



SummaNetworks

SMSC



Pioneering Smart Connectivity
for a Connected World



Reason Why

Over the years, SMS has remained one of the most reliable and ubiquitous communication mechanisms in telecom networks, supporting a wide range of use cases beyond traditional messaging including network services, enterprise communications, SMS-authentication flows, A2P messaging, OTA, IoT services...

As mobile networks evolve from legacy technologies to 5G, carriers need a carrier-grade SMSC product capable of guaranteeing high deliverability, scalability and seamless interworking across multi-generation networks, from 2G to 5G SA and SMS over IP. Classical players are abandoning the space while smaller vendors do not evolve their products at the required pace.

Solution

At Summa Networks, we recognize the growing demand for reliable, scalable and flexible messaging services across today's telecom networks, as SMS continues to play a critical role well beyond traditional person-to-person communication. That is why we offer **Summa Networks SMSC**, a carrier-grade Short Message Service Center designed to address the evolving needs of operators, MVNOs and service providers supporting a wide variety of services, including enterprise messaging, network signaling, authentication flows, and specially IoT communications due to our RedCap deployment option. Our SMSC delivers enhanced connectivity, scalability and efficiency, enabling service providers to innovate and grow in an increasingly competitive and multi-service environment.

Furthermore, our advantage lies in the **modular architecture of Summa Networks SMSC**, allowing for seamless integration or separation from other core network components. This modular design offers unparalleled flexibility, enabling the SMSC to operate independently or integrate seamlessly with the Home Subscriber Server (HSS), SDM and other core elements. Whether you require a standalone SMSC deployment or a fully integrated messaging function within your existing core infrastructure, Summa Networks provides the versatility and customization needed to optimize overall network performance, simplify operations and support long-term evolution.

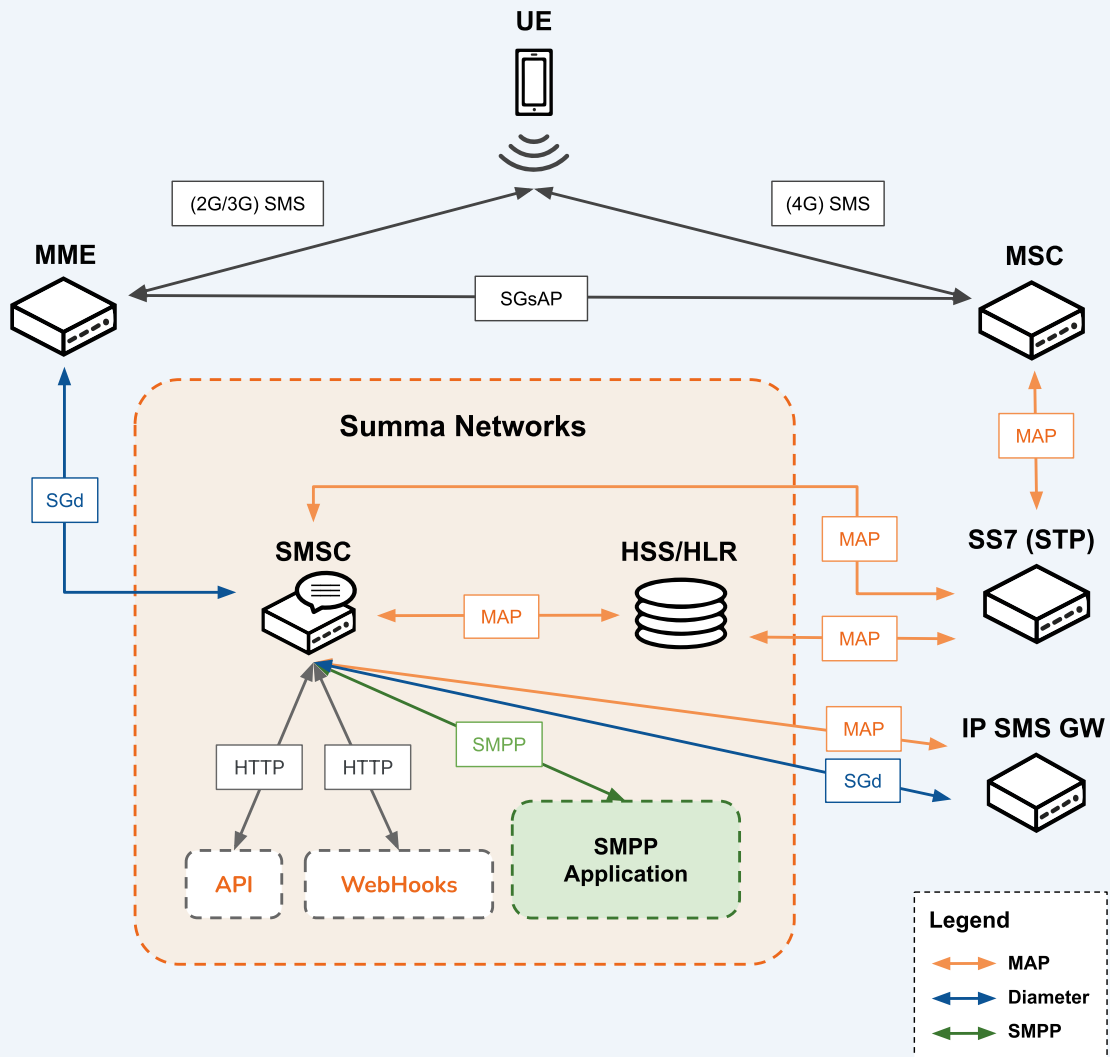
In addition to its advanced technical capabilities, Summa Networks stands out as an **adaptable technology partner**. Our DNA allows us to be agile, responsive and deeply committed to the success of our clients, enabling us to quickly adapt to changing requirements, evolving business models and new market opportunities, while maintaining close collaboration throughout the lifecycle of each project.

