

BOOST YOUR OT CYBERSECURITY TO HELP PREVENT CYBER ATTACKS & DOWNTIME

PRESENTER

2025



OTD BILIŞIM
GLOBAL VAD



INDUSTRY CHALLENGES



AGENDA

- Industry Challenges
- Honeywell OT Cybersecurity Software Solutions
- Why Choose Honeywell
- User Feedback





WHAT'S NEW FOR 2024

WHAT IS NEW IN CYBER INSIGHTS

- Active Polling: designed to actively poll Windows machines on the network and check for installed or missing security patches, to get a comprehensive picture of current cyber threats.
- 2. Tailored Threat Intelligence: designed to provide curated threat intelligence on reported malicious activities and their relevancy to specific locations, industries and equipment. With the ability to enrich threat data with STIX/TAXII server.
- **3. Enhanced Security:** designed to allow single signon (SSO) authentication with the following providers: Google, Azure Auth and Auth2.
- **4. Integration:** designed to integrate with Service Now CMDB to allow better support.

WHAT IS NEW IN CYBER WATCH

- Central Governance: Now designed to continuously monitor your remote sites' adherence to industry standards, including NIS2, OTCC, and SOCI. The full list of standards includes IEC 62443, NERC CIP, NIST, ISO 27001, NIS2, SOCI, OTCC, and organizational policies, as needed.
- 2. **Topology:** designed to support monitoring of airgapped networks as well as the Experion DCS fault tolerant ethernet network.





FOCUS ON CYBERSECURITY OUTCOMES THAT MATTER

- The threat of cyber attacks against industrial customers is at an all-time high¹
- Customers are challenged to get visibility needed to reduce cyber risk of attack
- Honeywell Cyber Insights and Cyber Watch Can help
- Honeywell solutions are designed to help customers achieve critical cybersecurity outcomes that matter

Source-1: <a href="https://www.nada.org/nada/nada-headlines/cyber-attacks-shift-gears-growing-threat-automotive-technology.https://www.imf.org/en/Blogs/Articles/2024/04/09/rising-cyber-threats-pose-serious-concerns-for-financial-stability.https://www.pwc.com/us/en/industries/industrial-products/library/cyber-supply-chain.html



Critical Business Outcomes Enabled by Honeywell Cyber Insights & Cyber Watch





OT TARGETED CYBER ATTACKS ON THE RISE

\$100M+

potential cost of a cyber-physical attack¹

75% of OT organizations experienced at least one intrusion in the past year ²

81% of malware analyzed could cause a disruption to industrial control systems³

Ransomware & hacktivism

are a leading cause of most OT targeted attacks ⁴

Globally 156 countries have enacted cybercrime legislation⁵.

Cyber-physical attacks

are expected to grow, with potential to impact safety of employees⁶

of ClOs admitted they've had a cyber incident. ⁷

¹ Mondelez insurance daim after NotPetya attack, https://therecord.med.a/mondelezand-zurich-reach-settlement-in-notpetyacyberattack-insurance-suit Fortinet Research, 2023, https://www.forfinet.com/corporate/about-us/newsr.com/press-releases/2023/fortinet-global-report-finds-75-per cent-ot-organizations-experienced-intrusion-last-vear#:::text=Press%20Rdease-

³ Industrial Cybers ecurity USB Threat Report 2023-Honeywell,

https://www.honeywell.com/us/en/press/2023/05/honeywellreleases-cyber-irisights-to-better-identify-cybersecuritythreats-and-vulnerabilities 4 Waterfall 2023, https://waterfall-security.com/otinsights-center/ot-cybersecurity-insights-center/2024-

blog#:-:text=Big%20Impacts%20%26%20Major%20Findings_attackers%20witt%20a%20political%20agenda

⁵ Recorded Future Article, Feb 2024,

https://www.recordedfuture.com threat-intelligence-101/cyberthreats/types-of-cybercrime 6 Honeywell OT Cybersecurity Research 2023 ⁷ Carbon Black Threat Report, https://www.techrepublic.com/resourc e-library/whitepapers/the-carbonblack-2016-threat-report/





WHAT IF MALWARE IS ALREADY ON YOUR OT NETWORK?

WOULD YOU KNOW?

- Sophisticated techniques and zero-day exploits evade traditional cybersecurity measures like firewalls and antivirus
- There has been a 140% YoY increase in attacks on industrial organizations¹
- 270 days is the average dwell time for OT cyber intrusions²



EARLY DETECTION IS ONLY POSSIBLE WITH CONTINUOUS MONITORING

² Ponemon Institute, 2021, https://www.ponemon.org/





¹ SecurityIntelligence, High-impact attacks on critical infrastructure climb 140%June 2023, https://securityintelligence.com/news/high-impact-attacks-on-critical-infrastructure-climb-140/

DO YOU KNOW ALL ASSETS CONNECTED TO YOUR OT NETWORK?

ARE YOU SURE THEY ALL BELONG THERE?

- Most companies are not aware of all the assets they have connected to their OT network, for example:
 - Neglected maintenance laptops
 - Unmanaged cellular-connected remote access
 - Wireless printers
 - Multiple L2/L3 devices
 - Maintaining harmony between IT and OT
- Up to 30% assets discovered in Honeywell Cybersecurity Assessments are unknown or unmanaged¹



EFFECTIVE CYBERSECURITY PROGRAMS START WITH ASSET MANAGEMENT





WHAT IF YOUR CRITICAL SYSTEMS ARE OUT OF CYBERSECURITY COMPLIANCE?

CAN YOU TRACK THIS?

- Government regulations and company policies are driving expectations for greater visibility to real-time compliance tracking. Issues include:
 - Insecure configurations
 - Critical hotfixes missing
 - Antivirus inoperability/outdated
 - Access control inconsistencies
- \$5.87 million in revenue is the average cost due to a single non-compliance event¹



AUDITS ALONE ARE INSUFFICIENT – REAL TIME ASSESSMENTS ARE REQUIRED

1 Source: Quality Magazine, The Key to Maintaining Safety and Compliance in Manufacturing, March 2024, https://www.qualitymag.com/articles/97858-the-key-to-maintaining-safety-and-compliance-in-manufacturing#:~:text=Organizations%20lose%2C%20on%20average%2C%20x245.87,%2C%20reputation%20damage%2C%20and%20more

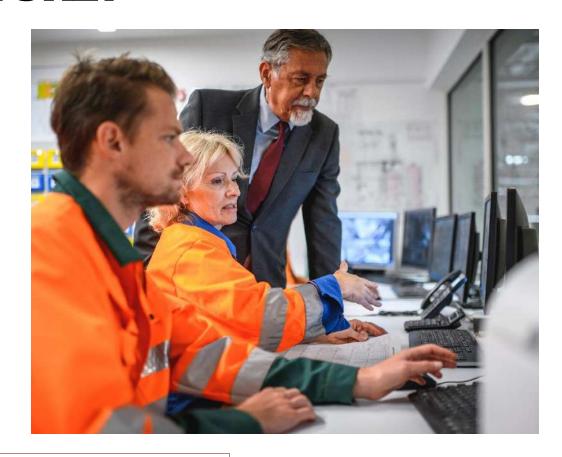




CAN YOU SHOW YOUR CISO THE STRENGTH OF YOUR CYBERSECURITY POSTURE?

DO YOU HAVE A METHOD TO DO SO?

- IT cybersecurity tools don't work for OT and they often cause breakage
- OT-specific log files in diverse locations, often very different than IT
- Manual and time-consuming reporting to demonstrate cybersecurity
- Only 13% of organizations believe that their OT cybersecurity is "highly mature" versus a comparable 39% for IT¹



THE RIGHT TECHNOLOGY CAN ENABLE OT TO SHARE CYBER INFORMATION WITH IT

1 ProofPoint & Fortinet, 2023 State of Operational Technology and Cybersecurity Report; Honeywell extrapolation, chromeextension://efaidnb.mnnibpcajpcglclefindmkai/https://d2ka2attjrjsw4.cloudfront.net/files/Partners/Fortinet/2023-report-state-of-OT-Cybersecurity.pdf







ARE YOU PUTTING YOUR SITE'S SAFETY AT RISK?

30%

Of reported OT cyber incidents resulted in physical consequences

— with damage up to \$140 M per incident in 2021²

2 Waterfall 2023, https://waterfall-security.com/ot-irsights-center/ot-cybersecurity-irsights-center/2024-threat-report-blog#:~:text=Big%20Impacts%20%26%20Major%20Findings,attackers%20with%20a%20political%20agenda.

