eUICC: A turning point for IoT?

How the Embedded Universal Integrated Circuit Card will drive the Internet of Things revolution

By Ted Ryan, IoT Product Manager, IoT Product Manager, Global SIM and IoT Connectivity Management

The Embedded Universal Integrated Circuit Card makes an impressive acronym: eUICC. But it's much more than that. It's actually a very significant step forward in the development of The Internet of Things (IoT). Why? Because it reassures owners of IoT devices that they can manage their long term connectivity needs without having to physically change the SIMs inside them. That's a big deal because all the estimates suggest that there are going to be billions of IoT devices out there very soon. There already are many millions.

Until now an IoT SIM is provisioned with a single operator profile, the eUICC SIM on the other hand can host multiple operator profiles which gives organisations the freedom to switch to any operator who can support the technology. This shift in SIM type is being championed by the GSMA – which represents network operators around the world. Though the SIM itself is more powerful than many existing proprietary SIMs (and so costs more), its flexibility can add value over time.

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Vodafone is a full member of the GSMA Connected Living Programme, which oversees the delivery and deployment of the eUICC, and we're also part of a working group that helps develop standards for remote SIM provisioning. That means we're right at the heart of the new eUICC era, which is important because the specification is still evolving. That's why quite a few customers are waiting to see how the standards change and what SIMs become available.

Because eUICC is a new technology, we're working closely with customers to ensure they make the right decision so that their individual needs are met. The benefits of eUICC, depending on your requirements, go further than mere ease of use or deployment (though they are significant). It's especially good for sectors in which devices need to be in place for a long time – from five to ten years – so, we're collaborating with customers to ensure that the technology is future proof.

eUICC is also important if you're operating in different parts of the world. That's because you can switch MNOs, and more easily manage devices deployed within the specific countries or regions which have very specific regulatory requirements which might change in the future.

This new SIM could have a big impact across a range of sectors, but it's the automotive industry which is, forgive the pun, a real driving force in its adoption. As cars become more and more connected, manufacturers are eager to use eUICC SIMS to enable them to stock a single SIM that will work with any MNO in whichever region the car is destined for. That can reduce inventory costs and eliminate the need to source different SIMs. It critically also means that the SIM can be used for a long time without the need to replace it.

From inception to deployment Vodafone is a key player in the development of eUICC. The technical and commercial knowledge gained from our early-stage involvement means that we are uniquely placed to help customers take full advantage of the technology and start on a sound technical footing. But there's no rush to deploy eUICC. It's still evolving and in our view, it's worth thinking about how eUICC and its application within your IoT strategy can match and augment your business.

If it's right for you, then it really could be a game-changer which enables you to make the most of the IoT revolution.

Find out more, talk to us: iot@vodafone.com