

OPSWAT.

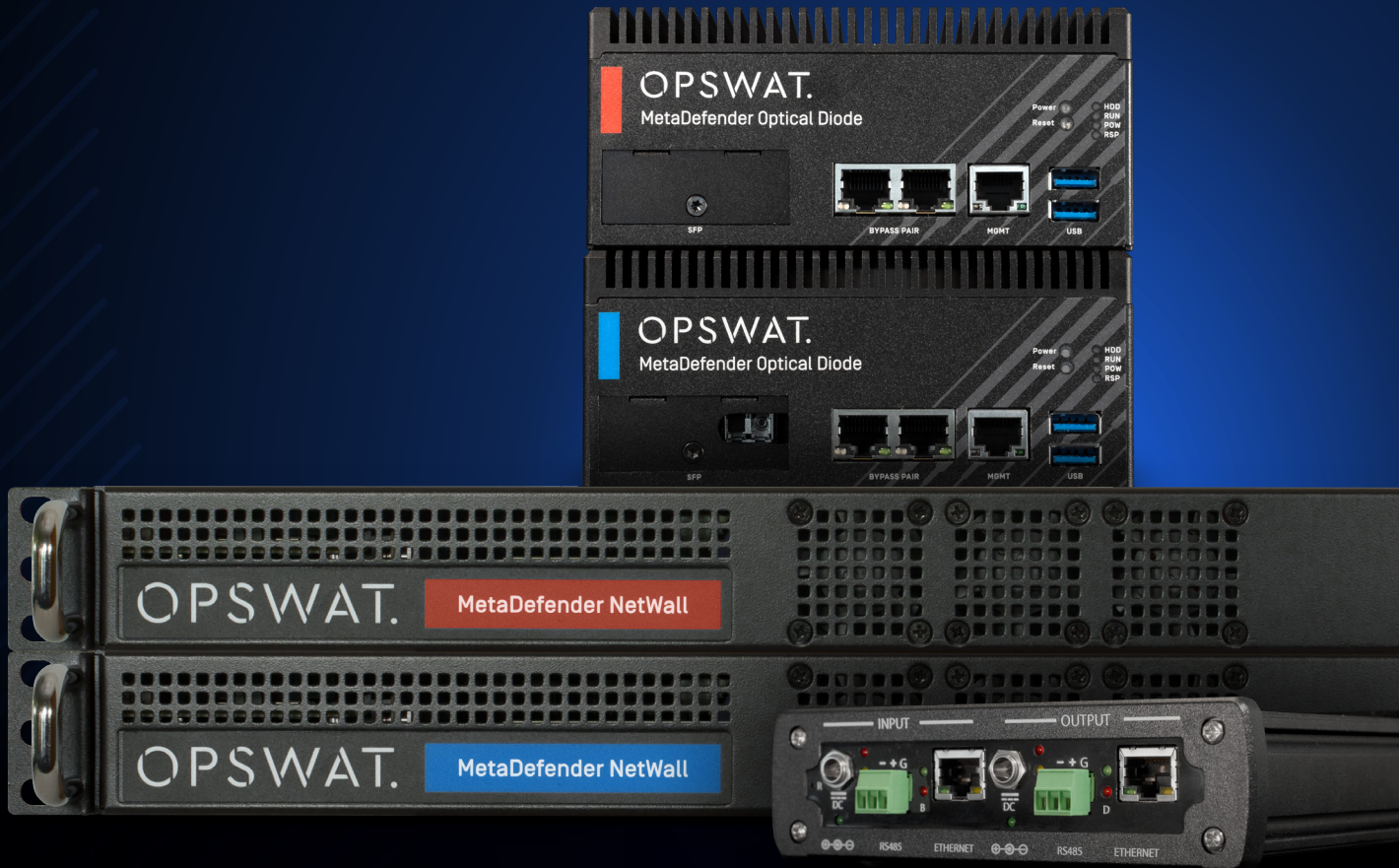
METADEFENDER

Optical Diode

Integrations and Interoperability Brochure

OPSWAT's MetaDefender Optical Diode provides hardware-enforced, one-way data transfer for critical infrastructure environments. Available in an array of form factors purpose-built for a variety of use cases, these Optical Diodes also pair seamlessly with other OPSWAT solutions to deliver high-assurance, automated, and secure data flow.

