Able Device

ADVANCED CONFIGURABLE SIM APPLET ENABLING ENTERPRISES TO OWN THEIR CONNECTIVITY STRATEGY

One Powerful SIM Applet.
Smarter, Faster,
Future-Proof.

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SIMbae™

EXECUTIVE SUMMARY

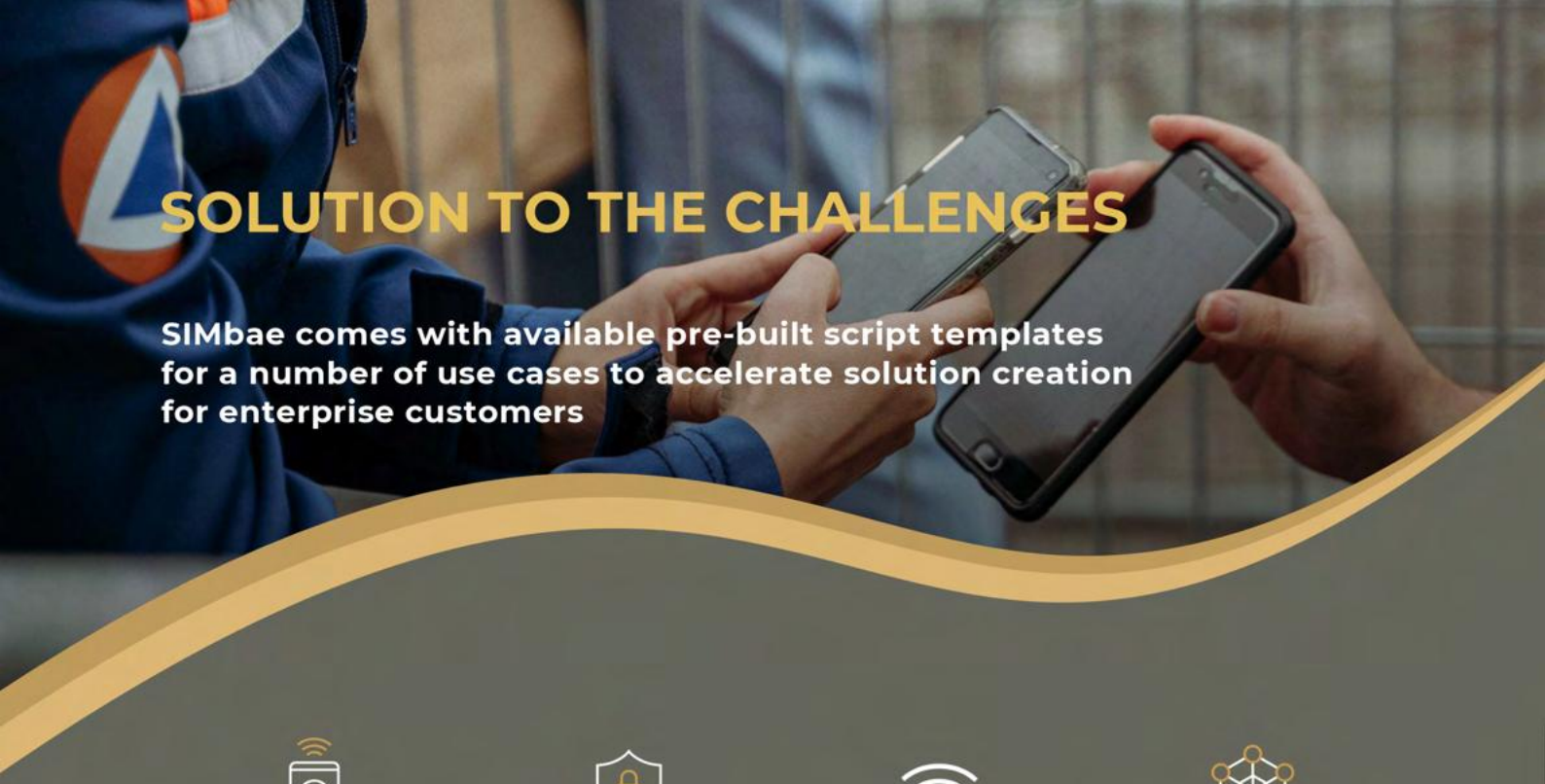
SIMbae enables MNOs, MVNOs, and enterprises to rapidly configure, deploy, and manage intelligent, custom SIM solutions—without the need for Java Card coding. Instantly transform any SIM, eSIM, or eUICC from any vendor or provider into a secure, future-ready applet.
With advanced capabilities, seamless lifecycle management, and complete control over your connectivity strategy, SIMbae puts innovation directly in your hands.

