Global Mobile Payment Processor: Improving Quality of Service with SIMbae™

A multinational company in the payments, financial and telecommunications industries understood that reliable and successful payment transactions are critical for any business. It needed a way to differentiate the service it provides its customers, specifically with mobile payments processed outside in taxis and outdoor restaurants, where environmental and other unexpected variables can impact the experience.

SIMbae, Able Device's groundbreaking patented SIM applet, not only fulfilled the necessary capabilities but exceeded expectations. By integrating SIMbae as a fundamental component of the solution, it elevated the quality of service offered as a compelling value proposition for its customers.

The Challenges

What comes across as slow or intermittent connections can lead to delays in processing payments, frustrating both customers and merchants, and potentially impacting business operations. Outdoor locations may have limited or fluctuating network coverage, especially in remote areas or areas with tall buildings that obstruct signals.

The presence of a weak signal may be enough for a device to stay connected and yet not strong enough to successfully process a payment transaction. Data congestion or getting on a voice roaming network versus data can also interrupt the quality of service.

This client knew that beyond addressing these connectivity challenges, it can serve as a value add differentiator to the service they provide by ensuring smooth and reliable payment processing outdoors and when devices are in motion.

The Solution

SIMbae software applet is designed to run independent of device app management, cellular radio, and IoT host applications to ensure best quality of experience for users.

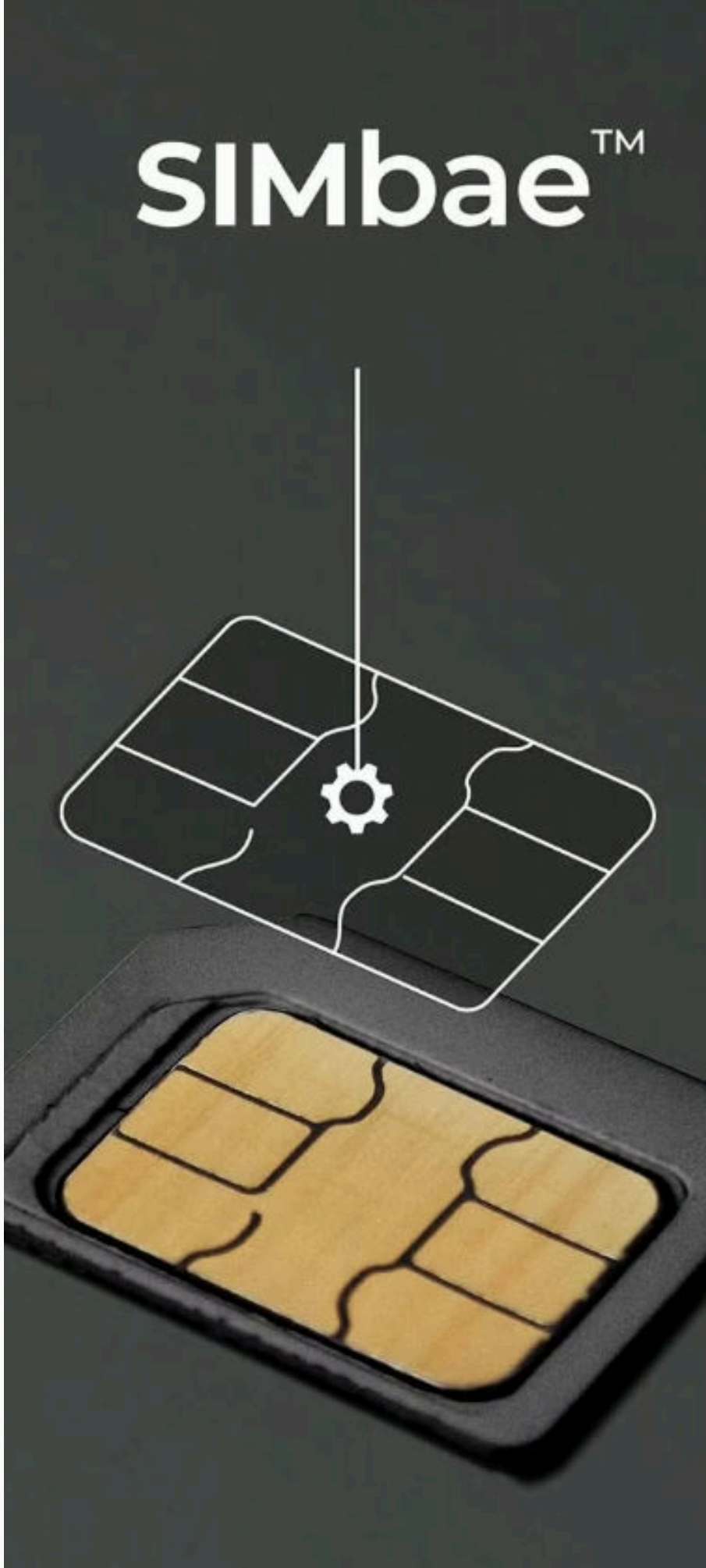
Roaming on a network that doesn't meet commercial or service requirements. Addressing this issue by using SIMbae's dynamic PLMN Manager script, it allows expanding a SIM card's PLMN list and facilitates managing PLMN swapping through both PDU messages and SIMbae's PLMN change logic.

Device in motion need to be always connected to the strongest available signal. SIMbae directs the module to scan for signal strength. The scan can be triggered by a timer, signal strength thresholds, or an incoming PDU command message. This enables steering roaming based on the available signal strengths at that moment.

Device roams on a network that does not support data roaming. SIMbae keeps a list of trusted data roaming partners. If connected to a network not on this list, it runs a data test. If the test fails, it switches to a known good network. If the test succeeds, it updates the list.

Simplified Deployment and Lifecycle Management: SIMbae can be securely updated via standard over the air for ongoing lifecycle management or in the upfront design process.

This client utilizes SIMbae's included scripts for network management, PLMN, connectivity and rules around signal strength and roaming partners. It can execute actions via external command or automated based on pre-defined requirements to ensure best quality of experience for mission critical applications.



The Value

Improved Customer Experience through consistent and reliable connectivity

Gained Operational Efficiencies by automating network management tasks and proactively addressing connectivity issues.

Realized Value Quickly with SIMbae's no-code configuration scripts for immediate implementation and prototyping without any Java Card experience required.

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.