



# Thales On-demand Subscription Dashboard



# Table of contents

Executive Summary	03
Demand for eSIM capable devices is accelerating fast	03
Meeting the challenges of the evolving eSIM market	04
Thales eSIM Management Platform	05
Introducing the Thales On-demand Subscription Dashboard	06
Benefits of the Thales On-demand Subscription Dashboard - for MNOs and their customers	07
Why Thales?	08

# Executive Summary

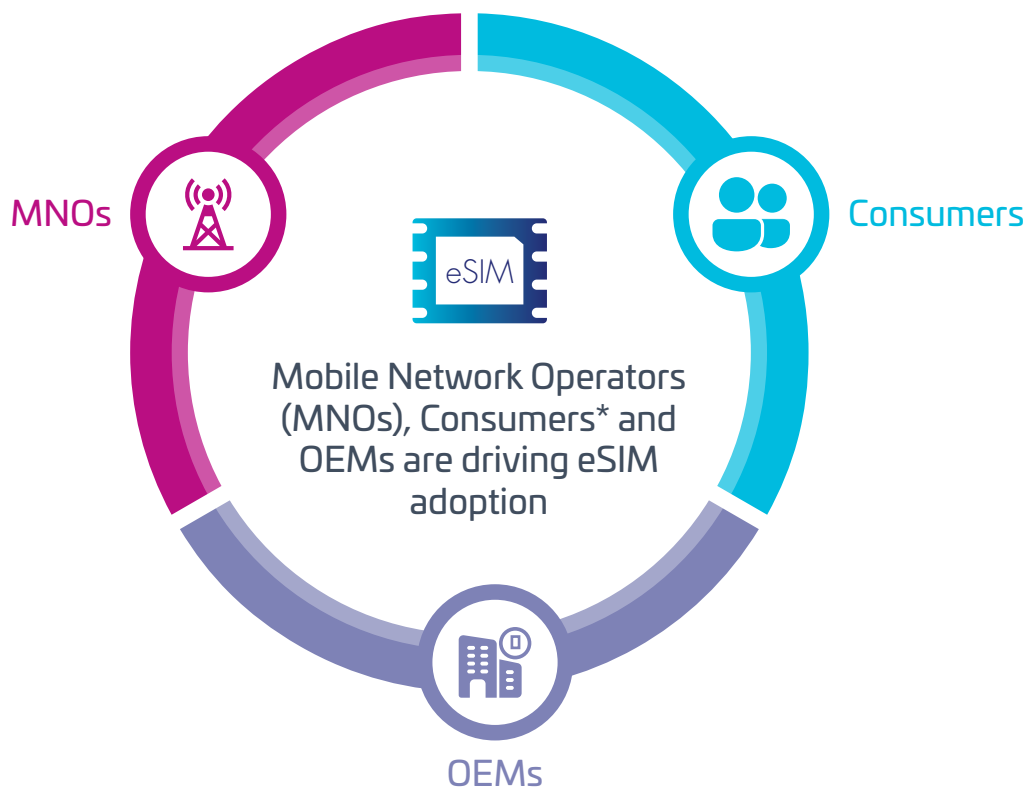
The demand for eSIM capable devices is accelerating fast. Volumes are growing dramatically, and an increasingly diverse array of devices are harnessing the benefits of this highly compact and secure means of remote connectivity. For Mobile Network Operators (MNOs), the flourishing eSIM ecosystem offers exciting possibilities for expanding subscriber acquisition, building revenues, improving efficiency and enhancing the user experience. However, harnessing the potential benefits requires a carefully considered strategy. As a starting point, MNOs need a GSMA certified, scalable and resilient platform to support the remote activation and management of vast numbers of eSIM capable devices. But within this dynamic environment, optimising the success

of massive eSIM subscription deployments also demands granular, real-time insight into subscription deployments and activations. Only by leveraging such information will MNOs be able to create the smoothest possible digital journeys for customers while simultaneously streamlining eSIM operations. Reflecting this, Thales has released an enhanced version of **On-demand Subscription Dashboard (OSD)** to its proven eSIM Management platform and broader eSIM solutions portfolio. Employing powerful analytics tools and Machine Learning (ML) capabilities, the OSD enables MNOs to effortlessly monitor key performance data, and accurately predict future trends and patterns in the demand for their eSIM subscriptions and activations.

