



Continuous Monitoring of Upstream and Downstream Operations

Two good teams,
two separate pictures,
and no way to see the whole company.



UNIFIED VISIBILITY
Across Operations



REAL-TIME ALERTS
& Anomaly Detection



CORRELATE & ANALYZE
Full Operational Context



IMPROVE DECISIONS
Minimize Risk & Downtime



OPERATIONAL ALIGNMENT
One View. One Team.

An integrated oil and gas company running upstream wellpad and gathering operations alongside a downstream refinery had built its OT security capability separately in each segment, with different tools, different teams, and no shared visibility. When corporate leadership asked for a single company-wide view of OT security posture, neither team could produce one. The engagement built continuous, unified monitoring spanning both segments.

THE CHALLENGE

Companies that grow across the full value chain often end up with security capability that grew the same way: separately, by segment, on whatever timeline and budget each part of the business had at the time. Nobody designed it to not talk to each other, it just happened that way.



Disconnected Monitoring Efforts

Upstream and downstream security ran on different tools with no shared visibility.



No Correlation Between Segments

An event in one part of the business had no way of being linked to another.



Inconsistent Detection Coverage

The more informally monitored segment represented a wider gap than leadership realized.



Manual Board Reporting

Company-wide risk reporting meant reconciling two different formats by hand.



Fragmented Investment Decisions

Resourcing was decided segment by segment without a company-wide risk picture.

Use Case Overview

Build one continuous monitoring capability spanning upstream wellpad and gathering operations and the downstream refinery, reporting through a single view instead of two

SHIELDWORKZ SOLUTION HIGHLIGHTS



Unified Asset Discovery

Consistent methodology applied across both upstream and downstream environments.

Cross-Segment Governance Reporting

Board-level visibility built from one source, not two.



Unified Continuous Monitoring / OT NDR

Both segments feeding into a single monitoring view.

Cross-Segment IR Planning

Coordination defined for events touching both segments.



Protocol-Specific Threat Detection

Tuned to telemetry upstream and DCS traffic downstream, reported consistently.

Vulnerability Assessment

Applied consistently across upstream and downstream assets



Consistent Risk Prioritization

Findings ranked against each other across the whole company.

Architecture Review

Defined how data from each segment feeds into the shared view.



Single OT SOC

One point of monitoring and escalation replacing two separate efforts.

Compliance Monitoring

Enterprise-wide reporting structured for board and insurer review.



HOW IT WORKED



Discover

Asset and network visibility established using one methodology across both segments.



Assess

Current monitoring gaps in each segment baselined against a unified standard.



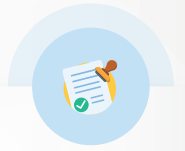
Architect

A structure defined for how upstream and downstream data feed one view.



Deploy

Unified detection and OT SOC coverage rolled out across both segments.



Validate

Cross-segment escalation tested with a coordinated tabletop scenario.

BUSINESS OUTCOMES

- A single, company-wide asset inventory spanning upstream and downstream operations for the first time
- Unified continuous monitoring replacing two previously disconnected efforts
- Consistent risk prioritization allowing leadership to compare upstream and downstream findings on the same basis
- One OT SOC providing coverage and escalation across both segments instead of two separate arrangements
- Board and insurer reporting now drawn from a single source instead of manually reconciled from two
- A validated cross-segment incident response process ready for events touching both parts of the business



Shieldworkz Threat Research Lab Insight

Across integrated oil and gas environments, we frequently observe upstream and downstream OT networks being monitored independently, creating isolated views of operational risk. A unified monitoring strategy enables faster threat correlation, consistent prioritization, and enterprise-wide visibility from field operations to refinery control systems.

WHY SHIELDWORKZ

End-to-End OT Program

Discovery through unified detection, SOC, and governance under one team.



OT-Specific Expertise

Engineers who understand both field telemetry and refinery DCS environments.



One View Across the Value Chain

Upstream and downstream monitoring unified instead of running as two separate efforts



Standards-Based Approach

Monitoring and reporting aligned to recognized OT governance practices company-wide.



Built for Enterprise Reporting

Findings consolidated into a form the board and insurers can actually use.



About Shieldworkz



ISOC and Honeypot Locations

Honeypot Locations



Security Operations Center



Shieldworkz is a global OT security company founded by top industry experts to protect critical infrastructure using proprietary technology and a leading consulting platform, we partner with businesses to secure assets, networks, and programs across industries. Our services are tailored to each client's cyber risks and backed by the world's largest OT and IoT threat intelligence facility and a global research team.

Secure Your Industrial Future

Talk to us today!



From OT security assessments covering NIS2, IEC 62443, NERC CIP and other regional requirements to an OT security platform, Shieldworkz covers all compliance and industrial cybersecurity enhancement needs. Talk to us to learn how you can enhance your security posture in 7 easy steps.

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