Case Study: Web Application Vulnerability Assessment and Penetration Testing

A Prescription for Security

Industry: Health Care Information Technology

Summary: A vulnerability assessment revealed significant exposures to a new online prescription system, enabling the client to correct flaws before bringing the application to market with reduced risk and increased confidence.

Client

A leading eHealth technology supplier, providing solutions for electronic medical and health records, health care practice management, electronic prescribing, imaging systems, and laboratory information management.

Challenges

Our client needed rapid assessment of their new ePrescribing web application to detect security and integrity vulnerabilities and flaws in order to bring the application to market on an aggressive time line. Due to both business and regulatory concerns, the application had to be flexible and easily accessible, yet highly resistant to unauthorized use and abuse in environments across a wide variety of customer sites, often lacking in skilled IT resources. The client needed a quick "heads up" if any "show stoppers" were found.

Deliverables

Integris Security performed an initial rapid discovery and analysis of the client's application, looking for major flaws. They quickly discovered a critical flaw in the application code in the form of a "back door" that was likely inserted for development and testing purposes, but never removed. In combination with the application configuration on the host, it would have allowed an attacker to obtain and reverse engineer the application code, discover the flaw, and obtain privileged access that would have been detectable only after the fact in a post-event review of logs. A successful such attack would have resulted in medical prescription fraud and may well have brought both legal and regulatory scrutiny upon the client and their new mission-critical application.

Integris Security immediately advised the client of the exposure before completing a more exhaustive review of the system to enable them to quickly begin remediation efforts in order to meet their implementation deadline. Subsequently, Integris Security delivered a comprehensive report to the client including all findings, proof of findings, risk ratings and remediation recommendations.

Results

Integris Security enabled the client to deliver a major new product to their customers on time and with better assurance of its security and integrity, avoiding potentially costly exposures.

About Integris

Integris Security™ LLC is a security services company. We provide tailored, high quality security solutions based on industry best practices and our principals' combined more than eighty years field experience. Our services include information and physical security and risk management reviews, assessments, education and training, planning, development, implementation, and monitoring. Growing from our founders' passion and commitment to protecting our nation's critical infrastructures and businesses, we work tirelessly to earn our clients' trust.

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