When considering the implementation of an SMSC, it is imperative to select a provider offering a comprehensive, carrier-grade solution within a flexible licensing framework, **supported by strong customer service and designed to facilitate seamless migration and interworking across multiple access technologies**. Summa Networks SMSC operates under a versatile commercial model that includes both traditional **CAPEX** options (perpetual license with annual maintenance) and **PAYG** models, allowing operators to align investments with business growth and operational needs.

Our core principles are structured to foster enduring partnerships:

- **Flexibility and adaptability**, tailored to specific customer requirements and guided by an open roadmap philosophy. Our system is designed to scale from a few hundred to millions of subscribers.
- **Transparent pricing**, focused on managing overall Total Cost of Ownership (TCO). We avoid feature redundancies and any form of vendor lock-in, ensuring a balance between competitive pricing and value-driven capabilities.
- **Open standards and open-source foundations**, delivering a cost-effective, carrier-grade solution capable of supporting diverse business models and long-term network evolution.
- **Standards compliance**, with all products fully aligned with the latest 3GPP releases.

With its robust, modular and standards-based design, **Summa Networks SMSC equips service providers of all sizes with the tools required to deliver reliable messaging services, expand into new revenue opportunities and compete effectively with larger players**, while supporting both established messaging services and emerging use cases such as IoT, SMS Over IP, SMSF (5G SA).



Key Summa Networks SMSC Features

The SMSC implements the main functionality of the next services:

- Handle MO Forward Short Messages requests using MAP (see TS 29002 12.2).
- Send MT Forward Short Message requests using MAP (see TS 29002 12.9).
- Send Reports SM Delivery Status requests using MAP (see TS 29002 12.3).
- Handle Alert Service Center messages using MAP (see TS 29002 12.5).
- Status Report Capabilities (see TS 23040 3.2.9).
- Handle MO Forward Short Messages requests using Diameter SGd (see TS 29.338).
- Send MT Forward Short Message requests using Diameter SGd (see TS 29.338).

The SMSC provides comprehensive support for SMPP functionalities, enabling seamless integration with various messaging applications. The main functionalities include:

- Submit_SM: Sending SMS messages from external applications to the SMSC for delivery to the end user.
- Deliver_SM: Receiving SMS messages from the SMSC to external applications, including delivery receipts.
- Webhooks are a powerful feature that allows external applications to receive real-time notifications from the SMSC module whenever certain events occur.

Benefits of the SMSC

A carrier-grade SMSC delivers robust, secure, and scalable messaging capabilities, enabling operators to support a wide range of SMS services for both subscribers and enterprises:

- 1. High Message Throughput:** The SMSC is designed to process very high message volumes with consistent performance. It efficiently supports peak traffic scenarios such as bulk messaging, marketing campaigns, emergency notifications, and large-scale A2P services without impacting network stability.
- 2. Low Latency Message Delivery:** Optimized routing and store-and-forward mechanisms ensure fast and predictable SMS delivery. Low latency is essential for time-critical services such as one-time passwords (OTPs), authentication messages, network alerts, and service notifications.
- 3. Carrier-Grade Reliability:** Built to meet telecom-grade requirements, the SMSC incorporates failover mechanisms to guarantee uninterrupted service and message integrity at all times.
- 4. Extended Coverage & Service Continuity:** By supporting both legacy and next-generation mobile networks, the SMSC ensures reliable message delivery across wide geographic areas, including roaming scenarios, providing consistent service regardless of user location.
- 5. Global Reach & Network Stability:** Interconnected with domestic and international partners, the SMSC enables reliable global SMS delivery, supporting both national and international messaging services with high stability.
- 6. Cost Efficiency & High Deliverability:** Efficient message routing and handling allow operators to optimize operational costs while achieving very high delivery success rates, making the SMSC ideal for large-scale A2P and enterprise messaging services.

