GLOBAL ESIMS & ISIMS MARKET 2024-2028

Competitor Leaderboard

Prepared for Thales

JUNIPER RESEARCH

Contents

1.1 Why Read this Report

This section details the product offerings of leading eSIM/iSIM management platform providers and eSIM/iSIM hardware vendors. Given the expansive eSIM market ecosystem, this report is not intended to provide comprehensive coverage of all the vendors operating in this market but introduces the reader to 18 eSIM/iSIM management platform providers that Juniper Research considers to be leaders in the market.

Within consumer use cases, eSIM adoption is set to accelerate following Apple's launch of an eSIM-only iPhone 14 in the US. Once Apple expand this eSIM only capability internationally, operators will be forced to embrace the eSIM standard, which will trigger Android smartphone manufacturers into action. Within IoT and M2M, the development of a new GSMA specification (SGP.32) will simplify the deployment of eSIM-enabled IoT devices and sensors, triggering market adoption.

Juniper Research is a Europe-based provider of business intelligence. We specialise in providing high-quality data and fully researched analysis to manufacturers, financiers, developers, and service/content providers across the communications sector. Juniper Research is fully independent and able to provide unbiased and reliable assessments of markets, technologies, and industry players. Our team is drawn from experienced senior managers with proven track records in each of their specialist fields.

eSIM & iSIM Market Takeaways

Interoperability Key to Managing SM-DP+ Digital Profiles

The complex nature of the eSIMs and iSIMs ecosystems means that interoperability between multiple vendor types including network management, SIM provisioning and SIM enablement is key. Moreover, as the eSIM ecosystem is based on the principles of open standard, interoperability is essential despite many stakeholders offering multiple layers of functionality. Providing this interoperability will ensure increased visibility across the whole eSIM network, which is a key benefit when managing digital profiles. This increased visibility will enhance the success rate of the eSIM profile being downloaded. Moreover, this visibility will increase personalisation capabilities as operators are able to modify the eSIM profile before it is downloaded. Therefore, Juniper Research recommends that all stakeholders in the eSIM and iSIM ecosystem encourage interoperability across networks to improve the eSIM experience for the end user.

GSMAs SGP.32 Standards to Promote eSIM Growth Across the IoT Space

Historically, providing consistent eSIM connectivity for IoT connections was difficult as these devices operated independently and often required bespoke manufacturing processes. The SGP.32 GSMA specification (which is largely based on the consumer specifications, SGP.22) does not only simplify the deployment process of these devices, but it also provides operators with a new market opportunity. That is, any operator that is already equipped with an eSIM consumer platform can position themselves as a provider for eSIMs IoT solutions. Whilst the roll-out of IoT eSIM devices leveraging these standards is not expected until testing specifications are released in 2025, Juniper Research anticipates that leading vendors will develop eIM (eSIM IoT Remote Manager) tools that enable the remote management and control of the eSIM, as standard with consumer eSIMs and RSP (Remote SIM Provisioning).

iSIM to Provide a Competitor Differentiator for eSIM Management Platforms

iSIM provides eSIM functionality but on a secure SoC, already soldered into the device. Whilst the iSIM provides the same security function as the eSIM, this improves both power consumer and increases the processing power. Additionally, as the GSMA has completed the standardisation of the eSIM (integrated eUICC), and the growth of the IoT market continues due to the roll-out of low-power devices, Juniper Research anticipates that deploying and management iSIM integration will provide a competitor differentiator in the current SIM market.

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Figure 1: Juniper Research Competitor Leaderboard: eSIM/iSIM Platform Providers

