Middle East Escalation

Assessing Spillover Threats to OT/ICS

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DRAGOS

Background

Kinetic Attacks begin in Iran on Feb 28, 2026

How cyber was used during the operations

Retaliation attacks

Activity Since Feb 28

BAUXITE

Attack on a Jordanian wheat silo

TAT25-78 (MuddyWater)

Increased, indiscriminate activity against the U.S. and Israel

Hacktivism

Key patterns typically seen during a geopolitical crisis

BAUXITE

Direct ICS manipulation and destructive operations targeting internet-exposed operational technology

2023

Bx

What Dragos Observed in 2025

- Threatening email campaign targeting cybersecurity vendors, ICS researchers, and media
- Deployed two wiper malware variants against Israeli targets during Iran-Israel conflict
- Continued Stage 2 activity: Direct manipulation of internet-exposed HMIs, PLCs, and industrial devices

Targets:

Critical infrastructure globally, with focus on organizations with internet-exposed OT devices

Overlaps with: CyberAv3ngers (hacktivist persona)

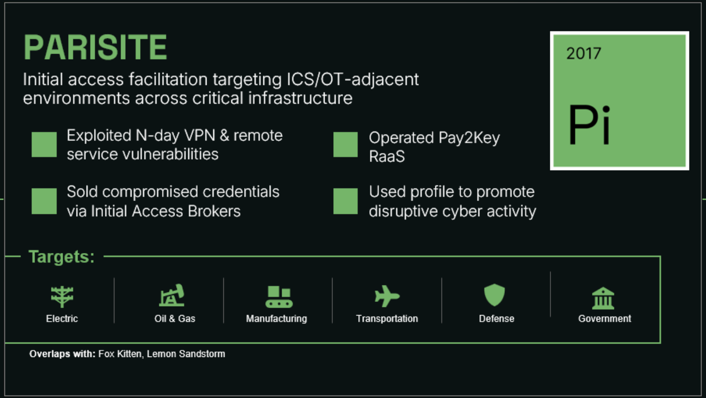
TAT25-78 (MuddyWater)

RMM tool abuse and intelligence-driven access operations targeting ICS-adjacent environments

- Abused legitimate RMM tools (Atera and others) to establish persistent IT access
- Targeted industrial supply chains and enterprise networks supporting ICS operations
- Significant activity increase since January 2026, with new access pathways under development

Targets: Government, defense, and critical infrastructure sectors

Overlaps with: MuddyWater



PARISITE

Initial access facilitation targeting ICS/OT-adjacent environments across critical infrastructure

2017

Pi

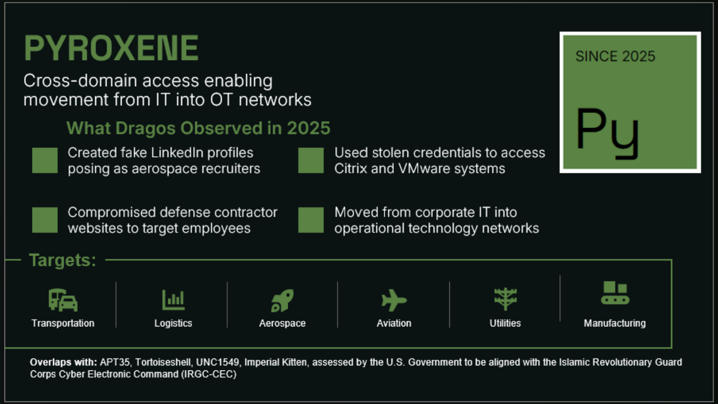
- Exploited N-day VPN & remote service vulnerabilities
- Operated Pay2Key RaaS
- Sold compromised credentials via Initial Access Brokers
- Used profile to promote disruptive cyber activity

Targets:

Electric | Oil & Gas | Manufacturing | Transportation | Defense | Government

Overlaps with: Fox Kitten, Lemon Sandstorm

PARISITE – INITIAL ACCESS BROKER



PYROXENE

Cross-domain access enabling movement from IT into OT networks

SINCE 2025

Py

What Dragos Observed in 2025

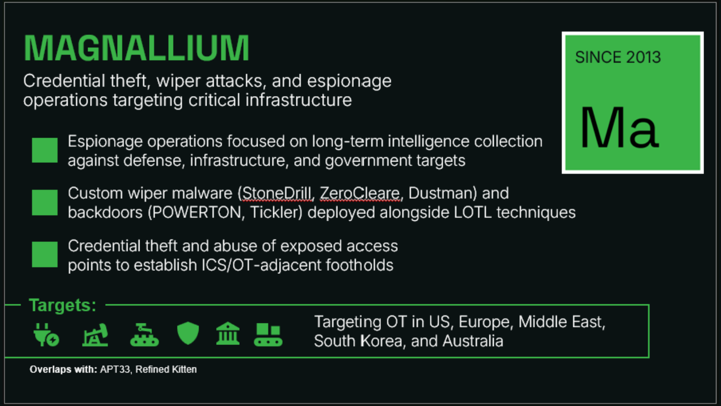
- Created fake LinkedIn profiles posing as aerospace recruiters
- Used stolen credentials to access Citrix and VMware systems
- Compromised defense contractor websites to target employees
- Moved from corporate IT into operational technology networks

