The Dolder Grand luxury hotel in Zurich uses Cisco UCS to provide guests with reliable service

Perfect service

The Dolder Grand Hotel and Spa was built in 1899 as a health resort for residents of Zurich.

The Dolder Grand has forged a reputation for excellent service. The five-star luxury hotel has modernised its IT infrastructure in order to maintain this level of excellence and provide optimum service for its guests. Forty physical servers have been replaced with six Cisco UCS blades. These now ensure maximum possible network stability in combination with VMware virtualisation solutions and NetApp storage systems. Employees can now allocate rooms, make reservations and perform check-in and check-out processes quickly and efficiently around the clock. Guests can reliably regulate the lighting and temperature of their rooms. The hotel itself benefits from simplified administration, lower energy consumption and reduced operating costs in the data centre.

The Dolder Grand can be seen from afar in its location overlooking the city of Zurich. The hotel was built between 1897 and 1899 under the direction of Basel architect Jacques Gros in the style of a castle and was originally designed as a hotel and spa retreat for city-dwellers in need of relaxation. Over the decades, it has accommodated numerous illustrious guests such as John Wayne, Sophia Loren, Roger Moore, Arthur Rubinstein, Michael Jackson, Luciano Pavarotti, Nelson Mandela and Mikhail Gorbachev. Planning for further modernisation began in 2001 led by architect Lord Norman Foster, best known for his design of the glass dome on Germany's Reichstag building. During the comprehensive renovations, carried out from 2004 to 2008, the original historical building was restored and its facade returned to its original state. Two new modern wings were also added to the building. Today, the city resort offers 173 rooms and suites, exquisite cuisine, a 4000-square-metre spa complex and generous banqueting and conference facilities.

Patrick Stäheli, Director of Engineering: "The hardware now does what it should - it works. Cisco UCS has given us a stable platform that serves as a basis for all applications."

Full makeover

While a renovation every 50 years may be sufficient for the substance of a building, the IT world works within far shorter time frames. The IT infrastructure which had been implemented during the renovations in 2008 consisted of 40 physical servers and was already obsolete after three years. Its performance and storage capacity no longer lived up to current expectations. Patrick Stäheli, Director of Engineering at the Dolder Resort, therefore decided to implement a modern, more reliable and higher-performance solution. Further demands included comprehensive virtualisation using VMware in order to increase server efficiency and thus reduce both energy consumption and space requirements. In addition, cooling demands for the hotel's server room were to be significantly reduced.

The Cisco 5100 series UCS Blade Server Chassis provides space for up to 8 half-width or 4 full-width Cisco UCS B-series blade servers and features standard front-to-back cooling.

Background
The five-star luxury Dolder Grand Hotel in Zurich offers 173 rooms and suites, exquisite gastronomy, a 4000 square metre spa complex and generous banqueting and conference facilities. The original health spa, built in 1899, is now a luxury-class city resort. The hotel's elevated location provides a stunning view of the city of Zurich, its lake and the Alps.

The challenge
The hotel's IT infrastructure was implemented during renovations in 2008. It consisted of 40 physical servers and was already obsolete after three years. Its performance and storage capacity no longer lived up to current expectations, the system was no longer reliable and the IT department were required to provide support more and more frequently, including at night and on weekends.

Solution
A comprehensive solution has been implemented in the data centre consisting of Cisco UCS, the VMware vSphere 4 virtualisation solution and NetApp Filer storage systems. The UCS consists of two Fabric Interconnects, one chassis and six B200 blades. Each blade consists of two processors, each with six cores and 96 GB of memory.

Benefits
- Increased stability and speed of applications
- Fewer support requests and remote access capability
- Lower operating costs due to simplified management
- Reduced energy consumption for electricity and air conditioning

"We considered a number of different options which we narrowed down to a shortlist of two", recalls Patrick Stäheli. "One alternative was to replace the existing servers with three to four up-to-date HP systems. The other option was Cisco UCS with VMware and NetApp. Initially, we were sceptical and thought that the Cisco solution was perhaps overlarge for our requirements but the attractive price, simplified management and the numerous functions available persuaded us in the end. We also wanted to have proven, state-of-the-art technology from the market leader at our disposal, even if we only actually need and use a fraction of the possibilities it offers. This way, we can guarantee that our infrastructure is ready for the future."

