EVALUATING SECURITY OF AN INDUSTRIAL IOT PLATFORM

IoTium

About IoTium

IoTium is the industry's first commercially deployed, secure, Edge-Cloud infrastructure company for Industrial IoT (IIoT). IoTium bridges the legacy brown-field world with the new cloud-enabled world. The company's offerings have been deployed in dozens of leading organizations in the building automation, oil and gas, power and utilities, manufacturing, and health care verticals as well as in smart cities.

The company's solutions ensure that any machine, using any protocol, can be instantly, seamlessly, and securely connected to any application residing in any cloud or data center through any network infrastructure and operator. IoTium solutions eliminate deployment complexity issues and minimize network security risks.

In the past, when a piece of equipment was malfunctioning, a technician would have to be physically on site to plug into the equipment to diagnose and assess any issues. The IoTium platform plugs into these already existing ports and runs software that securely connects the equipment to the cloud. This allows that same technician to monitor all equipment from a single, remote location.

The Challenge

As the first commercially deployed secure Edge-Cloud infrastructure company for the Industrial IoT, the security impact is clear. With its offerings, IoTium enables enterprises to securely connect legacy mission-critical machines to cloud-based applications. By doing so, IoTium enables customers to leverage new analytics, machine learning, and predictive analytics application at scale, while eliminating deployment complexity issues and minimizing network security risks.

HIGHLIGHTS

CUSTOMER	IoTium Inc
WEBSITE	www.iotium.io
ORGANIZATION TYPE	Software
SERVICES PROVIDED	Application and Penetration Testing

SUMMARY

- IoTium engaged Bishop Fox to assess the security of its platform:
  - the web-based IoTium Orchestrator
  - the hardware-based IoTium iNode

- Bishop Fox conducted a thorough review of both platform components and delivered a detailed report of findings and recommendations.

- IoTium's engagement with Bishop Fox represents their commitment to the security of its platform and providing peace of mind to their customers.

- IIoT represents a ripe new attack vector; IoTium is setting a precedent by prioritizing security.

A proactive approach to security and providing peace of mind to their customers is their foremost priority. The company needed a third-party security verification to ensure that its platform was secure.

> **Industrial IoT needs to scale out connectivity, but security is a top concern. We are committed to ensuring that our solution sets the gold standard for security. Security and simplicity do not have to be mutually exclusive.**
>
> Sri Rajagopal, Chief Technology Officer at IoTium

IoTium decided to hire a third-party firm to assess the security of the hardware, software, and cloud components of the IoTium offering.
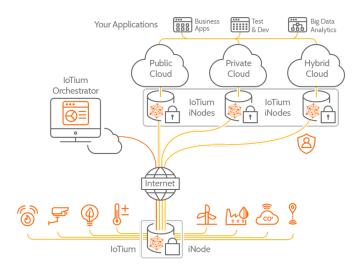
IoTium engaged Bishop Fox in a multi-part project that involved penetration testing of its platform — the IoTium Orchestrator, the web-based platform, and IoTium iNode, the hardware component.

The Results

Bishop Fox started with a thorough black-box test of the IoTium offering and delivered a detailed security report to the IoTium product and engineering teams. Working with the IoTium team, Bishop Fox worked to enhance IoTium's security posture and validate the steps made to correct all identified issues.

> **Bishop Fox delivered on every one of the goals that we outlined for them. They were a pleasure to work with and I would absolutely recommend them to anyone.**
>
> Sri Rajagopal

IoTium Solution

> **The security of Industrial IoT is a pressing concern and IoTium needed an independent eye to validate its security model. They were prompt in addressing our findings and it's clear they are committed to providing a secure platform to their customers.**
>
> Rob Ragan, Partner at Bishop Fox

About Bishop Fox

Bishop Fox is a global security consulting firm providing penetration testing, web app assessments, and risk mitigation services to help businesses protect data and assets from cyberattacks. We provide actionable cyber-security guidance to Fortune 1000, high-tech startups, and financial institutions worldwide.

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