StayFriends Boosts Network Functionality and Speed

Using EX Series Ethernet Switches in a Second Data Center

Summary

Company:

StayFriends

Industry:

Media and Entertainment

Challenges:

- Achieve fast connections using the right switches
- Enable servers to communicate efficiently and quickly exchange data between Nuremberg and Berlin
- Optimize space and power utilization

Selection Criteria:

After considering solutions from two leading providers, StayFriends decided that Juniper offered a high-performance solution that was ideally tailored to its needs, and at a reasonable price.

Network Solution:

- EX Series Ethernet Switches

Results:

- Higher performing network with easier administration
- Redundant infrastructure at two locations
- Optimized data transfer speeds
- Lower power consumption and space requirements

With more than 13 million members in Germany and at least one million school pictures online1, StayFriends is a very successful social network. From the moment it was founded in 2002, the online service concentrated on bringing new relationships to old friends. Users can find old schoolmates, or find themselves in class pictures that other members have uploaded. This is not limited to Germany; StayFriends also works in Sweden, France, Austria, and Switzerland.

In addition to subscribers and their activity, flawless functionality is also crucial to the success of an online network. A high-performance data center is the foundation for processing user requests within milliseconds at times of high usage, because a service such as StayFriends relies on stable servers with no downtime.

Challenge

SWhat are powerful servers and fast connections without the right switches to enable servers to communicate efficiently and quickly exchange data between data centers in two cities (Nuremberg and Berlin)? The StayFriends data center in Nuremberg includes somewhat outdated 100 Mbps and 1GbE switches. Although the switches perform well in everyday procedures, "if we had to update our system, we would probably not be able to avoid downtimes," says Gunther Greb, senior IT-systems administrator at StayFriends. Furthermore, the overall number of switches—more than 70—is not easy to administer.

Selection Criteria

In the course of searching for alternatives, StayFriends considered solutions from Juniper Networks and a second provider. Both offered a good range of functions and high performance. "However, the competitor's solution was oversized because StayFriends does not own its own data center, but only servers in a rented space," explains Sascha Ottolski, director IT-Systems at StayFriends. What Juniper suggested—three Juniper Networks® EX4500 and 20 EX4200-48T Ethernet Switches—was much more suitable, delivering a high-performance solution tailored to StayFriends' needs at a reasonable price. By utilizing Juniper's unique Virtual Chassis technology, which allows multiple interconnected switches to operate as a single, logical device, the Juniper solution also gave StayFriends the ability to expand the network and buy more performance if needed in the future.

"The main advantage of using Juniper also in our primary locations are better performance and of course much easier administration."

Sascha Ottolski, Director IT-Systems, StayFriends

Solution

To redundantly connect the servers in Nuremberg to the servers in Berlin, StayFriends has leased two independent lines with different routings. "Our greatest challenge was that, due to technical reasons, we could not have all data in both locations," says Ottolski. This means that transfers need to be done within milliseconds. Since the lines are not identically routed, they are not the exact same speed. The system therefore needs to purposely use the line with the suitable speed for each data package: replicates are sent over the faster line, while backups use the somewhat slower connection.

To improve its already high reliability, StayFriends implemented a second redundant data center in Berlin to support the existing one in Nuremberg. "We rented space in data center in both cities so we can redundantly save data at both places with a secure linear distance of 400 kilometers in between the servers," Ottolski says. The company's goal was to prevent the social network from going offline in case of a complete breakdown of a single data center.

Storing data on servers located in two different locations is not all that StayFriends did to ensure that its platform would have greater redundancy. Actually it's the performance and redundant connection between the two data centers which help ensure that users will be able to use the service and search for old schoolmates at all times. Both data centers are connected in an active/active state, almost as if they were one and the same.

"Due to the Virtual Chassis technology, we only administer four virtual devices instead of more than 70 in Nuremberg."

Sascha Ottolski, Director IT-Systems, StayFriends

Results

Price, quality, and handling of the Juniper products convinced StayFriends that the EX Series switches were the solution they needed. "Due to the Virtual Chassis technology, we only administer four virtual devices instead of more than 70 in Nuremberg," says Ottolski. Within only a few days, employees got used to the new system and its functions. The Juniper Networks Junos® operating system is simple to use and offers a range of possibilities which were not possible with the old switches in Nuremberg. "For example, Junos OS enables us to change configurations without having them immediately running," says senior IT-systems administrator Greb. That way, new settings can be checked and if they're not ideal, the system is automatically reset to its initial conditions. Junos OS independently indicates if the new configuration is suitable.

Greb also appreciates the analysis that Junos OS enables him to carry out. "If a server tells me that it lacks a physical connection to the network, there is usually no need to personally take a look at the data center."

Next Steps and Lessons Learned

The experience with the solution offered by Juniper Networks has been very positive, and StayFriends now wants to update the Nuremberg data center in the same way. Most of the existing switches are no longer being supported by the incumbent provider, and even though they're not causing any problems yet, this makes it a good time to think about a change. "The main advantage of using Juniper also in our primary locations are better performance and of course much easier administration," Ottolski says. At the same time, StayFriends can reduce power consumption and save space with the new solution.

For More Information

To find out more about Juniper Networks products and solutions, please visit www.juniper.net.

About Juniper Networks

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3520466-001-EN June 2015