## Demand for eSIM capable devices is accelerating fast

According to the industry group TCA (1) (Trusted Connectivity Alliance) the eSIM profile transactions rose by 54% in 2021 and 337 Mu eSIMs were shipped the same year. Moreover, this is a global phenomenon. According to the GSMA, as of June 2022

more than 260 mobile carriers in around 90 countries support eSIM services for consumer devices. As a result, a minimum of two billion mobile users had access to an eSIM service.



Consumers are end-users using eSIM capable devices

## MNOs are increasingly committed to 100% digital customer journeys

The effect of the pandemic has been profound. But in many respects, it has simply served to accelerate what were already powerful drivers behind the eSIM. Many MNOs had already recognised that by facilitating instant, over-the-air activation of mobile subscriptions, the eSIM represented a key enabler in their pursuit of a fully digital, 100% intuitive customer experience. This goes a long way to explaining why another recent GSMA survey (3) showed that 80% of MNOs believe that for OEMs, the eSIM should be as much of a priority as 5G. Further enabled by both online ID verification solutions and the accelerating deployment of 5G networks, there can be little doubt that the emerging eSIM ecosystem aligns perfectly with MNOs' wider digital transformation agenda.

## Consumers are ready for change

Strong support for the eSIM from MNOs is matched by consumer enthusiasm for a more convenient approach to mobile connectivity. Recent research by industry specialist Capgemini (4) indicated that 46% of consumers are open to the idea of activating mobile services remotely via an eSIM. This migration to digital channels is further underlined by the fact that MNOs now sell just 36% of their smartphones face-to-face, in store.

## Innovation and investment are flourishing among OEMs

OEMs are other key factor behind growth, providing a receptive market with an increasingly diverse range of attractive eSIM

capable devices. The breadth of this product offer is striking. Newcomers to the sector, including Samsung, Oppo, Huawei and Huami, have now joined early entrants such as Apple, Xiaomi, Lenovo, Motorola, Microsoft and Google. What's more, eSIM technology is no longer the preserve of flagship products, with Apple and Google now making it available in upper mid-range smartphones. In addition, new players such as Rakuten are actively pursuing strategies that leverage eSIM-only smartphones to differentiate themselves in the market. The industry is also actively engaged in adapting eSIM technology to meet the requirements of low power IoT devices.

## Future growth will embrace a plethora of device types

With the interests of MNOs, consumers and OEMs converging, there can be little doubt that current momentum behind the eSIM will be maintained. By 2027, ABI Research estimates there will be 677 million eSIM-enabled consumer devices. The same ABI Research survey indicates that, by the same year, another 275 million eSIM-enabled devices will be supporting IoT/M2M applications such as automotive, smart cities and track and trace. Going forwards, the unique characteristics of the eSIM will inevitably see it increase not only in volume, but also in terms of the different types of devices it supports.

In this eBook, our focus is primarily on the Consumer Electronics market. However, the industrial/M2M sector is clearly significant too, and will be the subject of a future publication.

# Meeting the challenges of the evolving eSIM market



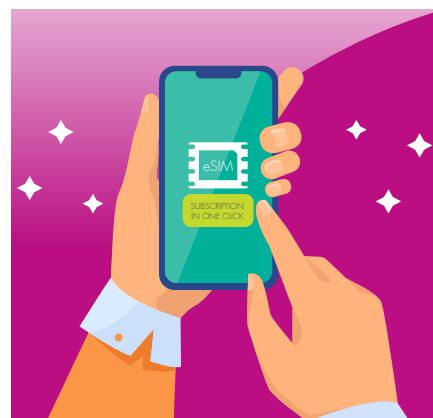
The flourishing eSIM ecosystem is good news for MNOs. Opportunities are being created to acquire new subscribers, improve the user experience, boost revenues and enhance operational efficiency. However, the scale and nature of this rapidly evolving sector also presents significant challenges. To realize the full potential of the market, MNOs must be capable of handling a large and exponentially growing number of activation requests. Moreover, these requests are coming from an ever-wider array of eSIM capable devices, including smartphones, smartwatches, tablets and more. The GSMA (2)

reports that by the end of 2020 there were 110 different eSIM capable consumer device models on the market. That's more than double the number reported in 2018.

