Pelion

Connectivity Solutions

A guide to Pelion's IoT SIMs, network technologies, coverage, and roaming options

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CONNECTIVITY

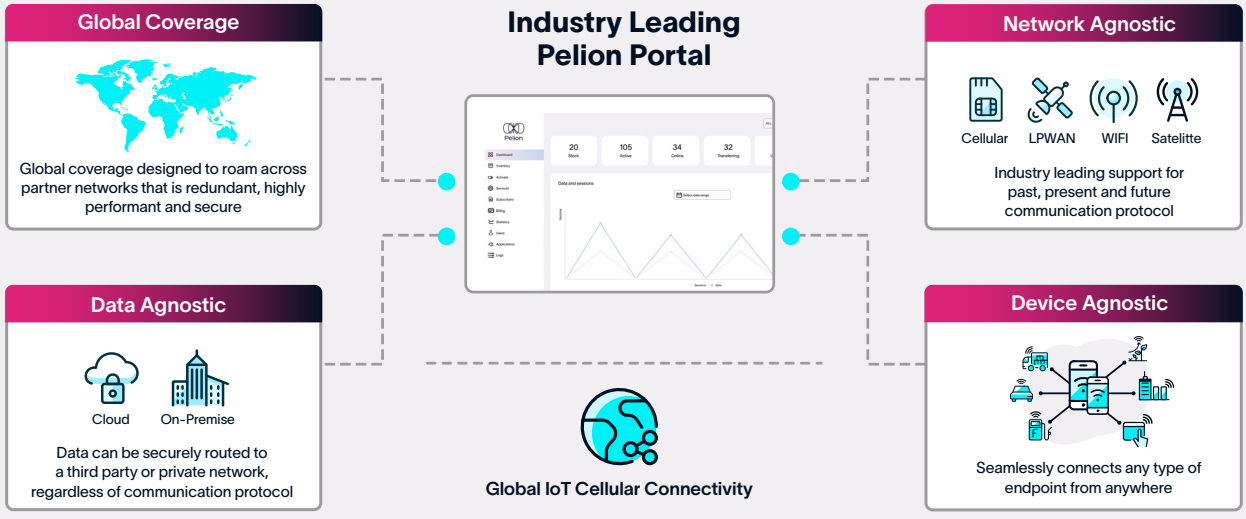
Your IoT, Your Rules

Pelion's connectivity solutions provide end-to-end flexibility for IoT deployments of any scale – from industrial-grade eUICC to next-generation Consumer eSIM for IoT.

Built on a globally managed, multi-network platform with access to 600+ networks in over 150 countries, we ensure your devices stay connected reliably and securely – anytime, anywhere.

You can remotely manage operator profiles, switch networks dynamically, and future-proof your deployments against carrier lock-in.

Leveraging the latest GSMA standards and deep security integration, the Pelion Portal offers a single, intelligent solution to deploy, manage and scale your connected devices with confidence, whether for small-scale pilots or enterprise-grade rollouts.



Seamless Integration with APIs & Existing Tech

Fully Managed Global Connectivity

Integrated End-to-End Connectivity IoT

Scalable Network

Multi-Network SIMs

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IoT SIMs & eSIMs

Meet the Pelion SIMs

At Pelion, we make it easy to keep your devices connected – both now and in the future. Pelion provides eUICC-enabled SIMs in a range of form factors and profile types to fit right into your IoT plans.

Our SIMs are built with future-readiness in mind, supporting the latest SIM standards (including SGP.02, SGP.22, and SGP.32) so you can update and manage connectivity without ever needing to swap a card.

Choosing connectivity with Pelion gives you the freedom to grow, adapt, and stay connected with confidence.

Global connectivity:

You get access to over 600 networks across 150+ countries, so your devices stay connected wherever they go.

Multi-carrier support:

Your devices can automatically switch between networks to keep signals strong and connections resilient.

Effortless management:

You can manage all your SIMs in one place through the Pelion Portal - from remote provisioning to monitoring usage and controlling costs.

High reliability:

With a 99.995% uptime, you can count on dependable connectivity.

Flexible IoT data plans:

Pelion Plans are designed specifically for IoT, not just repurposed consumer models, so they fit your deployment needs perfectly.

eUICC-enabled:

Store multiple network profiles on one chip and switch carriers without ever swapping SIMs.

Enterprise-grade security:

Get enterprise-grade security for your devices, with over-the-air updates that keep your fleet resilient, compliant, and connected – without ever touching the device.

Supports all major network technologies:

5G, 4G, LTE Cat-1 BIS, Cat-M, NB-IoT, 2G and 3G.

