

CUSTOMER TESTIMONIAL

SRG SSR

Name	SRG SSR	Customer since	2001
Sector	Media	Products and services purchased	Carrier Ethernet Services, IP Media Connectivity Services, Professional Services, Internet Services
Branches	59	Key Account Manager	Michael Huber, michael.huber@upc.ch
Employees	6700		
Website	srgssr.ch		

«Since 2001, UPC Business has been a committed solution partner for SRG in the area of signal transport. UPC Business has given the company ideal support, both with technical developments and optimising its operating costs. By providing transport capacities on the one hand, and, on the other hand, also by implementing new standards. And at a much lower cost, too.»

Bruno Lötscher, Head of Strategic Service Management, SRG SSR

Initial situation

Founded in 1931, SRG SSR is the largest media company in Switzerland. The non-profit company, which is organised under private law, provides a public audio-visual service on behalf of the Confederation and consists of the five corporate units Radiotelevisione svizzera, Radiotelevision Svizra Rumantscha, Radio Télévision Suisse, Schweizer Radio und Fernsehen and swissinfo.ch as well as the General Management.

In the area of signal transport, SRG has the highest demands on infrastructure. The company also relies on the resources of network operators. In order to be able to transport video and audio signals across Switzerland in the best possible quality, a network operator must have special qualifications: a nationwide fibre optic network, high service availability, scalable performance, professional service management and innovation expertise. The SRG does not just want to be sure that the complex signal transport functions perfectly. It also wants to exploit the potential for innovation and an optimal cost-benefit ratio to gain as much flexibility as possible in production.

The conversion from analogue to digital transmission technology occupied the company in the early 2000s. Signal transmission needed to be shifted from the radio relay network to the fibre optic network. It turned out that UPC Business was a suitable partner for this technological leap in audio-visual signal transport.

Another innovation push has been underway since 2018: the conversion of transmission technology to IP technology and the associated implementation of the SMPTE 2110 standard. In addition to the IP Media Network, SRG also invited tenders for the corporate network and the optical backbone for all data

services. Once again, UPC Business was able to offer an attractive overall package. In the customer feedback the proposed solution was given high marks. Particular praise was given to the open and transparent communication right from the start.

Solution

SRG put the VERA picture network into operation in 2002. Over 40 locations in Switzerland have been connected to UPC Business's fibre optic network. VERA enables video connections between the sports stadiums and the studios, with the image signals being transmitted as an uncompressed SDI data stream. In 2006, SRG implemented the SAMBA distribution network with UPC Business using the same technology. The SAMBA backbone distributed the programme signals from the studios via the distribution centre to the transfer points of the transmitter feed, from where they reached the receivers via transmission mast or satellite. The networks were built as bidirectional rings and equipped with a bandwidth of 2.5 Gbit/s each.

As part of the recent Orion project, UPC Business built two dedicated backbones for SRG, one for the corporate network and one for the IP media network. Carrier Ethernet services are provided for the corporate network; the routers are owned and operated by SRG. UPC Business and its partners Kapsch and Cisco supported the integration.

The IP Media Network was developed and implemented as a managed service in close cooperation between SRG, Nevion, Cisco and UPC Business. The implementation of the new SMPTE 2110 standard enables the transport of the video, audio and





data signals as separate IP data streams in any-to-any connections. With the switch to IP technology, SRG gains more flexibility and control in broadcast production.

The control centre in the IP Media Network is Nevion Video-IPath, a software that can be used to control, orchestrate and monitor all services across the entire network. This allows the SRG to freely define the IP data streams as required, including the allocation of bandwidths. In the software-defined network, diversion via a service department that manually configures data connections is unnecessary. This is done automatically via the service user's application and the service orchestrator, which carries out the network-specific implementation of the service request.

The IP Media Network transports both contribution and distribution signals. These are always transmitted simultaneously on two redundant paths in the backbone (seamless switching).

Two backbones were built because SMPTE 2110 places special demands on the network infrastructure when it comes to timing. In a WAN the size of Switzerland, synchronising the signals with nanosecond precision is a tricky task. The construction of the IP Media Network was a pioneering challenge for the engineering team. The Orion project can be described as one of the most innovative ICT projects in the media industry.

For the services, bandwidths of 1 to 100 Gbit/s are available. To ensure that SRG can fulfil its legal performance mandate at all times, an availability of 99.99% is guaranteed for the critical services.

UPC Business also provides SRG with universal Internet access.

Extra mile

Switching to a new technology is always fraught with risks. All participants were aware that they were embarking on an experiment and that great challenges were to be expected. The co-operation was characterised by trust, boldness and pioneering spirit in equal measure. Thanks to the open communication, the willingness to compromise and the determination to achieve the ambitious goals together, the joint projects were successful. Compared to the previous networks, SRG was able to reduce its operating costs by almost half.

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