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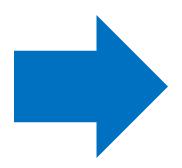
A NEW FRONTIER FOR OT CYBERSECURITY

CURRENT SITUATION

Time-consuming and infrequent assessments of:

- □ cyber risk &
- □ security posture





THE OPPORTUNITY

- Know all assets connected to your OT network
- Get near real-time threat & vulnerability detection to enable your security team
- See how sites measure against compliance









HONEYWELL FORGE Cybersecurity + Cyber Insights



CYBER INSIGHTS IS THE FOUNDATION OF A MATURE CYBER POSTURE

Boost your OT cybersecurity to help prevent cyber attacks and reduce downtime

Cyber Insights is designed to:

- Reduce operational risks and help protect safety through better asset discovery, threat and anomaly detection on all assets in your network using Honeywell-specific security knowledge
- Uncover security weaknesses with clear insights into
 vulnerabilities as well as poor cyber hygiene and network configuration issues
- Increase operational efficiencies through flexible deployment and integration with existing cybersecurity tools/systems





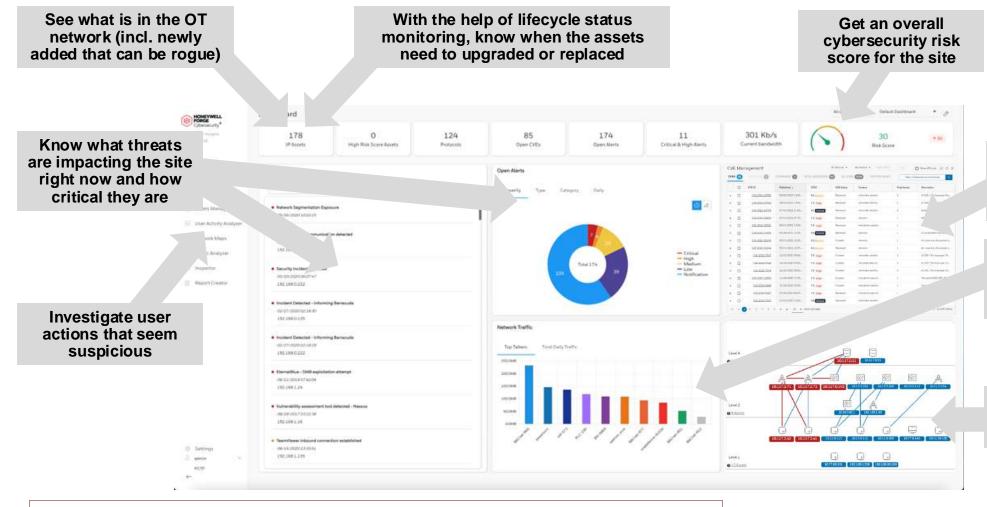
GET INSIGHT INTO CYBERSECURITY POSTURE AT YOUR SITE





CYBER INSIGHTS KEY FEATURES

Cyber Insights is designed to do the following:



Know what vulnerabilities exist at the site and what priority to put on addressing them

Find out who is talking on the network and what language they are using to communicate

Know where the assets are on the network and what they are connected to

KEY FEATURES TO HELP A CUSTOMER SEE THEIR OT CYBER POSTURE





RISK REDUCTION

Vulnerability Management

Designed to provide prioritization of known risks using asset risk scores, CVSS and known exploitable vulnerabilities (KEV) as level as the confidence levels between CVE and asset.

Site Risk Profiling

Designed to provide automatic risk profiling at both site and asset level based on their criticality, behavior, risk exposure levels, and prioritization of alerts.

Logical Groups

Capable of providing a connectivity analysis among logical network groups. Useful for analyzing traffic between different network segments, OT sub-segments, OT and IT.

MITRE ATT&CK for ICS

Designed to correlate events to MITRE ATT&CK for ICS model. One-glance updates of the entire organization's threats.



UNDERSTAND & MANAGE OT CYBERSECURITY RISK IN YOUR NETWORK





RISK REDUCTION – CONT.

View & Prioritize Alerts

Advanced current visualization capabilities: prioritized alerts, aggregated alert information, affected asset data, history, forensic data.

Threat Assessment View

Designed to rate assets based on risk metrics, and quickly determine the most important assets to focus on.

Automated Security Reports

Capable of providing a summary of all alerts including their severity, affected assets list, detailed explanations and remediation recommendations.

Risk Analysis

Designed to perform automatic risk analysis with architectural and security context considered and identify risky connections, risky communication sessions, and possible attack vectors.



PRIORITIZE THREATS TO FOCUS ON THOSE MOST IMPORTANT





OPERATIONAL EFFICIENCY

Operational Visibility

Designed to provide deep visibility into the OT processes, including the ability to monitor industrial commands and their values, and alert on suspicious communication. This helps ensure that the critical OT processes keep running within required norms.

Alert and CVE Management

Designed to lower risks and handle security events using alert and CVE management within the solution, or in conjunction with SIEM and SOAR systems.

Sensor-less Deployments

Designed so that there is no need to deploy sensors in every segment. You now have the ability to monitor remote segments in an "agentless" cost effective manner.

Tools to Prioritize Threat Data

Designed to quickly understand and identify the threats that pose the highest risk to safety and operational stability.



INCREASE THE EFFICIENCY OF MANAGING CYBER ACTIVITIES





VISIBILITY & ANALYSIS

Asset Inventory

Designed to provide fully automated asset discovery and inventory – passive and active.

Network Maps

Designed to map the connectivity between each asset including point-to-point mapping, layered mapping and exposure mapping.

Alert Management

Designed to provide notifications on anomalous behavior, malicious actions and/or code, unauthorized network communications, or other unexpected actions.

Vulnerability Management

Designed to provide CVE correlation to relevant assets & prioritize existing vulnerabilities with the product's network insights.



GAIN MORE VISIBILITY TO YOUR OT NETWORK & POTENTIAL SIGNS OF COMPROMISE





DETECTION & RESPONSE

One Industry-Leading Detection Engine

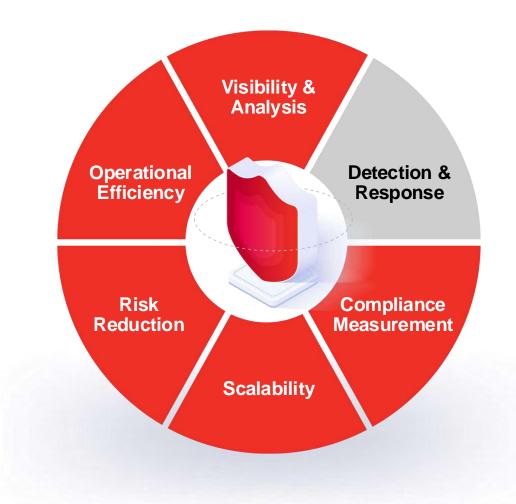
OT security solutions with high detection rates and low false-positives.

One of the Industry-leading Baselining Technologies

Capable of being fully up and running in days with one of the fewest false-positives rates as compared to current options.

Custom Threat Detection Rules

Custom malware detection rules are designed as part of the signature-based threat detection engine. Provides flexibility to customize rules depending on user needs.



INCREASE CONFIDENCE IN DETECTING CYBER THREATS





ENTERPRISE GRADE & SCALABLE

RBAC

Designed to allow multiple users and departments access to the system, each with its own level of permissions.

Smart Sensors

Capable of performing local analysis of the information, optimized for remote low bandwidth and slow connections, that are otherwise difficult to monitor.

Distributed Processing

With sensors processing data locally, rather than forwarding to a central location, capable of providing better scalability and local survivability.

Scale to Additional Sites

Designed to provide multi-site visibility and analysis is available through Cyber Watch.



SCALEABLE SOLUTION









CYBER WATCH IS DESIGNED TO PROVIDE A GLOBAL VIEW OF OT CYBERSECURITY POSTURE

Two Great Ways to Keep Watch...

1) Multi-Site Portal designed to:

- Provide visibility to cyber threats across sites supports up to hundreds of distributed locations managed centrally via the multi-site portal.
- Deliver a centralized data view Data from all sites is centrally aggregated, including full asset inventory, traffic and alerts data.

2) Governance Portal designed to:

- Provide governance enables the IT and audit departments to centrally define and monitor the organization's adherence to company policies.
- Support OT standards & regulations such as IEC 62443, the NIST framework, and other compliance frameworks for OT.
- Align with internal policies It also allows for internal policies and best practices across sites.

KEEP WATCH OVER THE CYBER POSTURE OF ALL OPERATING SITES









CYBER WATCH LEVERAGES CYBER INSIGHTS

Cyber Watch is designed to aggregate data from multiple sites through Cyber Insights

Cyber Watch - Multi-Site Dashboard

 Includes workflows such as alert handling and central site configuration. All updates in the center are automatically pushed to the managed locations.



Aggregated Data







Aggregated Data



Cyber Watch - Governance Dashboard

 Enables CISOs to plan their cybersecurity strategy, and report and measure their organization's compliance based on the actual data derived from the networks.

Know your cybersecurity posture across multiple sites with support from Cyber Insights at each site



Cyber Insights Plant B



Cyber Insights Plant C





CYBER WATCH COMPLIANCE MEASUREMENT

→ Central Governance

Designed to continuously monitor your remote sites' adherence to industry standards (IEC 62443, NERC CIP, NIST, ISO 27001, NIS2, SOCI, OTCC, and others) and organizational policies.

→ Always Up To Date

Based on near real-time data extracted from the networks, the system is designed to provide continuous, near real-time visibility to the adherence of regulations and industry frameworks.

→ Improvement Over Time

Capable of tracking improvement of organizational compliance over time.

