Cyber Security

شركة الإلكترونيات المتقدمة
Advanced Electronics Company
AEC

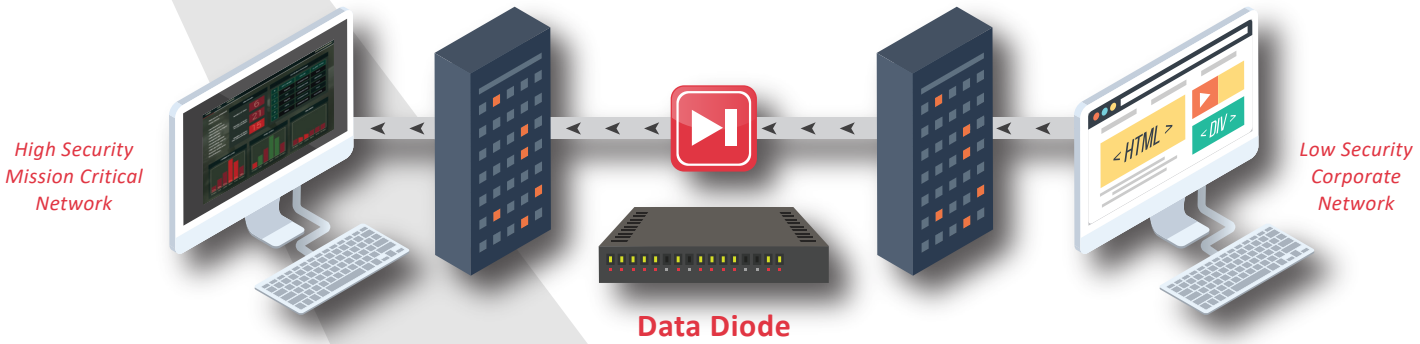
Data Diode

Data Diodes are designed to protect highly sensitive data and networks in industries such as [Military & Aerospace], [Oil & Gas], [Water & Electricity] and other critical infrastructure.

Data diodes enhance security by physically limiting the flow of data in one direction on a hardware level. A common practice is to completely disconnect the network from other networks. These disconnected networks are referred to as isolated or air-gapped networks. This has been the use case for numerous critical infrastructure and SCADA systems as well as military networks, but it is becoming more problematic as the need to import and export data from the isolated networks is on the rise. The manual transfer of data generates further security risk and increases human workload, thus prone to human error. This is where data diodes truly shine. A data diode solves these issues by facilititating as a physically secure 'one-way' communication channel from an unsecure network to the secure network (or vice-versa). The one-way channel allows data to be safely transferred to the secure network, while not allowing any data to leave it.

Data diodes ensure the following:

- Prevent Hackers from outside the network to penetrate the secure network.
- 100% data leak prevention since no data can leave the network due to physical restrictions.



Data diodes support wide range of data formats including SCADA systems, PLCs, historians, sensors, and other Industrial Control Systems (ICS) located on the OT network.

AEC Data Diode currently supports following protocol:

1. Syslog
2. FTP
3. SFTP
4. SCP

We are considering the below protocols for our future development:

- SMTP
- Modbus
- SNMP
- Modbus Netflow
- Others