Juniper Research Competitor Leaderboard
eSIM/iSIM Platform Providers
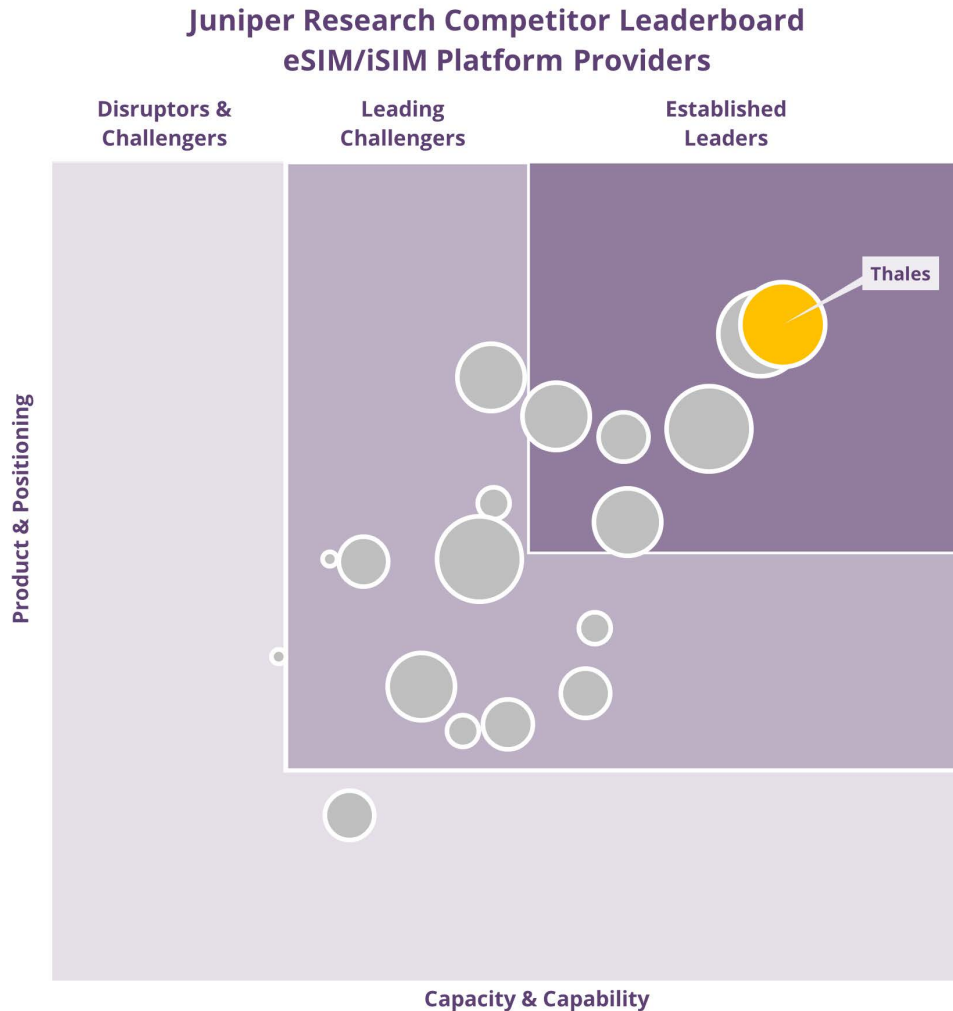
Source: Juniper Research

Thales has been ranked as a leading global eSIM and iSIM platform provider, scoring full marks on 90% of Juniper Research's Competitor Leaderboard scoring criteria in this market. Its financial strength and expansive partner ecosystem of silicon vendors, coupled with its ability to provide an end-to-end eSIM enablement and provisioning platform for both the consumer and IoT markets, make Thales a leading company in the industry.

Specifically, Thales provides a range of tools and services that optime the efficiency of eSIM management to monitor profiles across the whole eSIM lifecycle to offer batter analysis to CSP on the usage of eSIM subscriptions. These services include a bespoke connectivity suite (including subscription management), smart stock management and reporting analytic tools.

Additionally, not only does Thales support additional eSIM management services, including the GSMA's IoT SAFE standards, but its proactivity in the iSIM market means that Thales has gained early-mover advantage into the next evolution of the SIM market. Additionally, Thales was awarded the first certification of Connected Secure Element for its connectivity solutions; Thales Instant Connect and Thales Adaptive Connect.

