



The Role of eSIM in Enabling Flexible Connectivity

2025

Produced by



**Berg
Insight™**



Pelion

Table of contents

- Why businesses need flexible connectivity 1
- The three building blocks powering flexible connectivity 2
- What is eSIM?..... 3
- Why eSIM flexibility matters..... 5
- Staying connected across diverse radio access network types..... 8
- Pelion's IoT Connectivity Management Platform 9
- Who is leading the way in flexible connectivity for IoT?..... 10
- Pelion's four core pillars of flexible IoT connectivity 11
- Case study: How Pelion powers Avanti West Coast's Onboard Wi-Fi 12
- Use cases that benefit from flexible connectivity 13
- Conclusions and strategic recommendations 13

Why businesses need flexible connectivity

Businesses today operate in a complex, global, and fast-changing environment where agility is no longer optional. To compete and grow, they need connectivity that can scale, transition, and adapt quickly. Traditional SIM cards, tied to specific networks and requiring physical swaps, limit that adaptability. eSIM technology changes the game by enabling seamless remote provisioning, simplifying management, and giving businesses the choice, control, and resilience required to stay ahead.

With connectivity that offers more agility and adaptability, businesses can manage and optimise how their devices connect across networks as technical, commercial, and regulatory conditions evolve. Rather than being tied to a single operator or region, organisations can maintain consistent, reliable access wherever they operate. Flexible connectivity goes beyond multi-network SIMs; it gives businesses the control to adapt in real time and maximise performance across their entire network footprint.

The three building blocks powering flexible connectivity

Flexible connectivity rests on three key pillars: coverage and technology, commercial flexibility, and connectivity management. Coverage and technology ensure devices work across geographies and generations, from 2G to 5G, LTE-M, and NB-IoT, while safeguarding against network sunsets. Commercial flexibility lets businesses align connectivity costs with needs through models such as subscription plans, usage-based pricing, or tiered contracts – driving efficiency and scalability. Connectivity management ties it all together, combining self-service tools with expert support and value-added services for the visibility, control, and agility needed to adapt as demands change. Crucially, SIM technology enabling network access and remote provisioning makes these pillars effective.

At the center of this is eSIM technology. Its ability to support multiple operator profiles and offer advanced remote management capabilities ensures the full potential of businesses' IoT deployments can be realised. Without an eSIM, none of these capabilities are nearly as effective, efficient, or scalable. eSIM is the essential bedrock that underpins effortless, flexible connectivity, enabling businesses to adapt and perform at the highest level.

The three building blocks powering flexible connectivity for IoT applications

Coverage and technology	Commercial flexibility	Connectivity management
Smart network technology selection for optimised coverage, energy efficiency and device longevity	Flexible models reduce IoT costs, support scaling globally, and enhance agility	Expert support and self-service tools to deploy, troubleshoot and scale IoT solutions

Coverage and technology provide seamless global access to multiple networks, with standards that adapt across geographies and generations from 2G to 5G, LTE-M, and NB-IoT. With eSIM at the core, businesses are better positioned to adapt to changes out of their control, such as network sunsets, coverage gaps, outages, and other limitations. Future-proofed, long-term deployments where manual SIM swaps and manual operator provisioning waste resources and drive up costs.

Commercial flexibility allows businesses to tailor connectivity to the specific needs of their IoT deployments, from seasonal demands to pre-pay or post-pay terms. Flexible pricing and payment models reduce costs, align spend with performance, and support efficient scaling. Companies can expand deployments, enter new territories, or outgrow a provider without disruption. By enabling rapid, compliant and affordable adjustments with a single provider, commercial flexibility accelerates time to market, allows businesses to adapt quickly, and ensures they can better serve their customers.

Connectivity management gives businesses control over their IoT operations, combining actionable insights with flexible tools and expert support. Whether through self-service platforms or a managed service partner, companies can deploy, troubleshoot, and scale their IoT solutions efficiently. This approach delivers real-time visibility, the ability to act on insights, and operational flexibility, ensuring support is available when it's needed. Having a partner who understands business needs and can respond quickly is critical to maintaining an adaptable management setup that keeps IoT operations running smoothly.

