

An aerial night view of a city, showing a complex highway interchange with multiple overpasses and ramps. The city buildings are illuminated with lights, and the overall scene is dominated by a blue and purple color palette. The text is overlaid on the left side of the image.

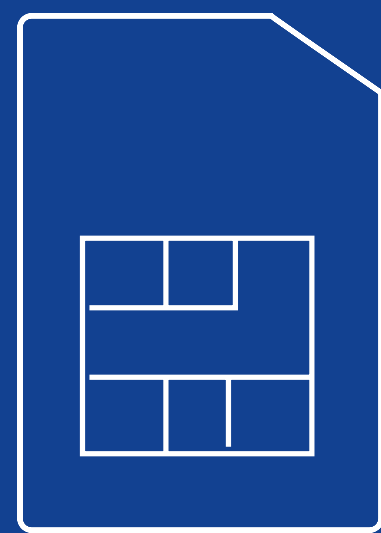
# Unlock new opportunities for digital identity with seamless eSIM and iSIM management

Nokia iSIM Secure Connect

**NOKIA**

New kinds of digital interactions enabled by the internet of things (IoT) will change how people relate to their devices and navigate the world. But first communications service providers (CSPs) and enterprises need a secure way to set up seamless connectivity – with automated onboarding, management and offboarding of cellular subscription profiles.

Embedded and integrated subscriber identity module (eSIM/iSIM) technologies are part of the solution, providing the necessary root of trust. The question is how to manage those SIMs. Nokia iSIM Secure Connect provides all the secure management capabilities CSPs and enterprises require.



**Mini SIM**  
25x15mm, 1996



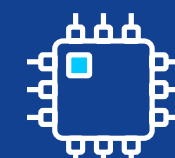
**Micro SIM**  
15x12mm, 2003



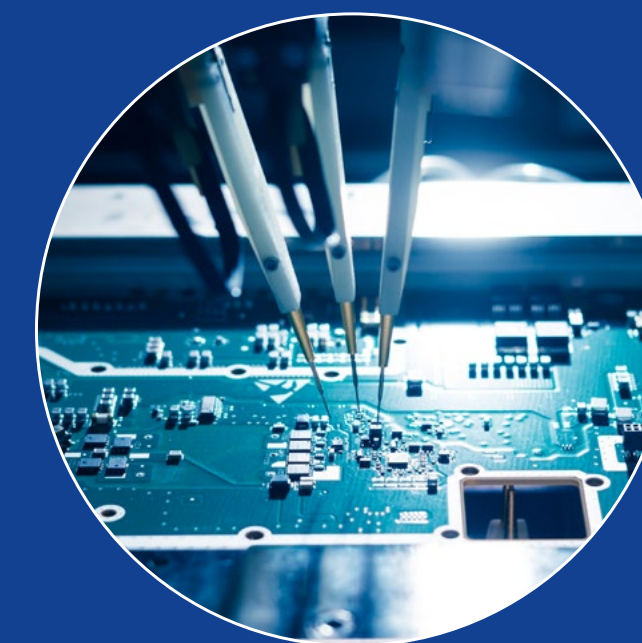
**Nano SIM**  
12.3x8.8mm, 2012



**eSIM**  
6x5mm, 2016



**iSIM**  
Fraction of mm<sup>2</sup>



SIM

eSIM

iSIM

# Keeping digital identities secure as the IoT and number of mobile devices grow

The internet of things isn't just about "things". It's also about people interacting with things in seamless ways that simplify their lives.

Those interactions are only going to multiply in the years to come. By 2025, nearly 31 billion devices will be connected to the IoT — everything from blood sugar monitors to shipping labels. In the next few years, more than 3 billion people will likely use digital mobile credentials as their primary form of identification.

This requires devices and services that can quickly and securely authenticate themselves so they can be authorized to exchange data smoothly. SIM technology is the best solution to make that happen — but only if it can be efficiently and flexibly deployed and managed at scale. That's not the case with traditional SIM cards that have to be manually formatted, shipped and installed. But it is possible with next-generation eSIM and iSIM.

To capitalize on the opportunities afforded by these technologies, CSPs and enterprises need a reliable, flexible, cost-effective and highly scalable way to manage eSIM and iSIM subscriptions remotely across multiple vendors, networks and device types.

