

# Cybersecurity for Chemical Manufacturing

## WHY RADIFLOW?

Radiflow is a recognized leader in industrial cybersecurity, offering dedicated solutions designed to meet the unique requirements of industrial infrastructures.

## EXPERIENCE

Over 10 years' experience discovering and analyzing advanced persistent threats and targeted attacks, including attacks on critical and industrial infrastructure.

## EXPERTISE

Dedicated team of industrial cybersecurity experts who understand the colliding worlds of automation and security.

## END-TO-END PORTFOLIO

Radiflow offers a holistic portfolio of services and technologies, including secure gateways, Industrial IDS and many more.



- ▶ Comprehensive solution suite, designed especially for automation production processes using both of DCS and SCADA-controlled PLCs
- ▶ Network-wide topology modeling and visibility with direct access to all networked devices
- ▶ Customizable solution - supports local, centralized and managed SOC monitoring and alerting
- ▶ Optional integrated 3rd-party solution for enhanced threat detection

## Unique environmental challenges require a dedicated, comprehensive solution

The potential damage caused by a cyber attack on a chemical production facility extends well beyond personnel safety and monetary loss, as the environmental hazards caused by production process disruptions may cause widespread leakage of pollutants, carcinogens and other toxic materials into the air, soil and water.

In fact, the 2013 U.S. Presidential Policy Directive on Critical Infrastructure Security and Resilience directive mentions the chemicals industry as one of sixteen critical industrial sectors in need for strengthened security.

As most chemical production facilities rely on a mix of DCS systems and supporting SCADA with PLCs for secondary systems, adequate protection requires an ICS-dedicated, multi-prong approach which includes full visibility into the OT network; identification of threats; real-time monitoring of anomalies and OT-aware firewalls for zone segregation.

## Radiflow for chemical manufacturing

Radiflow's solution suite for OT networks provides multi-layered cyber-protection, adaptable to the topology and operational characteristics of each user:

- ▶ **The iSID Industrial Threat Detection system** is a server-based software that analyzes all OT network traffic (via mirrored stream) to generate and display a network topology model, which serves as a baseline for detecting exceptions on the network. iSID packs six detection engines, each for a distinct threat vector or operational aspect:

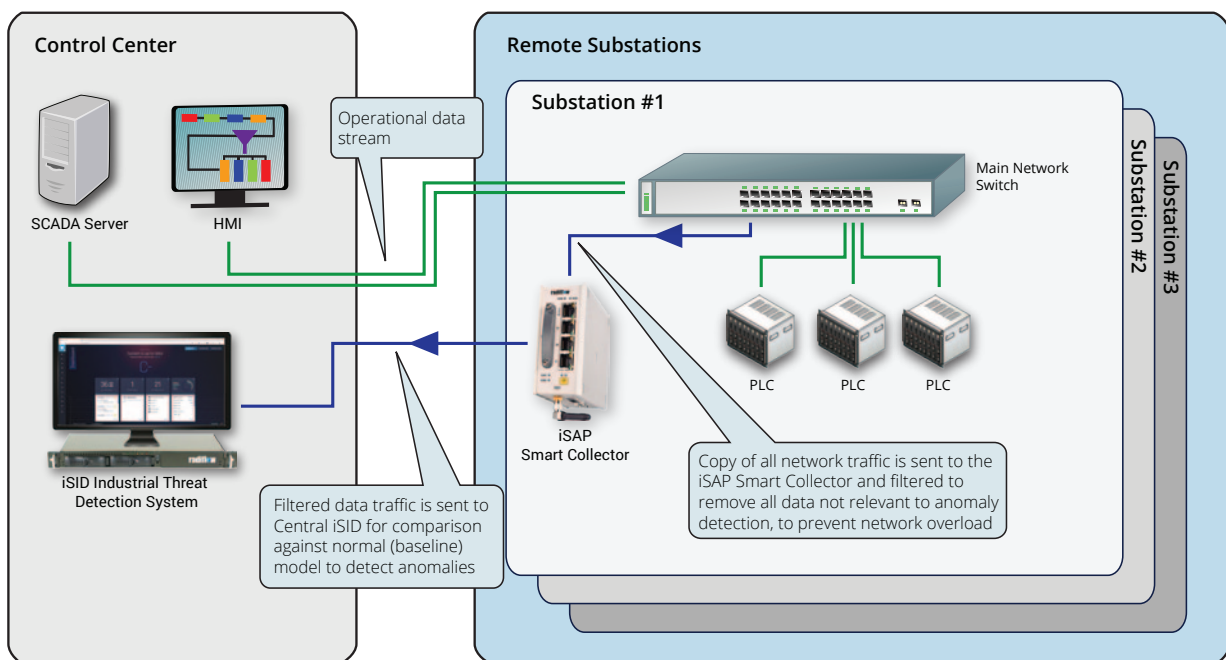


The Radiflow iSID Industrial Threat Detection System

Continued...

network visibility, maintenance management, cyber attack detection, policy monitoring and enforcement, anomaly detection and operational behavior measuring. Radiflow's iSID combines the detection data and alerts received from all of the operator's OT systems and presents all user-pertaining information:

- All network anomalies, through passive monitoring of the OT network
  - Behavioral analytics
  - Asset discovery & mapping and detection of changes
  - Alerting for O&M operations on industrial assets
  - Signature base rules
  - Threat intelligence for emerging threat
- **The iSAP Smart Probe** is a cost effective solution that enables collection of data from sub-networks to a central iSID server making it ideal for large chemical facilities with multiple primary DCS networks and secondary SCADA/PLC networks. iSAP enables sending data traffic to a central iSID without taxing the network, thanks to Radiflow's advanced industrial compression algorithms.
- Radiflow's **Ruggedized Secure Gateways** provides DPI-firewalled access to production processes, with configurable access rights for different stakeholders. The Gateways' authentication proxy authenticates each user and restricts the user's access based on role or predefined tasks.



## About Radiflow:

Radiflow is a leading provider of cyber security solutions for critical infrastructure networks. Radiflow's comprehensive portfolio empowers critical infrastructure and industrial enterprises to maintain visibility, control and security of their operational environment. Our intelligent Threat Detection & Analysis Platform for Industrial cybersecurity minimizes potential business interruption and loss within your OT environment.

Radiflow's team consists of professionals from diverse backgrounds, from cyber-experts from elite military units and automation experts from global cybersecurity vendors. Founded in 2009, Radiflow' first solutions were launched at the end of 2011, validated by leading research labs and successfully deployed by major utilities worldwide. More at [www.radiflow.com](http://www.radiflow.com).