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Resilience by Design: How

RIoT Secure

Is Rewriting the Rules of IoT Security



In an increasingly connected world, the security of Internet of Things (IoT) devices has become both a cornerstone and a conundrum.

As billions of smart devices flood our homes, cities, and industries, the question is no longer if they'll be hacked—but when. Enter **RIoT Secure AB**, a Stockholm-based innovator with a bold mission: to simplify secure IoT development through a “developer-first” platform that makes resilience not just a feature, but the default.

Founded in **2017**, RIoT Secure has grown into a global company with a distributed team and a reputation for taking on some of the toughest challenges in embedded systems and cybersecurity. At its helm is **Aaron Ardiri**, the veteran CEO and co-founder whose decades-long career in mobile software and secure communications has positioned him as a quiet revolutionary in the IoT space.

“We built RIoT Secure with one goal in mind,” Ardiri says. “To let developers focus on what they do best—build great applications—while we take care of the security, lifecycle, and compliance underneath.”

The Developer-First Doctrine

It's a radical rethinking of IoT architecture. Traditionally, developers are expected to juggle application logic, security standards, connectivity protocols, and update mechanisms—all in resource-constrained environments. RIoT Secure flips this model with a modular platform that abstracts security and compliance through seamless APIs, over-the-air updates, and built-in telemetry.

“Our platform is built with developer freedom in mind,” Ardiri explains. “They can choose the microcontroller, runtime, and dev environment they're comfortable with. We handle the rest—from secure onboarding and

encrypted communication to long-term lifecycle management.”

This approach isn't just about convenience—it's about enabling rapid development without compromising security. As more industries rely on IoT for mission-critical operations, the margin for error shrinks.

RIoT Secure's system ensures devices are secure by default, yet flexible enough to evolve with the fast-moving tech landscape.

Hardware That Stands Alone

At the heart of RIoT Secure's architecture is a bold innovation: a **dedicated microcontroller and hardware sandbox** that isolates core security functions from the application layer. This separation protects against a range of cyber threats, from man-in-the-middle attacks to firmware tampering.

“The idea is simple,” says Ardiri. “Even if the application is compromised, the secure channel isn’t. Even if the network goes down, the device still works.”

This compartmentalization not only makes certification easier but also slashes long-term support costs. It’s a patented approach that reflects RIoT Secure’s deep understanding of both the technical and business implications of IoT development.

The Power of Disconnection

One of RIoT Secure’s most compelling philosophies is what it calls the “**Internet of Disconnected Things**.” In a field obsessed with real-time cloud connectivity, RIoT Secure is pioneering a counterintuitive—yet crucial—principle: devices should remain operational even when offline.

“In real-world environments like agriculture, aviation, or industrial automation, connectivity isn’t always guaranteed,” Ardiri explains. “Our systems collect data, timestamp events, and enable edge-based analytics without relying on the cloud. When the connection returns, everything syncs up seamlessly.”

It’s a vision that prioritizes **resilience**, making RIoT Secure’s technology a natural fit for use cases where uptime, data integrity, and autonomous decision-making are non-negotiable.

Recognition that Resonates

RIoT Secure’s unorthodox approach hasn’t gone unnoticed. The company has bagged multiple accolades, including the “**IoT Startup of the Year**” from IoT Breakthrough, and

was recently featured as one of **TechCrunch Disrupt 2024’s Startup Battlefield 200**—a global stage for the most promising tech innovators.

“These awards are more than trophies,” Ardiri reflects. “They validate our mission, energize our team, and give us visibility in a crowded market. They attract the kind of partners and customers who care about security and quality.”

RIoT Secure’s impact also extends to intellectual property, with Ardiri himself holding several patents—including US 11,997,165 B2—for communication protocols that have redefined secure data transfer in embedded systems.

Built for What’s Next

Future-proofing is not an afterthought at RIoT Secure—it’s baked into the architecture. The company’s modular design and OTA capabilities make it easy to integrate emerging standards, from **post-quantum cryptography** to evolving regional compliance frameworks like the **EU Cyber Resilience Act**.

“We’re not tied to any cloud provider or network infrastructure,” says Ardiri. “That’s deliberate. It gives our clients the ability to scale across geographies and industries without starting from scratch.”

RIoT Secure also participates in global standardization efforts, helping to shape the very regulations and protocols it will one day need to meet. This proactive stance ensures clients can adopt new security innovations the moment they’re ready, without rewriting code or replacing hardware.

Real-World Impact: The Arlanda Airport Case

Perhaps the clearest example of RIoT Secure’s value lies at **Stockholm’s Arlanda Airport**, where its technology has been embedded in the ground service operations of **SAS Ground Handling** for over two years.

This live deployment captures operational data from ground equipment—even during connectivity outages—and automates billing and auditing processes. The result? Precise cost allocation, reduced revenue leakage, and a significant increase in efficiency.

“Before us, there was a lot of manual data entry—mistakes, delays, missed billing,” Ardiri says. “Now it’s automated, accurate, and completely secure. They’ve saved millions.”

This deployment underscores RIoT Secure’s promise: that **secure IoT doesn’t just protect**—it transforms. By bringing intelligence to the edge and resilience to the core, the company delivers not just products, but strategic value.

Global Footprint, Local Mindset

Despite its global ambitions, RIoT Secure operates with a distinctly agile, localized mindset. With a distributed team from around the world, the company is able to adapt its solutions to specific regulatory environments and cultural needs.

This agility is especially valuable as IoT adoption surges in sectors like **smart cities, healthcare, and logistics**, where trust and compliance are as crucial as speed and scale.

“We don’t believe in one-size-fits-all,” Ardiri notes. “Our platform is flexible because every industry, every region, has its own challenges. We design for those nuances.”

The Road Ahead

As RIoT Secure continues its journey, the focus is on deeper integrations, strategic partnerships, and expanding the reach of its resilient IoT architecture. From supporting AI-enhanced edge devices to contributing to open-source security standards, the company is laying the groundwork for the next generation of secure, scalable connectivity.

But the core mission remains the same: to **empower developers, secure the edge, and reimagine what connected technology can be** in a world that demands trust as much as it does innovation.

“We’re not just securing IoT,” Ardiri concludes. “We’re building the foundation for a connected world that can stand on its own—even when the cloud can’t.”

In a landscape often defined by patch fixes and bolt-on solutions, RIoT Secure stands apart—offering a cohesive, future-ready platform that sees resilience not as a bonus, but as the baseline. It’s not just a product. It’s a philosophy. And it’s already changing the rules of the game.



Secure Device Lifecycle Management for IoT