## Security and identity management are indispensable

Document fraud is a **major engine of organized crime**.<sup>1</sup>

IoT device infection is rising and now accounts for **one-third** of all infections.<sup>2</sup>

With more and more devices joining the IoT (including nearly all cellular smart watches and vehicles by 2025)<sup>3</sup>, **keeping identity and personal information secure** is more critical than ever.

<sup>1</sup> [Europol](#)

<sup>2</sup> [Nokia Threat Intelligence Report](#)

<sup>3</sup> [Counterpoint Research](#)





Faster service creation  
and better differentiation  
with flexible eSIM and iSIM  
lifecycle management

# Manage massive numbers of consumer and M2M subscriptions securely in real time

eSIM and iSIM are key to the emerging IoT ecosystem, able to serve as roots of trust for a vast range of applications.

They can store and manage multiple subscription profiles for remote provisioning and activation to deliver full service right out of the box.

Nokia iSIM Secure Connect is a seamless eSIM and iSIM management software that lets you flexibly handle consumer and machine-to-machine (M2M) device subscriptions. It's a multi-tenant, cloud-ready software that enables:

- **Subscription lifecycle management for any device**

iSIM Secure Connect lets you manage the whole lifecycle of eSIM and iSIM subscriptions in both consumer and M2M use cases — all done remotely and fast.

- **Extreme scalability**

From one device to billions of connections, our highly scalable solution ensures you're ready to support massive IoT networks with ease.

- **Smooth integration and interoperability**

iSIM Secure Connect provides seamless integration with core networks, business support systems and back-office systems to enhance operational efficiency and interoperability.

- **Multi-vendor compatibility**

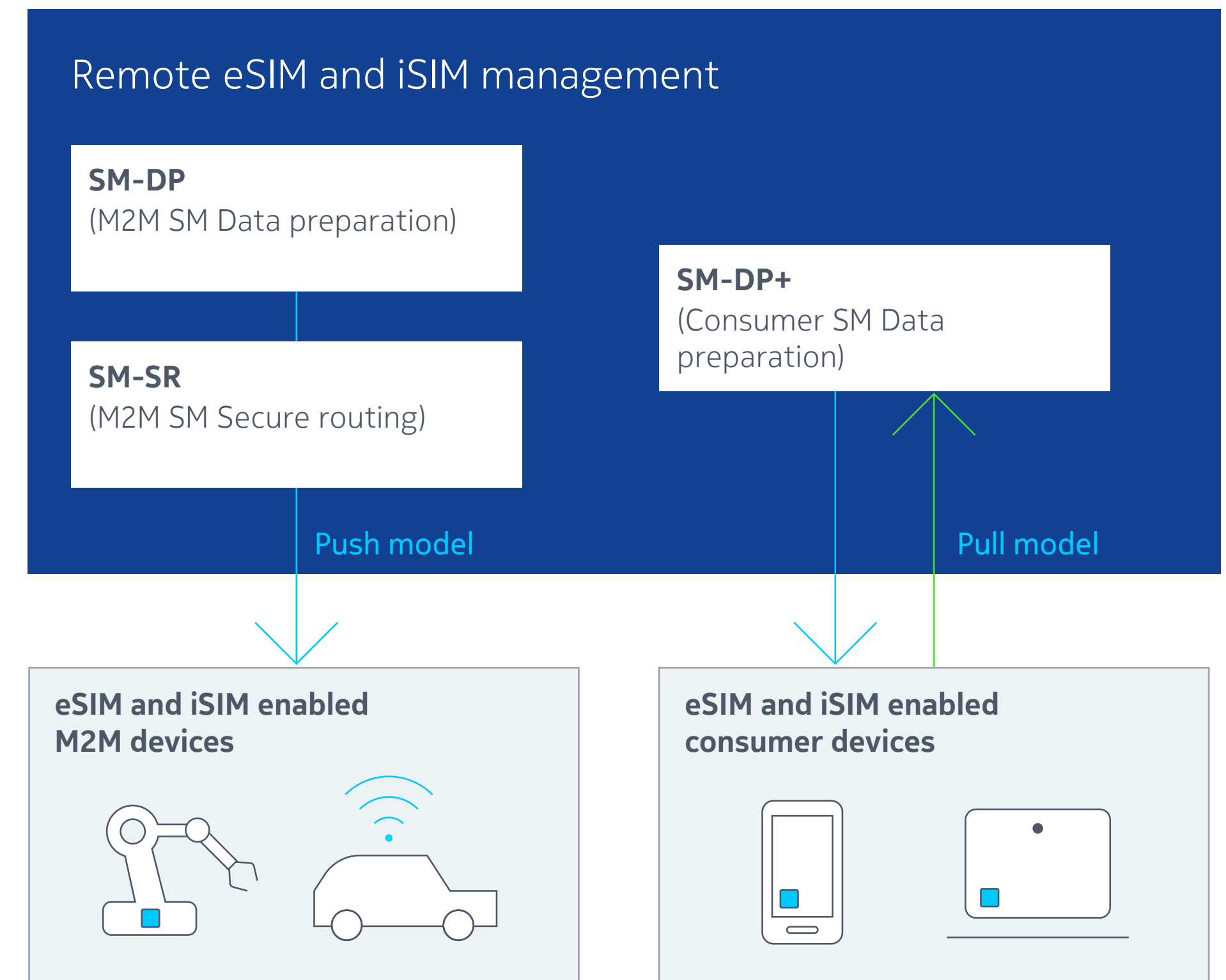
Our solution will allow you to work with eSIM and future iSIM technologies from all vendors.

