FULFILING UNIVERSAL SERVICE OBLIGATION

Swisscom, SES Networks

Case Study

Industry Telecommunication

Location Europe



SES Networks and Swisscom connect the few underserved populations of Switzerland

Switzerland was one of the first nations to include broadband Internet access a component of their universal service obligation (USO), which sets forth that all categories of population and regions of the country must be able to access basic telecommunications services.

The largest Swiss telecom operator, Swisscom, has been selected since 2008 to fulfill this USO, winning the bid again most recently in 2017 to continue the universal service through 2022. With its remote villages and mountainous terrain, though, connecting all of Switzerland is not a straightforward undertaking. Swisscom chose SES Networks, an experienced provider of remote connectivity, to collaborate on fulfilling the USO. SES's Consumer Broadband solution (formerly sold as AstraConnect) was the ideal product to deliver the requirements of Switzerland's USO while exceeding user expectations for rural broadband services.

Requirements

Switzerland's Federal Communications Commission (ComCom) sets forth certain requirements in its USO license:

- Basic telecom services should be made available to all populations and all regions of the nation
- The services must be affordable and reliable
- The universal service should include public telephone, broadband Internet, and special services for people with disabilities
- In 2020, the minimum speed requirement for the broadband service tripled to 10/1 Mbps
- From 2018 to 2022, existing analogue and legacy digital connections, such as ISDN, need to be replaced by multifunctional connections based on IP standards

Challenges

Over 2 million Swiss people, almost a quarter of the nation's population, live rurally, often amongst the famously scenic hills, mountains, valleys, and forests. Despite the well-developed telecom infrastructure across Switzerland, even in these rural areas, there are still few households that need alternative solutions.

Connecting these remote populations with terrestrial means, such as fibre optics or microwave transmission, can be prohibitively costly, as the varied terrain makes digging cables or planning line-of-sight connections extremely labour and time intensive.

With much of this population relying solely on Swisscom for their telecommunications, Swisscom required a service provider with experience in quickly delivering reliable managed services. The communities affected could not wait long for a rollout of service, as their abilities to conduct business, stay in touch with family, or connect with the world was at stake. Furthermore, the solution needed to be easily scalable.

Solution

Swisscom selected SES Networks' Consumer Broadband solution to bridge the gap in connectivity for those remote locations distant from their core network or in difficult terrain. Consumer Broadband is delivered via a shared hardware platform from SES's teleport in Betzdorf, Luxembourg, eliminating and allowing the dedicated experts of SES to manage the satellite network according to Swisscom's specifications. For Swisscom, SES provides capacity on ASTRA 2E, a Ka-band satellite enabling smaller, more affordable user terminal high-throughput broadband.

Swisscom switched from another satellite to SES's Consumer Broadband platform in 2014 due to the increased scalability, userfriendly terminal equipment kits, and dedicated management services provided by SES Networks. The platform grants Swisscom a shared pool of capacity dynamically contended amongst their sites, according to rules and fair use policies defined at any time by Swisscom. When traffic is high, users can be guaranteed the mandated 10/1 Mbps service, but when traffic is lighter, are able to burst to higher speeds automatically.

SES's Network Operations Centre functions 24/7/365, monitoring Swisscom's network to proactively prevent or respond to any issues that may arise. In the case Swisscom or its end users detect the problem first, SES's multilingual experts can help address the entire satellite network: at the teleport, onboard the satellite, and by remotely troubleshooting the customer premises equipment in place in Switzerland.

Consumer Broadband includes lightweight, easy to install equipment packages that are scaled for single homes or entire communities, depending on the customer's needs. For home use, the equipment arrives in a single box with all instructions included for a self-installation. For communities, local technicians can connect the satellite-based backbone to most last-mile transmission means to the home, such as coaxial cable or public Wi-Fi.

Users enjoy enhanced quality of experience (QoE) via acceleration, automated throttling of users who exceed the fair use policies, and advanced voice over IP (VoIP) for telephone services. Through Consumer Broadband, Swisscom can meet their USO requirements through a single service.

Looking to the future, Swisscom can scale their capacity with SES without additional CapEx investment. "We have chosen to partner with SES for this project as it is renowned for reliable solutions and for being a high quality supplier," said Peter Eschmann, Head of Broadband Service Obligation, Swisscom. "We are also convinced by the scalability of the solution."



For additional information on this project, please write to info@ses.com

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