Much like Excel, SIMbae comes ready with a comprehensive suite of capabilities that users can tailor to their unique needs—no expertise in Java Card or SIM technology required. Its intuitive drag-and-drop node editor makes configuration effortless, empowering anyone to design and deploy SIM solutions with ease.

THE CHALLENGE

Many of the gaps in enterprise mobile communications—particularly those that hinder IoT and private network deployments—can be solved with SIM-based applets. Historically, however, the cost and complexity of developing bespoke Java Card SIM applets made them viable only at carrier scale, leaving enterprises without a practical solution.

SIMbae changes that. As a standards-compliant tool, it enables service providers, integrators, and enterprises to deploy a single, configurable applet across SIMs, eSIMs, and eUICCs on any device. This flexibility supports a wide range of IoT and Mobile Private Network (MPN) use cases without the need for specialized coding.



SOLUTION TO THE CHALLENGES

SIMbae comes with available pre-built script templates for a number of use cases to accelerate solution creation for enterprise customers

Quality of Experience

Devices connect for optimal coverage at lowest cost available

Ensure roaming devices are connected to strongest signal

Automatically detect and switch from Public to Private networks

IoT device roams on to a network that doesn't meet commercial or service requirements

Devices moved to unsanctioned location

SIMs are transferred to another device

App & Device Security

Securely update IoT app security credentials over public networks

Seamlessly deploy security credentials for 'at scale' situations with low end devices (eg. meters and lights)

Mobile Network Efficiency

Roaming devices keep connecting to MNOs that are to be avoided for any reason such as pricing, quality, or access to diagnostics

Minimize network congestion due to inefficiently programmed IoT devices, unexpected high peak events or when devices reconnect or camp on the network at the same time.

Deactivated SIMs signaling the network to attempt authentication, creating unnecessary burden on network resource

IoT Device Tools, Diagnostics & Apps

Pre-load devices with features required for diagnostics

Remote reset of hard to reach devices

Instantly diagnose why device is not responding

Because every customer uses the same version of SIMbae, the platform effectively crowdsources improvements to common challenges—such as poorly implemented SIM Toolkits (STKs)—eliminating the need for constant debugging and adaptation to new devices.

OVERCOMING THE JAVA CARD SKILLS GAP

SIMbae is fully standards-compliant and delivers effortless configuration through an intuitive drag-and-drop node editor. Anyone with basic communications skills can quickly create or modify applets to deliver exactly the functionality end users require—no more settling for the lowest common denominator across an MNO's customer base

