The University of Geneva digitizes its telephone system

Switzerland's second biggest university is being equipped with a new communication system to match its growth and cut operating costs

With more than 5,000 staff across over 30 sites, the University of Geneva's telephone system had become obsolete and needed to be upgraded. The Alcatel OmniPCX Enterprise communication server has been employed in order to pull off this technological leap.

With a history going back hundreds of years, the University of Geneva has an outstanding intellectual heritage, high quality education covering the main areas of the arts and sciences and cutting edge research. In terms of student numbers it is Switzerland's second biggest university after Zurich. Furthermore, since 1996 its workforce has been growing continuously. This trend has continued over the 2002/2003 academic year with 14,138 enrolled students, an increase of 5.82 % over the previous year.

An upgrade job worthy of Geneva

In order to match its growth, the Information Technology Center (*Centre des technologies de l'information* – CTI) of the State of Geneva (responsible for IT and telecom matters for the entire canton administration) decided in March 2002 to modernize its telephone system, which had become obsolete. The automatic branch exchanges were over ten years old, as were the analogue trunks connecting the various sites on the campus. CTI drew up an ambitious specification of requirements

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even if it meant replacing its telephone system. Besides an increase in telephone capacity, the new PBXs had to offer ergonomic and user-friendly communications functions while allowing telecom and operating costs to be cut.

In regard to constraints, the deployment of this innovative technical solution had to be adapted to a wide geographical area and a diverse user population. The geography of the campus, spread out across over 30 buildings, hardly facilitated replacing the automatic branch exchanges, which had to be done over the course of a weekend as not to interfere with the smooth running of the university. This boiled down to every piece of the jigsaw having to be carefully prepared in advance right down to the training of the 1,000 main users located on the various sites.

Two phases of deployment

Add a time constraint, since it was vital for the deployment to be carried out in two phases. The first phase, completed in 2003, involved the Sciences II site and had to be done in conjunction with the telephone installation for the Sciences III building. The second phase, which covered the Uni-Mail, Dufour and Batelle sites, had to take place simultaneously with the commissioning of the telephone system of the Uni-Pignon block in time for the beginning of the university term and the Swiss federal elections in October 2003. In parallel with these two deployments, the CTI simply carried out an upgrade of the automatic branch exchange in the University Medical Center since it was bought more recently. In one way or another over 200 people were involved in
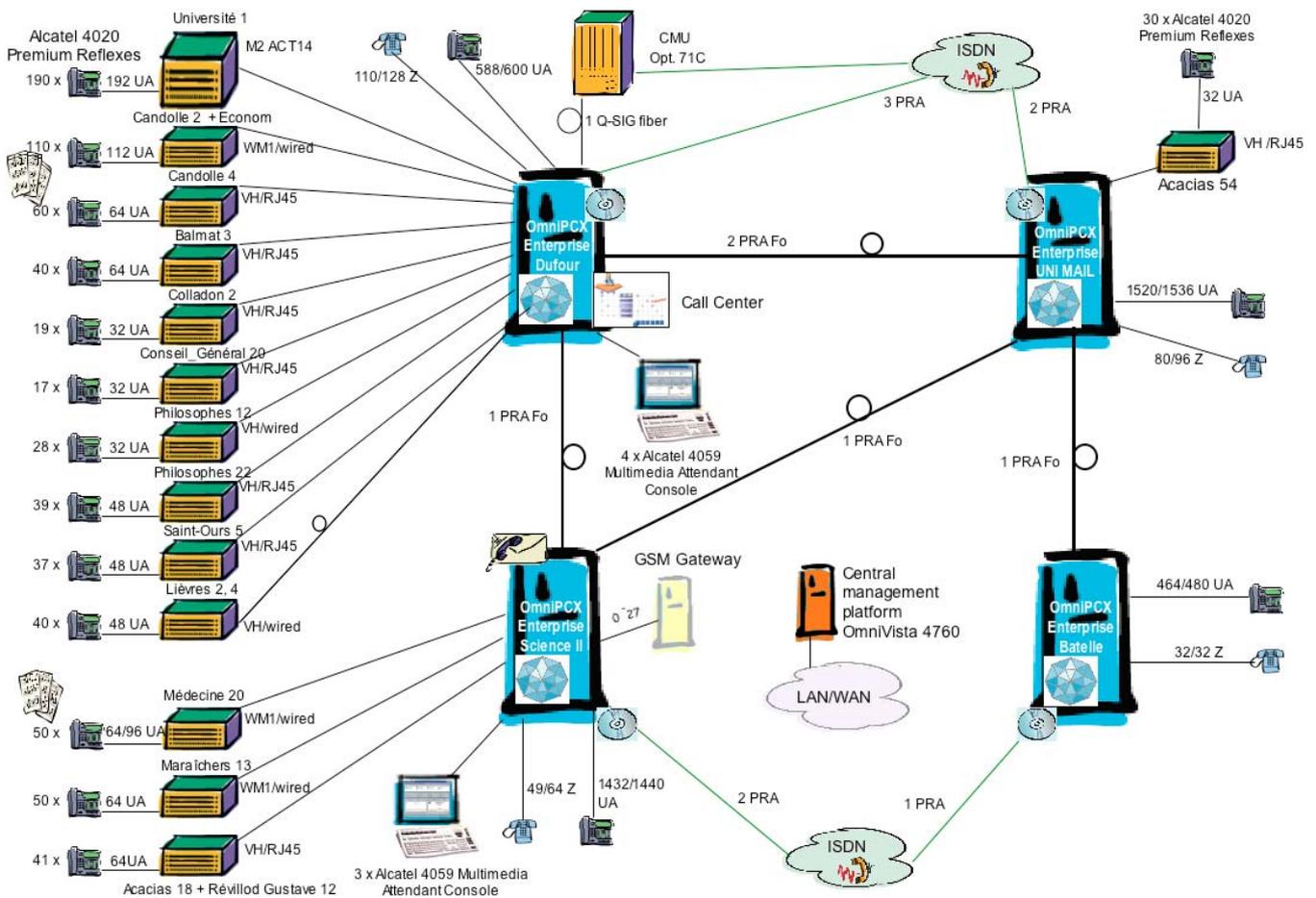
Challenges

