# The Fastback Data Diode Kit

## A Complete, Lightweight, and Guard-Agnostic One-Way Transfer Solution
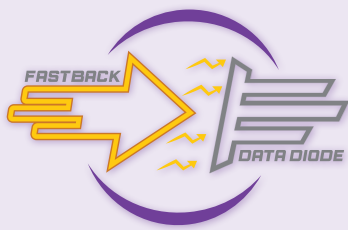
## The Importance of Secure One-Way Data Flows

Mission success in the defense, intelligence, and other critical organizations relies on the secure, successful transfer of data streams and files across network resources of different threat environments. This requires a secure, one-way data flow between networks that is physically separated and cannot be compromised.

## The Role of Data Diodes

A data diode is a hardware device that creates an absolute physical protocol break between networks that can not be compromised using electronic or software tools. The Fastback Data Diode is installed on network servers in front of dedicated guards that provide inspection of incoming files on data moving to and from isolated networks. This allows users to quickly and easily add data diode protection into their cross domain solution without complex integration challenges.

## RTB Requirements

To help secure Cross Domain Systems (CDS), NCDSMO has created a set of requirements called Raise the Bar (RTB). RTB Guidelines specify the measures that government organizations in the defense, intelligence, and other sensitive missions must comply with to ensure secure one-way transfer between networks. NSA assesses diodes to meet RTB standards and provides a list of diodes that meet RTB criteria on the NCDSMO website.

Fastback is an affordable, scalable solution leveraging commodity servers and hardware without the expense of replacing your existing components or worrying about proprietary compatibility. Fastback meets NSA's RTB standards for Data Diodes and allows you to meet security requirements quickly and confidently without excessive support or integration costs.



### Lightning Fast
The Fastback Kit is a complete, lightweight solution that uses commodity hardware to move data at speeds greater than 8Gbp/s in a uni-directional flow.

### Convenient Compliance
Fastback has been evaluated by the National Security Agency (NSA) and is included on the NCDSMO's Official Data Diode list.

### Easy Integration
Fastback uses commodity hardware and drivers to allow fast, reliable setup using existing hardware, and can interface with commercial RTB-compliant cross domain guards.

### Defense-In-Depth Architecture
Fastback's data diode kit provides physical Denial of Connectivity into protected networks and features polling and request-driven interfaces.
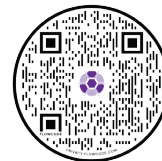
## Fastback Kit Includes:

- 10G Network Interface Cards (2)
- SFP+ Adapters (2)
- Fiber Optic Coupler
- Software Installation Discs
- Installation and Administration Manual



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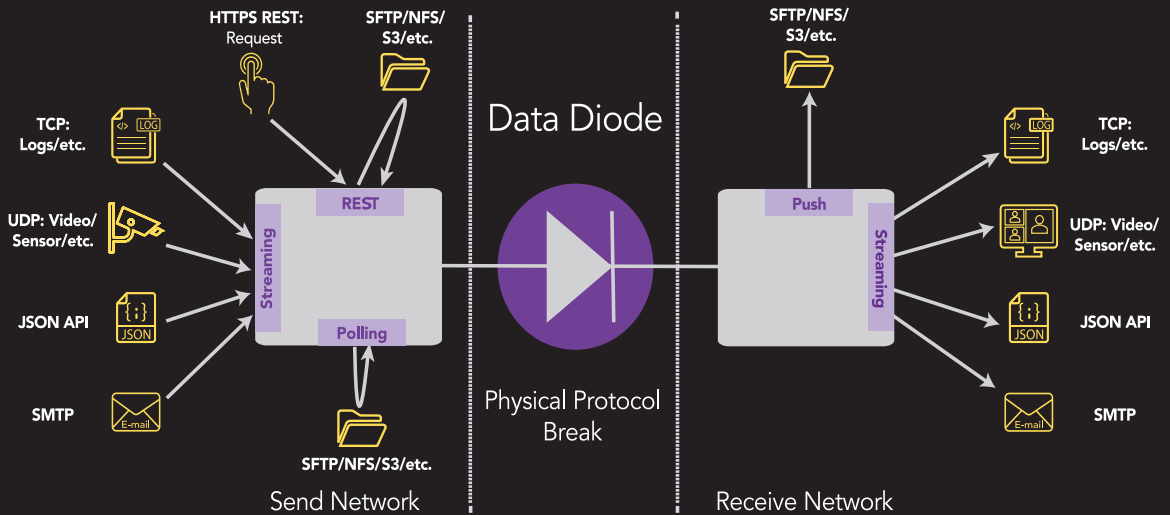fastbacksales@probity.com
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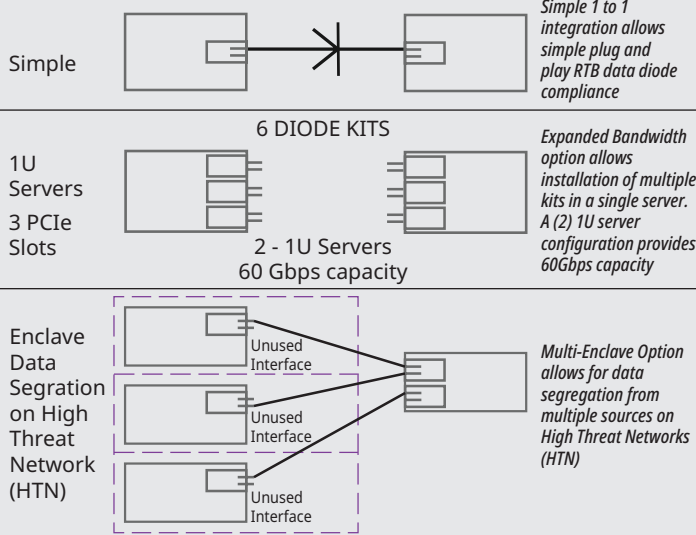
# Fastback Data Diode Specifications

