SummaNetworks

THE MODULAR CORE

The Core for Mobile, IoT & Private Networks

Pioneering Smart Connectivity for a Connected World

HLR/HSS (LTE,IMS) and UDR/UDM/AUSF/UDSF in a single piece of software.

Smooth interworking or transition between 3G/4G/5G thanks to the Modular Mobile Core Control Plane.

Deployable in a cloud environment as CNF, in virtualized environments or hybrid (VMS+CNFs).

Extensible and expandable framework to develop ad-hoc features.

Transparent pricing to control total TCO. No pricing per feature/module and no trap into low price and expensive extensions.

Flexible and adaptable to the needs of the customer. We work on Open roadmap principles.

Based on open standards and Open Source solutions to offer a cost-conscious carrier-grade suite. From thousand to millions of subscribers.

The Crucial Role of a Core in Mobile, IoT, and Private Networks

In the realm of telecommunications, a Full Core stands as the cornerstone, particularly within mobile, IoT, and private network environments. At Summa Networks, we recognize its paramount significance in shaping robust and efficient communication infrastructures.

The conundrum for mobile carriers is that when faced with the need to evolve their core to 5G, there is a new technological stack that in most cases is not in their skillset. Therefore, they tend to look for shelter in vendors that promise them to take care of all the complexities of the architectural evolution by using a closed Mobile core solution. The downside, is that the freedom heralded by 5G, where Carriers can choose their preferred Network Functions vendors to interoperate is lost with that approach. This creates a fundamental contradiction: while 5G brings a new degree of freedom for carriers, many carriers are choosing to lock themselves into a single vendor solution to avoid the complexities of the shifts towards 5G.

At Summa Networks, we want to offer an optimal solution to offer the best of both worlds. The comfort of a full core solution with the freedom of replaceable Network Functions always compliant to 3GPP standards allowing at the same time adHoc extensions without breaking the standards.

Our Modular CORE for Mobile, IoT and Private Networks solution includes a convergent SDM, EIR/5G EIR, ENUM/DNS, PCRF/PCF, AAA/NSS-AAF, RedCap SMSC/SMSF, NSSF/NEF, IMS Core and an integrated User Plane solution.

Summa Networks´ Modular Core empowers innovation by providing a flexible and scalable architecture, essential for adapting to evolving technological landscapes. Moreover, it reinforces competitive differentiation, enabling businesses to deliver high-quality services and stay ahead in dynamic markets.

Your partner in your transition to 5G

When it comes to having your own Subscribers Data Management system, it is essential to find a provider with a complete state-of-the-art solution offered in a flexible licensing model with outstanding customer service.

Our carrier-grade SDM software allows seamless migration and interworking between the different access technologies through a flexible commercial model: classical CAPEX (perpetual licence and annual maintenance), OPEX (monthly capacity payments) always based on ACTIVE subscribers, so we are back to back with your business, we offer you a transparent and scalable solution that grows with your business success. We protect your business and your investment with a future-proof roadmap. Finally, our support is built on attention to detail, technical excellence and full availability to our customers.

Our main principles, are built to ensure a long-term relationship with our customers:

+ Flexible and adaptable to the needs of the customer. We work on open roadmap principles. We can serve from hundred to millions of subscribers.
+ Transparent pricing to control total TCO. No feature redundancy and no lock-in into low price and expensive extensions.
+ Based on open standards and Open Source solutions to offer a cost-conscious carrier-grade solution. We can serve from hundred to millions of subscribers.

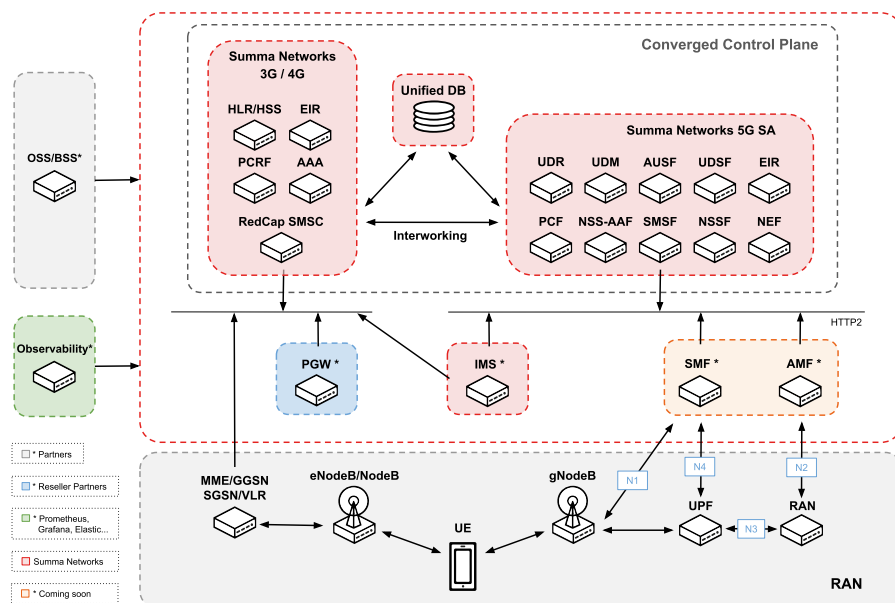As a result, we serve an ever-growing of satisfied customer and subscriber base.