- **GSMA and security compliance**

iSIM Secure Connect meets all GSMA specifications and security requirements for consumer and M2M applications.

- **Growth without compromise**

This future-proof solution will help you expand your customer base with new IoT services and support massive IoT, without risk to your network integrity.



# Transform the IoT landscape

The scalability, flexibility and cost-effectiveness of iSIM are poised to transform the telecom industry, eliminating dependence on SIM vendors and creating opportunities for CSPs to provide authentication services to any organization that relies on secure data transfer.

iSIM also supports new 5G slicing use cases across massive global networks at a lower cost, which stands to drive exponential growth and reshape the IoT landscape.

## Nokia iSIM Secure Connect is the right solution for:

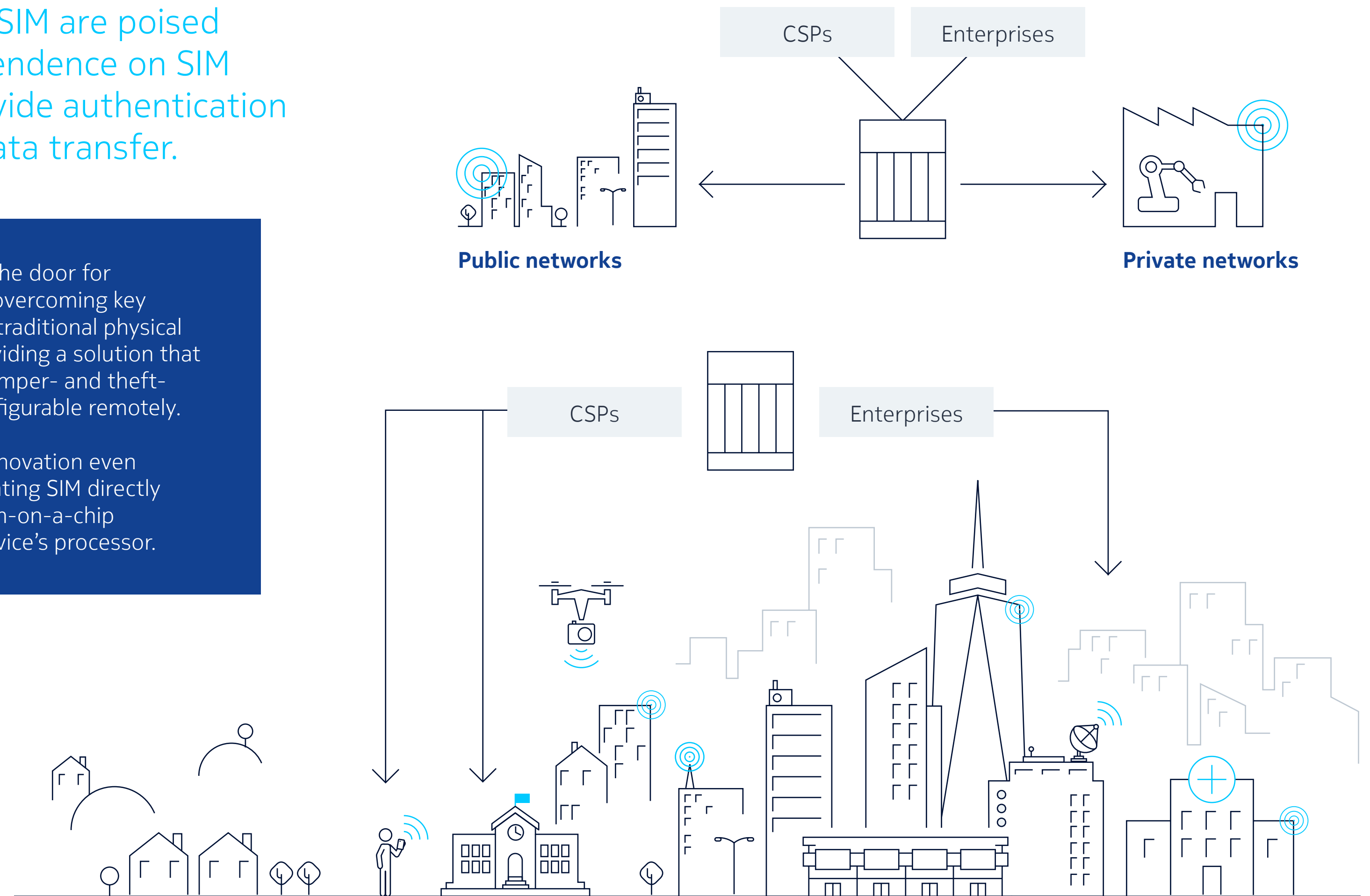
- Mobile network operators and mobile virtual network operators that want to launch new IoT services faster, offer subscription management as-a-service to their enterprise customers, improve operational efficiency with automated subscription management and scale for massive IoT.
- Enterprises that want to have better visibility and control over their own devices' subscriptions, require simple set-up and customer interaction processes, or aim to shift from one-off client transactions to ongoing engagement through all-in offerings including connectivity.

