SOLUTION TECHNICAL BRIEF

DEVICE LEVEL SECURITY FOR THE IOT SUPPLY CHAIN

shieldIOT

SHIELDIOT
DEVICE LEVEL SECURITY

ShieldIOT provides embedded device-level security and control across the entire IoT supply chain. With ShieldIOT, device manufacturers, system integrators and IoT network operators can rapidly secure and manage devices, with no need for any security expertise, no costly development and testing resources and no change to the application code or device functionality.

The ShieldIOT solution includes multiple layers of application-level security and is ideal for protection of gateways, industrial PCs and Linux-based edge devices. ShieldIOT prevents damage to device operation and safeguards connected IoT network components. The uniqueness of ShieldIOT is that all components (including gateways, devices and sensors) continue to work even when compromised.

OUR KEY STRENGTHS

ShieldIOT is suitable for deployment across a wide range of industries including manufacturing, transportation, smart cities, healthcare, energy and smart buildings.

ATTACK-PROOF OPERATION

Edge devices continue normal operation even when compromised by malicious attackers.

AUTONOMOUS SECURITY

ShieldIOT automatically prevents 99% of events at the device-level.

PRODUCTION READY

No application code changes or security expertise required.

PURPOSE BUILT FOR IOT

Application-agnostic, device level protection with centralized security management.

MULTI-LEVEL
DEVICE PROTECTION

ShieldIOT provides "autonomous security" with multiple policy-based security mechanisms that automatically prevent 99% of all device-level security events.