“The next wave of IoT growth will be defined by the ability to deliver connectivity that is effortless, borderless, and resilient. eSIM is the critical enabler of this transformation, allowing enterprises to provision and manage millions of devices across multiple networks and markets without friction, delivering truly flexible connectivity.” – Dave Weidner, CEO, Pelion

These three building blocks form the strategic foundation for flexible IoT connectivity, enabling devices to connect reliably across networks and regions, adapt as business needs evolve, and be managed with complete visibility and control, and is made more possible with eSIM technology, which transforms connectivity from a basic utility into a driver of growth, resilience, and competitive advantage through seamless provisioning, intelligent network switching, and simplified management.

What is eSIM?

eSIM, built on eUICC technology, removes the need for physical SIM cards by enabling remote provisioning and seamless switching between operators. This makes it particularly valuable in IoT deployments, where devices may be distributed globally and difficult to access physically. Beyond convenience, eSIM adoption is accelerating because it supports zero-touch provisioning and multi-operator connectivity, capabilities that are increasingly critical for enterprise and IoT ecosystems.

Not all eSIMs are equal: A deep dive into eSIM profiles

The rapid growth of eSIM is being driven by evolving GSMA specifications that ensure interoperability and scalability across different use cases. For example, SGP.02 underpins industrial M2M deployments, SGP.22 originally targeted consumer devices but now supports select IoT scenarios, and the newer SGP.32 is designed to deliver the global reach and flexibility required for large-scale IoT adoption. Together, these standards are positioning eSIM as the foundation for resilient, future-ready connectivity.

Comparison of the IoT, Consumer and M2M eSIM specifications

Feature	SGP.32 (IoT eSIM)	SGP.22 (Consumer eSIM)	SGP.02 (M2M eSIM)
Focus	IoT devices, scalable, long lifecycle	Smartphones, tablets, wearables	Industrial M2M deployments
Best For	Global fleets, asset tracking, healthcare IoT	Personal devices with operator switching	Industrial equipment, utilities
Provisioning	Remote, automated (lightweight protocols)	User-driven (QR code, app)	Operator-managed
Flexibility	Multi-operator, global, zero-touch	Flexible; user-driven	Limited, operator-controlled
Device Type	Low-power, constrained devices	High-power, always-on	Robust, fixed deployments
Examples	Cars, logistics, smart meters, healthcare	Phones, laptops, wearables	Heavy machinery, fleet tracking
Limitations	Overkill for static, single operator use	Not suited for headless IoT	Lacks global flexibility

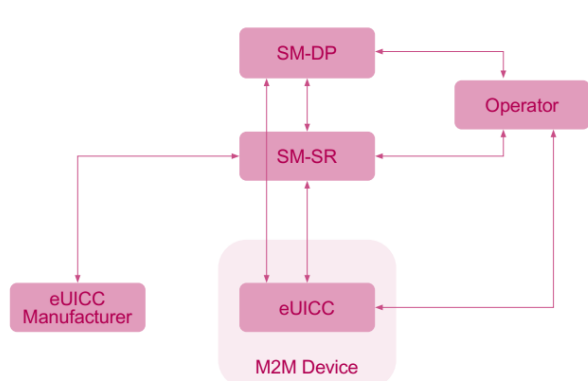
The evolution of eUICCs and remote SIM provisioning models

Commercial eUICC solutions are today available based on either of the two GSMA eSIM specifications M2M (SGP.02) and Consumer (SGP.22), published in 2013 and 2016 respectively. The eSIM M2M specification addresses user interface-constrained devices, where the profiles are managed remotely by the connectivity provider and not the end user. This operator-driven process ensures that profile downloads and switches can be performed without requiring user confirmation or physical access to the device. The two key components of the solution are the SM-DP and SM-SR. A challenge associated with the eSIM M2M specification is the requirement for complex bilateral integration processes between mobile operators, as secure links must be established between the SM-SR and SM-DP. The model is however highly resilient and widely adopted by mobile operators and IoT MVNOs.

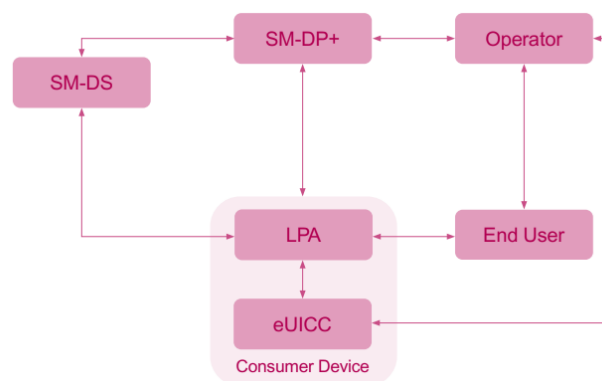
The eSIM Consumer specification addresses smartphones and other consumer devices, such as smartwatches and connected laptops, where the end user activates the profile download or switching of profiles. The consumer eSIM specification was developed after the M2M eSIM specification and incorporates learnings that make its architecture simpler. The solution introduced three new key components – SM-DP+, LPA and SM-DS – and offers a more streamlined and scalable approach as there is no need for pre-established links between the device and the SM-DP+. End users can for example use the device's settings menu or a dedicated app to add a new profile by scanning a QR code, receiving a push