Nokia iSIM Secure Connect supports various business and operating models in a range of environments, from private industrial networks to public mobile networks.

**eSIM** opened the door for IoT uptake by overcoming key constraints of traditional physical SIM cards, providing a solution that was smaller, tamper- and theft-proof, and configurable remotely.

**iSIM** pushes innovation even further, integrating SIM directly into the system-on-a-chip alongside a device's processor.

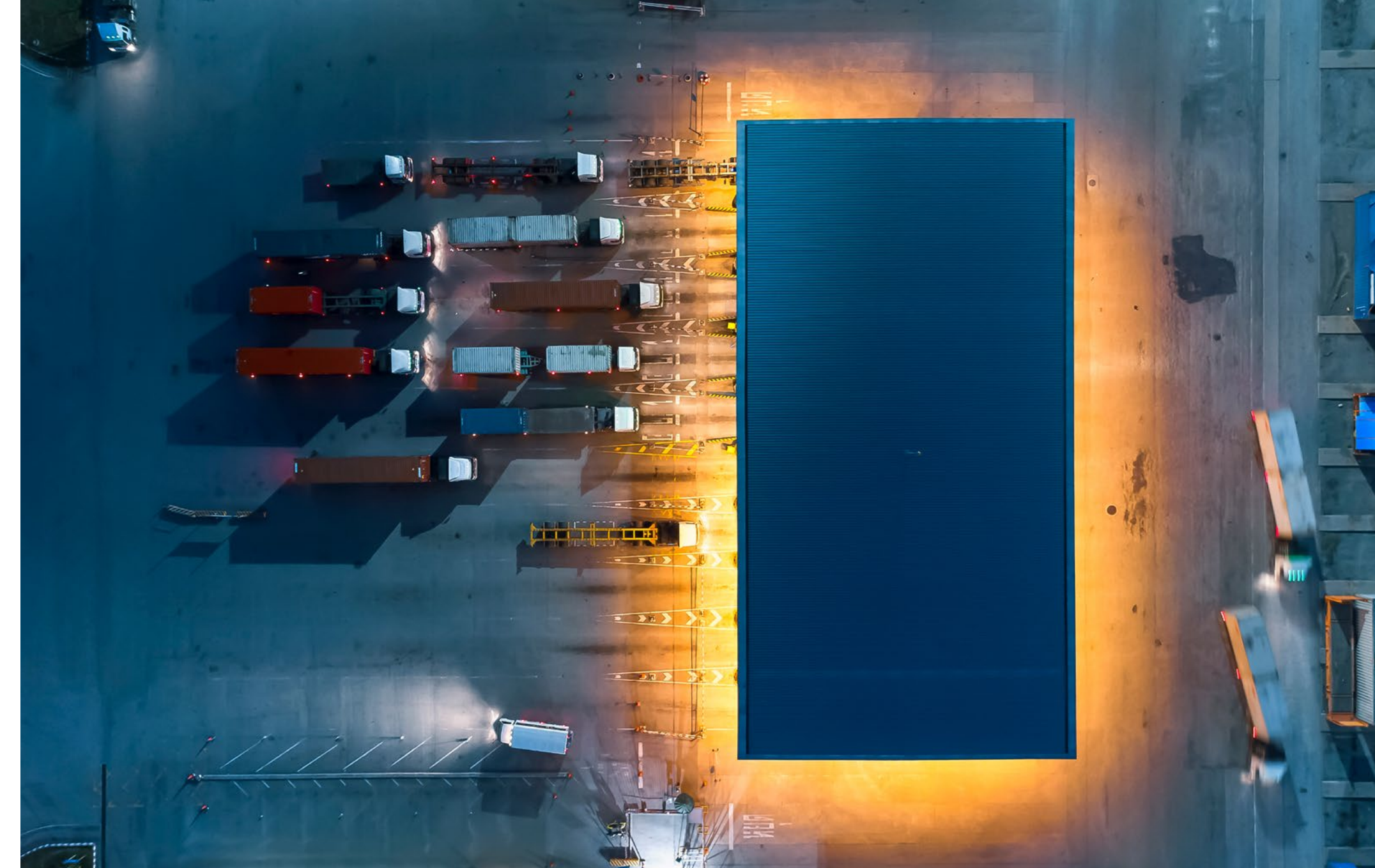
## Business models enabled by Nokia iSIM Secure Connect



