SES NETWORKS SIGNATURE WI-FI NETWORK AS A SERVICE

Data sheet



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CONNECTING THE UNCONNECTED IS EASIER THAN EVER

The demand to extend broadband services to rural and remote populations is growing steadily. From meeting universal service obligations (USOs) to reaching business and government sites beyond the reach of terrestrial access technology, telcos and mobile network operators are evaluating solutions to meet this demand cost effectively and at scale. Wi-Fi based solutions are an excellent method for establishing the last mile connection to users, taking advantage of unlicensed spectrum and the wide variety of user devices that utilise Wi-Fi.

Deploying networks to remote locations poses its own unique challenges. The investment necessary to procure, deliver, install, and maintain the required infrastructure and backhaul to rural areas may require years to recoup. Additionally, there are logistical and personnel challenges to building and maintaining technology distant from an operator's core. In collaboration with our growing technology partner ecosystem, SES Networks offers a turnkey, managed Wi-Fi network solution. Wholly optimised for rural and remote deployments, the technical challenges and financial risks of deployment and ongoing network operations are significantly reduced, thereby adding new revenue streams and faster time to market.

Business Challenges

The primary challenge faced by network operators expanding to rural areas is that the business case of deploying the necessary infrastructure and operating a backhaul solution for a sparsely populated area is tough to justify, even when fulfilling a USO.

Fibre and microwave are often too costly to deploy to remote areas

- Fibre and microwave backhaul solutions are primarily designed for urban or suburban environments, but struggle to reach truly remote areas in a cost-effective manner
- The cost or difficulty to lay fibre may not be recouped by a rural extension
- Microwave requires site planning and constant power and loses effectiveness across large distances

Power and infrastructure are costly to procure, build, and operate

- Delivering and building network technology typically requires specialised expertise, significant capital expenditure, and construction time and effort
- Keeping the site running requires a reliable power source, which in some areas requires a generator to be continuously refueled

Customers and regulators expect high-performance rural connections

- Given the geographical challenges and lighter population densities, fulfilling all metrics required by a USO can leave razor-thin margins for the network operators
- Even in rural areas, demand for data-rich applications like video calls and streaming is rising
- Difficulties in acquiring and billing customers are exacerbated in remote locations



Wi-Fi NaaS Network Diagram

SES Networks Signature Wi-Fi Network as a Service

SES Networks Signature Wi-Fi Network as a Service (NaaS) is a turnkey, fully-managed solution to connect unconnected populations, enterprises, and institutions utilising infrastructure and technology specifically designed and optimised for rural and remote deployments. With our innovative technology partners, SES Networks integrates scalable, reliable satellite backhaul with Wi-Fi access points, lightweight masts, solar power solutions, and a flexible billing system. Every element of the solution is selected for the unique needs of each deployment, maximising the return on investment. Our Signature Wi-Fi NaaS Solution is offered under a variety of commercial models, including a monthly per-site price, and volume-based billing, minimising upfront investment and, therefore, the financial risk of a rural deployment.

Dynamic satellite bandwidth combines ubiquitous coverage with cost-effective throughput

- SES Networks' satellite network covers 99% of the Earth's population, bringing backhaul connectivity to rural, remote and underserved areas
- Using advanced platform and modem technology, operators can take advantage of dynamic bandwidth allocation, providing short-term and long-term flexibility, and a cost-effective solution that avoids paying for unused bandwidth
- SES Networks' team of satellite and network engineers manage the network and provide 24/7 monitoring and multilingual technical support at no extra cost

Every element of the solution is optimised for rural and remote site connectivity

- The Wi-Fi access point, mast, and solar power solution are each selected based on the specific conditions present at each deployment
- Due to the lightweight, right-sized mast design, the entire solution can be delivered in one box and installed without heavy machinery
- The solar power and battery solutions are dimensioned for each site, based on geographical and meteorological data, ensuring a reliable, low-maintenance power source

An intelligent edge solution provides a rich customer experience and flexible billing

- SES Networks manages content servers at the remote site, which can be filled with content designated by the network operator during off-peak hours, such as educational content to school networks, increasing quality of service for end-users and decreasing backhaul demand
- Billing can be configured to match the network operator's existing methods, or provided via a captive portal or physical vouchers, whether consumers are pre-paid or post-paid
- Internet of Things (IoT) and supervisory control and data acquisition (SCADA) applications can be supported as well, such as connecting remote renewable energy plants for monitoring, control, and regulatory reporting



The Signature Wi-Fi NaaS Solution from SES Networks enables network operators to de-risk fulfilling USOs and extending high-performance connectivity to business, government and residential sites. Through our technology partnerships, the solution delivers reliable backhaul and last-mile connectivity designed

specifically for rural and remote deployments to accelerate return on investment. By choosing a managed, turnkey solution, telcos and mobile network operators are free to focus on acquiring customers and delivering services that exceed end-user expectations.

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