SMSC Overview

The SMSC is a core network element that acts as the central hub for SMS delivery. It ensures reliable, secure, and scalable messaging services across multiple network generations, enabling operators to support traditional SMS traffic while expanding their A2P and enterprise messaging offerings.

Use Cases for Summa Networks SMSC

The Summa Networks SMSC enables reliable and scalable SMS services for operators and enterprises, supporting a broad range of messaging use cases:

- 1. Network & Service Notifications:** SMS-based alerts for network events, maintenance notifications, service updates, and operational communications, ensuring message delivery even when data services are unavailable.
- 2. Customer Communication & Engagement:** Billing notifications, payment reminders, service activations, promotions, and customer care communications using SMS as a trusted channel.
- 3. Roaming & International Messaging:** Reliable SMS exchange for roaming subscribers, including welcome messages, roaming alerts, and international SMS delivery.
- 4. Enterprise Messaging & Integrations:** Seamless integration with enterprise platforms via standard interfaces such as SMPP, enabling messaging services for banking, utilities, digital services, and CRM systems.
- 5. Service Activation & Provisioning:** Confirmation of service activations, subscription changes, and feature provisioning through immediate SMS notifications.



Sustainability statement

Summa Networks is committed to sustainability from the ground up, it is an energy-efficient company by design.

Telecom industry represents 3% of energy consumption and carbon footprint.

Within that, while the Radio Access Network (RAN) significantly contributes to global energy usage, accounting for approximately 73% of energy consumption in telecom networks, Mobile Core, where Summa Networks operates with its software, represents only 0.06% of the energy consumption within the telecom sector.

Nevertheless, when it comes to our energy-efficient software production, we can highlight how we design and develop our solutions in ways that optimise hardware and energy resource usage. This involves implementing efficient algorithms, optimising code, and responsibly utilising system resources, all of which reduce the burden on hardware equipment and minimise energy consumption during the execution of our applications. We could also emphasise that our software development philosophy includes a continuous commitment to improving and innovating in energy efficiency.

Moreover, we have a clear compromise with the sustainability principles:

- 🌱 We focus on producing software that minimises resource consumption, including CPU, memory, and disk usage, ensuring efficient operations while reducing environmental impact.
- 🌱 Our commitment to sustainability extends to our operational practices. With no physical office, we prioritise remote work, enabling our employees to work from home using personal PCs. This not only reduces our carbon footprint but also promotes a healthier work-life balance. By embracing remote work, we minimise commuting emissions, alleviating traffic congestion and air pollution in our communities.
- 🌱 We use cloud services for our processes, taking advantage of their green policies on our behalf.

Furthermore, Summa Networks partners with responsible suppliers who share our commitment to ethical and environmental standards. Our internal servers are located in data centres with green certification, and all our code resides in secure cloud systems where we rely on green initiatives by Hyperscalers. This ensures that our operations align with sustainable practices and contribute to a more sustainable future for all.

In summary, Summa Networks is dedicated to sustainability in every aspect of our operations. From our minimal energy consumption as a software producer to our remote work policies and responsible supplier selection, sustainability is woven into the fabric of our company. We believe that by prioritising sustainability, we can make a meaningful contribution to a greener, more sustainable future.

About Summa Networks

Summa Networks is the market specialist in Subscribers, Policy, Identity and Connectivity Management. Our mission is to help carriers of all sizes and types navigate their long and complex transition to 5G through a unique suite of Control Plane products covering 2G, 3G, 4G, 5G NSA and 5G SA in a single system. **Building on deep telecom expertise and an AI-driven approach, Summa Networks enables operators to evolve their networks more efficiently, reducing complexity and accelerating innovation while maintaining full control of operations.**

Summa Networks facilitates a swift transition to 5G while ensuring business-as-usual, helping carriers control their TCO through a future-proof technological evolution as a core principle. **AI-driven development and operational processes enable faster feature delivery, optimized network behavior and improved service quality, without introducing unnecessary organizational overhead. In parallel, interworking remains a key requirement for the years to come, and Summa Networks is a well-recognized player in converged control plane technology.**

Our trusted SDM solution, including HLR, HSS for LTE, HSS for IMS, EIR, ENUM, AAA, PCRF and 5G NSA, as well as UDR, UDM, AUSF and PCF, is provided as a single piece of software. The solution offers advanced capabilities such as Multi-IMSI (4G–5G), Lawful Interception (HSM) and flexible deployment across bare metal, virtualized, Kubernetes or hybrid environments.

Our solution is suitable for MNOs, MVNOs, MVNE/As, as well as verticals including IoT, Private Networks and Satellite Communications.

With us, your network is ready to evolve into 5G—faster, smarter and more efficiently.



SummaNetworks

10th Anniversary

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