→ Reporting

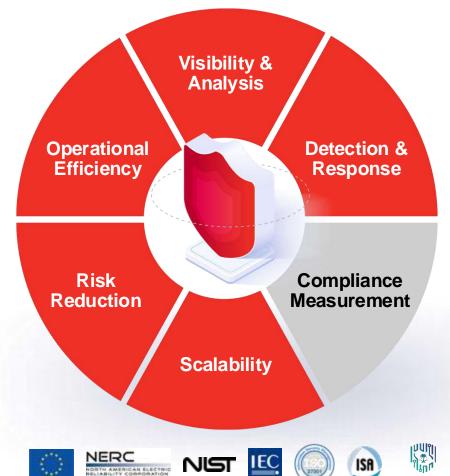
Designed to automatically generate compliance reports to the executive team and the onsite teams for following up on open items.

→ Reduce Costs

By centrally managing the governance of your organization's remote sites, you may be able to eliminate the need for travel and onsite audits.

KNOW COMPLIANCE STATUS ACROSS ALL SITES



















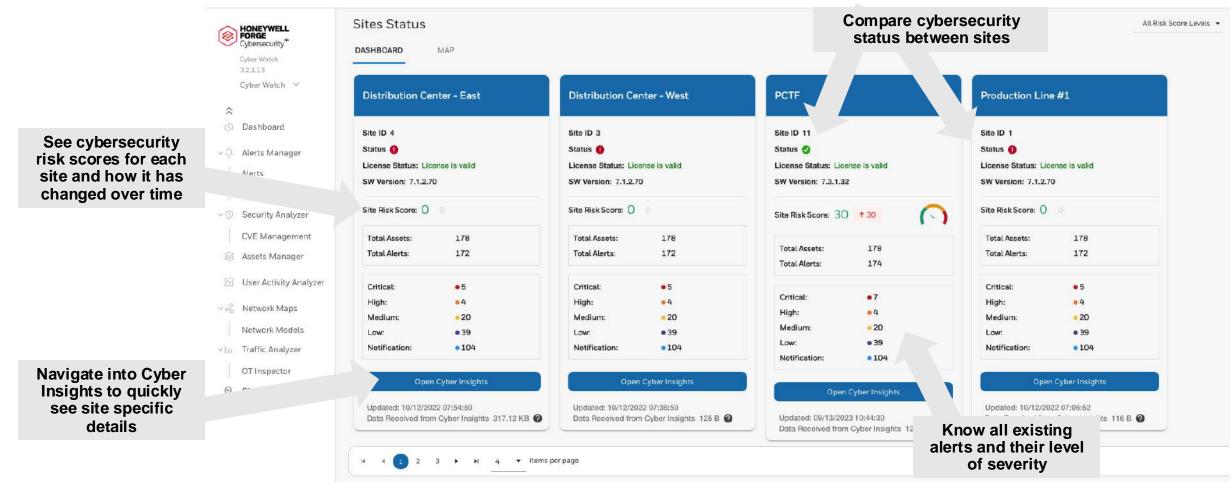






QUICKLY VIEW THE CYBER STATUS OF EACH SITE

Cyber Watch - Multi-Site Dashboard



SITE LEVEL ASSET DETECTION & THREAT INTELLIGENCE





COMPLY WITH REGULATIONS AND THEN REPORT

Cyber Watch – Governance Dashboard



GET THE INFORMATION NEEDED TO TAKE ACTION AND REPORT







WHY CHOOSE HONEYWELL



NORTH AMERICAN CHEMICALS PLANT

IMPACT

Increased visibility to OT assets, reduced false positives on OT cyber alerts, faster installation vs competitive offering previously used

CUSTOMER REQUIREMENT

- Improve asset discovery capabilities, support compliance and governance needs, increase overall effectiveness of OT cyber capabilities and achieve faster time to install.
- CISO had experience with commercial off-the-shelf software from competitive OT provider and was not satisfied with the effectiveness of the product.

SOLUTION

 Installed Honeywell's Cyber Insights and Cyber Watch at single plant for evaluation then proceeded to implement at additional global sites.

BENEFITS

2X

3)

80%

20%

Cyber Insights detected 2X more devices than competitor in exact same scenario

Cyber Insights was 3X more accurate in identifying Experion control devices

% of features Honeywell technology was equal to or better than competitor product

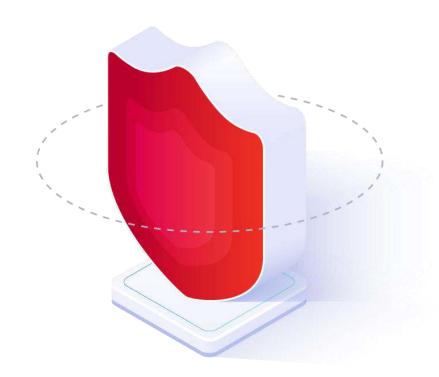
Increase in assets discovered vs competition



WHY CYBER INSIGHTS & CYBER WATCH?

Cyber Insights & Cyber Watch are designed to help:

- ☐ Assure that every system is compliant... all the time
- Detect cyber threats and vulnerabilities in near real time
- ☐ Validate that all assets on the OT networks belong there
- ☐ Quantify the level of OT cybersecurity risk and prioritize actions to reduce risk
- ☐ Support for Experion users solutions are certified for Experion control system and they also work in multi-vendor ICS networks beyond Honeywell
- Improve system security using tested technology that doesn't disrupt the control system



PROTECTING A CONTROL SYSTEM REQUIRES KNOWLEDGE OF DESIGN, OPERATION & SAFETY CHARACTERISTICS





HONEYWELL ADVANTAGE



- ✓ Breadth of offerings
 30+ products & services including MSS options
- ✓ OT cybersecurity domain experience 25+ years of experience, 1000's of projects delivered
- ✓ **Vendor-agnostic**Solutions for both Honeywell & many non-Honeywell systems
- ✓ **System integrator**Able to implement and maintain Honeywell and many non–Honeywell offerings
- ✓ Access to OT-specific threat intelligence

 GARD Threat Intelligence
- ✓ Global presence

 Currently supporting customers in 100+ countries
- ✓ Human resources

 500+ employees focused on OT cybersecurity
- ✓ Financial stability
 Fortune 200 company





PART OF A FULL SET OF SOLUTIONS FOR OT CYBERSECURITY



Identify Assets that Need Protection

Software-led solutions designed to offer greater visibility to all the assets connected to an OT network.

Key Honeywell Offerings:

- Cyber Insights
- Cyber Watch
- Professional Services Including Site Assessments

Protect the Assets

Software-led solutions designed to help users better protect assets from the threats of a cyber attack.

Key Honeywell Offerings:

- Managed Security Services
- Secure Media Exchange
- Professional Services
- Centers of Excellence & Innovation - Training

Detect a Cyber Attack

Software-led solutions designed to help users detect an attack underway.

Key Honeywell Offerings:

- Cyber Insights
- Cyber Watch
- Managed Security Services
- Secure Media Exchange
- · Professional Services

Respond to an Attack

Software-led solutions designed to help users respond to an attack.

Key Honeywell Offerings:

- Cyber Insights
- Cyber Watch
- · Secure Media Exchange
- Professional Services for incident response readiness planning

Recover from an Attack

Software-led solutions designed to help users recover from an attack.

Key Honeywell Offerings:

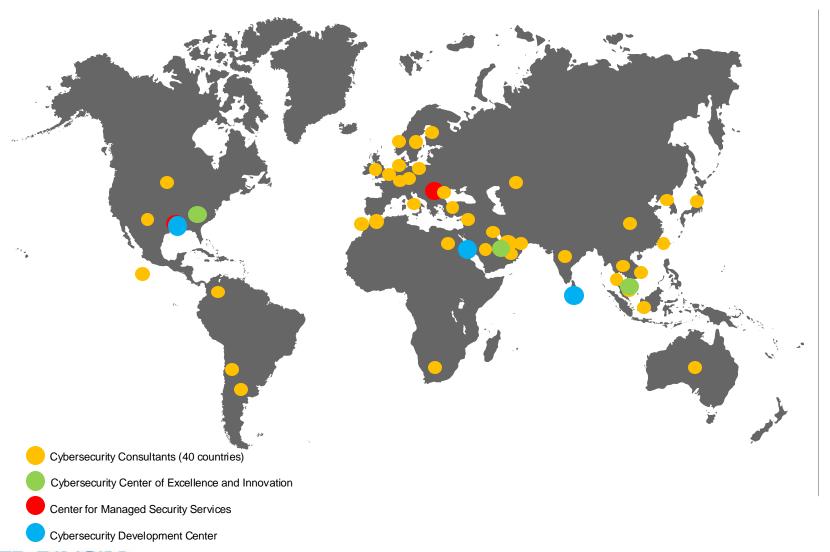
Professional Services

- · Recovery planning
- On-site incident response
- Backup & recovery deployment





HONEYWELL OT CYBERSECURITY GLOBAL REACH



Regulatory Frameworks & Agencies Covered









































ANALYSTS ACKNOWLEDGE HONEYWELL AS A LEADER IN OT CYBERSECURITY

WESTLANDS ADVISORY- NOV 2023:

Honeywell is Leader in Industrial Security Consulting & Managed Services





FORRESTER WAVE ON OT CYBERSECURITY- JUNE 2024:

Honeywell offers OT Asset Management Software and Services, providing an end-to-end OT cybersecurity solution



*A gray bubble or open dot Indicates a nonparticipating vendor





USER FEEDBACK

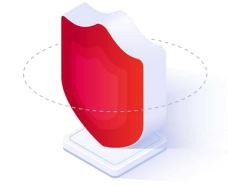


[CYBER INSIGHTS] USER FEEDBACK*

Oil & Gas Industry

"[Cyber Insights is designed to watch the network 24 hours a day 7 days a week and that is a giant relief for us... that should mean that there is not anything that goes on the network that we don't know about by a simple alert on Cyber Insights. I would recommend Cyber Insights to others and I have]"

Process Controls Engineer, Refining and Agricultural Company, North America



"[Cyber Insights really gives us peace of mind. It gives me a tool that helps me to report to my superiors that we are doing what we should be doing in terms of cybersecurity on our network and it just helps you sleep good at night.]"

