



«Sessiun» in Flims – prestigious temporary ICT infrastructure

Swiss Councilors met for their 2006 autumn session in Flims (GR). This session outside the capital was held because of the complete refurbishment of the Parliament Building in Berne. The temporary move presented complex challenges for the parliamentary services that organized it, chiefly in relation to the technical infrastructure. The aim was to more or less ensure that the parliamentarians would still be guaranteed services to the standard they are used to in Berne.



«With the temporary move to Flims, we were chiefly faced with three complex issues. First, the timeframe for constructing the technical infrastructure was very tight. The relocation could not even be rehearsed – therefore everything had to work out at the first attempt. Second, we were dealing with a task of massive proportions. And third, the budget was rather tight despite the constantly rising demands. The fact that we were able to offer users excellent services in the area of the data network and IP communications can also be attributed largely to the merits of an external partner: Indeed, Cisco provided us not only with the technical equipment for this, but also with the network specialists who ensured the trouble-free set up and flawless operation of the infrastructure. Both the technology and the Cisco team have proved themselves in equal measure to be up to the job under difficult circumstances.»

Renzo Lazzarini
«Sessiun» Technical Coordinator

Networked Parliament – even outside the capital

As the Parliament Building in Berne was not available in autumn 2006 because of renovation work, alternative locations for the autumn session of the Swiss Councils had to be looked at. After sessions had already taken place in the French and Italian-speaking areas, the Romansch-speaking region fell under consideration. The Parliamentary Services successfully set up a provisional infrastructure that was largely suited to parliamentary business in the grounds of the Parkhotel Waldhaus in Flims.

Summer 2006: the renovation of the Parliament Building in Berne, the Swiss Federal Parliament, was in full swing. This meant that the National Councilors could not use the building for the autumn session, resulting in the fact that they would have to have a third session outside the capital following those of 1993 in Geneva and 2001 in Lugano. The idea of holding it in the Canton of Grisons, the area which represents Rhaeto-Romansch, the fourth national language of Switzerland, was obvious. The suggestion for a session in the Surselva region, in Flims to be precise, won the Parliament over and so in September, the Berne political machine set off for the Grisons. This away session, also referred to as «Sessiun» in reference to Rhaeto-Romance culture, meant that the construction work on the Parliament Building could be completed faster and more efficiently.



Provisional arrangements without loss of function

In Flims, the National Councilors, media representatives and council visitors were provided with a locality on a type of campus surrounding the Parkhotel Waldhaus which met all requirements over the three weeks of the session. However, in technical terms, the installation had to be set up in such a way that parliamentary business could be conducted at all times without any problems. It was mainly in the area of the technical infrastructure – information technology, telecommunications, radio and TV transmission, conference technology – that complex problems had to be solved in order to broadly maintain the same standards as in Berne. Ultimately this meant ensuring that temporary measures were introduced for a large part of this infrastructure, but without having to accept significant losses in functionality in the process.

Furthermore, security requirements were also demanding, and this was a challenge faced by the organizing Parliamentary Services under the project management of the Deputy Secretary General of the Federal Assembly, Peter Gerschwiler. And things were not made any simpler by the fact that, unlike in Berne, the facilities could not all be concentrated in one location, but rather they were distributed across a number of existing buildings and makeshift premises. Whilst the Council of States, say, was meeting in the elegant Art Nouveau room at the hotel, the National Council was doing the same thing in the converted tennis hall.

Cisco technology for networks and IP communication

September 2006: under the management of Technical Coordinator Renzo Lazzarini, a total of around 110 tonnes of technical equipment was taken to Flims and once there, installed within just five days in the spacious surroundings of the Parkhotel. Lazzarini decided on using Cisco's tried and tested yet equally innovative technology for the network infrastructure and IP communication. Two physically separate networks were set up; one for parliamentary affairs and one for Swiss television, which also had to provide a broad base of provisional broadcasting facilities for its various TV and radio stations.

Cisco was the sole supplier of technical equipment, the transportation of which required ten double palettes and which was worth about half a million francs. On top of that, there were three Cisco network specialists who supervised the set up and maintenance of the network during the entire duration of the session and strengthened the Parliamentary Services team. Relevant expertise and resources also came from aurax informatica which is responsible within the aurax Group for the design and implementation of complex network and telecommunications solutions, and which is a Cisco partner in the Grisons. The specialists from the Federal Office of Information Technology – another Cisco customer – were also called in to set up a perfectly functioning WAN connection to the Federal Administration's communications system.

The centerpieces of the session network were a Cisco Catalyst 6509, including a firewall module as the central distributor; plus around 50 more Cisco switches of varying sizes and types linking users, applications and communications systems with each other. On top of that, separate from the centralized system, approximately 45 Cisco Wireless Access Points were set up throughout the entire grounds for safe access to the «Parl-net», regardless of location. These access components, which were also positioned in rather more unusual places such as the huge Art Nouveau chandeliers in the Council of States room, allowed the parliamentarians to move freely in the rooms and grounds without losing the network connection to their laptops.