With this, Juniper Research commented: *'In the rapidly growing eSIMs market, Thales has developed an advanced eSIM product portfolio, demonstrating the ability to provide a complete end-to-end, interoperable and standardised offering of eSIM-enabled and remote provisioning solutions in both the consumer and IoT markets. Its experience, coupled with initiatives such as the Thales Adaptive Connect and Thales Instant Connect platforms, stand it in good stead for the transition to iSIMs.'*

1.1.1 Thales

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Building a future we can all trust

Table 2: Juniper Research eSIMs & iSIMs Competitor Leaderboard Heatmap: Thales

	Corporate Capacity & Capability					Product & Positioning					Total Presence Score
	Financial Performance in the eSIMs Sector	Size of Operations in the eSIMs Sector	Extent & Breadth of eSIM Partnerships	Marketing & Branding	Experience in the eSIMs Market	eSIMs Market Coverage	eSIM Service & Product Offerings	eSIMs Product Strength	Extent of Innovation in the eSIMs Market	Future Business Prospects	
Thales	■	■	■	■	■	■	■	■	■	■	■

■ ■ ■ ■ ■ High

Source: Juniper Research

i. Corporate Information

Thales is a French multinational designer and builder, and supplier of electrical systems for the aerospace, defence, transportation, and digital identity security sectors. Thales Digital Identity Security sells its digital identity solutions in over 180 countries.

Renamed as a group in 2000, Thales' 2022 order intake was EUR €23.6 billion (USD $25.8 billion). Specifically, the company's Digital Identity & Security portfolio generated €3.6 billion in sales in 2022. Additionally, in 2021, Thales' order intake was EUR €19.9 billion (USD $21.05 billion), and EUR €2.995 billion (USD $3.17 billion) was generated by the Digital Identity and Security Segment. The company's 2020 revenue/order intake was EUR €17.0 billion (USD $19 billion), and approximately EUR €2.992 billion (USD $3.17 billion) was generated by the Digital Identity and Security Segment.

Thales' Chairman and CEO is Patrice Caine; Senior Executive Vice President and Chief Financial Officer is Pascal Bouchiat; and Executive Vice President of Digital Identity and Security is Philippe Vallée (previously CEO of Gemalto from 2016 to March 2019).

Since January 2019, the Thales group has acquired five companies: ERCOM, Psibernetix, S21sec, Excellium Services and OneWelcome. The details of these acquisitions are outlined in table 3 below.

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Table 3: Thales' Acquisitions, January 2019 - Present

Company Name	Specialism	Date
ERCOM	LTE/4G and Network Security	Jan-19
Psibernetix	Intelligent Systems	Jun-19
S21sec	Cybersecurity	May-22
Excellium Services	Security Operations	May-22
OneWelcome	Cloud Identity Platform for Enterprises	Jul-22
Imperva	Risk Management Solution	Jul-23

Source: Juniper Research

ii. Geographical Spread

Headquartered in Paris, France, Thales operates in 70 countries and employs 80,500 employees on five continents as of late December 2021. The company declared its intent to employ a further 11,000 people worldwide in May 2022. In September 2022, Thales announced its plans to expand within North America by onboarding approximately 1,300 new employees in the region during 2022.

iii. Key Clients & Strategic Partnerships

Thales provides digital identity and security products for IoT devices in the form of hardware solutions, such as modules, gateways, and modem cards.

The company provides identity and security solutions for MNOs, OEMs, and other service providers via its Trusted Digital Identity Services Platform solution; allowing these clients to digitalise customer enrolment, including the capture, verification, and authentication of customer credentials and biometrics.

In June 2020, Thales announced that its next-generation, single-chip solution would be embedded in Samsung's latest flagship smartphone.

In May 2021, OPPO announced the launch of the world's first 5G standalone-compatible eSIM on its flagship 5G smartphone, the OPPOX FindX3 Pro, which was developed in collaboration with Thales.

In March 2022, Thales announced that it had been selected by C Spire, a wireless network services provider, to manage its eSIM operations. As a result of this collaboration, Thales will provide secure provisioning and download of eSIM credentials, connectivity to the C Spire network database for user verification and mobile network subscription services for eSIM-capable devices.

In November 2022, Thales announced that it had been selected together with ST Microelectronics to power secure and contactless convenience in Google Pixel 7.

iv. High-level View of Offerings

In July 2022, Thales' cellular IoT products were acquired by Telit. As a result, Telit Cinterion was established as an IoT solutions provider.