This guide showcases two of the most common integrations used by customers across industries.



MetaDefender Optical Diode and MetaDefender Managed File Transfer

Secure, Automated One-Way File Transfer

MetaDefender Optical Diode ensures that data flows in only one direction—physically blocking any possibility of backflow. When paired with MetaDefender Managed File Transfer, the solution becomes a powerful engine for secure, hands-free file movement between networks.

MetaDefender Managed File Transfer is an automated, policy-based file transfer solution that scans, sanitizes, and routes files across segmented or air-gapped networks. Built for high-assurance environments, it enforces security policies without manual intervention.



Key Capabilities of the Combined Solution



One-Way Transfer

MetaDefender Optical Diode ensures hardware-enforced unidirectional movement



Automated Policy-Based Handling

MetaDefender Managed File Transfer applies Metascan™ Multiscanning, Deep CDR™, Proactive DLP™, and delivery logic



Zero-Touch Operation

No user interaction required after setup



Threat Prevention at the Edge

Built-in protection with 30+ AV engines, Deep CDR, and policy filters.



Protocol-Agnostic

Supports SMB, SFTP, REST API, and more



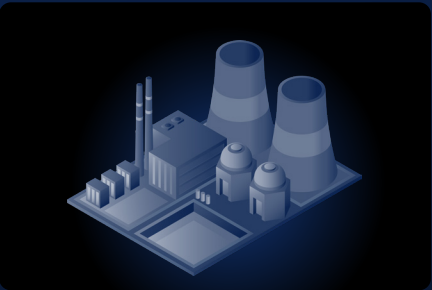
Disconnected Deployment Support

Functions in air-gapped environments without internet connectivity

Why It Matters

Combining MetaDefender Optical Diode and Managed File Transfer delivers secure, automated, and compliant data transfer between networks of different security levels—without relying on manual processes or bi-directional controls.

