German Tour Operator Migrates Critical Applications to a New Fault-Tolerant Data Center

Summary

Customer:
alltours flugreisen gmbh

Industry:
Travel

Business Challenge:
alltours serves around two million travellers per year with a 24x7 operation. It needed a new, high-performance data center network to support its critical business applications, including its website, booking systems, and call center.

Technology Solution:
- QFX3500 switches
- EX4300, EX3300, and EX2200 Ethernet Switches

Business Results:
- alltours migrated to its new data center seamlessly, over one night.
- All critical customer applications now use the new network.
- It is highly resilient and can be upgraded in-service with zero downtime.
- alltours now has a scalable data center solution able to grow over time

alltours is the largest group of independent tour operators in Germany, with an annual turnover of around 1.5 billion euros and around 500 employees. alltours' headquarters is located in Düsseldorf, from where it serves nearly two million travellers per year.

The alltours group of companies also includes Travel Center alltours GmbH, a travel agency chain with around 210 travel agencies; tour operators BYE.bye Dynamic Packages GmbH; the Spanish incoming travel agency Viajes Allsun, which is headquartered in Mallorca; and real estate and management company alltours España.

Business Challenge

alltours moved its headquarters from Duisburg to a new location in Düsseldorf to support the continued expansion of its business. As part of this transition, and to increase the availability and scalability of its IT systems, alltours also moved its business-critical IT equipment into a new data center, requiring a green-field build-out of network infrastructure. alltours' entire business is dependent on the accessibility of its systems by its customers, so the availability and reliability of the solution was paramount.

As Sven Joost, group leader IT at alltours, explains, "We are in the tourist brokerage market where our customers are looking for immediate responses to their requests. Our systems need to be the fastest to react, so our customers don't go elsewhere. The IT infrastructure may be hidden from the customer but any issues affect our entire business, any packet loss or delay is critical to our revenues."

alltours operates a 24x7 operation, offering services to around two million guests around the world per season. Its central databases, booking systems, and website rely on the network infrastructure. Its call center, which is run over VoIP, is also dependent on the new data center, as all of its gateways are located in the data center.

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Sven Joost, Group Leader IT, alltours

alltours had deployed Juniper Networks firewalls previously, and on the recommendation of Juniper's local partner Concentrade, it had gone on to deploy them throughout its entire network. Concentrade also suggested alltours look at Juniper's switching solution for its new data center infrastructure. As a result of its positive experience with its Juniper security systems, alltours began a thorough evaluation of Juniper's data center switching capabilities.

Fault tolerance and high availability were the most important criteria for alltours. It was also essential that all the architectural components of the network would work well together, and would be easy to maintain and operate with zero downtime, even during software upgrades. alltours was also looking for scalability and a data center solution that would be able to grow over time.

Technology Solution

alltours selected Juniper Networks to build out its new data center infrastructure with an end-to-end network solution. It deployed a network which was designed to be fault tolerant and also provide completely hitless hardware and software upgrades with no impact on business communication. The solution was designed in such a way that it wouldn't even suffer from outages during planned maintenance windows.

For its new network infrastructure, alltours deployed Juniper Networks® QFX Series switches using multichassis link aggregation (MC-LAG), and EX Series Ethernet Switches, which were used for top-of-rack deployment as Virtual Chassis. The QFX Series switches are high-performance, high-density platforms designed for top-of-rack, end-of-row, and spine-and-core aggregation deployments in modern data centers. They can be deployed as 10GbE, 40GbE, or 100GbE access devices in Virtual Chassis, Virtual Chassis Fabric, MC-LAG, and Juniper Networks Junos® Fusion architectures.

The QFX Series switches allow alltours to support both 10GbE and 40GbE interfaces with space for future growth. Using multiple QFX Series systems also means that any single system can be taken offline and upgraded with no impact to any other systems.

Servers are connected by top-of-rack EX4300 Ethernet Switches, which were configured as Virtual Chassis. Each has a redundant connection to a local QFX Series switch to create a fault-tolerant system, providing connectivity from any system to any other system. Some servers were connected directly to the QFX Series at 10GbE, with 1GbE servers aggregated through the EX Series switches.

Business Results

All alltours critical customer applications now use the new network, from the central travel booking process to its VoIP call-centre. The migration was challenging, as alltours had to transition to its new data center in a single night. Concentrade ensured that the process went smoothly, and by the morning, everything was working seamlessly.

"Juniper was very responsive to our requirements and Concentrade was present during the whole process," Sven Joost says. "We have a partner and a technology supplier who can react quickly, and assess what we need in an innovative way, not just settling for the de facto solution. Concentrade introduced us to Juniper's security solutions, then to its network systems. They are responsible for the complete solution—not just a single switch but the interdependencies between systems, and making sure everything works together."

Next Steps

The new data center network has experienced no outages since the move. Additionally, the QFX Series systems have been designed with plenty of room for growth and equipped for a smooth and easy upgrade process when needed. alltours can connect a new rack simply by adding a new Virtual Chassis.

"Things change fast in our market," Sven Joost says. "A new program or idea can arrive in the market very quickly and we have to be able to react and keep pace—so we need an infrastructure that can be just as flexible—coping with new systems, applications, or rapidly adding capacity. We chose the right partner and the right technology. If we had to go through the process again, we would do exactly the same thing."

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