notification or entering an activation code. While primarily aimed at consumer devices, the Consumer eSIM solutions are increasingly being used for IoT applications such as connected office equipment, smart home solutions, and personal healthcare devices, where direct end-user activation is feasible.

Simplified overview of the eSIM M2M and Consumer architectures SGP.02 and SGP.22



M2M (SGP.02)



Consumer (SGP.22)

eSIM: The strategic enabler of business agility and growth

The single eSIM is a core driver of business agility, working seamlessly across geographies, networks, and use cases. It simplifies logistics, accelerates deployments, and reduces operational costs, forming the foundation of flexible, future-ready connectivity. By transforming connectivity from a fixed utility into a strategic enabler, eSIM empowers businesses to scale globally, adapt quickly to changing requirements, and optimise connectivity strategies without friction.

Adopting eSIM helps organisations achieve multiple objectives simultaneously. It enhances efficiency by reducing the complexity of managing large device fleets, strengthens competitiveness through faster rollouts and accelerated time-to-market, and increases resilience as networks evolve and legacy technologies are phased out. Beyond connectivity, eSIM acts as a strategic asset, enabling businesses to optimise costs, align spend with performance, and unlock new opportunities across IoT, enterprise, and consumer applications. In an increasingly interconnected and competitive world, eSIM gives businesses the control, flexibility, and agility they need to thrive.

Why eSIM flexibility matters

Subscriber identity modules (SIMs) have evolved significantly over the past decades through miniaturisation and functional enhancements. The IoT market has special requirements on SIM solutions and has been an important driver behind the development

of technologies like eUICC and multi-IMSI. Standard, single IMSI SIM cards are typically non-programmable and associated with a single cellular subscription, presenting a multitude of supply chain complexities when sourcing SIMs from multiple mobile operators.

eUICCs, standardised by the GSMA, address many of the shortcomings of traditional SIMs by enabling over-the-air provisioning and management of cellular subscriptions without having to replace the physical SIM itself. This shift to eUICCs also streamlines device design as it allows for the use of embedded SIM form factors such as eSIMs and iSIMs. The term eUICC is commonly used interchangeably with eSIM and can be implemented in any form factor.

Multi-IMSI SIMs are based on proprietary technology and offer a different, but similar approach to subscriber identity management, enabling SIMs with multiple pre-loaded, interchangeable mobile subscriber identities. Multi-IMSI SIMs may either be configured to use a domestic network once deployed in their final destination or change network identity depending on location or coverage. The two models – eUICC and multi-IMSI – are not mutually exclusive and can be combined in hybrid configurations.

Comparison of single IMSI, multi-IMSI and eUICC SIM solutions

Feature	Single IMSI	Multi-IMSI	eUICC
Network flexibility	Single mobile operator's network and roaming agreements	Multiple pre-loaded IMSI profiles	Switching between new and pre-loaded mobile operator profiles
Profile switching	No profile switching	On-SIM IMSI switching	Remote profile management
Interoperability	Standardised	Proprietary	Standardised
Vendor lock-in	High	Medium	Low
Cost implications	Potential high roaming costs	Optimised for roaming scenarios	Long-term cost savings potential via local rates
Regulatory implications	Risk of non-compliance	Partial compliance via local IMSI profiles	Strong compliance via local mobile operator profiles
Ideal use cases	Static local deployments	IoT deployments with roaming	Global, dynamic IoT deployments

The adoption of consumer eSIMs in the consumer and enterprise markets has increased rapidly in recent years as most smartphone brands have launched eSIM devices. Uptake of M2M eSIMs has also grown at a steady pace. Most M2M eSIMs are implemented as single profile eSIMs with the added benefit that profiles can be switched later if needed. M2M eSIM solutions that involve profile switching, from the bootstrap profile to a commercial profile of

a given mobile operator or between commercial profiles of two different operators, are however widely used in connected car, smart metering and telematics applications to simplify logistics and localise connectivity.

