

**MWC Las Vegas Interview:
Richard Cunliffe, Director at Resilient SIM**





Matt Hatton
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MH: Can you tell me a bit about rSIM, explain it as a technology, and explain the motivations behind doing it?

RC: CSL's work has always been rooted in critical sectors, like fire safety and telecare, supporting millions of lives and properties. Over the years, we've seen connectivity reliability struggle to keep up with demand, so we've layered on solutions like firmware testing and dual-SIM setups to bridge the gap. But with rSIM, we wanted to simplify this whole process. We set out to create a single SIM that manages its own connectivity while adhering to GSMA standards.

We've innovated within those standards, which is why we are here on the GSMA stand at MWC Las Vegas. With rSIM, we wanted to consolidate everything traditionally handled in device firmware—like connectivity testing and managing dual SIMs—into one SIM. It actively tests the connection itself, running connectivity tests every 60 seconds. If

connectivity drops, it activates a “fallback” by switching to a second profile from a separate mobile operator with independent infrastructure. Essentially, you're getting continuous connectivity with minimal downtime, as it's like swapping SIMs to stay online.

MH: You referred to how you would have done it in the past as two SIM cards. What's the difference between that and what you're talking about? What additional functionality does it give you that you might not have had from using, effectively, a redundant SIM in the device?

RC: The difference is in the simplicity and scalability for manufacturers. With rSIM, they don't need extra hardware to support dual SIMs or the engineering resources to manage two connections. You can drop rSIM into any single-SIM device that supports eUICC, whether it's brand new or legacy. So, it's all about removing those layers of complexity, making it easier to maintain.

Richard Cunliffe

Director

Resilient SIM



MH: And is faster fallback to the backup network part of the functionality?

RC: Yes, it's a key feature, but we also need to carefully balance how quickly we detect and respond to connectivity loss to avoid excessive or premature switching. For example, in critical applications like medical devices, we might set rSIM to test connectivity frequently and switch to the backup profile quickly when issues arise. But with automotive applications, where a car might just be in a tunnel or car park, the connectivity tests can run less frequently, and the SIM can allow more time to roam and restore the connection before switching networks.

MH: You mentioned it's a standard. How long has it been a standard? How critical is it that it's standards-based? Because people do a lot of things with SIMs that are not necessarily standards-based with the intention of achieving maybe similar sorts of objectives.

Multi-IMSI is a good example of a fairly widely used approach to multi-country connectivity, multi-carrier connectivity, but of course not standards-based. So how important do you see the standards aspect to it?

RC: Standards are everything. Multi-IMSI, for instance, is popular among MVNOs, partly because it differentiates them from larger operators and monetises their core infrastructure. But it often goes too far, tapping into commercials to select the cheapest network or relying on device-specific behaviours, which can quickly limit device compatibility and significantly slow down access to the network. Since rSIM is fully standards-based, it works across all compliant devices without additional customisation, simplifying market deployment and it quick to connect.

MH: Another adjacently related question. Does this change with eSIM and with remote SIM provisioning? Is the rSIM dependent on that? Does it work differently with different versions of remote SIM provisioning? There are currently three, no, four.

RC: Today, we use the SGP.02 standard, which is the original M2M standard. As a standards-based SIM, we'll adapt to each standard—SGP.22 and SGP.32, which is currently a hot topic—when the time is right. SGP.32 is still a bit further down the line in terms of becoming widely adopted. For now, SGP.02 is our foundation, and

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we'll transition to SGP.32 as it gains traction. In terms of form factor, rSIM can be implemented as either a physical plastic SIM or an eSIM.

MH: Different topic, collaboration. So, this rSIM approach is a collaboration between multiple operators to get it developed and everybody's working together to push that as a standard that they will all use. How does that collaboration work?

RC: We see resilient SIM as the natural evolution of the roaming SIM. Just as we progressed from single domestic SIMs to roaming SIMs, resilient SIM is the next leap. And because we're not an MVNO, we don't have a core infrastructure we're trying to monetise. Instead, we're taking this innovation and offering it back to operators. rSIM operates as a neutral host within the operator ecosystem, using a neutral SM-SR that connects different operators. This setup allows us to manage resilient SIM services across networks, building the SIM with operator profiles and returning it to operators to offer directly to their customers.

Just like MVNOs sought differentiation in the market, operators are also looking to stand out. Resilient SIM gives them that differentiation with an additional layer

of resilience. What's more, this type of connectivity is also increasing ARPU. Particularly in Europe, where competition has driven connectivity costs down, resilient SIM offers a premium product that can help operators add value and potentially reverse the race to the bottom on pricing.

MH: It's very interesting, that idea of enhanced ARPU for the operators. We talk to a lot of network operators and MVNOs about their approaches to the market, and the quest for additional revenue streams is clearly pretty much the number one theme. They're looking at chargeable customer support, added-value services, or consulting engagements to drive that additional revenue. So, an additional, chargeable service like this has clear value.

RC: Exactly. As we speak with operators globally, we see that this is resonating with them.

MH: Where have you seen adoption so far, in terms of operators and verticals?

RC: Last week at IoT Tech Expo in Amsterdam, we showcased a collaboration with Vodafone IoT. They're an operator already serving customers who demand a

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higher level of uptime. Across the board, operators we speak to are interested in resilience as a differentiator.

In terms of verticals, adoption is broadening. The idea of "critical connectivity" has moved beyond protecting life or property. Now, we're seeing it applied to a range of areas—think revenue assurance. For example, if a scooter loses connectivity, it stops working and can't be rented out again until the connection is back up. It's all about understanding what connectivity is critical for in each specific case.

MH: It's true—what's critical varies. Life-critical cases, like healthcare or heart rate monitors, are clear examples. Then there's critical national infrastructure. But for a business that only takes card payments, losing connectivity could be critical for them.

RC: Absolutely. That's a great way of putting it.

MH: So, you're seeing some interesting early use cases in different verticals?

RC: Absolutely. In telecare, we're working with Careium, a client using our solution in critical devices like panic buttons. These customers are often vulnerable

individuals who rely on telecare for safety and peace of mind. So, why would we let a vulnerable life depend on a single connection? Just as we wouldn't rely on a single parachute when skydiving or a single rope when rock climbing, dual-path connectivity offers the essential security these individuals need. It's a natural progression for the entire industry.

