GLOBAL

eSIM

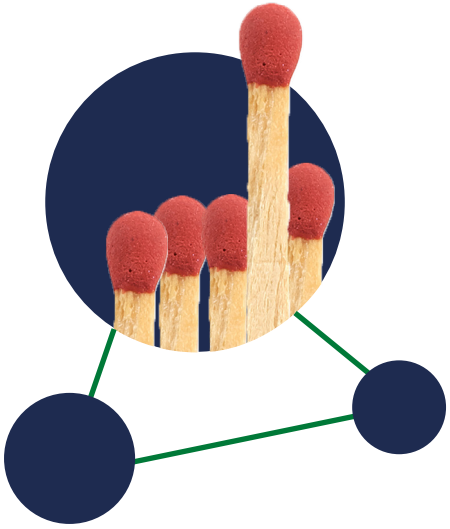
TINY CHIP. BIG DEAL.

The SIM card that's in your smartphone right now is what links your handset to your account with your network operator, and what makes the IoT possible by connecting everything from vehicle trackers to payment terminals.

It's an amazing bit of technology, but SIM cards have been around for a long time and they're limited because they're still reliant on physical pieces of plastic.

In order to join a network, you have to wait for a SIM card to be sent to you or buy one from a store in person. When you need to swap networks, you have to physically swap SIMs, and if you're a frequent traveler, swapping multiple SIMs from multiple operators across multiple countries becomes even more of a chore.

Now... imagine a SIM that's smaller than the head of a match and embedded right into the heart of your phone. That's an "Embedded SIM" – or eSIM – and while they're tiny, the benefits they offer are huge.



THE EVOLUTION OF CONNECTIVITY

Put briefly, eSIM is the next great leap in connectivity for the world's connected devices, allowing Mobile Network Operators (MNOs) to link phones to accounts remotely and get users up and running in seconds.

eSIMs make it easier for MNOs to manage connections over the air, and they can hold multiple account details, allowing users to choose between them at the touch of a button instead of having to swap physical SIMs. It also gives travelers and business users true freedom from exorbitant roaming charges by allowing them to seamlessly swap operators with just a few taps on the screen. And not only does it offer more flexibility and freedom, but installing an eSIM profile is just as secure as a physical SIM, with the added bonus that an eSIM can't be dropped, lost, stolen, damaged or duplicated.

How does it work?

eSIMs work just like traditional SIM cards, but you don't need a physical SIM card to use them. They're "hard-wired" into relevant devices and can be activated by downloading and installing an eSIM profile onto them. MNOs can then provision the eSIM completely remotely via software called a Remote SIM Provisioning (RSP) Platform, which installs the operator's connectivity credentials onto the eSIM over the air.

Not just smartphones

eSIMs are driving the future of other connected devices such as laptops, tablets and smart watches, and they make it easy to connect and manage them without having to buy more physical SIM cards every time you buy a new bit of connected gear. eSIMs are also super-charging IoT for connected devices around the world – from smart home gadgets to vehicle tracking systems, anything that can be connected to a network can now do so more easily and flexibly thanks to eSIM.

ENVIRONMENTALLY RESPONSIBLE

Every year, MNOs send out 4.8 billion plastic SIM cards – adding up to 20,000 tonnes of waste plastic – as well as the envelopes and packaging required to send them. eSIMs therefore help protect the environment by requiring less energy and fewer resources, and by eliminating waste and plastics.

SPACE-EFFICIENT

At only 2.5mm by 2.3 mm, and only 0.2 mm thick, eSIMs are smaller than the head of a match and take up 60 times less space than a physical nano-SIM card. Device manufacturers can use that vital extra room to add extra storage or features or to make their devices smarter, faster, lighter and smaller.

COST-EFFECTIVE

Sending out those billions of physical SIMs costs money – money that Mobile Network Operators could save by using eSIMs that can be activated and managed remotely.

HERE TO STAY

We've pioneered the technology with Apple in 2018 and other world-leading manufacturers have built eSIM capability into their devices since. In 2021, all flagship smartphones are eSIM-enabled.

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