Ciena Healthcare Case Study

Securing Protected Health Information (PHI) and Medical Devices with Pulse

The Challenge: With over 80 long-term healthcare facilities across Michigan and Ohio and a drive to improve patient care through the use of medical device technology, Ciena Healthcare faced a difficult question. How do we secure protected health information (PHI) and medical devices while delivering exceptional healthcare to our patients and provide the internet access our patients and visitors demand?

The man to field that question was Ciena's Chief Information Security Officer, Shawn Campbell. His answer: focus on complete vision and awareness of all wired and wireless devices connecting to Ciena's network, and understand what other devices and networks are around their environment.

With a small security staff of two people and a widespread set of physical locations, Campbell and co. needed a security solution with the ability to:

- Monitor all wired and wireless devices and networks in their environment

- Identify, fingerprint devices and assess their trust level

- Alert the security staff when authorized wireless devices connect to other insecure or untrusted networks

- Provide centralized visibility and threat detection for all IT and medical device networks across their distributed environment without requiring on-site security or IT staff

Campbell found that Pwnie Express' Pulse SaaS platform was the solution for Ciena Healthcare's needs. Pulse's integrated, easy to deploy SaaS solution addressed their need to identify the devices on their network, monitor their risk level, and, ultimately, secure both their wired and wireless networks.

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> *– Shawn Campbell, Ciena's Chief Information Security Officer*

Why Pulse?

When we asked Campbell and Ciena Healthcare security engineer, Jeremy Jones, why they selected Pulse over other competing solutions there were two clear themes: ease of use and the ability to see everything on their network.

In particular, Campbell called attention to Pulse' dashboard saying, "The management dashboard is the best we've seen. In fact, when we initially started testing it Jeremy literally said, 'wow.' No other dashboard was as easy to use or as comprehensive, which played a major role in our decision."

Jones added, "one of the other reasons we chose Pwnie is that Pulse gives us both wireless and wired monitoring in a single integrated solution. Out of the box it was extremely easy to implement in our highly distributed environment."

Cost vs. Benefit Analysis

Like any important business decision, implementing a new security solution requires decision makers to weigh cost against value. For CISO Campbell, the benefit was crystal clear:

> "The main thing that I focused on is the cost per facility. It costs less to secure our patient data (PHI) and medical device networks than it costs for monthly site cable service, and the return is total protection of that site and vision of that site's network. Before, we had nothing in place that could actually do that."

> "Our IT Director, Siraj Khan, also found huge value in our using Pulse to verify trusted assets, and to identify and remove unauthorized devices from the network"

Campbell also has big future plans in mind for Pulse. In addition to monitoring, Ciena is already leveraging Pulse for vulnerability scanning for addressing HIPPA requirements. The next step is for Ciena to turn on device threat detection. This will enable Ciena to proactively detect and address device threats across their environment. Ciena also plans to deploy Pulse across a number of new healthcare facilities acquired in a recent acquisition.

Conclusion

Cyber Security in healthcare is not only a data security issue, it can literally be a life or death safety issue. In addition, criminals are increasingly targeting PHI data due to the high value of medical information on the black market and the lack of security in medical devices and wireless networks.

Monitoring and protecting wired and wireless devices and networks is an absolutely critical aspect of securing patient data, medical systems and meeting HIPAA and other compliance regulations. Pulse addresses these needs across the entire organization in an easy-to-use, SaaS solution.