VARA CDS
All-in-One Cross Domain Solution

VARA CDS combines 4Secure's TrustedFilter® software with Oakdoor's hardware-enforced one-way data diode technology to deliver a UK sovereign, high-assurance CDS. Built for demanding environments, VARA CDS enables secure information exchange between networks of differing trust levels without compromising assurance, compliance, or operational agility.

Mapping to NCSC Guidance

TrustedFilter® is purpose-built to meet the National Cyber Security Centre's (NCSC) guidance on safely importing and exporting data between systems of differing security classification. VARA CDS delivers this through:

- Pre-processing and protocol break to eliminate malicious data structures
- Application layer transformation of complex protocols
- Syntactic and semantic verification of structured data
- Deep content inspection, normalisation, and verification
- Post-processing and protocol reconstruction to enforce 'known good' data transfer

When integrated with Oakdoor's hardware diode, this process is physically enforced, creating a tamper-resistant path that is fundamentally resistant to remote compromise.

Crucially, all supporting software runs directly on the single box solution. Unlike other solutions that require additional compute, custom development or complex integration, VARA CDS is fully self-contained and operational from day one. No flanking infrastructure is required.

Key capabilities

- Seamless deployment and integration
- Supports multiple concurrent data flows as standard
- Fully UK sovereign, developed and supported in the UK
- Software-defined, hardware-reinforced for flexibility and assurance
- Fully containerised software deployment, suitable for integration with broader architectures
- Entire solutions runs on-box, no external compute or infrastructure required
- Supports integration of third party application in dedicated containers

Supported protocols

VARA CDS supports a wide range of protocols as standard, with additional support available upon request:

SMB, TCP, HTTP/HTTPS, HEC, SYSLOG, SNMP, OPC-UA, MQTT, AMQP, Git, H264, MPEG, RTSP, UDP

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Example Use Cases

Secure command and control of autonomous systems	Secure telemetry and sensor feeds from operational systems	Secure patching and updates across air-gapped domains	Secure chat or situational awareness sharing between coalition partners

TrustedFilter® Security Enforcing Functions

- Complex protocol handling and termination
- Data transformation and verification
- Custom pre and post processing of both structured and unstructured data
- Containerised principles of least privilege, knowledge and functionality
- Unidirectional flow control between source and destination components

Oakdoor data diode technical specifications

Data interface - source	10/100/1000 BaseT Ethernet RJ-45
Data interface - destination	10/100/1000 BaseT Ethernet RJ-45
User interface	6 status/fault LEDs on front panel
Mounting	Desk mount or 19-inch rack mount using supplied rack mounting kit
Supply voltage (power adaptor)	100 - 240 V AC 50/60 Hz
Maximum supply current	1.7 A
Operating humidity	10–90% RH non-condensing
Dimensions (W x D x H) excluding rack mounting kit	350 x 212 x 44 mm
Weight	2.6 kg
Electromagnetic compliance	2014/30/EU (EMC) EN 55032:2015, EN 55035:2017 FCC Part 15 Subpart B (15.01) Canadian ICES-003: Issue 7
RoHS compliance	2011/65/EU (RoHS) EN 50581:2012
Safety compliance	2014/35/EU (Low Voltage Directive) EN 62368-1:2014
Certification	UKCA, CE, FCC, ICES
Warranty and Support	Options up to 5 years