Data Diode Services

Seamless data integration

The Advenica Data Diode Services are software applications that enable multiple use cases for one-way data flow supported by data diodes. The service handles the integration with applications on the source and destination networks, facilitating integration in the target system.

File Transfer Service

Secure import or export of files

One-way file transfer between classified or sensitive networks, ensuring confidentiality or integrity and availability.

- File sharing between networks of different classifications
- Data export from secured networks such as Historian database replication, XML or JSON based data and log data

Supported protocols: SFTP, SMB, NFS

OPC UA Service

Secure OT to IT integration

Supports one-way communication for OPC UA-based systems within e.g. industrial automation or energy management.

- Data export from PLCs, HMIs, SCADA or other systems to less sensitive networks for e.g. centralized monitoring or data analysis

Supported protocols: OPC-UA, OPC-UA to MQTT

MQTT Service

Secure IoT & M2M message transfer

Connect sensors, actuators or control systems and maintain integrity and availability of the source networks.

- Gather data from remote assets for monitoring or statistics used for e.g. predictive maintenance or other data analytics
- Secure machine-to-machine (M2M) communication over MQTT

Syslog Service

Secure export of log data

Access to log data from sensitive or classified systems while maintaining air gap protection of the source network.

- Export of log data for centralized monitoring.
- Secure integration of third party Secure Operations Center (SOC)

Supported protocols: Syslog over UDP or TCP

Email Transfer Service

Secure one-way email communication

Manage email communication for one-way data links between classified or sensitive network and less secure domains.

- Automatic email notifications between security domains
- Digitalized system reports over email from OT to IT

Supported protocols: SMTP

HTTP Transfer Service

Secure web service requests over HTTP(s)

Send web service requests over HTTP(s) using a one-way data communication link with pre-configured response options.

- Submit forms, send data to web services or make API requests with HTTP(s) POST
- Enable system generated requests from secure to less secure networks

Supported protocols: HTTP / HTTP(s)

UDP and TCP Services

Secure data transfer over UDP or TCP

Transfer data with unspecified type and structure securely between separated networks over one-way data link. Flexible solution for applications using UDP or TCP as transfer protocol.

Services are always included for Data Diode Engine and DD1000i installations.

ISO 9001
CERTIFIED
ISO 14001
CERTIFIED