

Hybrid Networks

THE CUSTOMER

The customer is a major French bank operating in nearly 70 countries, with a strong presence across the African continent. For more than 20 years, Sonema has provided support for the customer's company network in Africa. The customer's partnership with Sonema started with the exploitation of a satellite network linking almost 50 sites across 14 countries, and since then the offer has grown to include other services including terrestrial connectivity (MPLS/Internet Access), security services and network optimisation.

THE CHALLENGE

In order to provide increasingly efficient services for their client base, the bank decided to centralise and streamline their applications at an international level. This development which required the implementation of new business solutions for its African branches also created new problems for the network, specifically in terms of bandwidth and latency. The rapid growth of their bandwidth requirements also had a significant impact on the bank's telecom budget.

In recent years, Africa has seen widespread expansion of terrestrial connectivity and in particular fibre optics, providing large amounts of bandwidth at a competitive price. However, these terrestrial solutions are not reliable and did not meet the customer's requirements, so this issue had to be taken into account with regards to the development of their network.

In order to ensure that his telecoms network remained a factor for business growth, the customer came to Sonema.

SONEMA'S SOLUTION

Firstly, SONEMA carried out an in-depth analysis taking into account the problems and requirements, the customer's business applications and geographical reach plus the solutions and the possible technologies available.

Following this analysis, Sonema recommended the installation of a hybrid network combining the low latency of a terrestrial connection with the reliability of a satellite connection. With this new set-up, the terrestrial network becomes the nominal link through which new applications are transmitted from the customer's datacenter in France.

This configuration enables a significant increase in bandwidth without an equivalent increase in operating costs.

The VSAT technology is used as an active backup network, to avoid network congestion and service interruptions caused by geopolitical events, cable failures or natural disasters. In order to achieve this, the hybrid network's intelligent routing uses a Load Balancing solution.

Sonema used a three-phase implementation process for this solution:

PHASE 1 - TERRESTRIAL MPLS IMPLEMENTATION

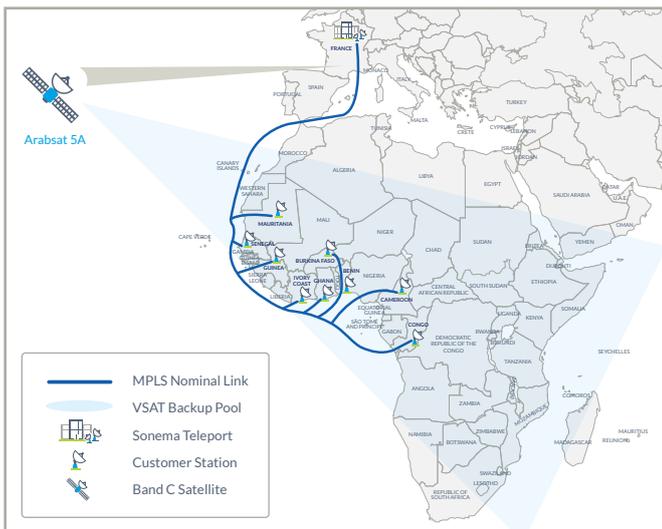
Sonema deployed the terrestrial MPLS circuits in 9 African countries from the customer's datacentre in France, while maintaining the traffic on the existing VSAT connection. Terrestrial MPLS circuits were chosen instead of a dedicated terrestrial Internet access in order to better meet the customer's need for a secure point-to-point connection with high-level SLAs.

PHASE 2 - HYBRID CONNECTIVITY

The VSAT connection was maintained in order to create a hybrid architecture which operates using automatic switching to ensure continuity of service in the event of a failure of the terrestrial connection.

PHASE 3 - OPTIMISED BACKUP VSAT

Finally, the VSAT capacity of the various sites was shared following the creation of a single pool of dedicated bandwidth. The size of this pool ensures continuity of service in the event of simultaneous site outages, even in different countries. This pool allows for dynamic capacity allocation between the customer's sites in the event of a network failure.



ADVANTAGES

The hybrid model was implemented over a year ago, enough time to be able to confirm the following advantages:

- **The deployment of new business applications** enabled the customer to **streamline his operations, develop new projects and accelerate his growth** across the African continent, which resulted in a global bandwidth increase of 120% (both terrestrial and satellite) with a budget increase of just 30%.
- **A significantly improved user experience** thanks to the implementation of hybrid connectivity combining the low latency of a terrestrial solution with the reliability of a VSAT solution.
- **Exceptional resiliency for the international network with up to 100% availability** thanks to the **VSAT back-up network** (availability levels for some terrestrial connections in 2017 was as low as 97.8%).

Securing the international network via satellite connectivity **did not require any specific CAPEX investment as the existing infrastructures were reused.**

CONCLUSION

All of the customer's expectations were successfully met.

Sonema has since assisted other clients with the implementation of hybrid solutions for their international and domestic networks in a number of countries in Africa. For more information, please contact Sonema.

For further information:
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About Sonema

A proactive partner, we develop tailor-made and scalable telecom solutions to assist our clients with their projects on a daily basis. Our sense of commitment is based on a strong understanding of their issues, and allows them to concentrate on their core business and latest innovations.

More information?

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