- Replacing ten-year old automatic branch exchanges
- Deploying the new phone system in 2 distinct phases
- Migrating to the new system over the course of one weekend in order to guarantee continuity of service

Solutions

- Four Alcatel OmniPCX Enterprise communication servers installed by NextiraOne

Benefits

- Productivity gains
- Increase in incoming call capacity
- Single numbering scheme
- Reduction in maintenance charges and telecom costs

this project under the supervision of the Network/Telecom division of the CTI (*Centre des technologies de l'information – Information Technology Center*) of the State of Geneva.

Unfailing cooperation between the protagonists in the project

In order to make the job a success CTI enlisted the aid of network integrator NextiraOne, a close partner of Alcatel, who suggested deploying Alcatel OmniPCX Enterprise communication servers on the campus. There were several competitors in contention. "In the end the Alcatel OmniPCX Enterprise communication server best met the needs of the university, which wanted a traditional TDM architecture while retaining the

possibility of migrating to IP", explains Gianluca Desimone, Vice President of Marketing, NextiraOne Switzerland. This platform offers all the tools for integrating voice and data, mobile access to all voice and data server applications, web-based administration, access to all network services using IP, applications that integrate servers and directories as well as high performance security services. It consists of a main voice server, which handles calls in real time, forwarding calls to wherever the user is.

This highly modular solution is distributed across the entire campus by means of satellite racks. This distribution uses traditional telephone-type cabling or structured computer cabling and represents a first step towards the convergence of voice and data communications. It brings two main advantages – it greatly reduces

Business Partner Info

Headquartered in Paris and Houston, NextiraOne is a leading global provider of integrated enterprise network solutions and services that enable effective, reliable business communications. We cover everything from planning and design to the implementation, support and management of voice, data and converged communications networks. We provide best-in-class technologies from leading partners such as Alcatel. And we offer consultation and solutions development ranging from contact centre applications to network infrastructure outsourcing. Discover more at www.nextiraone.com. NextiraOne is owned by Platinum Equity (www.platinumequity.com), a global acquisition firm specializing in the strategic operation of mission-critical services and solutions businesses according to a unique M&A&OSM model of value creation.

Armed with an integral digital network relying on 4 Alcatel OmniPCX Enterprise communication servers, the University of Geneva is cutting its telephone costs.

the complexity of central processing as well as providing implicit redundancy regardless of capacity; an incident in one module has no impact on the rest of the system. Thanks to its very high level of reliability, the Alcatel OmniPCX Enterprise is a genuine highly fault tolerant communication system. The whole project represents an investment of 4 million Swiss francs. This budget includes the cost of revamping the cable infrastructure including installing fiber-optics to connect the Alcatel OmniPCX Enterprise communication servers to one another. Finally, 3,200 new phones have been installed. Today, users are enjoying the benefits of a high-performance telephone service.

Added value is noticed in everyday use

Voicemail, caller identification, integrated phonebook – the Alcatel OmniPCX Enterprise telephony tools have improved communication within the university after a very simple learning process for the users. The work beforehand on training and providing information meant a great deal to the success of the project. With the new telephone system, the University of Geneva has a single dial-in number and increased telephone capacity. The university's telephone numbering scheme allows a potential 10,000 new numbers to match the needs of future internal subscribers.

Replacement of the automatic branch exchanges has also brought financial benefits since maintenance costs have droppped. Finally, making the interconnection network digital has allowed the State of Geneva to realize substantial savings by ceasing to rent 400 analog telephone lines.

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