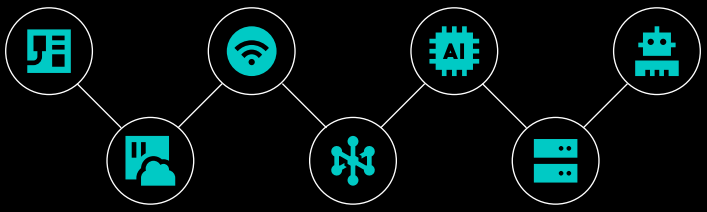
Extended Operational Technology

DRAGOS

Visibility, Detection, and Defense Across Every System That Influences Operations



xOT (Extended Operational Technology) refers to the broader set of digital systems that monitor, influence, or control physical processes beyond traditional industrial control systems.

This includes IT, IoT, IIoT, cloud services, robotics, AI, and connected technologies that directly or indirectly affect operational outcomes.

If a system can influence physical processes, it is part of xOT.

This expanded scope also introduces new pathways for disruption, making it critical to understand and secure the full xOT environment.

Without this broader perspective, organizations risk an incomplete understanding of the full set of systems that maintain safety, reliability, and operational performance.

The Operational Environment Has Expanded Beyond Traditional OT

Broader system scope across OT, IT, IOT cloud, and automation

Distributed operational dependencies across multiple architectures

Multiple influence points on physical processes, not just PLCs

Every System That Can Influence Physical Processes is Part of xOT

Traditional OT	PLCs, DCS/SCADA systems, safety systems (SIS), control servers, RTUs, HMIs, and field devices
Engineering IT	Engineering workstations, historian servers, control system management tools, and configuration repositories
Enterprise IT	Production planning, ERP, and scheduling systems influence operational execution
Remote Access	VPN gateways, jump servers, vendor remote access, and identity access pathways
Cloud, Analytics, & AI	IIoT sensors, edge devices, cloud-based analytics, predictive maintenance models, AI-driven optimization, autonomous decision systems
Automation & Robotics	Robotics and automated systems directly executing and modifying process actions
Facility & Physical Systems	HVAC, environmental controls, BAS, facility management, IP cameras, access control, perimeter monitoring
Data Center Infrastructure	Cooling systems, power management, environmental controls, supporting HMIs and PLCs

Dragos Delivers the Visibility & Defense xOT Demands

See Every System That Influences xOT

The Dragos platform provides asset discovery, deep device enrichment, and continuous monitoring across the full xOT environment, not just traditional control systems. The result is a contextualized inventory that reveals which devices are vulnerable, how devices behave, how they interact within operations, and how they connect across the xOT ecosystem.

Protect xOT Devices at Scale

Dragos automatically enforces device security hygiene across xOT environments — rotating credentials, updating firmware, managing certificates, and remediating insecure configurations. This reduces exposure to the weak points adversaries most commonly exploit as entry paths into operational environments.

Detect Threats That Target Physical Processes

The Dragos Platform continuously captures activity across the xOT environment using behavioral analytics, anomaly detection, and purpose-built detections aligned to operational activity. Configuration and operational changes across systems are tracked, enabling early identification of issues that could impact safety or production.

Understand Your Adversaries and Your Risk

Dragos delivers intelligence on the adversaries, vulnerabilities, and threats targeting xOT environments. From WorldView, organizations gain visibility into threat actor tactics and campaigns. Vulnerabilities are prioritized by operational impact, not just CVSS scores, and intelligence is integrated directly into detection and analysis workflows through the Dragos Intelligence Fabric.

Extend Your Team with Specialized Expertise

Dragos extends internal capabilities with OT-specialized expertise across the security lifecycle - proactive threat hunting through OT Watch, 24/7 monitoring and alert triage through OT Watch Complete, and incident response tailored to industrial environments. Organizations also have direct access to intelligence analysts and ongoing advisory support.

What This Means for Your Operations

Complete xOT security reduces unplanned downtime, strengthens operational resilience, and ensures the systems running your environment are continuously monitored, hardened, and defended. The result is confidence that your security program covers the environment you are actually running.

xOT is Already Here. These Are Examples from Real Environments.

xOT is not a future state. It reflects how operational technology environments function today. Across industries, systems beyond traditional control devices already influence physical processes, often without being treated as part of the operational environment. Traditional control systems remain central to operations, but they now operate within a broader xOT ecosystem.

Cloud Analytics That Directly Command Programmable Logic Controllers

A cloud-based analytics platform adjusts production parameters that are executed by PLCs, directly influencing how physical processes are controlled.

Industrial IoT Sensors That Feed Automated Operational Decisions

Industrial IoT devices collect and transmit operational data used to optimize performance and automate decisions. These systems extend visibility and influence beyond traditional control environments.

Engineering Workstations That Configure and Control Production Systems

An engineering workstation is used to configure and update control systems. Changes made through this system directly affect how physical processes behave, making it a critical part of the xOT environment.

Robotic Systems Executing Commands from Upstream Software

Robotic systems execute automated tasks within industrial processes, often integrating with upstream systems that determine behavior. These systems directly participate in physical operations.

Remote Access & Operational Changes

Remote access systems enable operators and third parties to interact with operational environments. Actions taken through these systems can directly impact physical processes.

DRAGOS

www.dragos.com

Dragos delivers OT cybersecurity for critical infrastructure, backed by a decade of frontline incident response experience. The Dragos Platform provides asset visibility, continuous monitoring, vulnerability management, and real-time threat detection, all powered by industry-leading intelligence. Dragos protects critical sectors globally, including electric, oil and gas, manufacturing, water, and transportation.