Process Controls Engineer, Refining and Agricultural Company, North America

"[We were surprised at how valuable it is to have real-time accurate information about our security posture. Cyber Insights extends the power of security engineers, and aligns our entire organization under the same policies and best practices.]"

Supervisor of Infrastructure Systems, Oil & Gas Terminal, Latin America

*all customer names withheld to support their cybersecurity



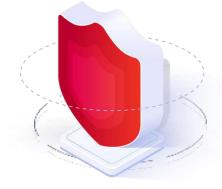


[CYBER INSIGHTS] USER FEEDBACK*

Pharmaceutical Industry

"[Cyber Insights' highly accurate asset visibility and inventory tools allowed us to stop using outdated spreadsheets and to complete digitize our network.]"

OT Network Administrator, Pharmaceutical Company, USA



"[Unlike other OT security tools that we are aware of which take 4-6 weeks to display all our OT assets, Cyber Insights had our assets inventory up and ready in only three hours. The quick deployment of Cyber Insights into our environments has been extremely helpful for our efforts to secure our production sites.]"

CISO, Pharmaceutical Company, India

*all customer names withheld to support their cybersecurity





[CYBER INSIGHTS] USER FEEDBACK*

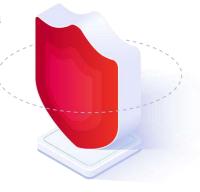
Manufacturing Industry

"[Cyber Insights performance in large-scale networks and detection capabilities are unlike any other platform in the industry that we are aware of.]"

OT Network Engineer, a large EU-based manufacturing facility

"[Cyber Insights helps us provide a more secure environment at our manufacturing plants]"

General Manager, Information Technology, Electronics Manufacturer, Japan



"[Cyber Insights detailed security alerting has allowed my team to quickly detect and mitigate identified malicious activity all across our OT environments]"

VP Operations, Bio Energy Manufacturer, USA

"[Cyber Insights can quickly show visually what's occurring on our network.]"

Security Officer, Major Consumer Products Manufacturer, EU

"[By integrating Cyber Insights into our environment, we were finally able to add OT visibility and monitoring to our ongoing security operations.]"

Security Director, Consumer Products Company, Middle East Region

"Thanks to the visibility we got from Cyber Insights, we were quickly able to see where the ransomware attack was coming from and take the right steps to remediate the exposure points in our production environment. Now, we are tracking the Cyber Insights dashboard as part of our daily work routine.]"

Product & Operational Cybersecurity Officer, Global Manufacturing Company based in the EU

*all customer names withheld to support their cybersecurity





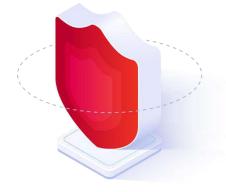
[CYBER INSIGHTS] USER FEEDBACK*

Other Industries

Water

"[If it wasn't for Cyber Insights, we would not have known of those remote access connections, since we thought we had our firewalls set up correctly, but Cyber Insights was able to surface that traffic and then help us to keep the intruders out.]"

Network Administrator, Large Municipal Water / Wastewater Plant in the USA



Power

"[In only ten days of monitoring, Cyber Insights was able to pick up what would take a network professional a couple of months to do.]"

Plant Manager, Electric Power Producer, USA

Distribution

"[Managing OT security risks needs a special solution that is designed for OT environments and Cyber Insights is that special solution.]"

Manager, Distribution Company, Middle East Region



*all customer names withheld to support their cybersecurity



[CYBER INSIGHTS] SAMPLE CUSTOMER EXPERIENCE

CUSTOMER INDUSTRY	REGION	MAIN CONTROLLER VENDORS	
Chemicals (Honeywell)	Americas	Honeywell control systems	
Global Aluminum Manufacturing	Americas, APAC	Siemens, Rockwell	
Automotive Components	Europe	Siemens, Fanuc	
Pharmaceuticals	APAC	Rockwell, Siemens	
Food and Beverage	North America	Rockwell, Moxa, IFM	
Global Mining	Africa	Schneider-Electric, Silicom, Siemens	
Oil Refining	North America	Rockwell	
Consumer Goods Manufacturing	Europe	Siemens, Advantech, WAGO Kontaktechnic	
Biofuel Production	South America	Siemens, Schneider, GE, ABB Oy	
Electric Power	Europe	Siemens, VAMP	
Pharmaceuticals	Middle East	Rockwell, Super-Micro	
City Municipalities	North America	Rockwell	

COMPREHENSIVE CUSTOMER EXPERIENCE IN MULTIPLE INDUSTRIES AROUND THE WORLD





NEXT STEPS?

Understand your OT cybersecurity posture. Do you know all the assets on your network? Are you actively monitoring for potential cyber threats? Honeywell OT cybersecurity consultants can help.

2 Schedule a demonstration of our Cyber Insights & Cyber Watch offerings

Learn more about Honeywell's Cyber Insights and Cyber Watch by visiting www.becybersecure.com





CONNECTED ENTERPRISE

THANK YOU





Backup slides





CONTROL SYSTEM TEST ON EXPERION

In March 2024, the Honeywell OT Cybersecurity Product Testing Group performed a series of tests to compare the performance of Honeywell's Cyber Insights solution with a leading competitive alternative. **The following outcomes occurred when testing the competitive offering on the Honeywell Experion control system live test-bed:**

- Issues with asset identification accuracy
- 2. False positive alerts generated
- 3. True positive alerts not generated

None of these outcomes occurred when testing the Honeywell Cyber Insights solution in the exact same test scenario with the Honeywell Experion control system live test-bed.

About the Tests:

The tests were performed by the Honeywell Global Testing Team on a live control system network in a QA environment. This included a full simulation of a control system environment of 500+ nodes (e.g. Honeywell RTUs, PLCs, DCS, SCADA, Safety, PMD and wireless systems),

NOTE: The results of Honeywell's testing as set forth in this report are provided for informational purposes only and are based solely on the results of Honeywell's testing in the specific environment configured by Honeywell for this testing. Results obtained from benchmark testing of this type may be different when conducted in different environments or when such benchmarking is conducted by different parties or with other control systems or data.





CONTROL SYSTEM TEST ON EXPERION - RESULTS

Test Methodology & Findings

Methodology:

Cyber Insights technology was applied on DCS large system test bed in Bangalore & within Honeywell OT Cyber COEs

Findings:

- Technology detected more devices vs competitive product
- Technology had better detection of nodes than competitor
- Technology operated without disruption to the DCS system

Results:

	Cyber Insights	Competitor
Total Devices Detected	329 / 330 99.6%	166 / 330 50.3%
Accuracy of Experion Control Devices Detected	10 / 15 66%	3 / 15 20%

Recent Cyber Insights Release

- 1 Improved Device Discovery Accuracy
 Implemented product enhancement designed to
 improve ability to detect DCS specialty control nodes
- Implemented DCS Networking Alerts:
 Implemented product enhancement designed to better interpret control system and DCS network redundancy behavior, and reduce false alarm rate
 - 2X Cyber Insights detected 2X more devices than competitor in exact same scenario
 - Cyber Insights was 3X more accurate in identifying Experion control devices

"Cyber Insights technology had better detection & accuracy than Competitor on the Control System."

Honeywell Testing Team

CYBER INSIGHTS OUTPERFORMS THE COMPETITION IN DCS ENVIRONMENTS





CONTROL SYSTEM TEST ON EXPERION – RESULTS CONT.

