



SecuriCDS® Data Diode DD1000i

High assurance data diode with integrated proxy services



High assurance

The SecuriCDS DD1000i meets the highest demands on both security and assurance. The integrated proxies are fully separated from the optical diode hardware. Special attention has been given to eliminate the risk of covert channels in the reverse direction, resulting in functions like one PSU for each side of the data diode, and RFI/EMI-reducing internal enclosures to minimise compromising emanations.

Approvals

SecuriCDS DD1000i is approved in Sweden for data transfer between networks of different security levels up to and including the level of HEMLIG/TOP SECRET. NCSC-FI in Finland determines that the SecuriCDS DD1000i can be used for data transfer between networks of different security levels up to and including the level of SALAINEN/SECRET.

Advantages

- Optical high assurance separation
- Physical upstream separation
- Built-in proxy servers minimises integration effort
- Enables digitalisation without compromising security
- Fulfilment of internal and regulatory requirements
- National approvals

SecuriCDS DD1000i is a data diode with optical unidirectional data flow to ensure physical separation in one direction. DD1000i includes proxy services to handle application level protocols and provides an easy integration into any system. It is designed, tested and produced to meet the highest security requirements.

Unidirectional data flow

The SecuriCDS DD1000i takes data protection to a higher level, offering a powerful solution for efficient, risk-free and assured single direction data transfer between open and closed networks.

Advenica's SecuriCDS DD1000i provides confidentiality for classified networks and systems, and integrity for Industrial Control Systems (ICS). Typical use cases include:

- Sensor output from ICS/SCADA networks to IT networks
- File export or import e.g. data storage replication or software updates
- Secure log collection to administrative or audit network
- Media streaming or CCTV monitoring
- Sensor input from lower classified network to higher classified network

Benefits with integrated proxy services

The SecuriCDS DD1000i can handle common communication protocols e.g. FTP/SFTP for file transfers or NTP for network time transfers. Proxy services translate the protocols into unidirectional dataflows. Normally, the use of a data diode requires the interfacing systems to handle the proxy functionality, with SecuriCDS DD1000i there is no need for such external proxy functions. This reduces both system complexity and total cost of ownership.

Diode and proxies in a 1U size

The SecuriCDS DD1000i offers 1 Gbps performance in an integrated package that includes hardware and software for proxy services. DD1000i can be installed in a 19" rack system utilising 1U.

Adaptable proxy services

As a trusted proxy provider, we can design and adapt our proxy services to fit your applications, giving you the power to handle the specific information that flows between your systems. We innovate continuously with our customers and partners.

DD1000i Technical data

Gigabit data diode with integrated proxy servers.

Protocols supported

Generic: UDP, TCP, HTTP(S), NTP
File transfer: FTP, SFTP, SMB, NFS
Logging: Syslog
Email: SMTP

Performance

Network interfaces

Gbit Ethernet wire speed

Internal data diode capacity

1 Gbit (including error correction data)

Error correction

Built-in, configurable

Heart-beat

Built-in upstream to downstream
Absent heartbeat will be logged

Ports

Network data (Upstream + Downstream)

2x Gbit Ethernet (RJ45)

Administration (Upstream + Downstream)

2x Gbit Ethernet (RJ45), 2x VGA, 6x USB 2.0

Supported standards

Network data ports

IEEE 802.3u (100Base-TX), IEEE 802.3ab (1000Base-T),
Auto MDI/MDIX

Management protocols

HTTPS (Web GUI), Console port, SNMP

Compliance, test standards

CE, EN55024:2010 (A1:2015). EN61000-6-3:2007
(A1:2011)

Swedish national approval – Component assurance level
N3

Physical security

Tamper evident casing

Removable storage media (tamper seal not affected)

Padlock support for covering administrative interfaces
and removable storage media

Inner enclosure to reduce compromising emanations

Separate power inlets for Upstream and Downstream
interfaces

Administration

Dedicated configuration application

Web interface for device administration

Syslog and SNMP support

Dimensions and Weight

Device Size

1U (43.4mm), 437 x 504 mm (WxD)

Device Weight

9 kg

Environmental characteristics

Storage

-20 - +60°C, 5% ~ 95% RH non-condensing IEC 60721-3-1
(1K3/1B1/1C2/1S2/1M2)

Transport

-20 - +60°C, 5% - 95% RH non-condensing IEC 60721-3-2
(2K2/2B1/2C1/2S1/2M2)

Stationary use

+5 - +40°C, 8% - 90% RH non-condensing IEC 60721-3-3
(3K3/3Z1/3B1/3C1/3S1/3M2)

Cooling

6x Built-in fans (redundant function)

Electrical characteristics

Input voltage

2x 100-240VAC, 50-60Hz (Separate power inlets for Up-
stream and Downstream interfaces)

Power consumption

2x 25W (Power supply rating 2x 200W)



Advenica provides expertise and world-class high assurance cybersecurity solutions for critical data in motion up to Top Secret classification. We enable countries, authorities and companies to raise information security and digitalise responsibly. Founded in 1993, we are EU approved to the highest level of security. Our unique products are designed, developed and manufactured in Sweden.

Read more at advenica.com

© Copyright 2022 Advenica AB. All rights reserved. Advenica, the Advenica logo and SecuriCDS are trademarks of Advenica AB. All registered and unregistered trademarks included in this publication are the sole property of their respective owner. Our policy of continuous development may cause the information and specifications contained herein to change without notice. Doc. no.: 17843v1.2

ISO 9001
CERTIFIED
ISO 14001
CERTIFIED