



Healthcare IoT Asset Intelligence and Security

# Cylera Platform Technical Highlights

Find, Assess, Secure, and Optimize Healthcare IoT and Connected Medical Devices Faster

## The Challenge

Healthcare providers are the focus of sophisticated attacks targeting connected healthcare IoT. Adversaries seek to penetrate networks, access protected data, and disrupt patient care and services.

Many vendors are promoting re-purposed, generalized technology approaches that cannot adequately safeguard uptime and manage critical medical devices and enterprise IoT systems in specialized healthcare environments. These common “wide but shallow” approaches demonstrate a lack of capability, are not “built for healthcare,” and fall far short when it comes to resolving complex healthcare IoT security operational requirements.

## How Cylera Helps

The Cylera platform stands apart from other solutions by using patented technology to monitor healthcare IoT and connected medical devices with high fidelity to deliver unparalleled inventory, usage telemetry, threat prioritization, and remediation guidance. Small and large healthcare providers leverage the depth of our integrations, insights and understanding of clinical and IT/SOC workflows, unique policy generation, and customer-collaborated design to secure their connected medical devices without risk or disruption to clinical systems or processes.

*The American Hospital Association designated Cylera as a “Preferred Cybersecurity Provider” in 2023, and in 2022 recognized Cylera as the 2022 Healthcare Cybersecurity Company of the Year.*

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ACMC Healthcare System

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## TECHNOLOGY ADVANTAGES

### Adaptive Datatype Analysis™ (Patented)

Passively detects and analyzes network traffic with patented device- and protocol-agnostic methods to create critical insights using datatype analysis, determination of formats, encoding schemes, packet structures, etc.—all without creating any operational disruption or impact.

- ▶ Ability to maximize useful, extracted metadata underlies all aspects of Cylera's patented Adaptive Datatype Analysis™.
- ▶ Algorithms and analysis are only constrained by the breadth of data available.
- ▶ Cylera's engine complements traditional packet analysis mechanisms to extract rich metadata from raw packet data at line rates.

#### Metadata Insights by Mechanism

1. Others: Limited insights available using log output from other systems.
2. Others: Per-device protocol decoders required to understand device limited details, lack of insights, or actionable risk mitigation details.
3. Cylera: Patented Adaptive Datatype Analysis™. protocol-agnostic analysis delivers detailed metadata insights from known and unknown devices, protocols, and communications using all sources available,

- ▶ Faster time from deployment to fully operational
- ▶ Support for a wider range of data sources and unique customer network architectures
- ▶ Leverage of existing technology investments through integrations and data sharing

### IoT Device Emulation™ (Patented)

Continuously generates and maintains virtual clones of each asset utilizing patent-pending IoT Device Emulation technology that continuously monitors for changes and scans without impacting availability. Real-world operations, services, and environmental elements are factored to create comprehensive NIST CSF - aligned risk profiles, scores, and mitigation plans. Output can be shared with vulnerability and other monitoring tools.

**WARNING:** HDOs should not attempt to conduct vulnerability scans unless absolutely certain that the medical device is not in production, is not currently implemented in a clinical setting, and is not connected to patients.

U.S. Department of Health & Human Services

Cylera Vulnerability Detection Results

Software Bill of Materials (SBOM)
 Known Vulnerabilities
 Unknown Vulnerabilities
 Default Passwords
 Cleartext ePHI
 Exposed Services
 Outdated Firmware

- ▶ Verify vulnerabilities without impact to patient care
- ▶ Increase confidence for outcomes on patch application or configuration changes/firmware updates

Cylera provides the easiest, most accurate and extensible platform for healthcare IoT intelligence and security to optimize patient care, service availability, and cyber defenses across diverse connected medical device and healthcare environments. The Cylera platform accurately discovers, categorizes, assesses, and monitors known and unknown assets with high fidelity to deliver unparalleled asset inventory, usage telemetry, risk prioritization, analytics, and guided threat remediation. Cylera integrates with popular IT and healthcare systems to allow organizations to advance cyber program maturity, increase operational efficiency, mitigate cyber threats, and enable compliance readiness.



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