Thales' product offering is split by seven markets: Aerospace, Defence and Security, Digital identity and Security, Space, Specific Solutions, Transport, and Transverse Markets. For the purposes of this report, Juniper Research will focus on Thales' Digital Identity and Security product portfolio, which includes the company's eSIM offering.

- Digital Identity and Security – including banking and payment, data protection, digital ID solutions, identity and access management solutions, identity and biometric solutions, IoT solutions, mobile solutions and software monetisation solutions.

  (a) Mobile – including AI & Big Data, SIM & secure elements, trusted digital identity and eSIM, 5G & connectivity solutions.

    (i) SIM & Secure Elements – including a classic SIM, embedded SIM, industrial SIM cards, eSE (Embedded Secure Element) for mobile devices and multi-tenant SIMs. Thales' embedded SIM is available in various form factors, either plugged-in or soldered, and is compliant with GSMA specifications. Additionally, in March 2023, the company reinforced the security of its eSIM management platform by becoming certified by Google Cloud.

    (ii) eSIM, 5G & Connectivity – including IoT modules, eSIMs, iSIMs, SIM and eSIM management. This includes Thales' eSIM management platform, which manages the lifecycle of cellular subscriptions.

Figure 4: Thales' Embedded Portfolio
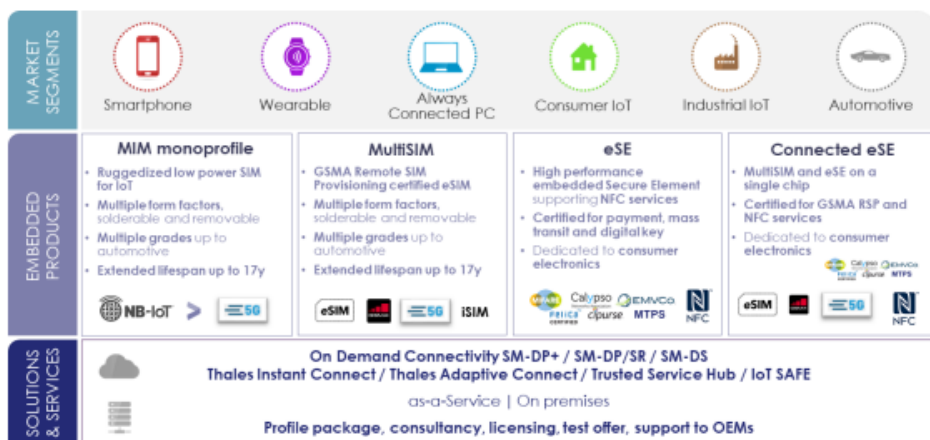
Source: Thales

In addition to this, in February 2023, Thales announced the launch of the first GSMA-certified iSIM in partnership with Qualcomm's Snapdragon mobile platform.

Key products related to eSIM provisioning include TAC (Thales Adaptive Connect), TIC (Thales Instant Connect), IoT Safe, Thales MultiSIM and Connected eSE, eSIM RSP Platform.

- TAC – enables IoT service providers to download local mobile subscriptions for fleets of eSIM-enabled devices when deployed in field across a number of different countries. This solution combines a GSMA-compliant eSIM, an applet running on the eSIM itself and a connectivity management service.

Figure 5: High-level Architecture of Thales Adaptive Connect
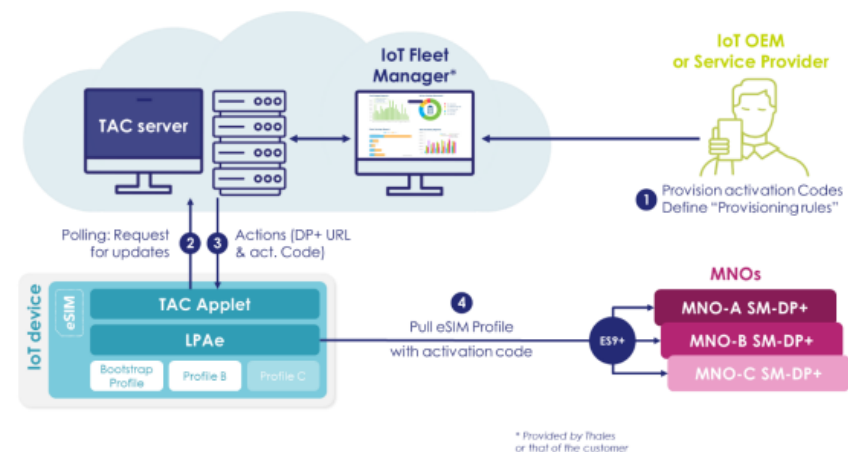
Source: Thales

- TIC – a provisioning profile service that provides the cellular connectivity when needing to download an operational profile into the eSIM. At present, this solution is only available for Thales' eSIM customers.