Secure Operating System

Device Level Firewall

Application Level Protection

Data Privacy Assurance

Device and Fleet Monitoring

Device Security Management and Control

Operating System

Firewall

Application

Metadata

Monitoring

Device Control
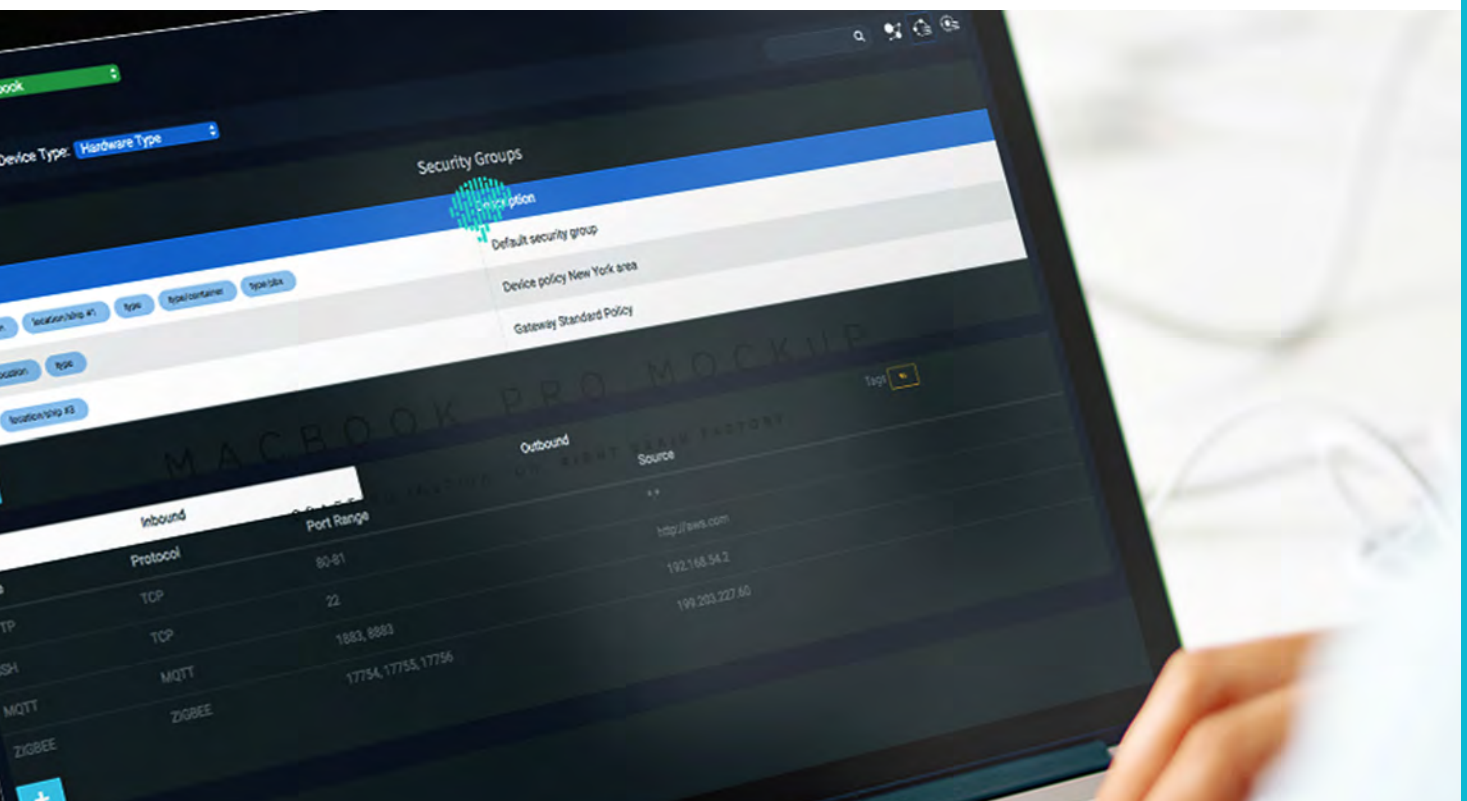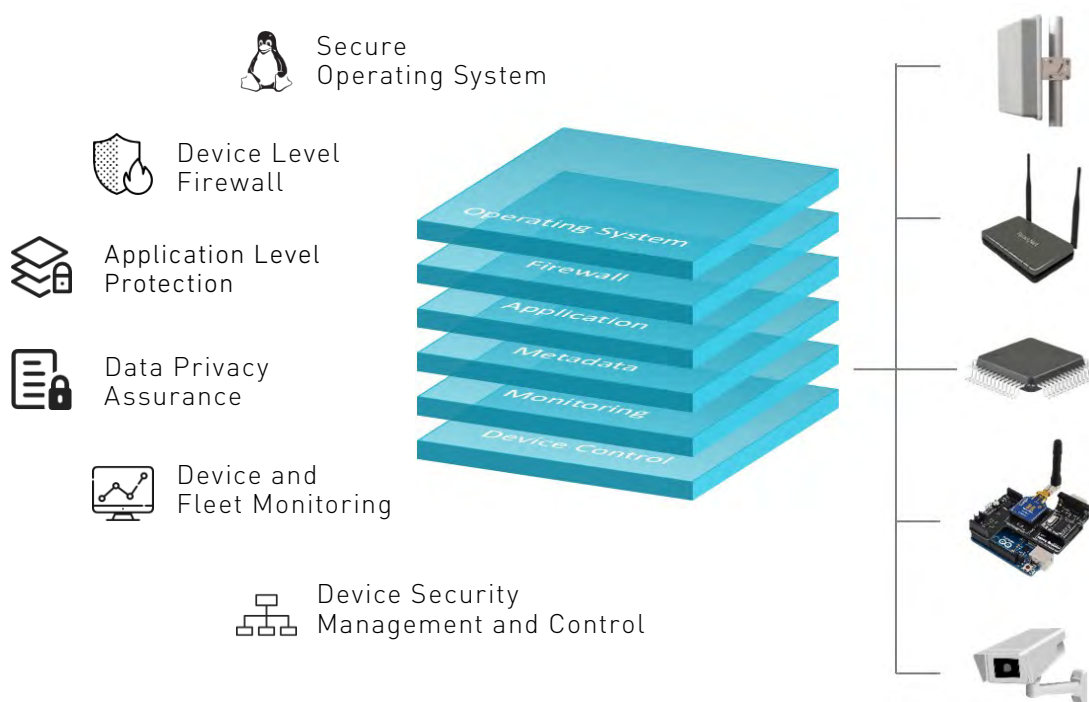
FEATURE HIGHLIGHTS

SECURE OPERATING SYSTEM

Production-ready, Linux-based operating system with dynamic defenses, minimal attack surface and automatic security updates

DEVICE LEVEL FIREWALL

Prevents device hacking, data theft and device-based DDoS attacks with automatic policy-based prevention of unauthorized communication (IP addresses, ports, protocols)

APPLICATION LEVEL PROTECTION

Application and process isolation, protection of key system resources (CPU, memory, disk), prevention of unauthorized access to system, boot directories and kernel

DATA PRIVACY ASSURANCE

Minimal impact with smart granular encryption of sensitive data-at-rest including personal information, confidential records and device certificates

DEVICE AND FLEET MONITORING

Collection and analysis of device metadata (application / OS logs, health, traffic) to detect anomalous activity. Ensures complete visibility for all security and operational events

SECURITY MANAGEMENT & CONTROL

Centralized intuitive tag-based policy configuration and distribution for all device security mechanisms. Automatic device-level enforcement of security and operational policies