Significant Number of False Positive Alerts Found Using Competitive Product

Honeywell testing team found significant issues in competing threat detection product regarding the number of cybersecurity false positive alerts generated in control system environment

The Same Scenarios Tested on Cyber Insights & Competitive Product

Fraditional day-to-day activities performed on control system False Postenvironment Gene		tive Alerts ated?
	Cyber Insights	Competitor
Patch upgrades	No	Yes
Technical maintenance (eg device replacement, migration)	No	Yes
Network management (eg cable removal, switch updates)	No	Yes
Expansion/connection to state of art technology	No	Yes

RESULTS:

- Accuracy of reporting true vs false positives was much higher with Cyber Insights vs competition
- Cost to maintain competitive
 solution likely significantly higher vs Cyber Insights (more false positives, requires forensic analysis etc to determine true vs false positive)
- Difficulty to determine true vs false positive without deep control system understanding

Cybersecurity*

CYBER INSIGHTS OUTPERFORMED THE COMPETITION IN DETECTING TRUE
POSITIVES FROM FALSE POSITIVES ON CONTROL SYSTEM

HONEYWELL

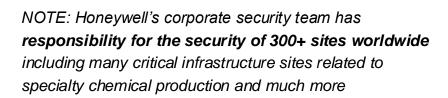


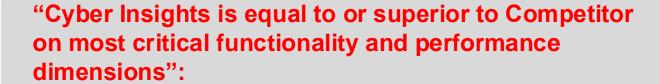
HONEYWELL SECURITY TEAM REVIEW:

"LEADING TECHNOLOGY SUPPORTING MOST CRITICAL CYBERSECURITY NEEDS"

CISO SECURITY TEAM ANALYSIS:

50 criteria evaluation of Cyber Insights technology vs a market leading competitive product, conducted independently by Honeywell CISO organization at Honeywell sites located in South Carolina and Lotte, Germany.





% of features Honeywell technology was equal to or better than competitor product

100% % of assets detected on Honeywell Experion (90-95% detection success estimated across other DCS systems)

 Cyber Insights outshined the Competitor in the most critical areas for CISOs purchasing decisions, including Asset Discovery, Threat Detection and less False Positives

Honeywell Cyber Insights strengths, based on testing results:

- Better protocol coverage and detection
- Better asset detection and threat detection
- OT/IoT centric solution that does not overlap into IT assets
- Elaborate firewall integration for a quicker response to threats





TECHNICAL FAQ – PROTOCOL LIST

OT Protocols/Products Support List

The list below details some of protocols that the Cyber Insights is currently designed to support:

ABB CNCP ABB RNRP ABB-800 HTTP **ABB Totalflow** BACnet/IP BACnet L2 Beckhoff ADS/AMS Bosch Rexroth (Indra) Bosch Rexroth (SIS) **BSAP**

CC-Link CIP Extensions COTP L2 CoAP **CSP**

DF1 **PCCC** EtherNet/IP **Emerson ROC**

Emerson DeltaV

EtherCAT FL-NET **GE SRTP GE EGD**

Honevwell FTE Honeywell CDA Honeywell control systems

Honeywell safety systems

HSMS

INCOM (Eaton)

IBP

Kevence VT3

KNX

Kongsberg NetlO LWE- Lightweight Ethernet

Modbus/TCP Modbus Unity Modbus RTU

Modbus RTU Thales

Memobus

Mitsubishi MELSOFT Mitsubishi MELSEC

Mitsubishi SLMP NMEA0183

Omron FINS/TCP Omron FINS/UDP Omron FINS/ENIP

SECS/GEM Siemens S7 Siemens S7+

Siemens LOGO! Profinet DCP Profinet CM Profinet Al

PV2 OPC-UA OPC-DA

Schneider TriStation

SAIA SBUS RTCM (NTRIP) HART/IP

Moxa DNP3

IEC 104 (60870) IEC 61850

GOOSE SMV MMS

ICCP/TASE.2 Synchrophasor **CODESYS**

MOTT

Yokogawa Centum DMS Yokogawa Widefield Yokogawa HLLS Yokogawa DMS Yokogawa Vnet/IP Wonderware Suitelin

IT Protocols Support List

The list below details some of protocols that the Cyber Insights is currently designed to support:

> HTTP SNMP **SMB** Browser IP, TCP, UDP, ICMP **CAPWAP CIFS FTP** DCF-RPC VLAN **TFTP** DHCP ARP DNS

Telnet LLDP CDP **NTLMSSP** LLMNR **MDNS** SSDP **WSDD RNRP** NTP VNC Other

Kerberos

Additional Protocols Support

Our research team is constantly adding support for additional protocols, please contact us if a required protocol is missing from the above lists. With a dedicated research team and our robust dissector engine, we are able to support other protocols, on average within a matter of weeks.

Active Polling - Optional

Cyber Insights is designed to also support active polling (via IT and via native industrial protocols commands). Optionally enabled, this can provide additional details on silent or remote devices.





WHY HONEYWELL'S SHIFT TO CYBER INSIGHTS

WE CAN NOT IGNORE THE CLEAR RESULTS AFTER DETAILED, HEAD-TO-HEAD TECHNICAL ANALYSIS

1. Best vulnerability alarming system for DCS environments

Based on independent tests conducted in Honeywell PCT Testing Lab & Heterogenous Cybersecurity COE
 testbed, [Cyber Insights] outperformed its competitors with a significantly less false alarms

2. Best asset detection and controller identification solution for DCS Environments

— Based on tests conducted in HON PCT Testing Lab prior to the acquisition [Cyber Insights] detected 2x more devices than its competitors and was 3x more accurate in asset identification.

3. Control system vendor agnostic and support for 150+ protocols

- Experience and capabilities to support non-Honeywell control systems; extensive protocol list provides more accurate asset identification and inventories
- 4. Tailored threat intelligence Relevant to your locations, industry and equipment
- 5. Central "enterprise" view All sites including industrial focused governance and compliance automation
- 6. certified for Experion The only Experion certified OT security solution

PROOF POINTS

Honeywell CISO Team Evaluation:

- Control system test vs market leading competitive product
- Honeywell CISO corporate team evaluation vs Competitor

Cyber Insights vs Competitor:

- Detected 2X more devices
- 3X more accurate
- Zero alert false positives vs competitive product under the exact same test scenario





CYBER INSIGHTS & CYBER WATCH COMPLEMENT HONEYWELL SERVICE OFFERINGS

SOFTWARE

Yes Primary capability Yes Secondary capability	Cyber Insights (single site)	Cyber Watch (multi-site)
Asset Discovery & Inventory	Yes	Yes
Control System Monitoring for Availability		
Vulnerability Monitoring	Yes	Yes
Compliance Monitoring		Yes
Threat Detection	Yes	Yes
Incident Response	Yes	Yes
Integration with Other Security Tools	Yes	Yes
Non-Honeywell Systems	Yes	Yes

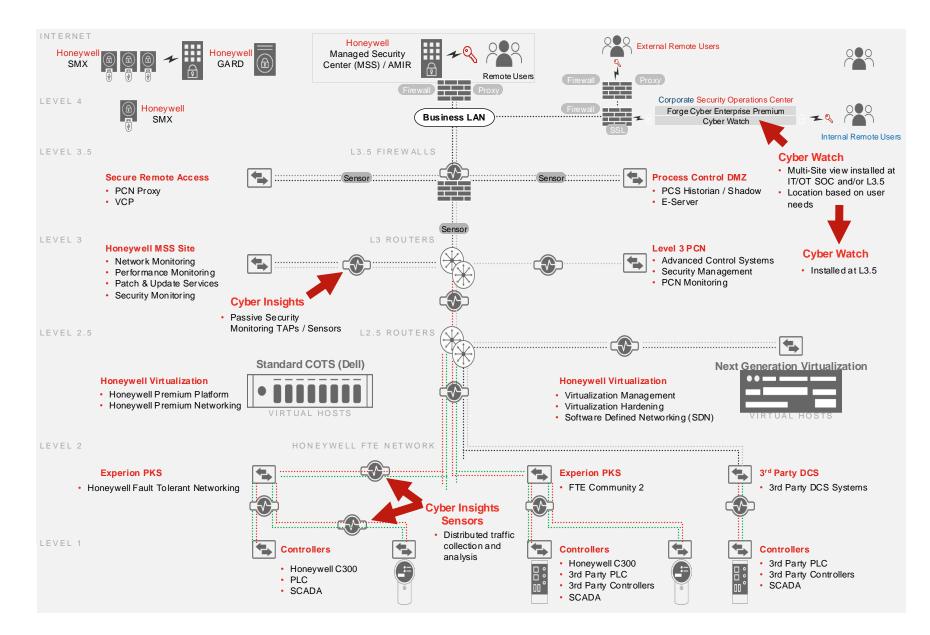
SERVICES

MSS Advanced Monitoring & Incident Response (AMIR) Services**	Enabled Services
Yes	Yes
	Yes
Yes	
Yes	
Yes	
Yes	





HONEYWELL OT CYBERSECURITY SOLUTIONS



(L3.5-L5) Cyber Watch

Keep watch over the cybersecurity posture of multiple sites.

