



Featuring

High Availability Control Systems
for Defense

Securing Industrial Automation Systems with the EmSPARK™ Security Suite

INTRODUCTION

A leading industrial automation systems vendor required a solution for its control solutions supporting military, transportation and industrial markets. Its products are installed throughout the world, controlling a wide variety of mission-critical and safety-critical processes and machinery. Solutions include launch systems, turbine and boiler control, and fire detection / safety systems.

THE PROBLEM—SECURING HIGH-AVAILABILITY PRODUCTS

In military applications, high availability is not negotiable. In addition to redundant input and output connections, network connections and power sources, the vendor's controllers required a software installation and update process that would not compromise performance.

To ensure high availability, the solution needed to be able to securely boot, update, and recover using a process that would sign and verify the authentication of software. Encryption, exchanging and storing data, and executing a reliable process to store and manage keys was critical.



THE EmSPARK™ SOLUTION

Sequitur Labs EmSPARK™ Security Suite was implemented to address the requirements of software verification, encryption and key management.

- + To ensure a secure boot process from ROM boot to loading Linux files and device firmware, a secure memory partition, which loads the EmSPARK CoreTEE™ Trusted Execution Environment for critical applications, was created.
- + At bootup, the firmware is verified, secure applications are loaded in the CoreTEE environment, and known software such as Linux was loaded into memory.
- + EmSPARK™ provided key and certificate based payload authentication mechanisms to authenticate incoming payloads during firmware updates.
- + EmSPARK™ provided key management functions as well as tools for the loading, deleting and updating of certificates.

Learn More



Get Started with Free Evaluation Kit:
EmSpark™ Security Suite



Download: EmSPARK™ Whitepaper

A **FREE** Evaluation Kit for the EmSPARK™ Security Suite is available at:
<https://www.sequiturlabs.com/iot-security-suite/free-iss-eval-kit>.



PO Box 1127
Issaquah, WA 98027

+1 425 654 2048
+44 20 3318 1171

info@sequiturlabs.com
www.sequiturlabs.com

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Sequitur Labs is developing seminal technologies to improve trust in a connected world, reducing the cost and complexity to build secure embedded and IoT devices. Sequitur's products span a range of disciplines required for trusted computing, from boot through the full device lifecycle. Sequitur's security solutions provide real business value to device makers, such as reducing BoM costs, protecting revenue by thwarting IP theft, improving product reliability and reducing liability, and improving device lifecycle management processes. To learn more about Sequitur's security platform, visit us at www.sequiturlabs.com.