

Keep IoMT Medical Devices Healthy and Secure with Cynerio and Gigamon

The Challenge

Security in a health care environment is crucial, because lives and sensitive data are on the line. Connected medical devices, however, are frequently opaque to conventional IT management tools, making them nearly impossible to protect and secure.

Integrated Solution

Cynerio's security solution, working together with the Gigamon Visibility Platform, provides the healthcare-driven behavior analysis necessary to give IT teams insight into internet of medical things (IoMT) networks. Using the visibility into the network that Gigamon provides, Cynerio detects and classifies IoMT devices as they come online and is able to provide a healthcare-centric analysis of the potential threats and vulnerabilities these devices present. The Gigamon Visibility Fabric deduplicates and decrypts network data so that Cynerio can analyze it and provide actionable information to the user or directly to third-party integrated tools.

Joint Solution Benefits

- **Pervasive visibility:** Traffic from throughout a healthcare facility's network can be collected and analyzed by the Cynerio IoMT security solution. No impact to medical devices or network performance
- **Deduplicate redundant packets:** Removes duplicate packets from traffic harvested across the network to cut down on unnecessary tool overhead
- **Inspect encrypted traffic:** Decrypts SSL traffic for out-of-band inspection and analysis
- **Metadata generation:** Unsampled Netflow/IPFIX metadata is provided to Cynerio for additional analysis

Introduction

Many hospitals and other medical facilities are taking advantage of ubiquitous wireless networking to roll out connected devices to help diagnose and monitor patient health — call them internet of medical things (IoMT) devices. From an IT perspective, however, these devices are black boxes, making it nearly impossible for security teams to accurately assess the risks they entail, or to enforce the security controls and policies that could mitigate those risks.

What's needed is a security tool that not only understands medical devices and the IoMT ecosystem, but can also determine the function of IoMT devices and the context of their behavior — without disrupting network operations. That way you can prioritize risks based on their potential impact on patient safety and patient care.

The Gigamon-Cynerio Joint Solution

Cynerio's IoMT security solution is based on the industry's first technology that thoroughly analyzes the medical workflows in the IoMT ecosystem. Working in tandem with the Gigamon Visibility Platform, Cynerio provides an ongoing healthcare-specific risk analysis that accurately detects anomalies and stops threats, preventing service disruption, data theft and compliance violations.

Cynerio's medical cybersecurity solution provides continuous discovery and classification of connected medical and IoT devices, visibility into the associated risk for each connected device with clinical context, and protection against cyber-attacks. See figure 1 for topology details

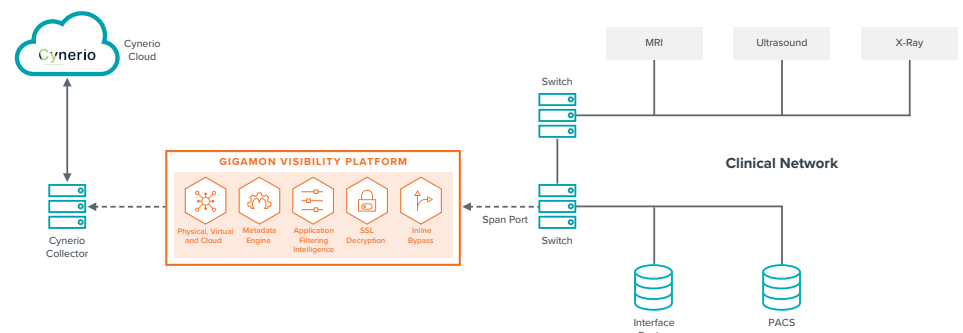


Figure 1: IoMT and Network topology

Cynerio through the Gigamon Visibility Platform connects to IoMT networks out-of-band, which means it doesn't interfere with network traffic or clinical workflows.

The Gigamon Visibility Platform enables other tools — security, analytics, and performance monitoring products — to function efficiently and effectively. Aggregating traffic across the network, optimizing the flow of packets to individual tools, offload tasks from those tools, and use a variety of techniques to increase the availability of networks and applications. These capabilities allow enterprises to maximize network availability, improve security, and reduce costs, even as network traffic surges and computing environments become more complex.

Here the Visibility platform provides the network visibility Cynerio needs to achieve these goals. Cynerio detects anomalies and enforces security controls via third-party tool integration, and the Gigamon Visibility Fabric enables traffic from across the network to be managed and delivered to those tools efficiently and in the correct format.

To ensure that Cynerio doesn't miss any potential threats lurking in an IoMT network, the Gigamon Visibility fabric decrypts SSL-encrypted traffic for inspection and provides extended metadata that can drive detailed, contextual analysis of network and security events.

For more information on Gigamon and Cynerio, visit:

www.gigamon.com and <https://cynerio.co/>