The Dolder Grand UCS initially consisted of four B200 blades, two Fabric Interconnects and one chassis. Shortly afterwards, the hotel's IT department extended the UCS by two additional blades so that they now employ a total of six. Each blade has two processors, each with six cores and 96 GB of memory. These servers are used to run all the applications from the previous servers which have been virtualised using VMware vSphere 4. The previously low-performance memory system was replaced with a NetApp Filer which now operates the virtualisation platform based on UCS.

Initial installation and commissioning of the UCS and VMware was performed in under two days. Following the smooth deployment of VMware, the platform was ready to use. Migration was performed in a total of two weeks thanks to prior conversion to the NetApp storage system. The project remained on schedule and within budget. Service profiles were cloned during the upgrade making the hardware ready for use within just a few minutes. This was possible as neither network or SAN had to be configured; everything is pre-configured within the UCS.

Reliable platform

Patrick Stäheli was impressed not only by the speed of installation but also by the reliability of the new infrastructure: "The hardware now does what it should - it works. Cisco UCS has given us a stable platform that serves as a basis for all applications. These include business applications such as Abacus accounting software and the Amadeus reservation system as well as standard applications such as Exchange, SharePoint and Citrix. They can now all be accessed in a virtualised form which has considerably increased their performance and availability".

The new solution also proved impressive during the Cisco demonstration by rapidly resolving errors with no downtime. Thanks to the additional hardware abstraction layer, a defective blade can simply be removed and replaced with a new one. Users remain entirely unaware of this since the virtualised applications continue to run as normal in the meantime using the other blades. This solution would not be possible using single servers. So far, however, replacement has not been necessary during continuous operation at the Dolder Grand as the hardware has run flawlessly. In fact, the blade servers cause the IT department very little work on an everyday basis as they run reliably and require no active maintenance or administration. Passive monitoring to supervise the running of the system is entirely sufficient.

Queries can also now be processed via remote access. This means that on-call IT staff can alter the systems from home and no longer have to be on-site at the hotel. The new solution has also lowered operating costs since the reduced number of servers are considerably simpler to administrate and also require less energy and cooling. The existing air conditioning system is therefore adequate for the job once more.

The 5-star Dolder Grand Hotel is situated in an idyllic location on the western slopes of Adlisberg mountain overlooking Lake Zurich and the city.

Expert partner

"Following our thoroughly positive experiences with this solution, we can award very high marks to all three providers", enthuses Patrick Stäheli. "They can also be contacted at any time and answer our questions quickly and competently. Communication is very direct and open, in particular with our current contact person at Cisco, with whom we had already worked for several years in his previous position. We have also received excellent support from Cisco, VMware and NetApp in terms of strategy planning and new ideas and solutions."

Since the start of 2010, these three companies have been working in close collaboration to provide comprehensive solutions, service and support for cloud-based data centres from a single source. VMware is responsible for the virtualisation of the servers. Data and images on the virtual machines are stored on NetApp Filers and on their data storage systems using their own file system in the storage area network. Servers are connected to the networks by Cisco switches, which use Unified Fabric to combine the data, storage, and communication networks into a single view in the data centre. VMware vSphere 4 provides the necessary support for managing the networks. The customer is free to select hardware for the virtual machines and network facilities. However, the Dolder Grand chose to use Cisco blades and is also planning to use network solutions by the same provider in the near future.

Outlook

On the strength of their positive experiences, the luxury hotel is planning to upgrade their entire current network with Cisco Nexus and Catalyst switches in the coming year. The possibilities for new applications and special services for guests will then be practically unlimited. "For instance, we are considering replacing telephones in the rooms with tablet PCs such as the Cisco Cius", explains Patrick Stäheli. "Guests will then receive important additional information straight away, and will be able to control the air conditioning or lighting in their room more intuitively or communicate with hotel employees by video conference. The new Cisco network in combination with UCS forms the basis for all these functions and applications."

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