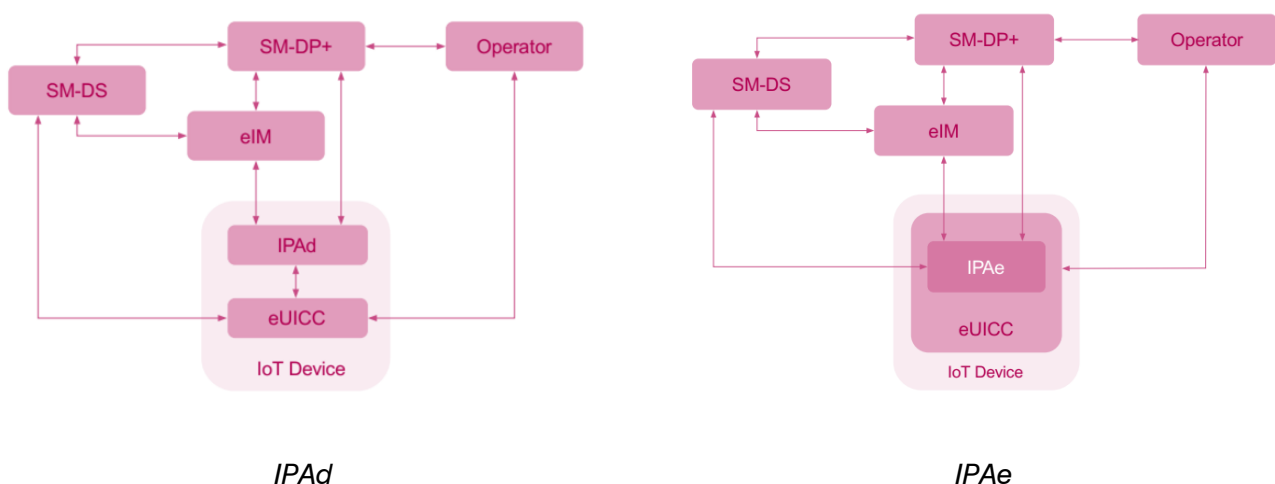
How the IoT eSIM specification SGP.32 builds on today's foundations

Addressing challenges related to the M2M specification, GSMA published the IoT eSIM specification, SGP.32, in 2023. The specification builds upon proven elements of both the consumer and M2M specifications to simplify the integration process for device makers and cellular IoT connectivity providers.

A key design principle for the development of the eSIM IoT specification was to leverage existing SM-DP+ systems in order to simplify and accelerate deployments. More than 300 mobile operators had deployed SM-DP+ systems to support consumer eSIM services at the end of 2024, which will be technically able to support IoT eSIM services. The eSIM IoT specification also added support for the CoAP and MQTT communications protocols for devices that cannot support SMS and HTTPS.

The eSIM IoT specification introduced the two new components eIM and IPA. The eIM is a standardised, remote provisioning tool that enables profiles to be downloaded and managed on IoT devices without the need for direct end user interaction. The eIM can communicate with any IoT device or SM-DP+, removing the need for complex individual integrations.

Simplified overview of the eSIM IoT architecture SGP.32



The IPA replaces the LPA in the Consumer specification and provides the functions that enable the eUICC to be remotely managed using the existing SM-DP+ platform infrastructure and eIM platform infrastructure. The IPA can either reside on the device (IPAd)

or the eUICC (IP Ae). Both the eIM and SM-DP+ are agnostic to either the IP Ad or IP Ae, allowing IoT device makers to select the most appropriate IP A option (IP Ad or IP Ae) based on their requirements and expertise.

Commercial eSIM solutions based on the SGP.32 specification are starting to become available as the first GSMA-certified IoT eSIMs were launched in mid-2025, though broader adoption is expected from 2026 and onward. The specification is designed to supersede the M2M specification SGP.02 over time rather than replacing the Consumer specification SGP.22, which will continue to serve consumer and enterprise use cases. Solutions based on SGP.32 and SGP.02 will however coexist for the foreseeable future, meaning that OEMs and enterprises must balance today's operational needs with a future migration path to SGP.32 as the ecosystem matures.