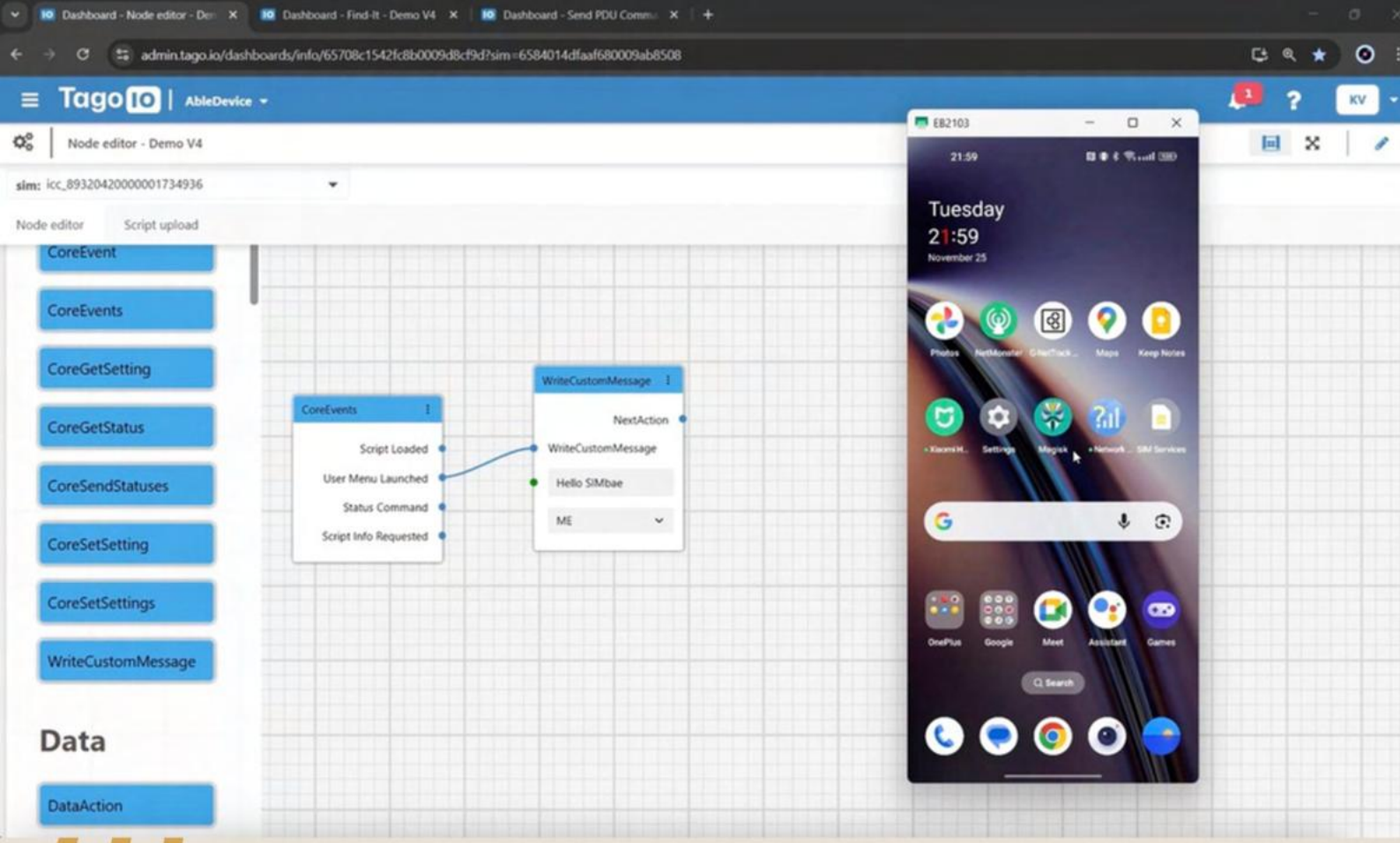
All use-case logic and intelligence reside directly within SIMbae, eliminating reliance on cloud services for tasks such as public-to-private network switching or signal-strength-based roaming. This architecture not only simplifies deployment but also accelerates execution by removing network latency.

Because all SIMbae features share a unified state table, they remain aware of each other and avoid conflicts that often arise when multiple discrete applets are combined. This design also enables seamless over-the-air (OTA) updates, whether applied universally across all deployed applets or selectively to those requiring changes.

WHAT IS THE SIMbae™ APPLET?

SIMbae resides on a SIM or UICC as a standalone package with its own helper classes. It does not share objects with other applets, instead owning everything it needs to operate independently. This design ensures flexibility and makes SIMbae simple to load and install. Within the Java Card Runtime Environment, it runs alongside other SIM OS components such as telecom frameworks, the file system, and security domains. Its modular architecture is built from subsystems and configuration scripts, enabling streamlined customization.

SIMbae functions as a state machine. By default, it remains dormant until activated. To perform tasks, a configuration script defines the state machine logic, chaining together events and actions. For example, when Event A occurs, it automatically triggers Action Z.