Clearly, when deploying mobile subscriptions to consumers via their eSIM capable devices, MNOs need a strong and stable platform. It must be able to scale in line with peaks in demand, and support a multitude of different devices requiring a multitude of different subscription profiles. This is where Thales eSIM Management platform comes into play.

## Thales eSIM Management Platform

A scalable, resilient and smart eSIM Management platform for real-time management of massive eSIM subscription volumes and numerous profile types



The Thales eSIM Management platform enables customers to download mobile subscriptions instantly and remotely to their eSIM capable devices, anytime and anywhere. Fully compliant with the GSMA's specifications, this flexible platform offers telecom operators secure and highly scalable support to manage increases in demand. Furthermore, it provides end users with

a range of different methods for activating their subscriptions depending on MNO subscription offer.

Thales eSIM Management platform manages optimized profile stock provisioning and also addresses in real-time the multitude of different profiles that are associated with different types of mobile devices.

But that's not the full story. **To optimise the efficiency and effectiveness of their eSIM subscription deployments, MNOs also need reliable and dynamic reporting on the status of subscription deployments and activations. Such insight is mission-critical, enabling MNOs to adapt himself adequately to the demands of an incredibly complex and fast-moving environment.**

### Sources

(1) TCA (Trusted Connectivity Alliance)

(2) GSMA intelligence eSIM: market progress, consumer behaviour and adoption to 2030

(3) GSMA Intelligence, the future of eSIM in smartphones: are we at a turning point?, March 2020

(4) Capgemini "The connected telco consumer: how telecom operators can reconnect with customers and emerge stronger from the pandemic" September 2020

(5) ABI Research - eSIM in the Consumer & M2M markets Q3 2022

# Introducing the Thales On-demand Subscription Dashboard



Large volumes of subscriptions and profile types also imply the need for powerful analytics tools to monitor deployments. This is precisely the role fulfilled by the Thales On-demand Subscription Dashboard (OSD), which is part of the company's comprehensive eSIM solutions portfolio. OSD enables MNOs to optimize their mobile subscription deployment through monitoring and analysis of key performance data.

**Thales On-demand Subscription Dashboard turns deployment reporting data into actionable assets for best-in-class connectivity services**

## The dashboard has two key purposes:

- Optimising the operational efficiency of mobile subscription deployments
- Service usage analysis in order to deliver the best possible experience for customers, with seamless access to connectivity services combined with first class security

## Featuring reporting data, data analytics and machine learning (ML) capabilities, the Thales OSD enables MNOs to:

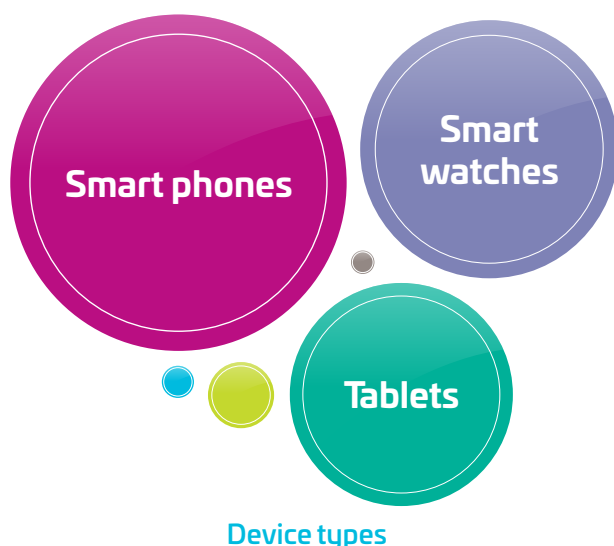
- Monitor the success rate of their eSIM subscription deployment
- Track device and service usage
- Predict eSIM subscription stock levels through advanced analytics
- Predict customer behavior