## Includes A Full Range of Data Connectors

Fastback features polling and request-driven interfaces for File System (local, NFS, SMB, SCP), FTP, FTPS, SFTP, S3, SMTP (e-mail), JSON API, TCP Stream, UDP Stream, and RTP. All connectors are included in the base kit at no additional charge.



## Resource Options

Fastback can be configured to provide data diode protection in a wide range of network environments. Our kit approach allows users to install multiple diodes in a single 1U or 2U machine to handle twice the capacity of data from independent network connections in a space saving, cost-effective manner that meets RTB requirements.

**Simple** — Simple 1 to 1 integration allows simple plug and play RTB data diode compliance

**1U Servers 3 PCIe Slots** — 6 DIODE KITS / 2 - 1U Servers / 60 Gbps capacity — Expanded Bandwidth option allows installation of multiple kits in a single server. A (2) 1U server configuration provides 60Gbps capacity

**Enclave Data Segration on High Threat Network (HTN)** — Unused Interface — Multi-Enclave Option allows for data segregation from multiple sources on High Threat Networks (HTN)

## Cleared Cross Domain Services
### Assessment • Integration • Orchestration

Probity's expert Cross Domain Solutions team is available to help with CDS Assessment, custom integration, inspection, and workflow orchestration support to create a complete, concise, and compliant system for any mission requirement.

Our cleared resources have experience in every variation of infrastructure, including cloud, hardware, and hybrid environments. Probity's deep knowledge of commercial guards and GOTS systems provide a true one-stop support team for the most challenging applications.

### MINIMUM SYSTEM REQUIREMENTS

The sending and receiving computers can be of any form factor (laptop/tower/server), with the following minimum requirements:

One empty PCIe slot (full or half height)

3GHz, 4 core processor

256G Storage

DVD Drive

16G RAM

### OS REQUIREMENTS

Fastback can be installed using several different Linux distributions, including RHEL, CentOS, Rocky 8 and Rocky 9. Users can choose to start with a fresh OS or a customer-installed OS to maintain current accreditation. A Rocky 8 ISO is included with the kit.
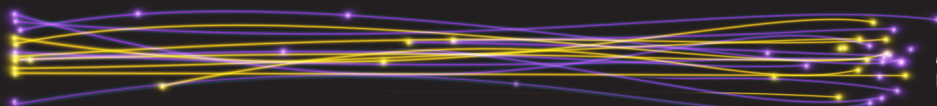
### PERFORMANCE

Throughput/Speed: 8 Gbp/s per Interface

Sustained Performance with Large or Small Block I/O

Multiple Data Flow Capability

MD5 and CRC32 Validation of Data Transfer

**For Quotes and Procurement Options email fastbacksales@probity.com**

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**Probity Inc.**
754 Elden Street, Suite 201
Herndon VA 20170

**FASTBACK**
NCDSMO Listed Data Diode Kit