BROADENING DIGITAL ACCESS AND SERVICES

Burkina Faso Government and SES Networks

Case Study

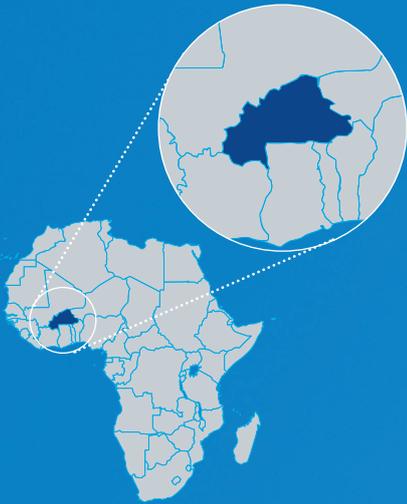**Industry**
Government

Location
Burkina Faso

SES | Networks

Together with the Burkina Faso government, and with the support of the Government of Luxembourg, we are deploying a high-performance ICT infrastructure across the country. This supports e-government, e-education, and e-health capabilities to bring more opportunity to the Burkinabè—even those living in the most remote locations.

Burkina Faso
population of

19M+

Burkina Faso is a landlocked country in West Africa with a population of more than 19 million. The country's government needs to extend and improve its legacy network with a robust and future-proof solution that enables key applications and cloud access. We provide the required high-performance connectivity via a mix of wired and wireless technologies enabled via our O3b Middle Earth Orbit (MEO) satellite constellation, which flies 8,000km above Earth.

THE CHALLENGES OF VAST TERRITORIES

With a massive area of more than 274,000 square kilometres, Burkina Faso's network needs to serve hard-to-reach areas, and contend with rainy seasons—all with a lack of infrastructure in place. The country's size poses great challenges to both deploy a network, and deliver reliable services to the regions that will benefit most. The country wants to improve and expand its existing legacy governmental network, while also providing a future-proof solution that is fully interoperable and integrated with existing technologies and systems, including cloud, fibre, and wireless.

ENABLING FASTER DIGITAL TRANSFORMATION FOR GOVERNMENTS AND THEIR PEOPLE

Working together with the Burkina Faso government, SES Networks devised and implemented a hybrid communication network aimed at improving, extending, and reinforcing administrative services across the country via reliable high-performance connectivity.

High-throughput connectivity via our O3b MEO satellite constellation is key to opening the landlocked country to worldwide networks, enabling the complete end-to-end communication structure to reach all locations. The solution seamlessly integrates existing terrestrial wireless networks, partially available fibre-optic networks, and connects government offices, local communities, and schools in 43 provinces across the country. SES Networks provides service support and maintenance for the core MEO satellite network, leveraging our Networks Operations Centre (NOC), and our local presence in Burkina Faso. The wireless distribution and access networks, as well as the customer premises equipment at the remote buildings, are operated by the customer—the country's National Agency for the Promotion of ICT (ANPTIC). To facilitate customer operations, we have developed an all-in-one network supervision tool that's fast, intuitive, and easy-to-use.

> Satellite links connect and augment the existing infrastructure, extending its geographical coverage beyond the reaches of the existing fibre optic links.

