eSIM Discovery

The remote eSIM provisioning solution that's been specified by the industry

The transformation from physical to digital is happening across the mobile industry, and the question is, how can you leverage the opportunities this process will create, for your business?

When it comes to the SIM, it looks like the change will be sooner than expected. After all, the eSIM market is growing rapidly, and global operator, Deutsche Telekom, is already talking about a strong business case for replacing physical SIM cards altogether with eSIMs.

"Digitalisation is a major trend in nearly any industry," notes **Markus Kröber – Squad Lead Smartcard Engineering at Deutsche Telekom Technik,** and a delegate in GSMA´s eSIM Working Groups. *"If you go away from physical goods, you pave the way for digital processes and digital transformation."* Furthermore, the massive expansion in the number of connected devices is making it *"nearly unmanageable in terms of cellular connectivity to provide a physical SIM card for every customer and every device, so we need to have something much more efficient,"* he adds.

The digital transformation brings consumers more convenience, choice, and access
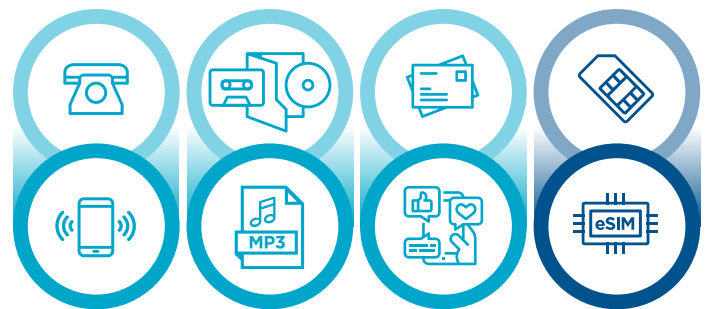
Physical SIMs vs eSIMs

One of the key differences is that physical SIM cards require significantly more space in the device than an eSIM. *"If you look at the PCB, the main board of a standard smartphone, the processor consumes less space than the SIM card connector,"* says **Markus.** *"This is ridiculous, as space is money. It is quite clear that from the manufacturer side, there is an interest in moving away from this huge space consumed by SIM technology."* In the case of smaller devices, such as a connected watch, an eSIM may be the only viable option – there simply isn't sufficient room for a conventional physical SIM card.

Also, since it doesn't require the production and distribution of plastic cards, *"an eSIM is both a more cost-effective and a more sustainable option than a traditional SIM",* notes **Andreas Morawietz, Head of Portfolio Strategy for Lifecycle Management at G+D.**

WHAT IS eSIM DISCOVERY AND HOW IS IT DIFFERENT?

A digital solution for the remote provisioning of eSIMs in handsets and IoT devices

Allows for the eSIM to be seamlessly downloaded and activated without user interaction

It's the only industry-specified solution

The only one that will be universally recognised

HOW eSIM DISCOVERY WORKS

The eUICC Identifier (EID) matches the eSIM with the owner's purchased network operator profile

The device acquires the eSIM profile from the correct operator, thereby activating cellular connectivity

No action is required from the end user

GSMA eSIM Discovery retail use case

1 Customer visits MNO with existing device / buys new device

2 MNO scans EID and prepares eSIM profiles

3 Once switched on, the device checks if there's a subscription via GSMA eSIM Discovery

4 Device subsequently connects to MNO SM-DP+ for profile download

5 Device connects to MNO using eSIM profile
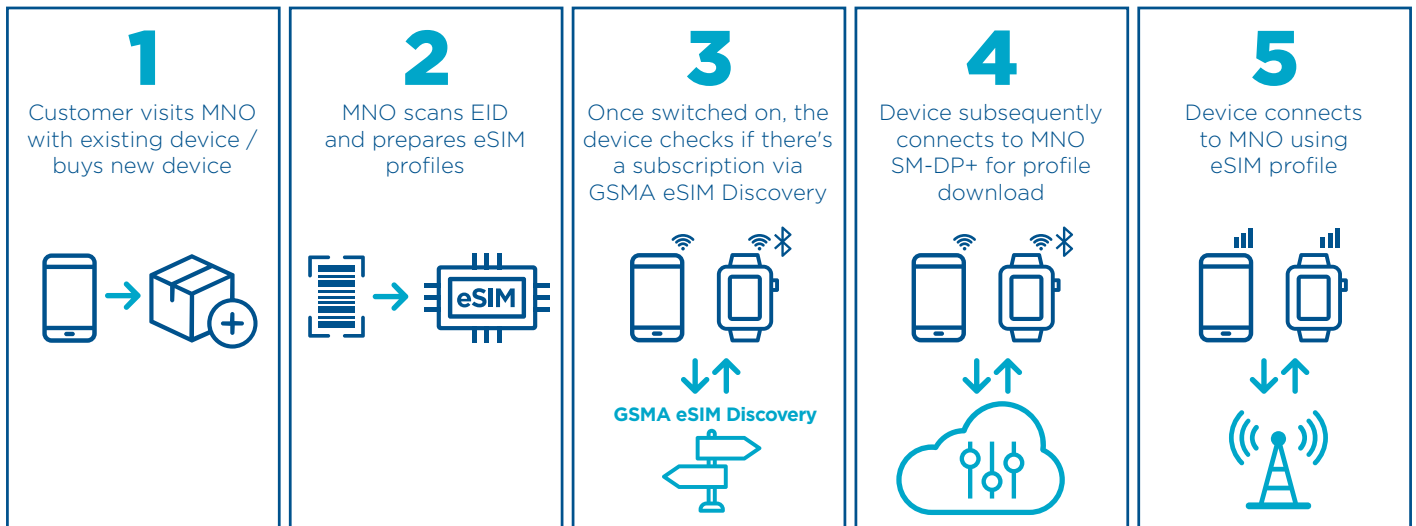
Key use cases for eSIM Discovery

G+D regards the Discovery service as well suited to several key use cases. *"The Discovery service allows for compelling user journeys,"* says **Andreas Morawietz.** *"It is ideal for bundles of devices and connectivity."* He believes the Discovery service is an *"important and easy onboarding journey"* for devices that are sold as part of post-paid mobile contracts. *"This could be the subsidized phone from the MNO at the point of sale, but also an IoT device sold globally with connectivity,"* he adds.

The rise of consumer IoT, such as connected wristwatches, tracking devices and vehicles, is another driver of demand

for eSIMs. **Markus Kröber** expects to see this sector expand, as large consumer goods manufacturers with substantial resources begin to compete with the smaller pioneers. *"Provisioning such IoT devices could be very easy with the Discovery service,"* notes **Tobias Lepper, G+D's Senior Product Marketing Manager.**

As people acquire more and more cellular connected devices, they will encounter more and more eSIMs. MNO and OEM businesses can leverage this eSIM opportunity, by facilitating and increasing its consumer adoption, with the help of the GSMA eSIM Discovery service.

> We are prepared to use GSMA eSIM Discovery in many processes, including the point of sale, which is the most challenging one because you have to define a technical interface to provide certain technical data. This has been done. So, we are ready.

Markus Kröber, Squad Lead of Smartcard Engineering at Deutsche Telekom Technik