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GSMA STANDARDS

A SIM to Suit All Standards

Pelion ensures full compliance with GSMA SGP.02, SGP.22, and SGP.32 standards, supporting all forms of remote SIM provisioning for M2M, consumer, and IoT applications.

Standard	Focus	Pelion Application	Key Benefits
SGP.02 (M2M)	Remote provisioning for machine-to-machine communication	Industrial IoT and infrastructure	Long-term, unattended connectivity management
SGP.22 (Consumer)	On-device profile download and management	Smartphones, wearables, POS, enterprise IT	Digital provisioning, QR activation, end-user flexibility
SGP.32 (IoT)	Lightweight, unified eSIM framework for IoT	Next-generation IoT and Consumer eSIM for IoT	Simplified API integration and scalable management

CONSUMER ESIM FOR IOT

No SIM Slot? No Problem.

Connect your devices anywhere, instantly, and securely – no physical SIM cards required.

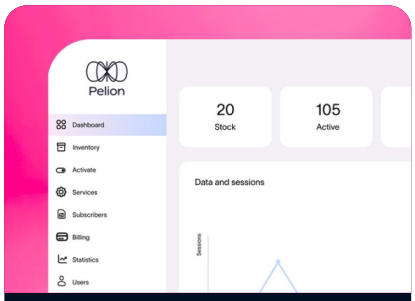
Pelion's Consumer eSIM for IoT lets you connect eSIM-only devices to Pelion's global connectivity platform with ease.

Whether you're deploying consumer-grade tablets and PCs, wearables, or connected hardware, you can provision, monitor, and manage connectivity without needing physical SIM cards – reducing deployment time, lowering operational risk, avoiding outages, and scaling your solution globally.

01

Instant Digital Provisioning

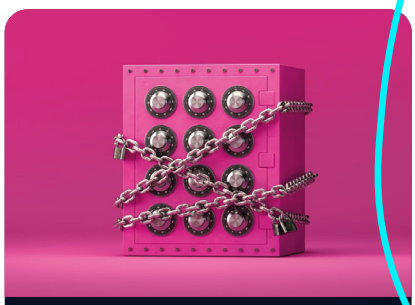
Activate consumer eSIMs digitally with QR codes, bulk uploads, or MDM integration. Remove physical SIM handling, accelerate deployment, and scale connectivity across thousands of devices.



02

Centralized Management and Visibility

Manage eSIMs alongside your entire SIM estate in the Pelion Portal. Monitor device status and usage, and remotely control connectivity across all eSIM-enabled devices from a single platform.



03

Embedded Security and Reliability

Embedded, non-removable eSIMs reduce the risk of tampering compared to physical SIMs. Backed by Pelion's enterprise-grade connectivity infrastructure, devices benefit from high availability, resilient routing, and global coverage.

How It Works

Get connected with Consumer eSIM for IoT in 3 steps:

01 **Select your preferred operator profile**
Get reliably connected locally and globally to the best carrier signal across 600+ networks.

02 **Choose your activation method**
Scan QR codes, export CSVs of activation codes or integrate via APIs with your MDM systems.

03 **See your SIMs in the Pelion Portal**
Get everything you need to stay on top of your SIM activity straight from the Pelion Portal.

SIM TYPES & FORM FACTORS

Find Your Fit

Pelion offers a wide range of SIM options to suit all kinds of IoT setups:

SIM Type	Form Factor	Dimensions (mm)	Mounting/ Integration	Typical Use Cases	Notes for IoT Deployments
Mini SIM (2FF)	**Plug-in card**	25 × 15 × 0.76	Removable	Legacy M2M devices, early IoT gateways	Large size, less suited for compact or rugged IoT hardware
Micro SIM (3FF)	**Plug-in card**	15 × 12 × 0.76	Removable	Consumer IoT, smart devices	Smaller footprint but still removable; risk of vibration or tampering
Nano SIM (4FF)	**Plug-in card**	12.3 × 8.8 × 0.67	Removable	Wearables, connected sensors	Most compact removable SIM; limited ruggedness for industrial IoT
Nano SIM (4FF)	**Soldered chip**	6 × 5 × <1	Removable	Industrial IoT, automotive, smart meters	Rugged, tamper-resistant; supports remote provisioning (GSMA eUICC standard)

Note: All form factors are eligible for eSIM

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NETWORK TECHNOLOGIES

Power Your IoT Anywhere

Pelion connectivity is built to handle all kinds of IoT needs, with support for:

5G
for high-speed, high-bandwidth applications

4G/LTE
for mainstream, global IoT deployments

LTE-M (Cat M1)
for low-power, mobile IoT devices

NB-IoT
for deep indoor or rural sensor coverage

2G/3G*
fallback for legacy devices and extended reach

That means your devices stay connected and perform smoothly, no matter how networks change.