Staying connected across diverse radio access network types

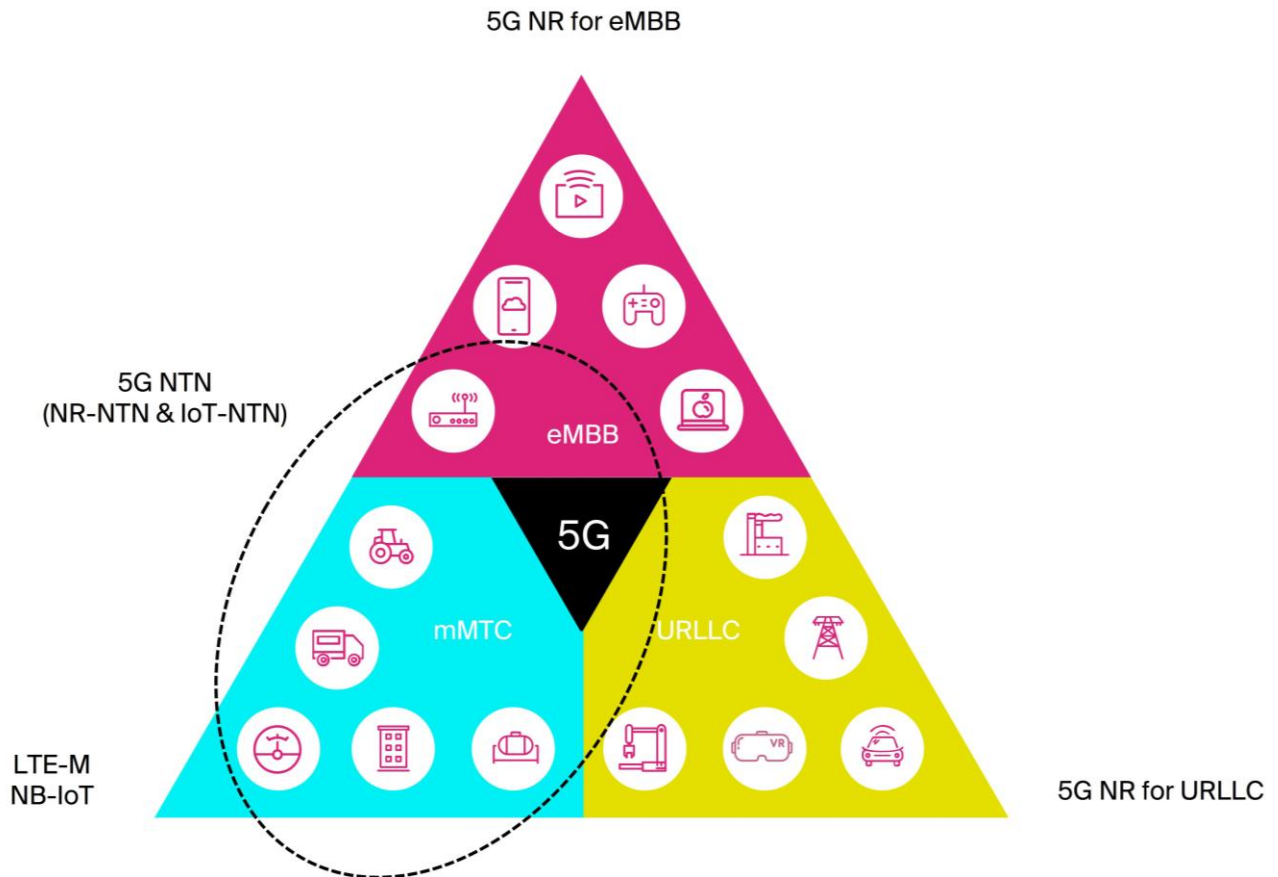
The cellular IoT technology landscape is continually evolving. For new designs, broadband 4G LTE and 5G today meet the requirements of demanding applications in automotive and other data-intensive application areas. Cost-optimised 4G LTE technologies similarly match the requirements of somewhat less demanding applications, especially if mobility is required. LTE-M and NB-IoT push the boundaries of cellular IoT to include battery-powered devices and a wider range of low-cost devices.

Established solution providers and device OEMs however often have large installed bases of devices operating on legacy 2G and 3G networks, which are now increasingly being shut down in many parts of the world to reallocate spectrum for use in 4G LTE and 5G services. Due to the high volumes of IoT devices connected to 2G networks, 3G networks are in some countries being shut down before the 2G networks. With network sunsets looming in an increasing number of countries, it is however essential for IoT solution providers to proactively plan migrations to future-proof technologies to avoid service disruptions.