- IoT SAFE – implementing the GSMA IoT SAFE specification, this solution provides scalable security for IoT devices using SIM/eSIM-based security.

- eSIM Portfolio – including Thales MultiSIM and Thales Connected eSE:

  a) Thales MultiSIM – including eSIM products for consumer electronic devices, consumer IoT, industrial IoT and automotive use cases.

  b) Thales Connected eSE – a combination of an eSIM with an NFC Secure Element for consumer electronic devices.

- eSIM RSP (Remote Subscription Management) Platform – enables network operators or service providers to remotely manage the connectivity of deployed devices.

Figure 6: High-level Architecture of Thales Instant Connect
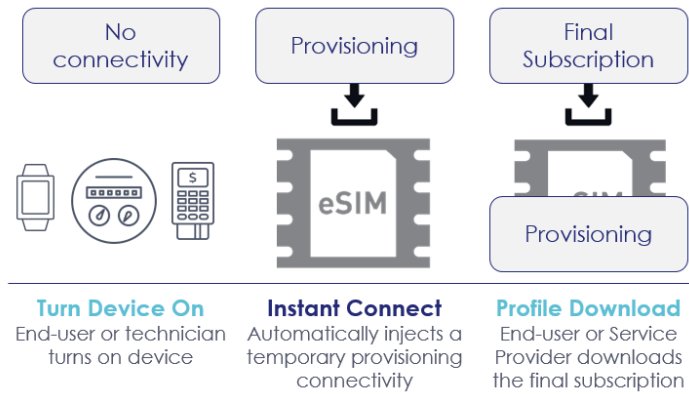
Source: Thales

1.2 Juniper Research Leaderboard Assessment Methodology

Juniper Research provides updates on 18 eSIM and iSIM platform providers. To qualify for the Competitor Leaderboard, companies must at least be involved in the direct provision of eSIM management services. The companies included here have developed specific expertise in the eSIM management sector, though some embarked on the route earlier than others and therefore have wider customer bases or geographical reach. It includes established specialists, such as Kigen, Redtea Mobile and Eseye, through to companies where eSIM management is part of a wider connectivity solutions suite, such as Thales, G+D and Tata Communications.

This research covers a significant number of vendors; however, we cannot guarantee that all players in the market are included. Our approach is to use a standard template to summarise the capability of players offering eSIM management services. This template concludes with our view of the key strengths and strategic development opportunities for each vendor. It.

We also provide our view of vendor positioning using our Juniper Research Leaderboard technique. This technique, which applies quantitative scoring to qualitative information, enables us to assess each player's capability and capacity, as well as its product and position in the broader market for eSIM management. The resulting Leaderboard exhibits our view of relative vendor positioning.

1.3 Limitation & Interpretations

Our assessment is based on a combination of quantitative measures, where they are available (such as revenue and numbers of employees) that indicate relative strength, and also of qualitative judgement, based on available market and vendor information as published. In addition, we have added our in-house knowledge from meetings and interviews with a range of industry players. We have also used publicly available information to arrive at a broad, indicative positioning of vendors in this market, on a 'best efforts' basis.

However, we would also caution that our analysis is almost by nature based on incomplete information and therefore with some elements of this analysis we have had to be more judgemental than others. For example, with some vendors, less detailed financial information is typically available if they are not publicly listed companies. This is particularly the case when assessing early-stage companies, where a degree of secrecy may be advantageous to avoid other companies replicating elements of the business model or strategy.

We also remind readers that the list of vendors considered is not exhaustive across the entire market but rather selective. Juniper Research endeavours to provide accurate information. While information or comment is believed to be correct at the time of publication, Juniper Research cannot accept any responsibility for its completeness or accuracy, the analysis is presented on a 'best efforts' basis.