Technology	Typical Use Case(s)	Key Strengths	Considerations
5G	Highspeed, high bandwidth IoT (e.g., HD video streaming, real-time analytics, AR/VR in IoT, autonomous systems	• Very high data rates & bandwidth (5G is designed to deliver many times the throughput of 4G) • Low latency, supports real-time applications • Futureproof for next generation use cases	• Higher power consumption / module cost • Network rollout may be uneven globally • Overkill for very simple sensor devices
4G/LTE	Mainstream IoT deployments requiring moderate data, global reach (e.g., mobile tracking, field devices, standard telemetry)	• Widely available globally • Good performance & mobility • Mature ecosystem (modules/ devices/support)	• More power consumption than low-power alternatives • Might be more expensive (per device) for ultrasimple deployments • May not suffice for ultra high bandwidth / ultralow latency needs
LTE-M (Cat M1)	Low power mobile IoT devices (e.g., wearables, asset trackers that move, devices needing moderate data and global roaming	• Lower power consumption than standard LTE • Good support for mobility (moving devices) • Better coverage than legacy inbuilding or rural than standard LTE in many cases	• Lower throughput compared to 4G/5G • Network availability may vary by region • Not as “ultralow power” as NB-IoT in static use cases

Technology	Typical Use Case(s)	Key Strengths	Considerations
NB-IoT (Narrowband IoT)	Static sensors, deep indoor or rural coverage (e.g., utility meters, environmental sensors, long lifetime battery devices	• Very low power consumption potential – long battery life • Excellent deep indoor / rural coverage for sensors	• Very limited data throughput (not suitable for video, large data transfers) • Mobility (moving devices) is not well supported • Where NB-IoT network not deployed, device choices may be limited
2G / 3G Fallback*	Legacy devices, extended reach in areas where newer networks may not yet be available, low cost/long life deployments	• Provides extended coverage & reach in legacy infrastructures • Useful for very long lifecycle products still in field	• Many operators are phasing out 2G/3G networks (so risk of obsolescence) • Very limited in data speed, capability • Not optimal for newer IoT use cases requiring better performance

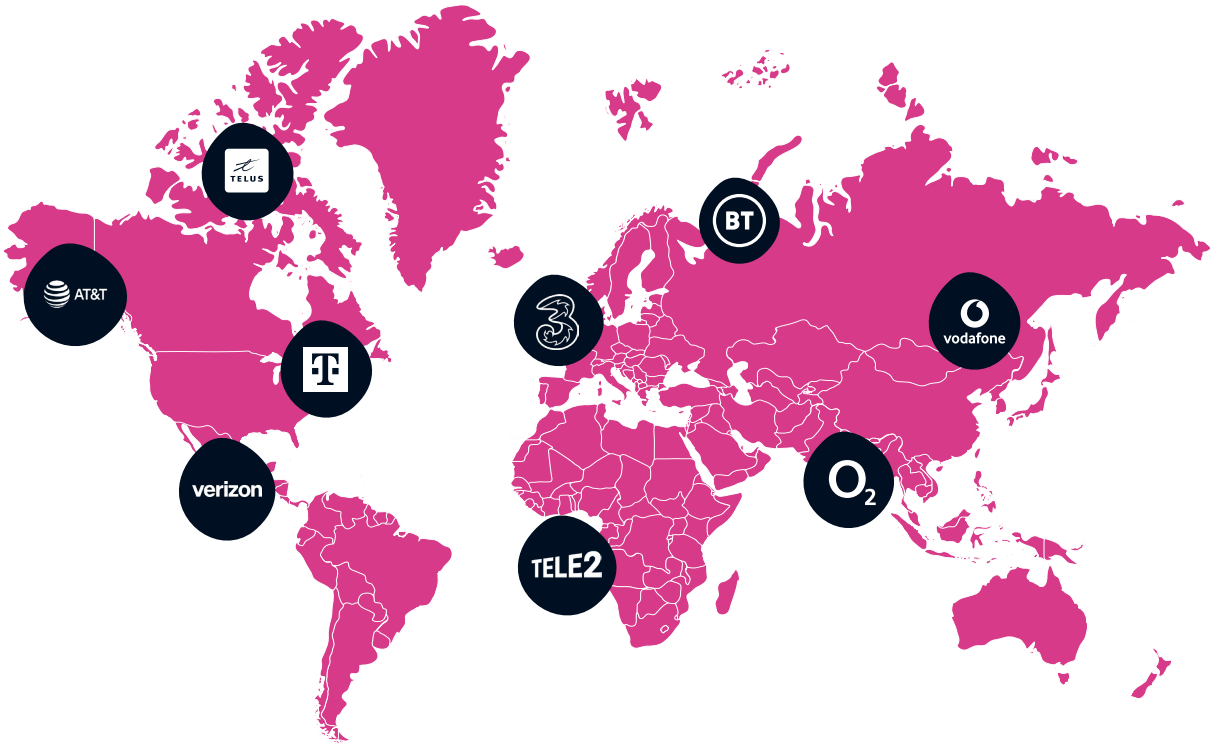
* **Please be aware of sunsetting dates for both 2G and 3G. You can check the dates here.**