Improved communication thanks to IP technology

Thanks to the integration of the data and telephone network into a convergent communications platform, it was also possible to seamlessly integrate IP telephony. Around 120 Cisco IP phones, 45 of them with color displays and touchscreens, were made freely available to the National Councilors and Councilors of State in their work areas. There were also 40 fax machines. They were controlled via Cisco Unified Call Manager, a centralized software package for call signaling and the provision of voice, data and video services, which replaces the traditional telephone exchange.

Cisco Unified Mobility Manager, which enabled accessibility on up to four different internal and external numbers at the same time, ensured that key persons could be contacted at all times if they were for example just on their way from Berne to Flims. Two Voice Gateways with 60 outgoing lines made sure that there was sufficient capacity available. This structure produced a number of benefits for users, a large proportion of which comprised the National Councilors: they had unrestricted voice dialing on their Cisco

High performance platform

The centerpiece of the Flims network infrastructure, the **Cisco Catalyst 6509**, is part of the Catalyst 6500 series, the flagships of switching platforms. These modular switches encompass top level availability, integrated security, the best possible support for convergent applications as well as far-reaching investment protection. This product family, which leads in the areas of scalability and flexibility, has been designed for use in medium and large companies, and service providers.

The high-performance switches include features such as LAN/WAN/MAN integration, multilayer switching and support for a wide range of additional network services. Principal areas of usage are backbone and computing center environments. The Catalyst 6500 switches have been designed to recognize data streams from business critical applications and to allocate the resources to this data which it needs to reach its destination without delay. The Catalyst 6500 is able to identify voice data on the network and give it top priority. There is also the further benefit that the 10/100/1000 port switches function as power supplies to the phones which are connected to it, meaning that IP phones can be operated without the need for an additional power supply.



IP phones and were able to easily log on to the IP devices with a personal user profile. Transferring calls from cellphone to IP phone or from IP phone to cellphone worked flawlessly. With XML services integrated directly into the IP phone, it was possible to call up SBB timetables or news tickers. On the other side, as operators, the Parliamentary Services profited mainly from the fact that just one single infrastructure had to be run and managed for the data and telephone network. This resulted on the one hand to savings in administration, servicing, connection and routing costs. On the other hand, there were also straightforward options available for scaling the installation, for example, by the simple integration of additional applications and services, or the flexible and cost-effective connection of new branches.

«Live» test of the VoIP infrastructure during day-to-day business of the Parliament

The simple and flexible integration of voice and data on one platform was, in addition to the cost aspect, one of the fundamental criteria which tipped the balance in favor of Cisco and against a hybrid solution during the evaluation. For Lazzarini, the Project Manager, this complete system with the active components which only Cisco could offer with this overall level of consistency was «the most sensible route in order to minimize operational risks and to be able to offer the Parliamentary Services the best possible solution ideally suited to the existing circumstances. It is transparent and represents a holistic approach.» He also highlights the further system advantages; they include the fact that it is easy to manage in spite of its complexity and that it is extremely flexible and yet cost-effective. This was demonstrated by the 51 rescheduling issues during the course of the Session.

«I am also extremely pleased with the collaboration with Cisco. The professional approach in every phase of the project was very convincing, and the proof of the suitability of the system was apparent in a difficult environment», Lazzarini says in summing up his experiences with Cisco and the «Session» project. Others were also obviously won over: Renzo Lazzarini was invited as a guest on the Swiss television program «Galerie des Alpes» where he received the «Goldene Helvetia» prize on behalf of his entire team. This award was made in appreciation of the skills that ensured the smooth technical running of the session.

All in all, operation of the system during the Flims session was the very embodiment of a successful «live» test of voice over IP infrastructure in day-to-day parliamentary business. The fact that expectations of relevant criteria such as feasibility, user-friendliness, reliability, security, efficiency and scalability were consistently fulfilled, illustrated the further potential of this technology, especially for applications in the public sector.



Efficient IP communication

Cisco **Unified Communications** Systems products and applications ensured more effective communication during the session outside Berne in the area of voice and IP communications. Cisco **Unified CallManager** is responsible for call management within the Cisco Unified Communication system. It extends the functionality of a corporate-wide telephone system through to IP network devices such as IP phones, PC applications, VoIP gateways and multimedia applications. Other possible services include unified messaging, multimedia conferencing, a contact center and interactive multimedia answering systems.

Call Admission Control (CAC) guarantees that the Quality of Service (QoS) for language is maintained on WAN connections of limited performance. If there is no WAN band width available, calls are automatically rerouted to alternative lines on the public telephone network. The devices and system can also be managed remotely via a web interface for the configuration database.



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