CYLANCE CONSULTING

Medical Device Security Assessment

Secure and Protect Patient Care Systems

Benefits

- Identify potential threats to intelligent medical devices
- Ensure proper safeguards are in place to reduce the risk of patient impact due to a cyberattack
- Limit medical device exposure on business networks
- Improve availability, integrity, and security of medical devices used in patient care
- Maintain a device's critical functionality



Number of Medical Device Reports (MDRs) filed in 2015.

Source: FDA

The capabilities of modern medical devices continue to radically transform patient care, but also can present a danger to patients through ever-present cyberthreats. For years, security researchers have been uncovering security flaws in medical devices, raising concerns of tampering. Healthcare organizations are challenged to improve the quality and timeliness of patient care while addressing systems to strengthen the privacy and security of protected health information. That's where Cylance Consulting can help.

Our Medical Device Security Assessment helps medical device manufacturers and healthcare organizations to **better secure and protect patient care equipment and systems from cyberattacks**. Our dedicated team of IoT and Embedded Systems experts helps to **assess vulnerabilities, determine patient impact, and develop a plan for responding to them**, starting with the design phase.

Service Overview

Cylance Consulting will perform a black-box assessment of the medical device, including both manual and automated testing techniques. The in-depth analysis of embedded vulnerabilities will be covered at a technical level, focusing on the common vulnerability types that can be found in embedded applications.

Specific areas of the assessment include:

- **Data Flow Analysis —** Trace data points from input to output, including storage and destruction, to identify potential weaknesses
- **Control Flow Analysis —** Identify threats by stepping through logical conditions and identify all possible paths through which code may traverse
- **Structural Analysis —** Evaluate the security of high-level architecture at multiple tiers and the composition of the application and its subsystems, including physical deployment characteristics
- **Configuration Analysis —** Assess the security configuration of all relevant components to identify vulnerabilities
- **Semantic Analysis —** Analyze the code base within the application's context to identify vulnerabilities unique to the application and environment

The analysis will allow organizations to gain full-spectrum visibility into their security ecosystem with the objective of moving the environment into a state of prevention.

About Cylance Consulting

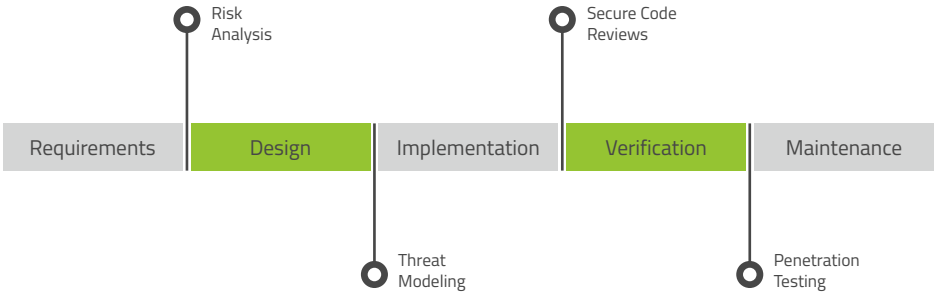
- World-renowned experts work synergistically across our practice areas to deliver consistent, best-in-class services anywhere in the world
- Incorporates artificial intelligence into tools and processes to more efficiently and effectively secure the environment to PREVENT attacks from happening
- Utilizes multiple techniques to collect information, assess data, provide a risk profile, recommend actions, and highlight notable strengths for an organization
- Techniques are designed to not impact your operations in any way
- Integrated practice areas: ThreatZERO™ Services, Incident Containment and Compromise Assessments, Red Team Services, Industrial Control Systems Security, IoT and Embedded Systems, and Training Industrial Control Systems Preventing Attacks on Critical Infrastructure

Deliverables

As part of the security assessment, Cylance Consulting will provide a comprehensive report detailing:

- Our findings with any potential indicators of compromise
- A graphical summary of testing results
- A strategic remediation roadmap, addressing:
  - Operational requirements
  - Tactical requirements
  - Governance requirements

Improve the security posture of your healthcare ecosystem. Contact Cylance Consulting or your technology provider to discuss your needs.



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