## One M2M use case: secure high-value asset distribution

### Precision is everything in the shipping and logistics business.

With iSIM technology, distribution companies have the opportunity to achieve next-level accuracy by encoding every individual order in a shipment with its own “user device subscription profile”. Using iSIM Secure Connect, shipments can be tracked, provisioned and updated across any network in the world, eliminating the need to physically swap SIM cards or set up expensive roaming contracts across jurisdictions. This gives enterprises greater control and efficiency, and significantly reduces the risk of tracking interruption caused by physical SIM tampering, loss or other damage.



## One consumer use case: wearable monitors

### Wearable technologies are taking on a bigger and bigger role in healthcare — in clinics and hospitals and for outpatient and home care.

The range of devices is growing every day: blood sugar monitors, heart rate trackers, fall detectors and more. Using iSIM Secure Connect, communication service providers can facilitate the provisioning of wearable device subscriptions following the consumer’s trigger via the device, without requiring an in-person visit. Relevant information can be shared securely with patient consent among providers and specialists to deliver the best and timeliest care possible. With no need to accommodate a physical add-in SIM card, devices can be small and unobtrusive. The compact, integrated form factor of iSIMs means devices instead can have bigger batteries for longer life or more sensors for enhanced capabilities.



# Streamlining daily tasks

With iSIM Secure Connect, Nokia's highly scalable, multi-tenant, vendor-agnostic eSIM and iSIM management solution, you can:

## Improve operational efficiency

Going beyond GSMA specifications and giving you the ownership of subscription onboarding and management processes with seamless integrations, this solution helps you achieve significant time, effort and cost savings, increasing the overall efficiency and return of investment (ROI).

## Deliver new services faster

Remote control and automation of the entire SIM lifecycle let you speed up new service creation and support new business and operating models, use cases and monetization strategies. This can open up valuable new revenue streams by attracting new customers with fast delivery of differentiated services, while improving operational efficiency.

## Enhance customer experience

Whether based on secure M2M transactions or individual consumer interactions, iSIM and eSIM supported by subscription management makes life easier for your customers. It offers new levels of secure identity verifications, automated IoT device authentications and on-the-spot subscription activations.

Visit [nokia.com](https://nokia.com) to learn more



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## About Nokia

We create technology that helps the world act together.

As a trusted partner for critical networks, we are committed to innovation and technology leadership across mobile, fixed and cloud networks. We create value with intellectual property and long-term research, led by the award-winning Nokia Bell Labs.

Adhering to the highest standards of integrity and security, we help build the capabilities needed for a more productive, sustainable and inclusive world.

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