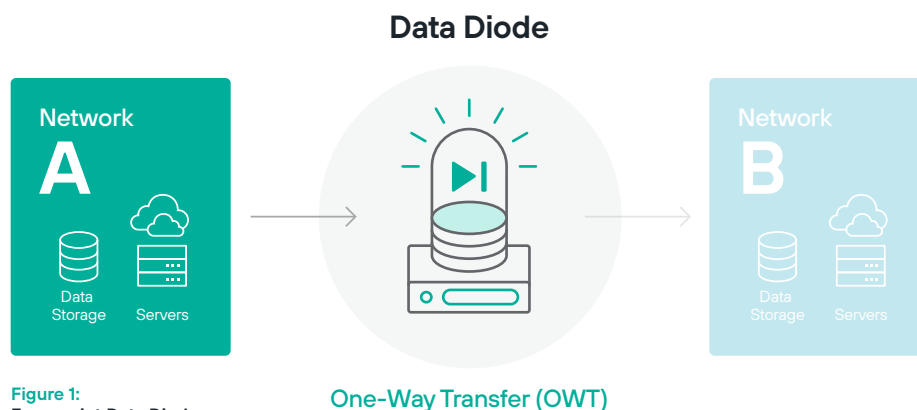


Figure 1:
Forcepoint Data Diode:
One-way transfer of data
between two domains

Key features and benefits

- › Secures one-way transfer with optical isolation
- › Supports various protocols and data types
- › Handles large amounts of data. Throughput varies with data type, use cases and protocols.
- › Supports local log consolidation of standard operating syslog, binary auditing, and data transfer logging
- › Offers high throughput with minimal packet loss while transferring data across two networks
- › Provides highly optimized Pitcher and Catcher software that can be customized further to improve throughput and minimize packet loss
- › Features an intuitive Configuration Interface that simplifies configuration, operation, and monitoring
- › Results in a low total cost of ownership with easy deployment
- › Integrates with Forcepoint Cross Domain Solutions

The Forcepoint Data Diode is based on Forcepoint's decades of experience in building cross-domain products to help organizations mitigate malware reach-back and data exfiltration. It eliminates expensive and time-consuming manual data transfers while meeting various compliance and regulatory standards around optical isolation, making it the ideal choice for threat- and compliance-focused deployments.



Ensuring Secure Data Transfer: Diodes and Guards

Diodes and Guards together create a comprehensive security posture. Diodes provide one-directional data flow and a physical separation between networks. However, Diodes alone do not provide deep content inspection, sufficient status, control, or even basic availability notifications. A comprehensive solution must also incorporate guards, which fill this gap.

Much like the layered approach to physical security at an airport, the combination of these two technologies is more powerful than either technology working independently.

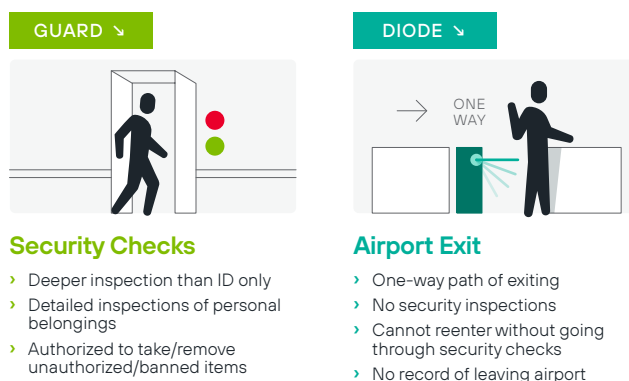


Figure 2:
A comprehensive solution must incorporate diodes and guards.
Real World Comparison: Think of it like airport security.

Conclusion

Data diodes remain one of the most reliable security solutions for one-directional data transfer. They ensure complete confidentiality and segmentation between networks. Combining Diodes and Guards create a comprehensive security posture. Diodes provide one-directional data flow and a physical separation between networks, while Guards provide deep content inspection.

Building on Forcepoint's decades of experience supporting organizations worldwide, the Forcepoint Data Diode takes these benefits to the next level. The Forcepoint Data Diode enables rapid, uni-directional, automated data transfer and is easy to configure and customize for any specific protocol or data type.