Two key trends that are reshaping the cellular IoT connectivity landscape in the 5G era are private networks and the support for non-terrestrial networks (NTN). Advancements in cellular technology, along with the increasing availability of dedicated spectrum for industries, make it an increasingly attractive option for use in private networks.

Previously, organisations wanting to deploy a private wireless network were limited to Wi-Fi or land mobile radio (LMR) technologies that were either lacking wide coverage or broadband capabilities. Comparatively, private cellular networks based on LTE and 5G offer numerous benefits, including enhanced security, improved reliability, higher bandwidths, reduced latency, smooth handoffs for mobile applications and compatibility with public cellular networks for increased coverage.

Overview of 5G technologies from terrestrial to non-terrestrial network technologies



Non-terrestrial networks (NTN), including satellite networks, are at the same time being included in the 5G specification as part of 3GPP Release 17 and onwards. Previously, different types of hardware had to be used to connect devices to 3GPP terrestrial networks and satellite networks. Using 5G NTN, all cellular devices will be able to connect to both terrestrial and satellite networks, thereby eliminating the need for separate hardware.

5G NTN includes 5G NR-NTN and 5G IoT-NTN, each addressing different use cases. 5G NR-NTN is designed to complement terrestrial networks in underserved areas and offer data speeds from 1 to 10 Mbps, whereas 5G IoT-NTN expands the addressable market for IoT applications. So far, the 5G NTN market has started to establish itself with commercial services based on 5G IoT-NTN being offered by a number of satellite connectivity providers.

Pelion's IoT Connectivity Management Platform

Pelion's platform gives businesses full control over their IoT fleets across mobile, private, satellite, and Wi-Fi networks, all from a single interface. It simplifies eSIM management, enabling remote provisioning, seamless network switching, and centralised oversight. By

using a single provider with multi-network capabilities, companies streamline operations, centralise monitoring, and ensure consistent security and regulatory compliance. The result is simpler, more efficient, and more secure IoT connectivity that scales with business needs.

Who is leading the way in flexible connectivity for IoT?

Mobile network operators (MNOs) and mobile virtual network operators (MVNOs) are the principal providers of IoT connectivity services. MNOs hold spectrum licences and operate the radio networks needed for wireless services, typically on a national or regional scale. Due to the nature of their business, MNOs typically operate on a national or regional basis. MNOs can often provide IoT connectivity services at competitive rates, leveraging their network footprints and ability to negotiate favourable roaming agreements. Services are however typically delivered through single networks inside the MNOs' footprints, which can limit service flexibility and coverage.

Unlike MNOs, MVNOs do not own spectrum or radio access networks but purchase network capacity at wholesale rates from MNOs. A key differentiator for MVNOs is the ability to aggregate multiple radio access networks and thus provide superior area coverage and multi-domestic footprints on a single platform. As these players do not own and operate national radio access networks, they are becoming increasingly international, supporting customers in many parts of the world.

The capabilities of MNOs and IoT MVNOs can in many ways be considered complementary. MNOs focus on offering the best radio access networks within their footprints and often hold an advantage in negotiating roaming agreements due to the scale of their consumer traffic volumes.

MVNOs on the other hand can typically offer connectivity across multiple networks in any given country and often have more advanced localisation capabilities through IMSI and eSIM profile donor agreements. As a result, MVNOs tend to deliver greater flexibility and broader coverage for use cases that demand multi-network connectivity.

As the IoT connectivity matures, collaborations between MNOs and MVNOs are deepening, driven by a shared need to address increasingly complex deployment scenarios. The evolution of eUICCs and remote SIM provisioning technologies further strengthens this model by allowing devices to switch networks dynamically, ensuring compliance with local regulations and optimising performance.

Pelion's four core pillars of flexible IoT connectivity

In today's complex IoT landscape, enterprises need connectivity solutions that are not only scalable but also secure, reliable, and globally available. Pelion's approach to flexible IoT connectivity is built around four core pillars designed to meet these demands.

By combining advanced technology, deep industry expertise, and broad network access, Pelion delivers a comprehensive platform that empowers organisations to manage, secure, and optimise their IoT deployments anywhere in the world.