COVERAGE & ROAMING

One IoT SIM Global Coverage

With access to over 600 networks in more than 150 countries, Pelion keeps your devices connected almost anywhere

Smart roaming agreements make sure your devices automatically latch onto the best available network, so there's no need to set anything up manually.



Scale Effortlessly With Global Carrier Access

A single APN that connects to any network - without the faff.

Roam & deploy devices across borders without the worry of bill shock or regulatory requirements.

eUICC SIMs that support OTA updates and futureproof your business - scale without worry.

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One SIM
All UK Networks

No more outages, coverage gaps or inflexible plans.

Stay connected on every UK network, plus hundreds more worldwide, with Pelion's multi-network IoT SIMs.

Without Pelion

- × Network lock in - limited coverage
- × Juggling multiple contracts
- × Manual SIM provisioning
- × Limited visibility and control
- × Generic support
- × Fixed plans, not fit for IoT
- × Limited scalability

With Pelion

- ✓ eUICC enabled multi-network IoT SIMs
- ✓ One provider, one contract
- ✓ Over-the-air SIM updates
- ✓ Full visibility, control & actionable insights
- ✓ IoT specialists with deep deployment expertise
- ✓ Flexible pooled data plans & pricing
- ✓ One portal to manage all your SIMs

A single Pelion IoT SIM engineered for business and mission-critical UK deployments.

Delivering seamless, multi-network connectivity across all major UK carriers with unrivalled reliability.

- Supports 3G, 4G, 5G, LTE-M, or NB-IoT connectivity
- Mini SIM (2FF), Micro SIM (3FF), and Nano SIM (4FF)
- Commercial and industrial ready SIMs

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Flexible IoT data plans and pricing

Get full control and the freedom to choose the best networks, pricing, terms and data plans that fit your business even as your needs change.

High performance, 99.995% uptime

High performant, resilient connectivity. Access the best networks, avoid outages and keep your business operating without disruption, reputation or revenue loss.

Global coverage, multi-network SIMs

Our IoT SIMs offer the flexibility & global coverage you need. Switch carriers and future-proof deployments without the need for physical SIM swaps.

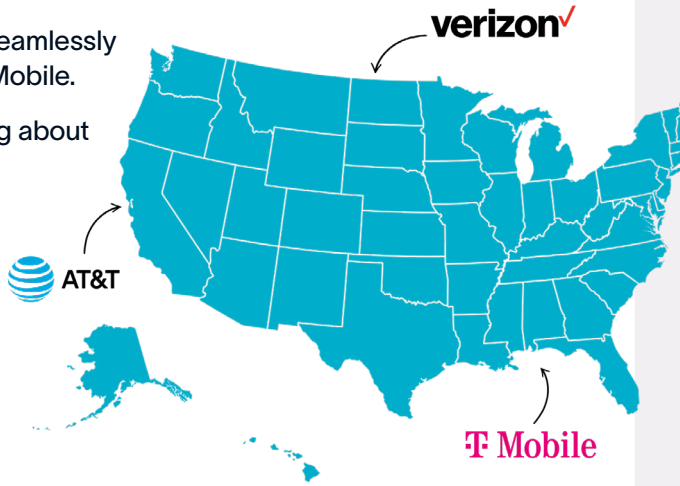
Coast-to-Coast Coverage in North America

Pelion's innovative IoT SIM card transforms connectivity by seamlessly accessing all three major US carriers - AT&T, Verizon, and T-Mobile.

Forget the hassle of managing multiple SIM cards or worrying about coverage gaps.

Pelion's multi-network SIM ensures reliable, industry-leading coverage from coast to coast.

- Supports 2G, 3G, 4G, 5G, LTE-M, or NB-IoT connectivity
- 99.995% uptime
- Mini SIM (2FF), Micro SIM (3FF), and Nano SIM (4FF)
- Three carriers, one APN



Multi-Carrier Connectivity

Seamless access to AT&T, Verizon, and T-Mobile, replacing multiple cards and coverage gaps with a single SIM and APN for connectivity. With access to 600+ networks globally.