(L3) Cyber Insights

Know your OT cybersecurity posture at a single site with industrial grade deep packet inspection and full visibility to assets, network traffic and events

(L2) Optional – Cyber Insights Sensors

Distributed packet analysis, efficient use of network band-width and higher cybersecurity survivability during network outages

HONEYWELL FORGE CYBERSECURITY*

HONEYWELL FORGE VSE

HISTORIAN

HELP REDUCE CYBER RISK & SUPPORT YOUR DIGITAL TRANSFORMATION ROI

OT CYBERSECURITY SOFTWARE SOLUTIONS



OT CYBERSECURITY SERVICES



Secure Remote Access & File Transfer

1



Assessments, Audit, Compliance, Training





Asset Discovery & Monitoring

2

CONTRACTOR



3



File & Network Threat Detection

3

HONEYWELL OR CUSTOMER MANAGED

OPERATION CENTER



OT Network Design & Security

4



Risk & Compliance Management





OT Endpoint
Protection & Detection

5



Patch, AV & Backup Management





Situational Awareness & Intelligence

6



Centralized Administration & Reporting





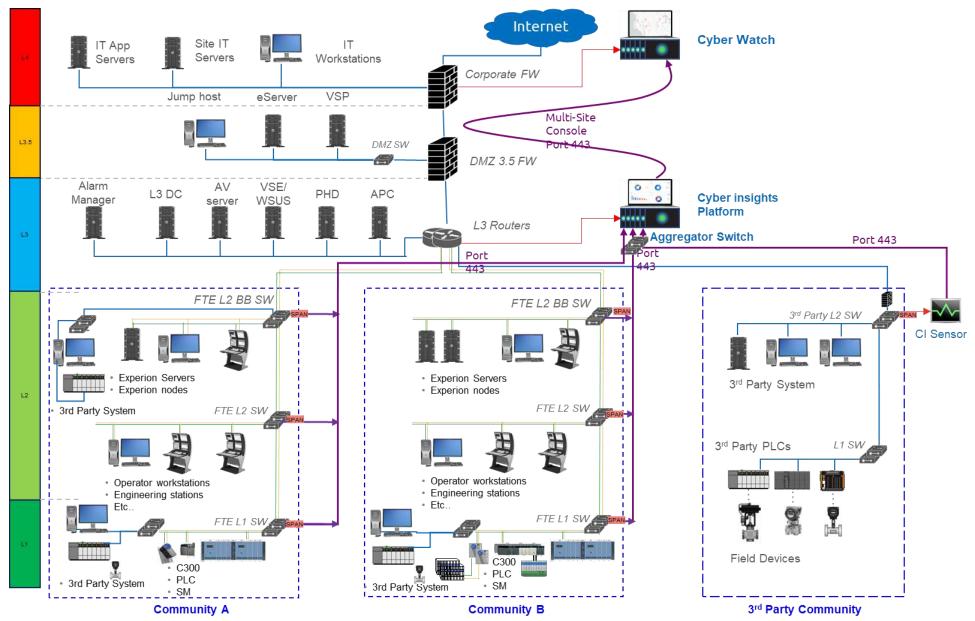
Advanced Monitoring & Incident Response

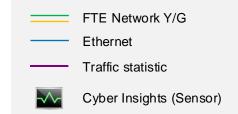




Flexible Network Segment D | o |-© — **Deployment Options** Router **Smart** VM Cloud Software Hardware Sensors PLC Engineering Workstations Multi-Site Console Integration Port 443 SoC Network **ERSPAN** Multi-Site/ SIEM Governance Module SoC / SIEM Integration Commonly Port 514 **Cyber Watch** Internet Corp WAN Firewall **OT Network** Management Segment Backbone Switch 0 Cyber Insights Switch Тар Port Mirroring ===== HMIs **BMS** Engineering Cyber Insights Servers Workstations Application Level **RSPAN** Network Segment A Aggregation ㅓㅇㅏ **Traffic Statistics** 나 Switch PLC Engineering Workstations NetFlow Network Segment C Network Segment B -0 Cyber Insights Switch Switch اقق Sensor Port Mirroring PLC Network Engineering Engineering PLC Sensor Workstations Workstations

ARCHITECTURE





Cyber Watch

Keep watch over the OT cybersecurity posture of <u>multiple</u> <u>sites</u>.

Cyber Insights

OT cybersecurity posture at a single site with deep packet inspection and visibility to assets, network traffic and events

Cyber Insights Sensors

Optional. For distributed packet analysis, efficient use of network band-width and higher survivability during network outages