Summa Networks SDM covers many different types of customers and solutions

+ Multi-IMSI, Multi-SIM businesses needing Multi-Instance features and extensive roaming solutions. Extended to 5G SA.
+ Carriers transitioning to 5G and beyond.
+ MVNOs becoming full MVNO.
+ MNOs RIP and Replace of legacy or High-Risk Vendors.
+ IoT communication providers.
+ VoLTE, VoWiFi enablement.
+ Private LTE Networks Subscribers Management.
+ Satellite communications companies.
+ 3G roaming outsourcing.

Single software solution for Unified and Converged Control Plane needs from 2G to 5G

Summa provides an excellent alternative for service providers facing the typical barriers of the traditional SDM products:

+ HLR, AuC, LTE HSS, IMS HSS, UDR, UDM, AUSF, UDSF in a single piece of software for a smooth interworking between all network generations.
+ Complete offering for GSM, UMTS, LTE, IMS, Wi-Fi and M2M networks.
+ Integrated AAA server and NSS-AAF.
+ Integrated EIR, DNS/ENUM, NEF.
+ Full PCRF and PCF.
+ Designed from scratch for scalability, it can accommodate millions of subscribers for MNOs while remaining cost- effective also for smaller operators, MVNO's, P-LTE cores.
+ Robust, carrier grade solution, vertical (same server) and N+1 scalable, high availability, geo-redundancy.
+ Convergence of subscriber information across access networks. Single subscription with unlimited number of profiles.
+ Support for multi-SIM, multi-IMSI, multi-MSISDN, multi-HPLMN/country, multi-profile and virtual routing instances.
+ Full API (WS and REST) to integrate with OSS/BSS, provisioning.
+ GUI for management including KPIs and, links status.
+ Multi-tenant solution to support multiple carriers in a single instance.
+ Extended Control Plane can be deployed in any type of environment:
  - Bare-metal, VMs (KVM, vmWare...)
  - Docker
  - Kubernetes for cloud native deployment.
+ Extensible and extendable framework to develop ad-hoc features.

Or a modular solution to cover specific needs

The Summa Networks portfolio includes the below separate products, so they can be deployed as stand-alone:

+ Home Subscriber Server (HSS) for LTE Data.
+ Home Subscriber Server (HSS) for IMS Voice.
+ Home Location Register (HLR) and Authentication Center (AuC) for 2G/3G.
+ Equipment Identity Register (EIR).
+ Policy Control Resource Function (PCRF).
+ Authentication, Authorization and Accounting server (AAA).

+ DNS/ENUM.
+ Mobile number Portability (MNP).
+ 5G SA UDR/UDM/AUSF/UDSF.
+ 5G PCF.
+ 5G NSS-AAF.
+ 5G NEF.

The SDM functions share a single data repository, which provides convergence of subscription-related information (subscriber profiles), authentication, subscriber location and IP information.

Summa Networks Unified and Converged Control Plane

+ UDR/UDM/AUSF/UDSF
+ HLR/HSS/EIR

+ DNS/ENUN
+ PCRF/PCR

+ AAA/NSS-AAF
+ RedCap SMS/SMSF

+ NSSF/NEF

Summa Networks is the market specialist in Subscribers, Policy, Identity and Connectivity Management. Our mission is to help carriers of all sizes and types to navigate their long and complex transition to 5G with a unique suite of Control Plane products that cover 2G, 3G, 4G, 5G NSA and 5G SA in a single system. Summa Networks facilitates a swift transition to 5G while ensuring the business-as-usual helping carriers to control their TCO with a future-proof technological evolution as a main principle. Interworking is key for the years to come and Summa Networks is a well recognized player in converged control plane technology.

Our trusted SDM solution, including an HLR, HSS for LTE, HSS for IMS, EIR, ENUM, AAA, PCRF and 5G NSA and as well UDR, UDM, AUSF, PCF provided in a single piece of software, has a numerous set of features like Multi-IMSI (for 4G-5G), Lawful interception (HSM) and the ability to be deployed in any kind of environment: bare metal, VMs, Kubernetes or a hybrid environment.

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

With us, your network is ready to evolve into 5G.

30+ operators worldwide rely on us

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.

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