USE CASES



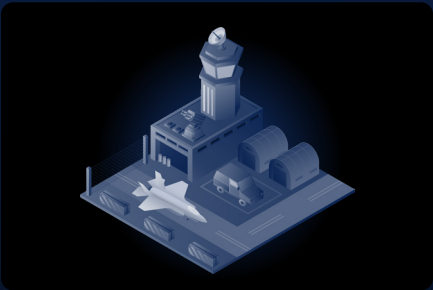
ICS/SCADA

Export logs from Level 1/2 to IT without introducing risk



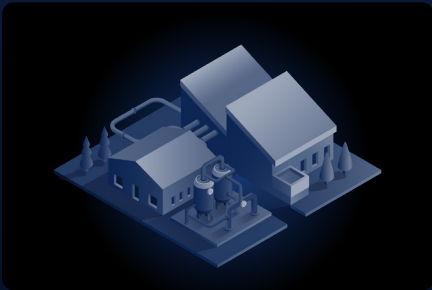
Critical Infrastructure

Securely send inspection reports and maintenance data



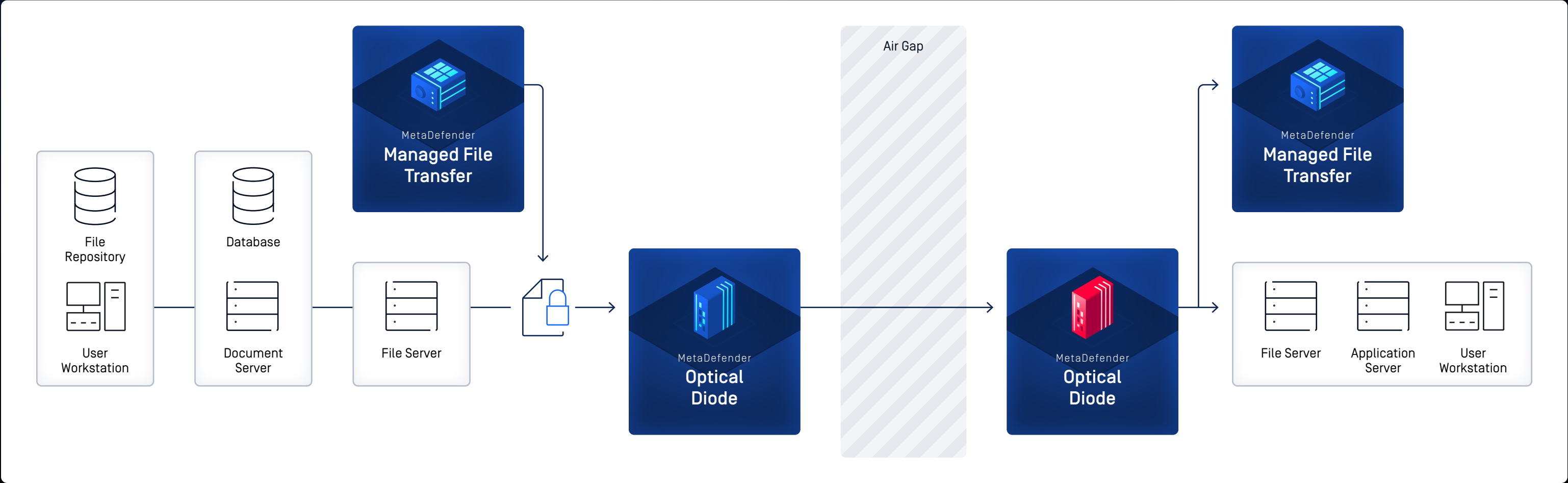
Defense

Move files between different classification levels



Manufacturing and Pharma

Safely transfer QA documents or production records



OPSWAT.

MetaDefender Optical Diode and MetaDefender Kiosk

Secure, Operator-Guided USB File
Import into Isolated Networks

In environments where files are introduced via physical media (USB, CD/DVD), MetaDefender Kiosk offers a secure way to inspect, sanitize, and manage file intake. When paired with MetaDefender Optical Diode, the entire process is sealed by hardware-level, one-way enforcement. The integration is also compatible with MetaDefender Optical Diode (Fend), offering customers greater flexibility in deployment.

MetaDefender Optical Diode ensures that data flows in only one direction—physically blocking any possibility of backflow. When paired with MetaDefender Managed File Transfer, the solution becomes a powerful engine for secure, hands-free file movement between networks.

MetaDefender Kiosk is a scanning station that inspects and sanitizes files from external media using

OPSWAT's multi-layered threat prevention stack. It prevents malicious files from entering secure environments by enforcing policies before file transfer—and works even without internet access.



Key Capabilities of the Combined Solution



One-Way Transfer

MetaDefender Optical Diode ensures hardware-enforced unidirectional movement



Guided File Intake

Touchscreen interface for controlled USB and media usage



Deep File Inspection

30+ AV engines, Deep CDR™, and Proactive DLP™ filtering



Full Audit Trail

User actions and file history are logged for compliance



Air-Gapped Ready

Works offline and without external network dependencies

Why It Matters

This integration stops threats at the physical entry point while ensuring files move only in one direction—into your secure core—with no exposure.