With the benefit of these insights, MNOs can make informed decisions on how to improve the effectiveness of eSIM activation deployments and the management of subscription profile stocks. MNOs also enjoy invaluable marketing insight on service usage. As a result, they can achieve improved mobile subscription deployments and boost growth. The customer experience can also be optimised, through seamless connectivity and personalised services.

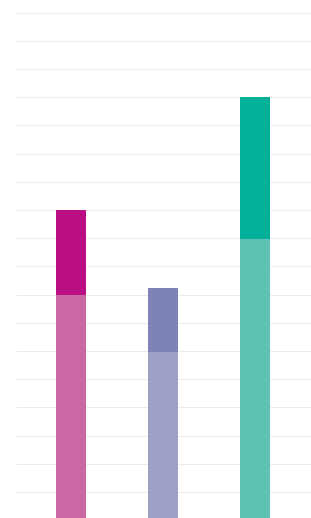
The dashboard is provided via a web interface, and displays deployment performance, service usage, and tracking and predictive stock data. Alternatively, reporting can be integrated directly into an MNO's back-end system.

Regardless of the method chosen, MNOs benefit from clear visibility across several types of reporting such as:

## Consumer Device Reporting



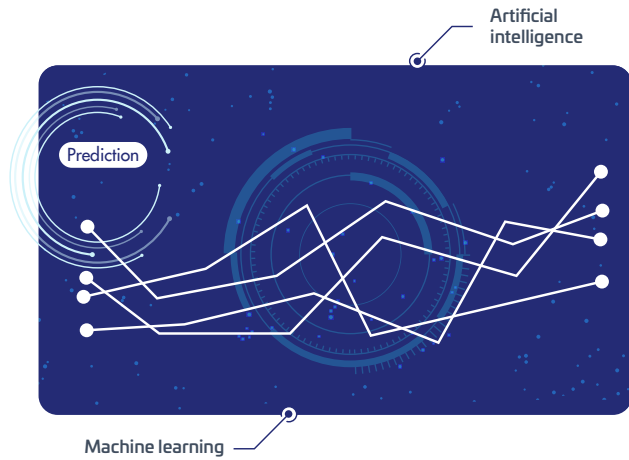
Device types



Mobile subscriptions downloaded

This provides use-case related data. For example, what type of device (smartphone, smartwatch, tablet etc.) is requesting the mobile subscription? Reporting also details the success rate of profile downloads for each type of device.

## Evolution of mobile subscriptions in stock



These reports provide MNOs with dynamic updates on the status of their stocks of subscription profiles. Because subscription requests for eSIM capable devices are generated remotely, this is vital information. To meet demand, MNOs must ensure they build and maintain sufficient and adequate stock.

Provisioning reporting also features advanced analytics and ML to anticipate future demand for mobile subscriptions. This information helps ensure MNOs can accurately and efficiently build a predictive stock to cope with peaks in demand for each type of eSIM capable device.