The hybrid satellite-terrestrial solution is composed of a core network that uses the O3b MEO constellation to initially bring 600Mbps IP connectivity to the country, and expand to meet the country's growing connectivity needs. Satellite links connect and augment the existing infrastructure, extending its geographical coverage beyond the reaches of the existing fibre optic links. More than 60 point-to-point links serve as the foundation for the country's distribution network, while government organisations are connected via radio point-to-multipoint links. The total infrastructure includes five O3b MEO terminals—in Ouagadougou, Bobo-Dioulasso, Gaoua, Tenkodogo, and Dori— as well as 65 pylons, and 114 point-to-multipoint radio base stations. The project allows the Burkinabè to benefit from a flexible, reliable, high-speed telecommunications network for essential applications that help boost the country's socio-economic development. These applications are focused on e-government, to help advance decentralisation and better serve citizens; e-health, to connect critical medical infrastructure like blood transfusion centres; and e-education, to enable continuous development and upskilling of education workers.
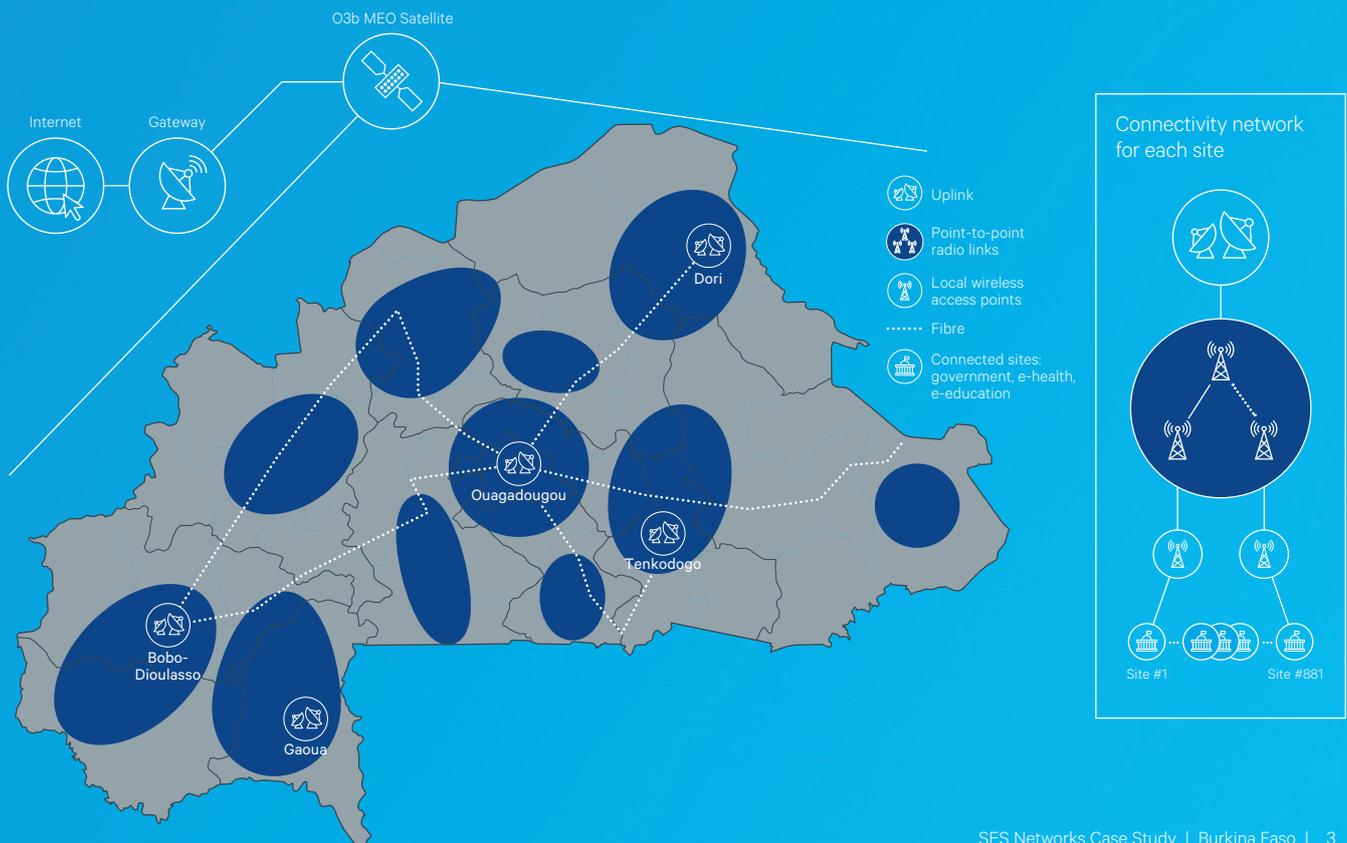
IMPROVING OPERATIONS AND SERVICES

Providing the communications infrastructure Burkina Faso needs to boost its socio-economic development.

The network is an ideal mix of satellite and terrestrial infrastructures, enabling a converged network that provides nation-wide coverage. It uses high-throughput, low-latency capacity on our unique O3b MEO constellation to provide fibre-like speeds to any location, even where terrestrial fibre networks cannot reach.

As part of a development cooperation programme for Burkina Faso managed by the Grand Duchy of Luxembourg through Lux-Development, Luxembourg's implementing agency, the project aims to improve the quality, reliability, and accessibility of IT and communications infrastructure for the Burkinabè Administration throughout the country. This improves the day-to-day operations of government operations, improves the work experience for administrators, and provides faster and more efficient e-governance services for citizens in the country's most remote locations. Even those living far from big administrative centres, who have never before enjoyed the luxury of connectivity, now have access to the opportunities connectivity brings.

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EXPANDING THE ICT CAPABILITIES OF BURKINA FASO'S GOVERNMENT NETWORK

5
O3b MEO satellite terminals

100+
wireless base stations

40+
connected institutions

60+
point-to-point links

880+
connected sites

600 Mbps
connectivity (MEO)

"In order to help the administration, we need to reach populations in the most remote areas. This is where satellite gives us an opportunity—with minimal delay."

AHMED SIBIRI BOUDA
Governmental Intranet Projects,
National Agency for the Promotion of ICT, Burkina Faso

For additional information on this project,
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