- **Reliability** – Pelion ensures consistent, uninterrupted connectivity through its resilient platform that supports multiple networks and technologies. Their centralised management system, the Pelion Portal, enables real-time monitoring and dynamic switching between networks, minimising downtime and maximising device uptime across global deployments.
- **Security** – Security is built into every layer of Pelion's solution. From secure SIM lifecycle management to encrypted communications and strict compliance protocols, Pelion protects IoT devices and data from emerging threats, ensuring trust and integrity across diverse environments.
- **Expertise** – Pelion brings deep industry knowledge and technical know-how to the table, helping customers navigate complex IoT connectivity challenges. Their experience delivers tailored solutions that accelerate deployment and reduce risk.
- **Global connectivity** – By partnering with Mobile Network Operators and MVNOs worldwide, Pelion offers broad multi-network coverage that spans borders and diverse radio technologies. This global reach enables seamless IoT connectivity for mobile, fixed, and cross-border use cases—meeting local requirements while simplifying management on a single platform.

By integrating reliability, security, expertise, and global connectivity, Pelion empowers enterprises to manage and scale IoT deployments confidently worldwide.

Case study: How Pelion powers Avanti West Coast's Onboard Wi-Fi

In a world where passengers expect seamless connectivity on the go, Avanti West Coast has made it a priority to provide reliable, high-speed Wi-Fi across its train fleet. With over 70 trains travelling through major UK cities, ensuring that passengers are always connected requires a robust, easy-to-manage connectivity solution. This is where Pelion stepped in, transforming Avanti's connectivity with its innovative approach to IoT and mobile network management.

Before collaborating with Pelion, Avanti West Coast struggled with managing a complicated SIM estate that connected their onboard Wi-Fi routers to 4G networks. They were juggling multiple network providers, each with its own billing systems and platforms, leading to inefficiencies and added resource requirements.

Abdul Qayoom, IT Service Manager at Avanti West Coast, explained, "We needed a solution to consolidate all our SIMs and contracts into one easy platform, offering reliable coverage and competitive pricing." With Pelion's support, Avanti's connectivity management became far simpler. The Pelion Portal enabled Avanti to easily monitor and adjust data usage, ensuring they could control costs effectively.

Pelion's IoT platform provided:

- Reliable 4G LTE connectivity across multiple networks, ensuring seamless onboard Wi-Fi
- Straightforward billing and high-usage data plans tailored to Avanti's needs.
- Easy-to-use management tools, offering full visibility into SIM usage and device status.

The implementation was rapid, with Pelion SIMs installed and tested within just one month, setting the stage for a more efficient and dependable connectivity solution. In addition to simplifying daily operations, Pelion SIM cards empowered Avanti's onboard systems, including EPOS, CCTV, and backend technology, with secure, reliable connectivity. This solution proved essential for a high-usage environment, where more than 70 TB of data is passed each month.

The partnership between Pelion and Avanti West Coast has transformed how the train operator delivers Wi-Fi connectivity. With plans to introduce 5G-powered onboard Wi-Fi and further extend their service coverage, Avanti is on track to revolutionise public transport connectivity. Together with Pelion, they're ready to lead the way in seamless, high-speed travel experiences for passengers across the UK.

Use cases that benefit from flexible connectivity

Use cases that significantly benefit from flexible connectivity can be divided into two main categories: use cases that require multi-network coverage and use cases that require compliance with local regulations such as permanent roaming restrictions. Multi-network connectivity is essential for mobile IoT applications such as vehicle telematics and asset tracking where devices move over large areas and across borders and must maintain continuous service. In these scenarios, flexible connectivity ensures that devices can dynamically switch between networks. Similarly, devices such as smart meters, healthcare devices and industrial equipment that are often installed in fixed locations benefit from the ability to access the network with the strongest available connection at the point of deployment.

International telecom regulations present a challenge for IoT devices operating across borders. Countries like Brazil and Turkey prohibit permanent roaming, while China, Egypt, India, Saudi Arabia and the UAE prohibit large-scale deployments of permanently roaming devices. Additionally, permanent roaming may be difficult in some countries due to commercial reasons. In these cases, flexible connectivity allows for the remote provisioning of local operator profiles, ensuring that devices comply with local regulations while remaining centrally managed through a single IoT connectivity management platform.

Conclusions and strategic recommendations

Flexible connectivity can be considered a strategic enabler for IoT solutions, enabling enterprises to dynamically manage and optimise connectivity based on evolving technical, commercial and regulatory conditions. The core pillars underpinning flexible connectivity are diverse radio access technologies, advanced SIM technologies and IoT connectivity management platforms (CMPs).