# Benefits of the **Thales On-demand Subscription Dashboard** - for MNOs and their customers



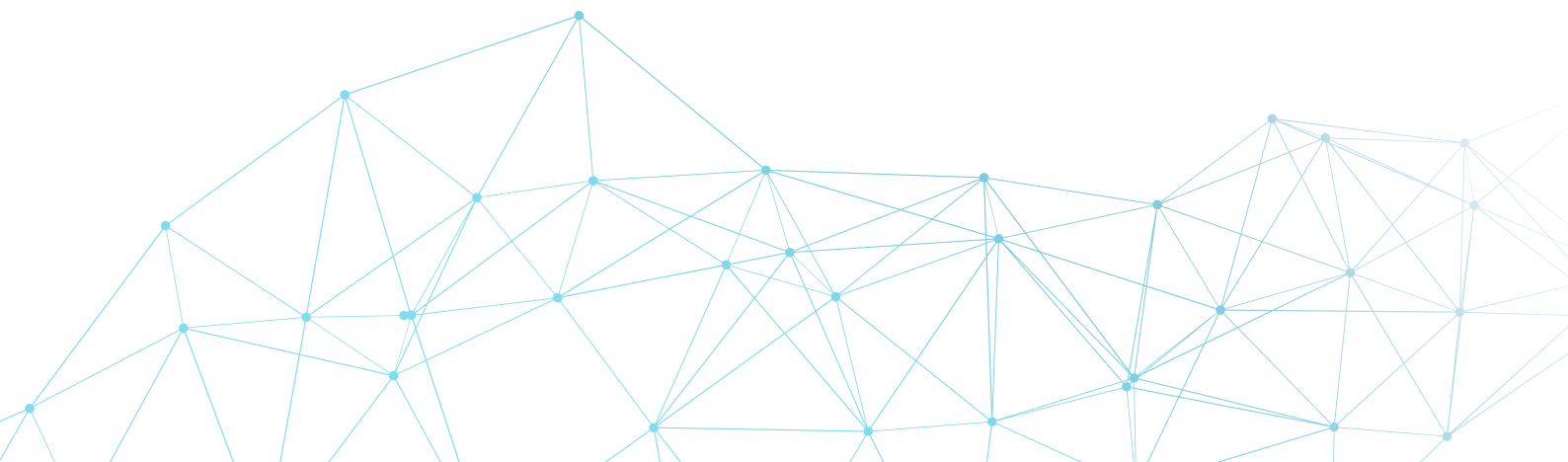
### Deployment efficiency

- Dynamic reporting enables data analysis, corrective action, ensuring an outstanding success rate for eSIM subscription deployments
- Accurately predicting eSIM profile provisioning enables anticipation of peaks in demand
- Also improves and optimises eSIM profile stock management for each specific type of device
- Ready-to-use actionable data can be integrated into MNOs' back-end systems to streamline MNOs' operations



### First class customer experience

- Seamless access to connectivity services with high success rates of eSIM subscription downloads
- More personalised experiences for end-users, thanks to data analytics and ML related to service usage: MNOs have a better understanding and foresight of service usage, the popularity of specific devices, and seasonal peaks in demand (e.g., Christmas, Black Friday).
- Improved customer satisfaction and retention





# Why Thales?

Thales occupies a unique position in the field of eSIM solutions. We master all the necessary components, and benefit from long-term trusted relationships with MNOs regarding the secure management of their network credentials.

Our award-winning solutions have been adopted by numerous MNOs, MVNOs and key industry players worldwide.

Indeed, we are the world leader for Remote SIM Provisioning platforms, employed in both consumer and M2M environments. Thales is represented on all the relevant standardisation bodies, and we actively participate in the eSIM standardisation and interoperability testing processes. By leading the creation of new specifications and collaborating closely with the GSMA and other relevant industries, we enable streamlined deployment of Thales eSIM Subscription Management solutions with the most complete and innovative portfolio of eSIM solutions.

Our business relationships extend to 450 mobile network operators and over 100 OEMs across the M2M, IoT and consumer markets. These partnerships are built around our strong local support and testing capabilities, with a global footprint of technical consultants and field application engineers.

Combined with eSIM technology, **the 5G future** connected world will open a new chapter, more digital than ever, for Communications Service Providers and their customers (consumers, enterprises and governments). Extreme mobile broadband speed, massive critical IoT services implementing eSIM technology and ultra-latency complemented by network slicing will bring a shift from selling connectivity to analytics driven services and experiences. In parallel, new vulnerabilities, cyber-security and data privacy concerns and regulations, and identity management for people and devices will all increase, in a more complex multi stakeholder ecosystem. Thales makes the 5G world a place we can all trust.