DiOTa™

**KEY FEATURES**
- Complete, low SWaP-C data diode solution
- Cost-effective, ideal for deployments at scale
- Fast, easy set up with included Quick Start Guide
- Built on hardened Linux operating system
- Compact form factor with optional DIN rail mount
- Maximum throughput of 5 Mbps
- Lifespan of 10 years

**Defending ICS & IIoT Assets**
DiOTa is a single-purpose data diode, built on a hardened Linux operating system, that physically only allows data to flow in one direction for the highest level of security. With a compact form factor, DiOTa can be deployed on a tabletop or DIN rail mount, typically at the edge of operational technology (OT) networks or in front of other sensitive systems or IIoT devices.

Data generated within a substation, plant, pump station, refinery, or any other facility, system, or device is transferred across network boundaries to external users or the cloud for performance, safety, production, and maintenance monitoring and analytics. DiOTa is designed for OT micro-segmentation applications and network boundaries, both on-site and at remote locations in scalable deployments.

**Built for Critical Infrastructure**
DiOTa features an extremely low size, weight, power, and cost (SWaP-C) profile, and meets the low-throughput requirements of most industrial and critical infrastructure applications. The device supports a single transfer protocol at a time - admins can select from TCP, UDP (Unicast/Multicast), files and directories, Modbus, OPC DA/A&E, SNMP Traps (UDP or TCP), or Syslog, and reconfigure as needed.

DiOTa also has two power supply options, including an AC power brick with a barrel connector or a DC power phoenix connector with a DIN rail clip included. With a 10-year mean time before failure (MTBF) lifespan, DiOTa is built to last in critical infrastructure environments and meet the same refresh cycles as most industrial control systems.

**Simple Setup and Configuration**
With the Quick Start Guide (provided with the device) and the user interface setup wizard and help guides, no expertise is required to get DiOTa set up and configured in minutes. DiOTa is built to only transfer data one-way to the destination you set, and once configured, is designed to operate with little to no maintenance or upkeep for the life of the device. There is simply no other solution available that combines this level of security at a lower total cost of ownership or higher ease of use.
Technical Specifications

**OPERATING CONDITIONS**
- -4°F to +113°F / -20°C to +45°C
- 5% to 90% humidity non-condensing

**POWER SUPPLY**
- Input: 9-25V AC or DC
- Connector Options
  - **Option 1:** AC power brick with barrel connector (included)
  - **Option 2:** DC power phoenix connector (DIN rail clip included)
- Estimated normal operating usage: 10W total

**MOUNTING SYSTEMS**
- Tabletop, DIN-rail (optional)

**APPROVALS**
- FCC Class B Compliance
- CE mark
- CB certificate
- IEC/EN 62368-1
- CAN/CSA-C22.2 62368-1:2014
- VCCI-B
- TUV
- Based on EAL-certified technology

**ISO**
- Manufactured using ISO 9001:2015 certified quality program

**THROUGHPUT**
- Maximum of 5 Mbps

**CHASSIS SIZE & WEIGHT**
- 1.75” W × 6.75” H × 5.75” D
- 4.44 cm × 17.15 cm × 14.48 cm
- 1 lb / 0.45 kg

**SUPPORTED PROTOCOLS**
- TCP, UDP (Unicast, Multicast), File Transfer, Modbus (2 PLCs/640 registers), OPC DA/A&E, SNMP Traps (UDP or TCP), or Syslog

**DEVICE LIFESPAN**
- 10 years

**NETWORK CONNECTIVITY**
- Ethernet connection
- Physical connectors: 8P8C (RJ45)
- Supports 10BASE-T, 100BASE-TX

**ONE-WAY IN A TWO-WAY WORLD**

A successful one-way data transfer requires meeting the expectations of a two-way world. A majority of network traffic involves some sort of acknowledgment or two-way connection in order to function (an obvious exception is UDP). The “secret sauce” of DIOTA is in providing a one-way transfer, with a true separation between source and destination networks, while maintaining simultaneous two-way communications with both the source network and the destination network to avoid disruption. This is accomplished through using proxies that run on each side of DIOTA.

The send side proxy communicates with the source network, acknowledging the receipt of packets before extracting the payload, and then sending it across DIOTA. On the receive side, the proxy receives the payload, builds a new packet around it using the original protocol, and sends the data on its way over the two-way protocol. In this way, DIOTA achieves a one-way transfer in the middle of two two-way exchanges. This protocol termination also means DIOTA protects network privacy by removing all source network routing and IP information when performing a one-way data transfer.

Owl Cyber Defense Solutions, LLC leads the world in data diode and cross domain network cybersecurity. With a constant focus on customers in the military, government, critical infrastructure, and commercial communities, Owl develops market-first, one-way data transfer products to meet a variety of operational needs, from entry level to enterprise.

For more information on Owl, or to schedule a demo, visit www.owlcyberdefense.com