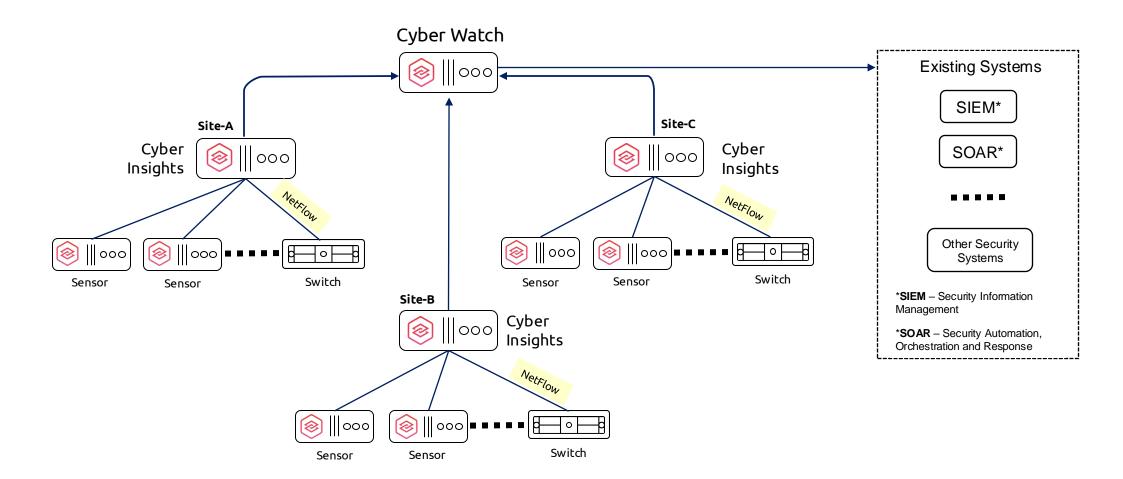
Supported

SPAN (certified on Honeywell IB) RSPAN ERSPAN TAP





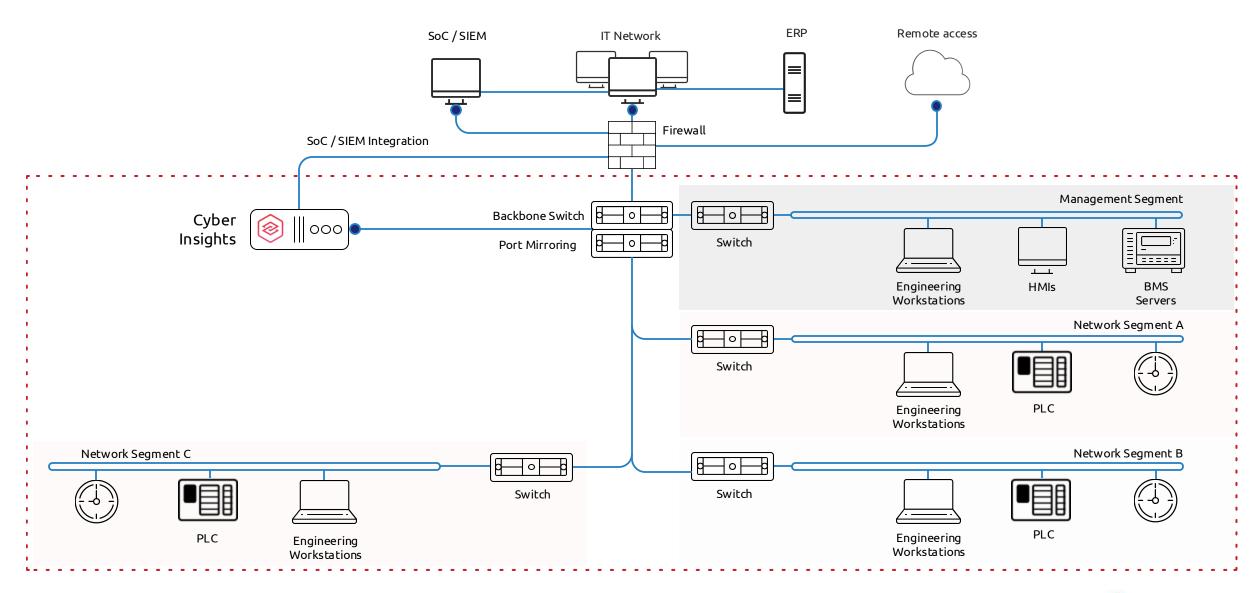
SYSTEM ARCHITECTURE







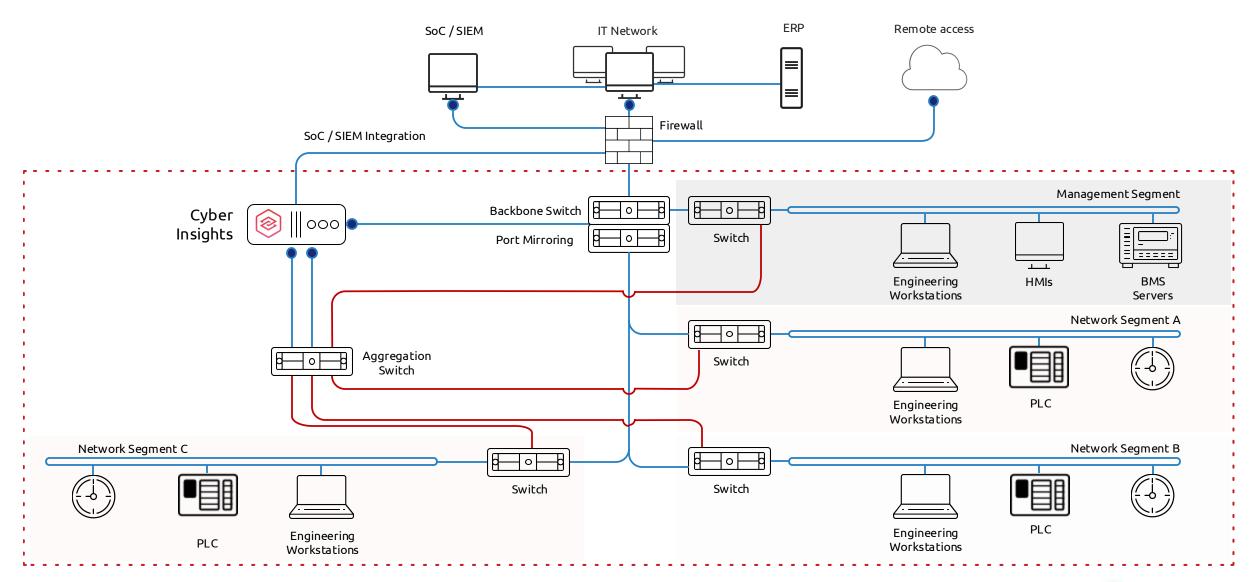
PORT MIRRORING ON A BACKBONE SWITCH







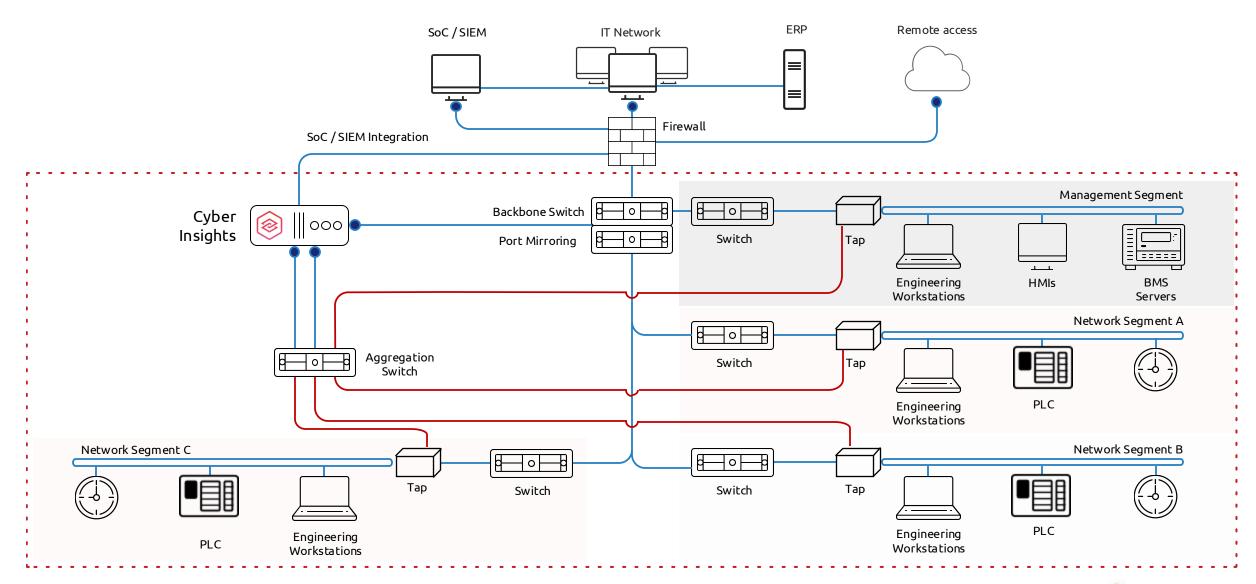
OUT-OF-BAND MONITORING NETWORK







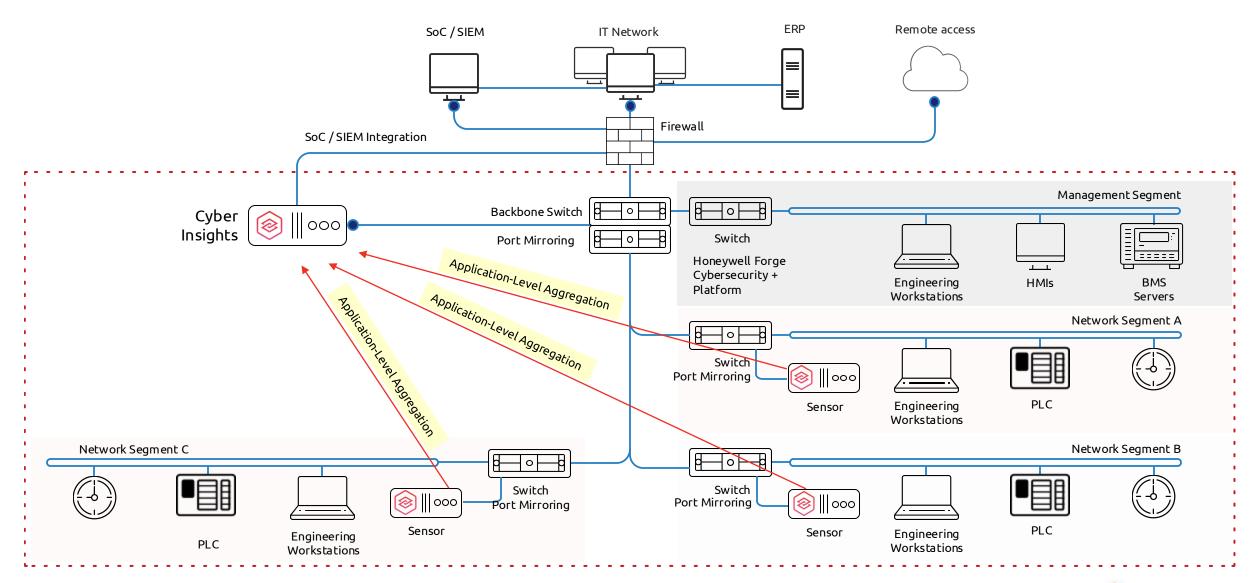
TAP DEVICE AGGREGATION







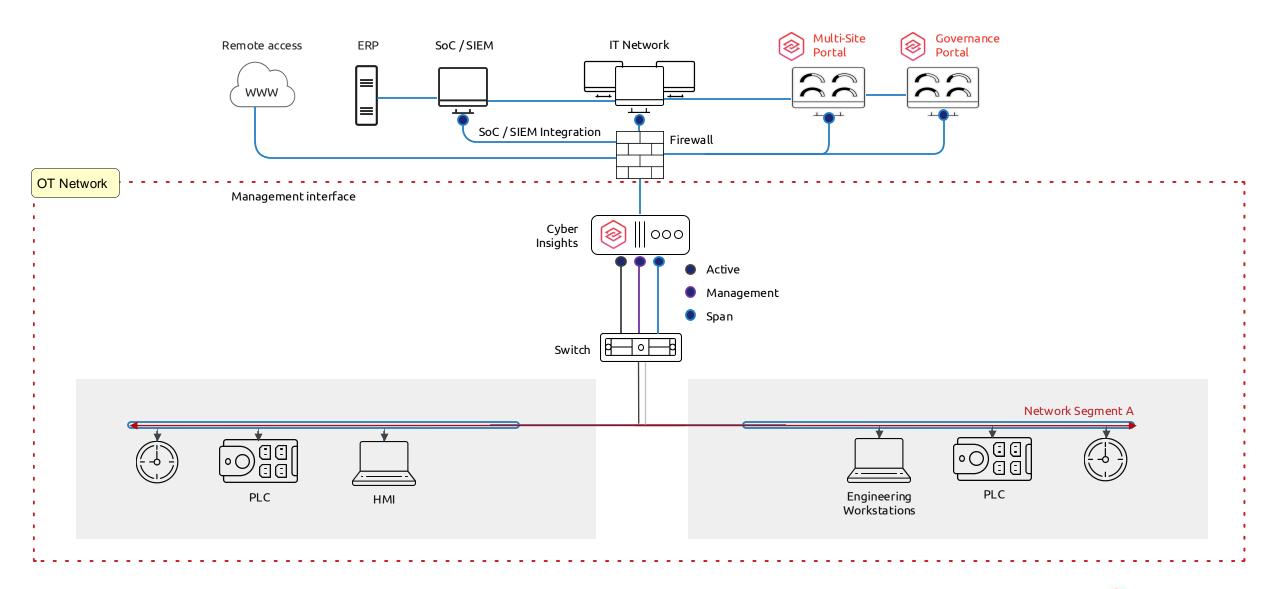