Targets:

Transportation | Logistics | Aerospace | Aviation | Utilities | Manufacturing

Overlaps with: APT35, Tortoiseshell, UNC1549, Imperial Kitten, assessed by the U.S. Government to be aligned with the Islamic Revolutionary Guard Corps Cyber Electronic Command (IRGC-CEC)

PYROXENE – AVIATION, MARITIME, DEFENSE



MAGNALLIUM

Credential theft, wiper attacks, and espionage operations targeting critical infrastructure

SINCE 2013

Ma

- Espionage operations focused on long-term intelligence collection against defense, infrastructure, and government targets
- Custom wiper malware (StoneDrill, ZeroCleare, Dustman) and backdoors (POWERTON, Tickler) deployed alongside LOTL techniques
- Credential theft and abuse of exposed access points to establish ICS/OT-adjacent footholds

Targets:

Targeting OT in US, Europe, Middle East, South Korea, and Australia

Overlaps with: APT33, Refined Kitten

MAGNALLIUM – COMMUNICATIONS/SATELLITE

THE FIVE ICS CYBER SECURITY CRITICAL CONTROLS

RECOMMENDATIONS

01 ICS Incident Response Plan

02 Defensible Architecture

03 ICS Network Monitoring Visibility

04 Secure Remote Access

05 Risk-based Vulnerability Management

01 ICS Incident Response Plan

- Assume enterprise disruption will affect operations, even without direct controller interaction
- Prepare for manual operations – ensure you have offline, tested backups for EWS, historians, SCADA servers, and hypervisors
- Focused on loss of availability, control, and/or view, unauthorized PLC logic changes, OT asset defacement, and unexpected controller state changes, support rapid identification of the intrusion root cause
- Persistence-oriented IR workflows
- Detail roles for IT security, OT engineering, SCADA operators, and operations leadership

02 Defensible Architecture

- **Eliminate internet exposure for OT devices, controllers, and management interfaces**
- Harden edge devices and identity gateways
- Validate segmentation boundaries, ensure IT → OT pathways are minimized and monitored
- Lock down remote services (RDP, VNC, SSH, vendor portals)
- Restrict access to management interfaces and DMZ devices

03 ICS Network Monitoring Visibility

- Monitor OT and IT environments for anomalous use of legitimate administrative tools
- Detect unauthorized OT interactions – unusual write operations, PLC logic upload/download, firmware/config changes, atypical external communications originating from OT environments, and abnormal data movement
- Baseline OT communications and alert on deviations
- Detect tunneling/proxy patterns originating in or traversing OT zones
- Alert on first-seen outbound destinations from OT segments — new domains/IPs, unknown TLS certificates/fingerprints, and sudden egress to cloud providers

04 Secure Remote Access

- Inventory every remote access pathway – internal, vendor, cloud
- Enforce strong remote access controls, including timely patching of internet-facing services, MFA across all remote access pathways, and strict governance of VPN and third-party access
- Route access through monitored jump hosts
- Remove default/shared credentials
- Disable remote management interfaces unless needed, only allow-list trusted IPs

05 Risk-Based Vulnerability Management

- Prioritize vulnerabilities in VPNs, firewalls, exposed OT services, and identity systems
- Harden or remove misconfigurations enabling unauthenticated access
- Apply compensating controls when patching isn’t feasible
- Track vulnerabilities in OT-adjacent IT systems

Key Take Aways for Defenders

- **Expect Stage 1 Activity**
    - Primary Operational Risk
- **Adversaries Will Target Exposed ICS/OT Assets**
    - Eliminate or lock down internet-facing devices
- **Prepare for Manual Operations**
    - Ensure you have offline tested backups
- **Expect & Accept Hacktivist Noise**
    - DDoS campaigns, exaggerated claims of operational disruption

Q&A

QUESTIONS AND ANSWERS

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2026 OT/ICS Cybersecurity Report: A Year in Review

Strengthen your industrial defenses with the latest threat intel and strategic recommendations.

EXPLORE THE INSIGHTS →

DRAGOS

9TH ANNUAL | 2026

YEAR IN REVIEW

OT/ICS CYBERSECURITY REPORT