- The evolving cellular IoT technology landscape demands proactive strategic planning. With the sunset of legacy 2G and 3G networks, IoT adopters must prepare for migrations to ensure continuous service delivery. At the same time, 5G technologies and new network deployment models, including private networks and non-terrestrial networks (NTN), are expanding possible cellular IoT use cases into rural areas and industrial environments with high demands on bandwidth and low latency. While newer technologies provide several new capabilities, enterprises must focus on matching technologies with their real-world needs.
- Use cases that benefit from flexible connectivity encompass mobile and cross-border IoT applications that depend on multi-network access for continuous coverage, as well as deployments in fixed locations where the coverage of one

network can vary between sites. In countries where permanent roaming is prohibited, flexible connectivity allows for the remote provisioning of local operator profiles, ensuring that devices comply with local regulations.

- Available eSIM solutions based on the eSIM specifications M2M (SGP.02) and Consumer (SGP.22) already serve a wide range of IoT use cases and will continue to co-exist with solutions based on newer specifications. Despite the hype around the new IoT eSIM specification SGP.32, many OEMs and enterprises can meet coverage, compliance and lifecycle needs with available solutions.
- While the introduction of the new IoT eSIM specification SGP.32 represents a significant milestone for the cellular IoT ecosystem, adoption will be gradual as mobile operator back-ends, interconnects and profile catalogues mature. Once fully implemented by all relevant players, the specification will pave the way for more robust and flexible IoT connectivity services by enabling large-scale switching of profiles in response to various technical, commercial and regulatory requirements.
- Centralised IoT CMPs are essential to managing global SIM fleets efficiently, providing SIM lifecycle management, multi-network access and single-pane-of-glass management capabilities. These platforms simplify integrations, reduce operational costs, and support automation of business processes.

Appendix: Checklist for evaluating IoT connectivity providers

Network coverage and availability	Does the provider offer global, regional, or multi-network coverage? Can it switch between networks (multi-IMSI, eUICC, roaming) to maintain uptime?
Technology compatibility	Is the connectivity solution compatible with 2G/3G/4G/5G and LTE-M/NB-IoT? Will it support VoLTE for voice-enabled devices? Does it work with your current and future device hardware?
IoT SIM and eSIM flexibility	Are eSIMs available for over-the-air profile updates? Can you deploy one SIM for multiple regions or carriers?
Scalability and lifecycle management	Can the platform scale from a few devices to thousands easily? Is there centralised SIM/device lifecycle management?
Data and voice support	Does the service support data, SMS, and VoLTE voice services as needed? Can voice and data operate simultaneously and reliably?
Security and compliance	Is connectivity encrypted and compliant with GDPR, or other relevant standards? Are private APNs or VPNs available for secure data transfer?
Platform and API access	Is there an intuitive connectivity management portal? Are APIs available for integration into your systems or dashboards?
Pricing and flexibility	Are there transparent pricing models (e.g., pooled data, pay-as-you-go)? Can you adjust plans or suspend/resume services based on usage?
Support and reliability	Is 24/7 technical support and troubleshooting available? Are SLAs in place for uptime and service quality?
Futureproofing	Will the provider support network sunsets and migrations? Are firmware updates and future network rollouts supported?



Berg Insight is an independent industry analyst and consulting firm, providing research, analysis and consulting services to clients in the areas of IoT and digital technologies. Our analysts possess deep expertise in major IoT verticals such as fleet management, automotive telematics, smart metering, smart homes, mHealth and connected industry. Founded in 2004, we operate on a global basis from our head office in Sweden.

Our clients include many of the world's largest mobile operators, vehicle OEMs, fleet management solution providers, wireless device vendors, content providers, investment firms and venture capitalists, IT companies, technology start-ups and specialist consultants. We have provided analytical services to 1,500 clients in 72 countries to date.

If you have any questions about our market report subscriptions and advisory services or simply want to understand how Berg Insight can help you, don't hesitate to contact us at info@berginsight.com.

© 2025 Berg Insight AB. All rights reserved. Berg Insight is an independent producer of market analysis. This Berg Insight product is the result of research by Berg Insight staff. The opinions of Berg Insight and its analysts on any subject are continuously revised based on the most current data available. The information contained herein has been obtained from sources believed to be reliable. Berg Insight disclaims all warranties, express or implied, with respect to this research, including any warranties of merchantability or fitness for a particular purpose.