SOLUTION ARCHITECTURE

ShieldIOT delivers a cloud-based security management platform, and a device-level software agent that wraps, secures and controls the device. Our production-ready architecture supports any Linux-based device, and requires a one-time short integration for deployment and protection of both new and existing devices.
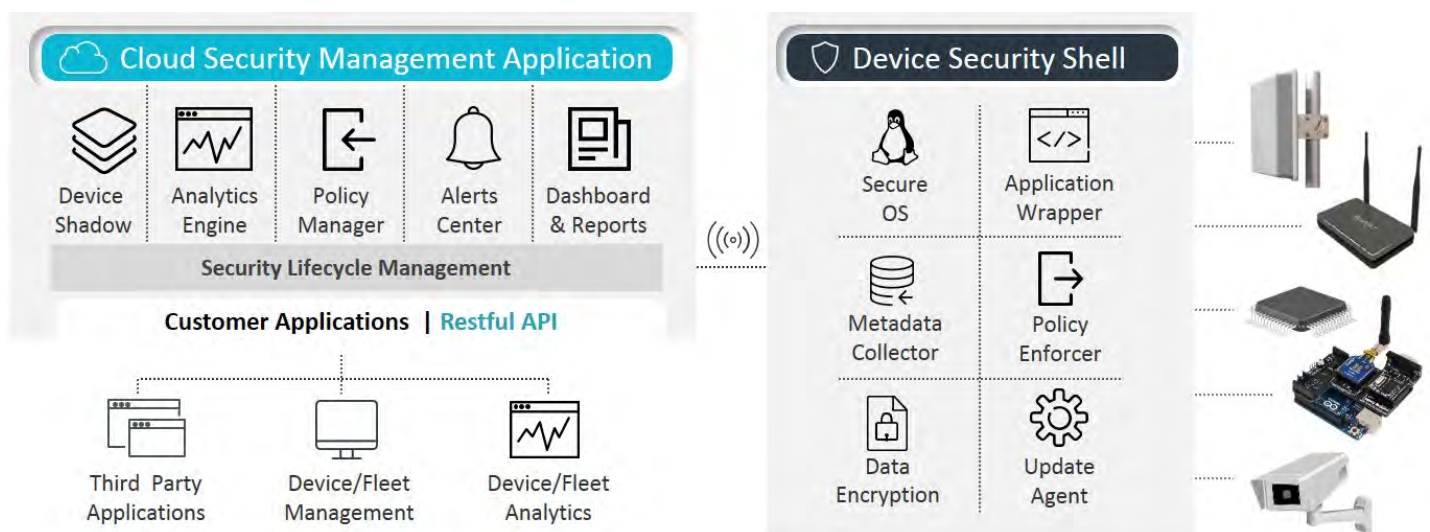
APPLICATION MODULES

Device Shadow

Manage device activities, monitor device status and metadata including logs, health, traffic, and alerts.

Analytics Engine

Aggregate and analyze device logs and information to detect anomalous fleet-wide

Policy Manager

Create and update device security firewall, application and operational policies.

Dashboard & Reports

Display detailed drill-down data for fleet entities, device types, locations etc.

Alerts Engine

Monitor, drill down and investigate security and operational alerts for all fleet devices.

Security Lifecycle Management

Deploy secure images update and deploy OS, application, alerts and policies.

INTUITIVE, SECURITY MANAGEMENT AND CONTROL

SIMPLE, UNIFIED POLICY CONFIGURATION
WITH AUTOMATIC DEVICE-LEVEL ENFORCEMENT AND
COMPLETE EVENT VISIBILITY FOR THE ENTIRE FLEET

" SHIELDIOT TAKES 2-4 WEEKS OF ONE TIME INTEGRATION, AND SAVES UP TO TWO YEARS OF RISKY DEVELOPMENT. "

TECHNOLOGY BENEFITS

WE DELIVER THE MOST SECURE AND FEATURE-RICH PLATFORM WITH THE LOWEST TOTAL COST OF OWNERSHIP

Secure the Entire IoT Supply Chain

Manufacturers benefit from unmatched device-level security, without any development effort or technical expertise. System integrators can fill the security gap and ensure rapid deployment. With ShieldIOT, network operators can cut operating expenses and offer new security and operational services.

Multi-Vendor Agnostic Platform

ShieldIOT supports 'real-world' IoT deployment for any Linux-based connected system, including gateways, industrial PCs and a variety of edge devices

x20 Faster Time To Market

ShieldIOT takes 2-4 weeks of one time integration, and saves up to two years of risky development. Manufacturers do not need to modify the device application, and no changes are needed to the existing IoT network topology.

Generate New Revenues

ShieldIOT enables network operators to create added value with device and fleet security, increased device performance, optimization and control.

"INCREASE THE VALUE OF YOUR DEVICES WITH PREMIUM LICENSE BASED SECURITY "

ABOUT US

ShieldIOT delivers innovative cybersecurity solutions to protect edge devices from security threats and operational risks. Our embedded device-level software is application-agnostic and suitable for deployment across a wide range of industries including manufacturing, transportation, smart cities, healthcare, energy and smart buildings.

CONTACT US

For more information about our cybersecurity solutions, contact:

Email: info@shieldiot.io
Website: www.shieldiot.io

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