USE CASES



Industrial Facilities

Safely import configuration files or updates



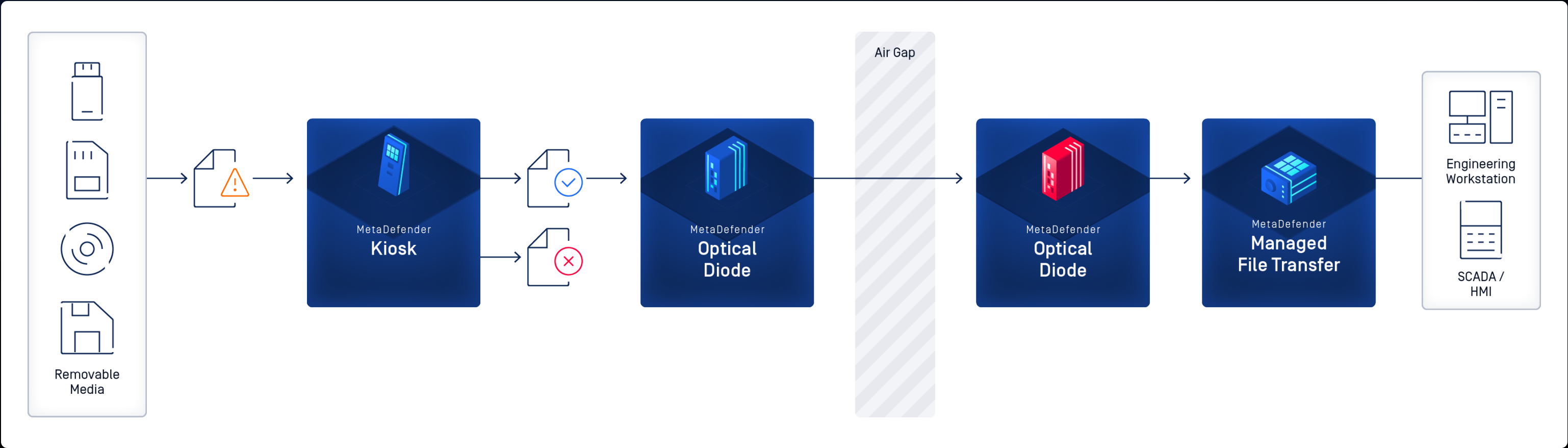
Defenses & Public Sector

Controlled USB scanning and intake into classified zones



Healthcare & Pharma

Media import for diagnostics or records across tiers



MetaDefender Optical Diode and MetaDefender Core [External]

Hardware-Enforced One-Way Transfer with File Sanitization and Threat Prevention

For organizations that need to move files securely across network zones, MetaDefender Core provides advanced multi-layer file inspection and sanitization. Paired with MetaDefender Optical Diode, the transfer process is physically enforced at the hardware level, eliminating any risk of backflow or reverse communication.

MetaDefender Core applies OPSWAT's layered threat prevention stack, including multi-scanning with 30+ AV engines, Deep CDR, and Data Loss Prevention to sanitize and validate files before they are accepted into the destination network.

This architecture enables highly regulated environments to extend existing MetaDefender Core deployments while ensuring secure, compliant, and cost-effective data transfers.

Key Capabilities of the Combined Solution



Hardware-Enforced Unidirectional Transfer

MetaDefender Optical Diode guarantees one-way data flow



Deep Threat Prevention

MetaDefender Core provides Metascan™ Multiscanning, Deep CDR™, Proactive DLP™ for advanced file sanitization



File Validation & Policy Enhancement

Flexible rules to ensure only approved content passes through



Full Audit Logging

Comprehensive logging and reporting for compliance and forensics



Seamless Integration

Works across isolated IT and OT environments without needing external connectivity

Why It Matters

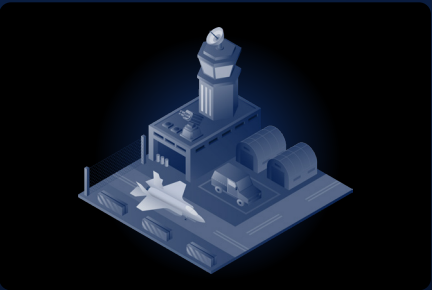
This integration delivers the best of both worlds: MetaDefender Optical Diode guarantees one-way data movement at the hardware level, while MetaDefender Core eliminates hidden threats within files. The result is uncompromising security for environments where sensitive data must cross network boundaries—with zero risk of backflow or malware infiltration.

