



**SummaNetworks**

# **Private Networks**

**Setting up a Private Network**

Pioneering Smart Connectivity  
for a Connected World

## SUMMA NETWORKS PRIVATE NETWORK SOLUTION

### The need for Private Networks:

The deployment of Private networks has become a strategic imperative for enterprises seeking dedicated, high-performance connectivity solutions tailored to their unique operational needs, where specific requirements, security concerns, or limitations of public networks necessitate a dedicated and controlled network infrastructure. Private networks, whether 4G or 5G, play a crucial role in ensuring reliable and secure communication channels for organisations across various industries.

There are several instances where having a private network is crucial. Organisations handling sensitive data require security and privacy. Industries relying on uninterrupted connectivity depend on private networks to maintain stable operations and minimise downtime. Remote areas or challenging environments with limited public network infrastructure need private networks to provide a reliable communication platform. Additionally, businesses subject to strict regulations benefit from the security and control offered by private networks.

In summary, the necessity for a private network depends on specific requirements, security considerations, regulatory compliance, and operational needs of organisations or individuals. Private networks offer dedicated and controlled connectivity solutions tailored to unique business needs. While public networks may suffice for casual or temporary use cases with less stringent demands, private networks provide reliability, security, and customization essential for many enterprises in today's digital landscape.

## BENEFITS OF PRIVATE NETWORKS

- Better wireless coverage.
- Improved security.
- MNOs LTE networks as backup.
- More predictable and stable wireless experience compared to WiFi deployments.
- Skip wires entirely.

## PRIVATE NETWORKS KEY CONSIDERATIONS

Implementing a Private Network is a complex endeavour, requiring careful consideration and planning. A fundamental challenge is selecting a core network that aligns with the unique requirements of the business model. Each private network instance must be meticulously designed to cater for the specific needs of the organisation and must prioritise their requirements and develop a comprehensive plan for network setup, deployment and operation.

A crucial element of the core network is the Subscriber Data Management (SDM) solution, capable of seamlessly handling multiple IMSIs and/or SIMs and handling the roaming between private and public networks, a key feature of the solution. Besides, solutions should contemplate as well, allowing smooth transitions between different networks along with addressing diverse use cases and advanced roaming scenarios encompassing both voice and data.

## KEY FEATURES

### Extended Roaming Features:

Summa Networks' solution offers advanced roaming capabilities.

### 24/7 Support:

With a commitment to reliability, Summa Networks offers strong 24/7 support to address any issues promptly.

### Flexible Business Model:

Our OPEX-based model has virtually no lower subscriber limit, ensuring adaptability to diverse needs.

### Single Point of Contact (SPOC):

Summa Networks acts as the SPOC, ensuring streamlined communication and coordination.

### Managed Service:

Summa Networks provides full system control, offering a managed service that ensures the seamless operation of the Private LTE/5G Solution.

### Multi-IMSI, Multi-SIM, Multi-MSISDN:

Unparalleled flexibility with multiple capabilities.

### Standalone NPN:

Summa Networks introduces the Standalone NPN option, allowing operators to manage isolated and private networks. This option provides access to PLMN services, and the network is identified by a Network Identifier (NID).

### Non-Standalone PN: ROAMING into carrier networks.

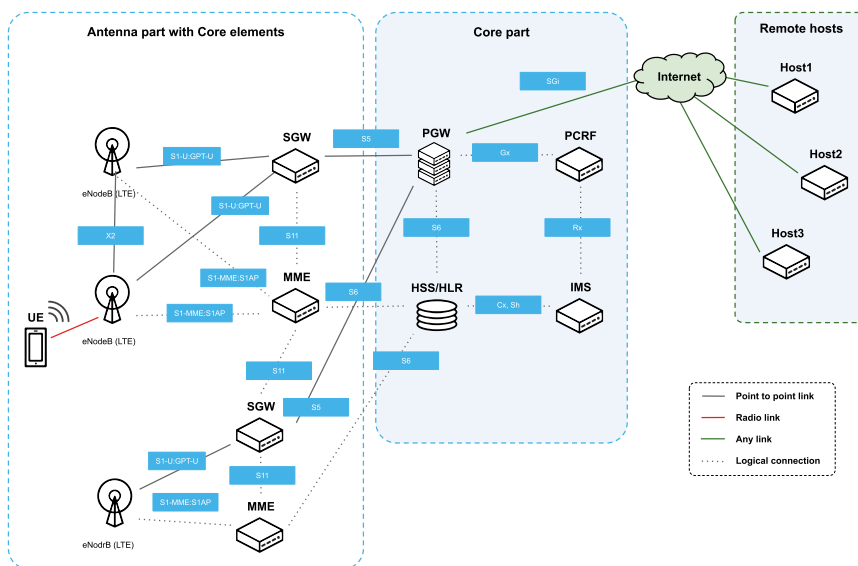
## SUMMA NETWORKS: YOUR ULTIMATE PRIVATE LTE/5G SOLUTION

Choose Summa Networks for a unique and versatile solution that addresses your Private LTE/5G network requirements efficiently.

Summa Networks is your go-to choice for state-of-the-art Private network solutions, aligning seamlessly with the demands of the modern telecommunications market. Our mobile core solution stands out as a central and indispensable component for private networks deployment.

Summa Networks Private Networks Solution covers a spectrum of services, including DATA, VoLTE, and VoWiFi, ensuring a versatile and comprehensive solution for diverse communication needs.

This solution is tailored to meet the requirements of various industries, offering a private network experience with the flexibility of different RAN options and a suite of proprietary software from Summa Networks.



Summa Networks Private Network solution includes:

- Extended and converged control plane, covering from 2G to 5G SA.
- IMS core, AAA in case voice over 4G is needed.
- User plane.
- Roaming into Public networks.
- Optional, an antenna and eNodeB.

## USES CASES

### Industrial IoT (IIoT):

Drive efficiency in manufacturing, logistics, and utilities.

### Energy & Utilities:

Enable smart grid creation and remote infrastructure monitoring for energy and utilities.

### Mission Critical Communication:

Ensure low-latency, high-reliability communication for critical operations in public safety and healthcare.

### Smart Cities:

Contribute to smart city initiatives for traffic management and public safety.

### Healthcare:

Support telemedicine, real-time patient monitoring, and healthcare accessibility.

### Education & Campus Networks:

Enhance connectivity on educational campuses and support precision agriculture for improved crop yields and resource management.



## 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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