MULTI-SENSOR DEPLOYMENT







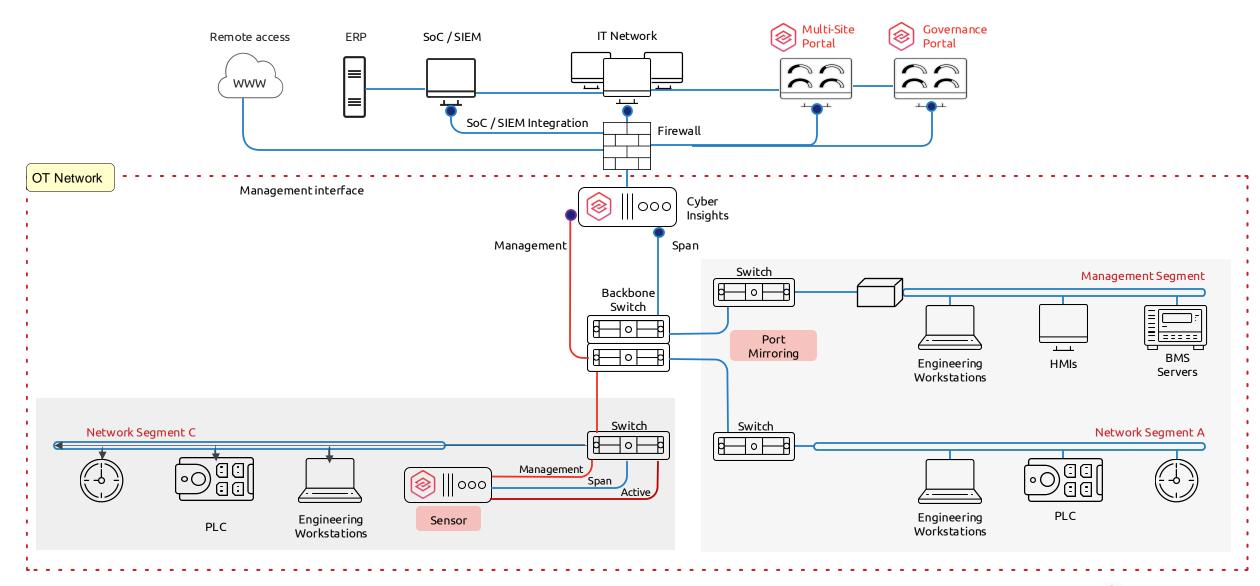
ACTIVE POLLING INITIATED FROM CYBER INSIGHTS







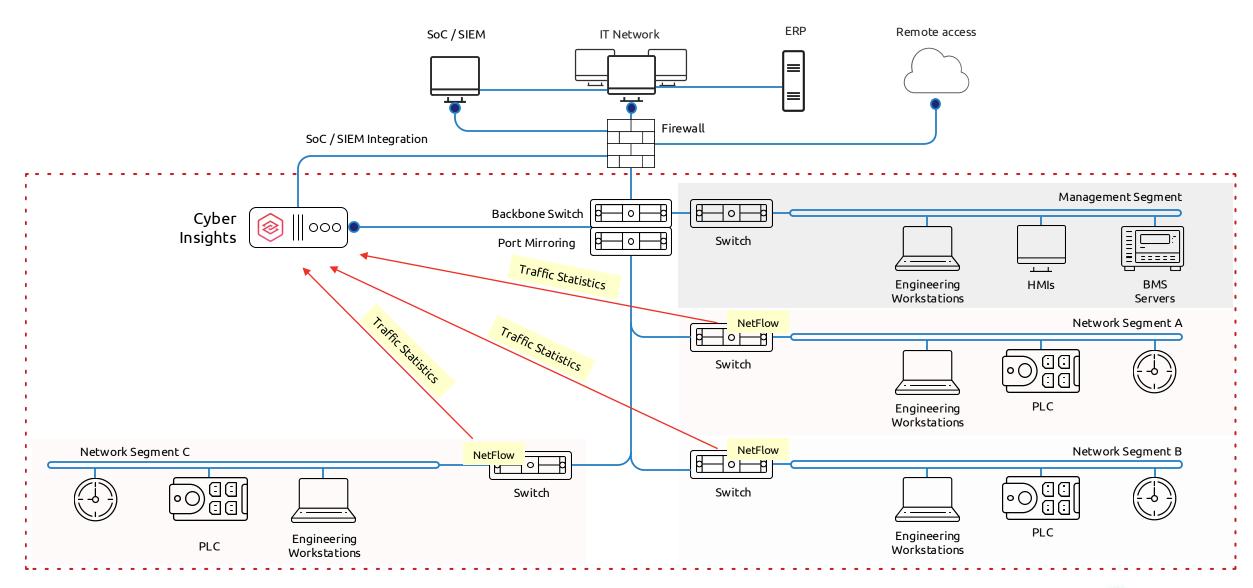
ACTIVE POLLING INITIATED FROM SENSOR







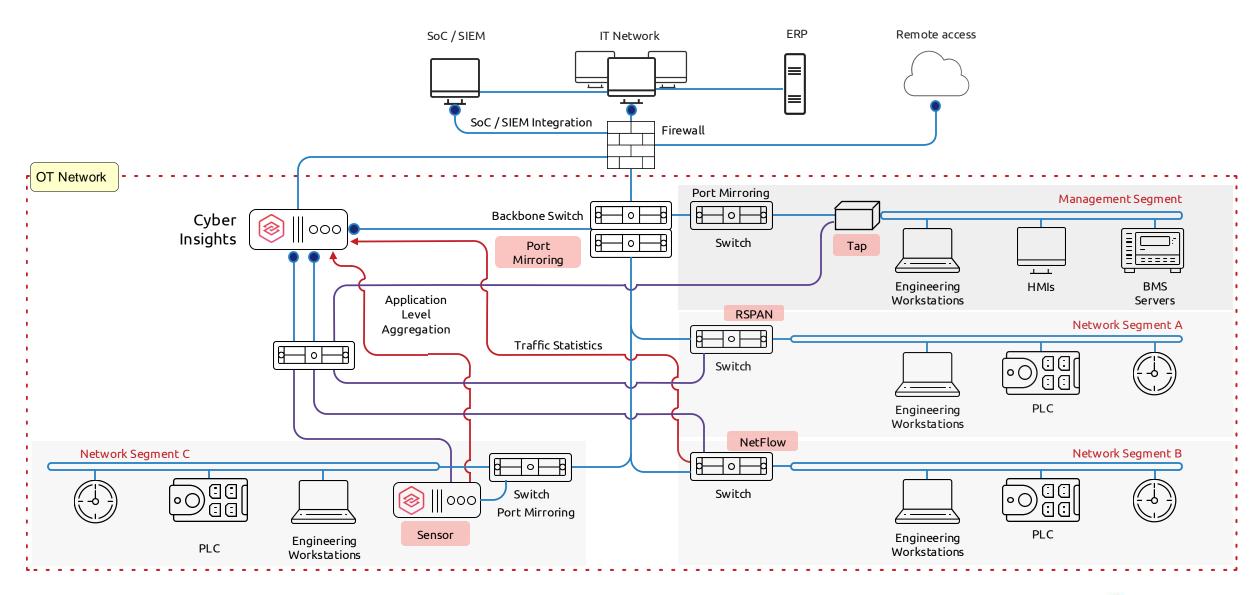
NETFLOW TRAFFIC ANALYSIS







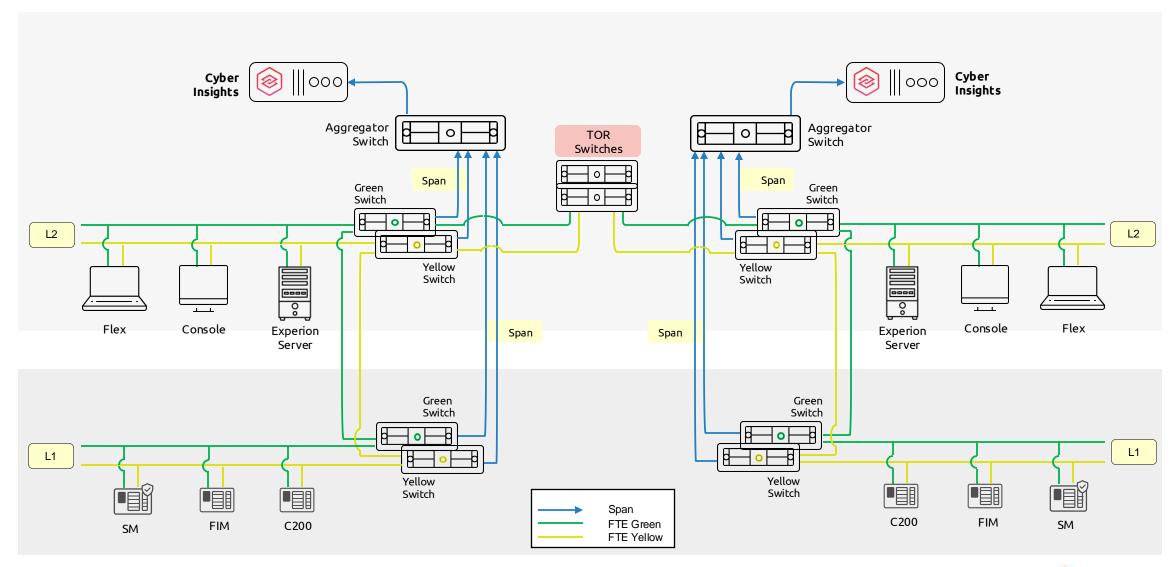
HYBRID DEPLOYMENT MODE







DEPLOYMENT IN EXPERION FTE MULTI-COMMUNITY NETWORK







DEPLOYMENT IN EXPERION FTE SINGLE-COMMUNITY NETWORK