The Leaderboard compares the positioning of platform providers based on Juniper Research's scoring of each company against the criteria that Juniper Research has defined. The Leaderboard is designed to compare how vendors position themselves in the market based on these criteria. Relative placement in one particular unit of the Leaderboard does not imply that any one vendor is necessarily better placed than others. For example, one vendor's objectives will be different from the next and the vendor may be very successfully fulfilling them without being placed in the top right box of the Leaderboard, which is the traditional location for the leading players.

Therefore, for avoidance of doubt in interpreting the Leaderboard, we are not suggesting that any single cell in the Leaderboard implies in any way that a group of vendors is more advantageously positioned than another group, just differently positioned. We additionally would draw the reader's attention to the fact that vendors are listed alphabetically in a unit of the Leaderboard and not ranked in any way in the cell of the Leaderboard.

The Leaderboard is also valid at a specific point in time, February 2024. It does not indicate how we expect positioning to change in future, or indeed in which direction we believe that the vendors are moving. We caution against companies taking any decisions based on this analysis; it is merely intended as an analytical summary by Juniper Research as an independent third party.

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Table 7: Juniper Research Competitor Leaderboard Scoring Criteria

Category	Scoring Criteria	Relevant Information
Capability & Capacity	Financial Performance in the eSIMs & iSIMs Sector	Total company revenues attributed to eSIM and iSIM for the prior financial year; value of corporate investments made since January 2021; value of series funding and funding rounds since January 2021.
	Size of Operations in the eSIMs & iSIMs Sector	Countries of presence; number of offices; number of customers.
	Extent & Breadth of eSIM & iSIM Partnerships	Total number of partnerships; range of industries covered by strategic partnerships.
	Marketing & Branding	Strength of marketing efforts, including the average duration of each site visit.
	Experience in the eSIMs & iSIMs Market	Date at which each vendor entered the eSIM market. Notably, the year in which vendors began offering commercially available eSIM management services. In addition to the date in which the company began to support iSIM solutions.
Product & Position	eSIMs & iSIMs Market Coverage	Assessment of mobile network access and number of connections and support OSs.
	eSIMs & iSIMs Service & Product Offerings	Weighted scoring of eSIM services, considering the breadth of features and value-added services supported by each vendor's platform.
	eSIMs & iSIMs Product Strength	Product compliance with market regulations; and the number of eSIM product launches over the last 12 months.
	Extent of Innovation in the eSIMs Market	Score of Juniper Research's opinion of the company's innovation, or plans for innovation.
	Future Business Prospects	Score of Juniper Research's opinion of the company's future prospects in the market.
Market Presence	Market Presence	Number of enterprises involved with the company's provision of eSIM & iSIM management services.

Source: Juniper Research

About Thales

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Thales (Euronext Paris: HO) is a global leader in advanced technologies within three domains: Defence & Security, Aeronautics & Space, and Digital Identity & Security. It develops products and solutions that help make the world safer, greener and more inclusive.

The Group invests close to €4 billion a year in Research & Development, particularly in key areas such as quantum technologies, Edge computing, 6G and cybersecurity.

Thales has 77,0001 (excluding the Transport business) employees in 68 countries. In 2022, the Group generated sales of €17.6 billion.

About Juniper Research

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Juniper Research was founded in 2001 by the industry consultant Tony Crabtree, in the midst of the telecoms and dot-com crash. The business was fully incorporated in February 2002 and has since grown to become one of the leading analyst firms in the mobile and digital tech sector.

Juniper Research specialises in identifying and appraising new high growth market sectors within the digital ecosystem. Market sizing and forecasting are the cornerstones of our offering, together with competitive analysis, strategic assessment and business modelling.

We endeavour to provide independent and impartial analysis of both current and emerging opportunities via a team of dedicated specialists - all knowledgeable, experienced and experts in their field.

Our clients range from mobile operators through to content providers, vendors and financial institutions. Juniper Research's client base spans the globe, with the majority of our clients based in North America, Western Europe and the Far East.

For more information about Juniper Research, please see
https://www.juniperresearch.com/home

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