Bausparkasse Schwäbisch Hall AG upgrades network to modern leaf and spine architecture with Arista Networks upgrade

Highlights

Challenge

A major SAP infrastructure upgrade along with new digital products prompted Bausparkasse Schwäbisch Hall AG to migrate its legacy network to a spine and leaf-based design from Arista Networks that has improved performance, reliability and further streamlined management through advanced software defined automation.

Solutions

- Arista 7000 Series spine and leaf switches for high performance, low latency, and scale
- CloudVision software delivering single view of the entire network for simplified management
- Arista Advanced Services for Design and Migration

Results

- Improved network and application performance and reliability
- Open standards-based approach to simplify support, upgrades, and automation
- Consistent Extensible Operating Systems across entire network simplifies management tasks

As a highly regarded German building society, Bausparkasse Schwäbisch Hall AG is undergoing a major transformation of its IT infrastructure which includes a significant upgrade to its legacy network. Following a detailed evaluation, Schwäbisch Hall selected Arista to deliver improved performance, reliability, and software defined automation technology to streamline management.

Project Background

Founded in 1931 in Cologne, Germany, Bausparkasse Schwäbisch Hall AG is a building society with 7 million customers, 6500 employees and international operations in Slovakia, Hungary and China. In 2018, it created BAUFINEX, a new online marketplace for independent brokers to further expand the mortgage business together with other cooperative banks.

Challenge

Well known for trust and security, Schwäbisch Hall has continually modernised its technology and invested in innovation. For example, it started to move several of its workloads to Microsoft Azure to further Cloud Networking.

Behind the scenes, Schwäbisch Hall is also undergoing modernisation of its core IT infrastructure to meet the needs of the modern business world. One such project is to move from its existing mainframe systems to a more virtualized SAP environment. To support this transition, Schwäbisch Hall decided to upgrade its data centres, core networking connectivity, DMZ networks as well as the campus aggregation to not only improve performance, but also to allow for additional new features such as converged voice, video, and data.

Even though Schwäbisch Hall had been with the same legacy network supplier for over a decade, it was felt that the major upgrade projects offered the perfect opportunity for fresh thinking. As Sven Hintz, Network manager for Schwäbisch Hall explains, "Some of our new digital services demand more throughput from the network and our existing switches were also reaching end-of-life, so it made sense to think about redesigning our network from the ground up."

Solution

Using guidance from the Gartner Magic quadrant, Hintz and his team originally looked at 6 vendors and whittled it down to a shortlist of just two. Following a 2-month detailed evaluation, Arista was selected based on its performance, unified operating environment, and openness. "One of our goals is to move to a more software-defined network architecture and Arista offers an easier path through its support of open standards", Hintz adds.

Working with a highly experienced local Arista Partner, Schwäbisch Hall began the network project in late 2019, moving from a traditional three-tier network design to a more modern Leaf and Spine fabric. The Arista Advanced Services team provided guidance for Design and Migration of the infrastructure. Both its data centres are connected via a single Ethernet VPN that carries layer 2 and layer 3 traffic as a virtual private network using wide area network protocols.

Depending on its specific requirements, Schwäbisch Hall operates various different Arista devices, all of which run the same Arista EOS software and binary image simplifying network administration with a single standard across all switches. The installation was supplemented with a centrally-managed instance of Arista CloudVision, a turnkey solution for network-wide workload orchestration, workflow automation, real-time visibility into network operations.

The heart of the new network features Arista modular chassis switches which are used for the spine layer. The Datacenter and Campus Leafs use mostly switches offering a low latency 1RU platform to serve different requirements around 10G, 25G and 100G connectivity. Finally, switches, which are purpose built around a flexible arrangement of 10/25/40/100GbE ports as well as MACSec capabilities with up to 12 terabits per second throughput and ultra-deep packet buffers, form the DCI and are being used as DMZ-Leafs.

Conclusion

Following an 8-week setup including functional/non-functional testing and a 6-month migration project, the new network went live in early 2020 delivering an upgrade from the old 10G to a new 100G core with improved resiliency and performance. "We had been with our previous networking supplier for over 10 years but the change to Arista was very easy," says Hintz. One major advantage was the new zero touch deployment capability, "Everything has been automated and the CloudVision portal is very helpful as a single pane view to allow us to carry out deployment and centralised change management," he adds.

The arrival of the new network with its upgraded performance was especially timely with Schwäbisch Hall having to respond to the Coronavirus pandemic which resulted in increased use of video conferencing for its staff forced to work from home. The project has been deemed a great success by the business. "In addition to the technology, it was the know-how of the project team, consisting of our internal staff, the Arista team and Arista Advanced Services, that was a key factor for the project's success." Hintz says, "Looking to the future my team is examining more use of VXLAN as well as additional automation capabilities to further streamline our operational processes."

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