SIX relies on greenDatacenter Zurich-West to operate Switzerland's financial market infrastructure

The SIX Group, operator of important infrastructures for Switzerland's financial center, has high requirements for the availability of their IT systems. Following a thorough evaluation, the financial service provider moved its services to a new server room in greenDatacenter Zurich-West. The new solution offers the strictly regulated company maximum operative security.

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'greenDatacenter Zurich-West is an ideal location and offers the best possible security.'

Roger Schlegel
Head of Real Estate at SIX

The company

Financial service provider SIX Group with headquarters in Zurich has sites in 24 countries around the world. The company is owned by around 140 national and international financial institutions, who are also the main users of the services provided by SIX. SIX operates Switzerland's principal stock exchange, offers diverse securities settlement services, prepares financial information, and processes cashless payment transactions. The company is also responsible for the smooth operation of Switzerland's ATMs.

For time-critical processing of stock exchange transactions, the stability and security of SIX IT systems have top priority. This is the reason why both the Swiss Financial Market Supervisory Authority (Finma) and the Swiss National Bank (SNB) oversee parts of the company as well as individual systems. In the future, the SIX company's IT will be operated georedundantly in greenDatacenter Zurich-West – an ideal distance from its main datacenter in Zurich.

Evaluation

In January 2011, SIX decided to look for alternatives for the datacenter in their secondary location in Schlieren. To make sure there were no interruptions in data transmission, the company planned to have two completely separate routes in the future.

The evaluated datacenters underwent a risk analysis with respect to their location. Their technical equipment, the security standards, and the redundancy of power and air conditioning systems were examined. The evaluation phase took an entire year and ended with the project team recommending greenDatacenter Zurich-West. The datacenter fulfilled all criteria and even exceeded the requirement to meet the Tier III standard.

In a next step, inspections were carried out by Finma and the SNB. In addition to checking the security aspects, they subjected Green Datacenter AG to a comprehensive risk check that also covered the financial stability of the company and its owners. In January 2014, they gave the green light for working together with the datacenter service provider and SIX decided to move its IT to greenDatacenter Zurich-West.

Project planning

The overall schedule allocates just under three years for implementing the project – from the preliminary study to the completion of the move. The project order from SIX specifies that no new functions are needed but that state-of-the-art technology has to be acquired. This means defining, purchasing, installing, and testing the entire IT infrastructure, from the racks to the security equipment to the hardware. The goal is that by 2017, all applications will be available in the greenDatacenter and the datacenter in Schlieren can be seamlessly replaced. Green estimated six months to prepare the SIX datacenter space.

Implementation

Once the planning work was complete, SIX wrote out all the separate orders needed for the extensive preparation of the datacenter and issued them as work contracts. Green Datacenter AG was capable of meeting all requested delivery deadlines, prices, and quality requirements, which is why the company was awarded most of the work. The experienced Green project team was in charge of internal cabling, route cabling, power feeds to the racks, purchasing and building the racks, and installing the security equipment within the SIX datacenter space. All orders included project management tasks that mainly consisted of coordinating all involved parties at SIX, the subsuppliers, and other suppliers. Green also led the Supplier Committee that reported directly to the Project Board.

Responsibility for operation of the new datacenter was turned over to SIX in the middle of August 2015. The opening ceremony took place on September 30, 2015, when the finished datacenter space was handed over to SIX in the presence of the core project team. It is noteworthy that despite the tight schedule, all milestones were met. All 128 racks were built and equipped on schedule. A total of 22.5 km of intra-rack cabling and 5 km of power cables were redundantly laid to ensure maximum availability. The completion of the datacenter space provided the basis for moving the Schlieren datacenter on schedule.

Advantages

By moving into greenDatacenter Zurich-West, SIX now has a modern infrastructure that meets the Tier IV standard. The new datacenter is located on grounds that are separate from the primary location and fulfills all SNB and Finma requirements. The time-critical data synchronization between the two locations functions perfectly despite the large distance between the two. Thanks to the two completely independent routes, the operational security of data transmission could be significantly improved.

Outsourcing the deployment to Green also proved to be an advantage. The internal IT at SIX then had time to focus on preparing the systems and applications needed for the project and on overall project management. And Green Datacenter had the necessary know-how and the right supplier relationships to be able to process the orders on time. Green Datacenter was able to provide a new, high-quality rack system that offers higher operational stability and flexibility without exceeding the budget.

‘Despite the tight schedule and the tough budget that was negotiated, we benefit from a state-of-the-art solution. ’

Dave Brupbacher
Project Executive at SIX

Collaboration

The complexity of the systems and the size of the SIX project team were a challenge for both parties. In a very tight time frame, all involved parties had to be informed and co-ordinated. At its peak, during the move in 2016, 140 SIX employees worked on the mammoth project. Dave Brupbacher, Project Executive at SIX, commented on the entire project as follows: "The project was a challenge for all of us. I was pleasantly surprised at how dedicated the Green employees were. Despite the tight schedule and the tough budget that was negotiated, we now have a solution that is state-of-the-art and that was implemented on schedule."

For Green Datacenter AG, SIX is an important key customer for the second datacenter tract that was opened in October 2014 in Lupfig. The intense project phase bonded the two teams at all levels.

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