Carrier Resilience

If one carrier experiences an outage or signal drops, your devices will automatically switch to another available network with stronger coverage.

Effortless Setup

Insert a Pelion SIM into your device(s), setup the APN settings and manage everything via the Pelion Portal.

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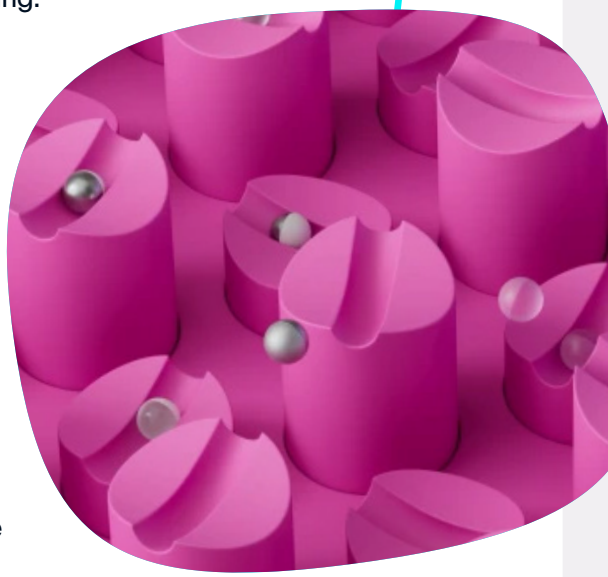
Click here to check out our Coverage Checker

SIM Provisioning & Lifecycle Managment

Pelion provides complete SIM lifecycle management through our Pelion Portal and API, giving customers full control from activation to decommissioning.



Key capabilities include:

- **Activation & Deployment:** Instant or bulk activation with automated provisioning for efficient rollout.
- **Usage Monitoring:** Real-time visibility into data usage, network performance, and associated costs.
- **Policy Management:** Set thresholds, alerts, and automated actions to enforce operational policies.
- **Suspension / Reactivation:** Dynamically manage device connectivity based on operational requirements.
- **Decommissioning:** Retire your SIMs securely, to prevent misuse and optimize costs.

All functions are accessible through Pelion's intuitive web interface or programmatically via API, enabling seamless integration and efficient management across large-scale IoT deployments.

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Pricing to Suit Your Business & IoT Use Case

With Pelion, pricing works around your business. You can pick a Pelion Plan or build your own bundle to suit your needs, with scalable pricing designed to grow with you.

Plan	Ideal For	Key Features
Essential	Small-scale or early-stage IoT deployments	Core connectivity, web portal access, global coverage
Professional	Growing businesses with mixed device fleets	API access, advanced analytics, multi-carrier management
Enterprise	Large-scale or mission-critical operations	Dedicated support, custom SLAs, private APN, tailored data bundles

OYSTA

"We partnered with Pelion because nobody else could provide the solution we needed: a SIM that was able to roam across networks and provide seamless connectivity."

Mario Zuccaro, Founder and CEO, Oysta

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GETTING STARTED

Configuring Your Connectivity

STEP 1

Log into the Pelion Portal

If you haven't logged in before, the first thing to do is register your account.

The registered account holder should have received a welcome email containing your login credentials when you signed up.

Once you have your login details, go to the portal launchpad and log in with your username and password.

STEP 2

Activate your Pelion IoT SIM

For security, your Pelion IoT SIM has been shipped to you in a pre-activated state.

To use it on the Pelion network, you'll need to activate the SIM and initiate the subscription.

Go to Activate in the left navigation and follow the instructions below:

- Choose your SIMs from your inventory list
- Select a rate plan from the available options
- Click "Next" to complete activation

STEP 3

Configure your device

After activating your SIM, install it in your device and configure the APN settings to connect to the Pelion data network. Configuration steps may vary by device, so refer to the manufacturer's instructions if required.

Place SIM in device
Punch out the SIM to the correct size, insert it into the device's SIM tray, and power on the device.

Configure APN
Log in to the Pelion Portal, navigate to Subscribers, select the relevant SIM, and open the Networks tab to find the APN name, username, and password.

Set security
Select PAP or CHAP as the security method. Do not choose no security.

Order Today Dispatched Fast

We make getting connected quick and effortless.

Place a SIM order through the Pelion Portal before 2pm and it gets shipped the same day.

If you place an order after 2pm, it will be sent the next working day.

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Contact us today or visit our website

hello@pelion.com | Pelion.com