CASE STUDY

Nationally Reognized Health Network

Innovative, Operationally Efficient Healthcare IoT Security

Improved connected medical device visibility, risk management, and operational intelligence

Background

St. Luke's University Health Network (SLUHN) had an experienced IT and security team in place. However, when they took over responsibility for thousands of connected medical devices, they recognized the gap they faced. While trying to build a complete security plan, they struggled because they couldn't see or physically locate all the devices on the network. That meant risk and vulnerability exposure far beyond their operational tolerance. Achieving greater security maturity required not only a more granular visibility to the IoT devices, it also required a more robust plan for managing those devices long-term. SLUHN wasn't looking for just an inventory and security solution; they wanted support for transforming their entire operational plan.

Challenges

- **Critical Care:** Devices needed to be available on-demand to ensure immediate delivery of critical medical information and patient care.
- **Complexity:** Service needed to be provided to 300 different facilities across a wide geographic area and multiple inter-related networks had to be integrated.
- **Utilization:** Without hard data, making purchasing decisions about both devices and consumables led to budgetary inefficiency and lost revenue opportunities.
- **Vulnerabilities:** Beyond just finding all the network connections, SLUHN needed a way to see changes, anomalies, and security breaches in real-time.

St Luke's UNIVERSITY HEALTH NETWORK

- 300 sites
- 12 hospitals
- 10 counties

"Cylera has developed a platform that allows healthcare organizations to not only secure their biomedical and IoT devices, but also better manage and utilize these mission-critical assets. The result for us has been a significant increase in patient satisfaction, patient safety, operational resiliency, and potential revenue driver. It's truly a game-changer for us."

David Finkelstein, J.D, CISO
St. Luke's University Health Network

Solution and Benefits

Cylera partnered with SLUHN to develop and implement a comprehensive, operationally-driven healthcare IoT and connected medical device security solution. Starting with giving full visibility to all IoT devices and connections, the Cylera platform also provided benefits to operational teams that they've said has been "game changing" for them regarding efficiency, risk reduction, and improved revenues.

Cylera is currently providing insights into device utilization, enabling SLUHN to assess the real-time security and operational status of all their imaging equipment, infusion pumps, ultrasound systems, patient monitors, and many others. This is driving changes related to where these assets are located and how they are scheduled and accessed to optimize their revenue potential.

Accurate Inventory

Cylera's asset identification and management uses patented Adaptive Datatype Analysis™ to interpret device communications, and is able to discover, inventory and set up maintenance on all connected assets with an unmatched depth of visibility. Complete, real-time, and continuously updated details for all types of connected IoT and IoMT devices across multiple sites - results were eye-opening. Better still, the output isn't just a list - it includes guidance for risk and what to do.

Standards-based Risk Analysis

Continuous NIST- and HIPAA-aligned risk analysis results assure SLUHN meets regulatory and standards-based operational compliance. The findings reflect clinical context and understanding of SLUHN workflows so that real-world operational factors and guidance are included in comprehensive risk profile generation.

Zero Disruption to Patient Care

Patentened, zero-touch Cylera Network Device Emulation™ technology enables virutal, deep device scanning to virtually to detect security threats such as malware, unknown devices, equipment failures, or any other anomaly - all without disrupting patient care. Cylera then alerts the system administrator with priority-ranked assessment for resolving issues – all without the network or any of its connected devices being taken offline so medical care continues without interruption.

Business Value

Cylera's system provides better, more informed data to improve business decisions, including time savings in locating devices, purchasing efficiency, device maintenance and remediation, generating additional revenue from previously under-utilized devices, and managing the availability of consumable inventory.

> "Before Cylera, we knew what we didn't know. Cylera has provided us a means to fully know what we have, in-depth, and how to manage those devices and risks according to our business priorities and revenue goals."
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> David Finkelstein, J.D., CISO
> St. Luke's University Healthcare Network

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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