USE CASES



Critical Infrastructure

Transfer compliance reports, engineering files, and logs safely into enterprise networks



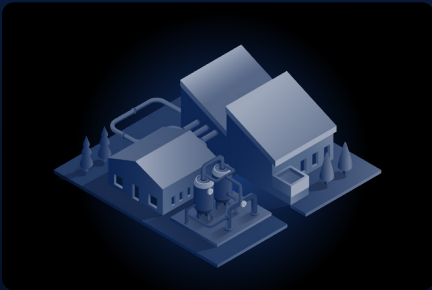
Defenses & National Security

Move sanitized intelligence files between classified and operational zones



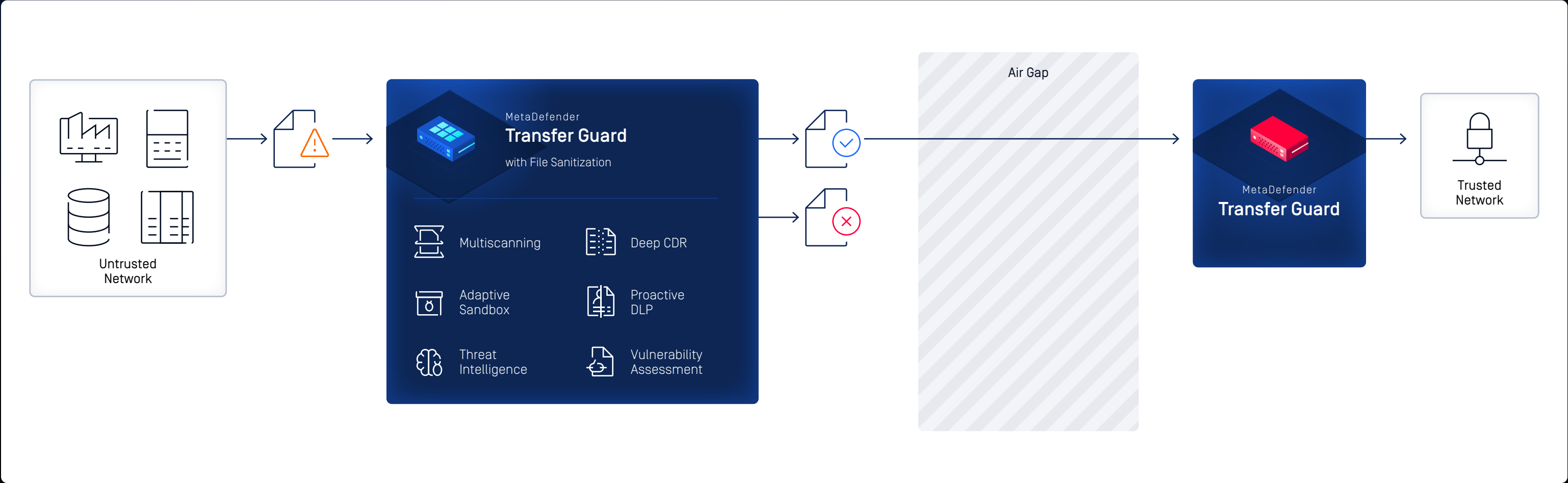
Healthcare & Pharma

Ensure safe data exchange of patient records or lab results across secure tiers



Manufacturing & Energy

Securely move production logs, firmware updates, and design files into isolated environments



GET STARTED

Connect with an OPSWAT expert to explore the full MetaDefender Optical Diode family and discover which integration is best for your environment.

Scan the QR code or visit us at:

opswat.com/get-started
sales@opswat.com



OPSWAT.

Protecting the World's Critical Infrastructure

For over 20 years OPSWAT, a global leader in IT, OT, and ICS critical infrastructure cybersecurity, has continuously evolved an end-to-end solutions platform that gives public and private sector organizations and enterprises spanning Financial Services, Defense, Manufacturing, Energy, Aerospace, and Transportation Systems the critical advantage needed to protect their complex networks from cyberthreats.

Built on a "Trust no file. Trust no device.™" philosophy, OPSWAT solves customers' challenges like hardware scanning to secure the transfer of data, files, and

device access with zero-trust solutions and patented technologies across every level of their infrastructure. OPSWAT is trusted globally by more than 1,900 organizations, governments, and institutions across critical infrastructure to help secure their devices, files, and networks from known and unknown threats, zero-day attacks, and malware, while ensuring compliance with industry and government-driven policies and regulations.

Discover how OPSWAT is protecting the world's critical infrastructure and securing our way of life; visit www.opswat.com.