SIMbae™ SCRIPTS: THE POWERFUL CONFIGURATION TOOL

With SIMbae, scripts empower every user—even those without Java Card experience—to define custom behaviors and achieve functionality tailored to their needs. Users can easily load or update scripts, while SIMbae's subsystems interpret them through actions and events to support a wide range of use cases.

Configuration scripts assemble available capabilities into practical solutions for IoT and private network deployments. They can be added or updated dynamically using a simple loading process, either locally or over-the-air (OTA). The SIMbae applet itself has a compact footprint of about 45KB, with individual configuration scripts averaging just 1KB—making OTA updates highly efficient for large fleets of remotely deployed devices.

A POWERFUL BASE FOR THOSE WITH JAVA CARD EXPERIENCE TO CREATE PROPRIETARY CAPABILITIES

SIMbae works seamlessly on any SIM or UICC, across all generations, manufacturers, and MNOs, while fully adhering to established SIM standards. This makes it the most efficient and secure point in the solution chain to deploy a communications and device-control tool—easily accessible via OTA through the secure element.

For customers with Java Card expertise, SIMbae provides private libraries that enable the creation of proprietary features unique to their deployments. The result is greater utility, flexibility, and maintainability for IoT and Mobile Private Network (MPN) solutions, all while reducing development costs and accelerating time to market.

HOW SIMBAE TRANSFORMS CONNECTED DEVICE CHALLENGES INTO SEAMLESS, SCALABLE SOLUTIONS

Using SIMbae, our customer in the credit card transaction services industry, a global payment network provider has deployed millions of SIMbae-enabled SIMs globally across their international roaming PoS devices.

SIMbae™ continuously monitors signal strength and data connectivity in the background and automatically switches to the roaming partner delivering the best available connection at any given location—without requiring any action or awareness from the end customer.

A major Tier 1 MNO has deployed SIMbae to automate the transition between public and private mobile networks—without requiring user action, back-end servers, or device-resident GPS. SIMbae enables this by detecting when a device is connected to a cell tower adjacent to the private network and initiating the switch automatically.

We are also expanding our reseller and distributor ecosystem to include enterprise communications integrators.

A globally recognized EV OEM uses SIMbae for a different purpose, installing it during production to securely store the keys and certificates required to access the vehicle's maintenance port for subsystem updates performed at the dealer.

This effectively transforms the existing eUICC—typically viewed as a sunk-cost component—into a standard, widely deployed security chip that can be updated remotely via standard SIM OTA, while still performing its core subscription authentication and roaming functions.

A LOW-COST, EASY TO DEPLOY SOLUTION TO ENTERPRISE CHALLENGES

SIMbae transforms the SIM from a passive component into an active, configurable platform—delivering intelligent behavior across devices at scale without requiring Java Card expertise.

Built on one of the most ubiquitous and standards-based elements ever deployed, SIMbae unlocks new value from the billions of SIMs already in the field. It eliminates the need for costly, complex cloud servers by providing a direct control point that remains accessible as long as the SIM is connected to the network—even if the device itself is locked or unresponsive.

With the ability to remotely manage behavior, diagnose issues, and compensate for cellular module deficiencies, SIMbae dramatically reduces costs, prevents unnecessary hardware replacements, and eliminates truck rolls. Beyond extending the life and performance of connected devices, it establishes a more agile, efficient, and resilient foundation for future connectivity.

ABLE DEVICE WINS 2025 eSIM INNOVATION AWARD FOR SIMbae™

SIMbae was recognized for its ability to streamline device connectivity, enhance security, and automate network decision-making at the edge, providing tangible benefits across worldwide IoT implementations.

"This recognition affirms our mission to unlock the full potential of the SIM and bring smarter, simpler, and more secure innovation to enterprises."

— Roger Dewey, CEO, Able Device

ABOUT ABLE DEVICE

Able Device is a software company established by cellular communication experts with over 10 decades of combined experience in mobile device connectivity, IP, and tools. Our mission is to unlock innovation with the SIM for IoT and private networks. We revolutionize decision-making and automation at the edge, solving complex challenges in managing connected devices and networks.

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