

Helvetia selects Arista as networking foundation for major data centre consolidation project and move to NSX based software defined networking architecture to reduce operational complexity and build a scalable future

Highlights

Challenge

Following a major merger, European insurance provider Helvetia decided to consolidate its data centres and upgrade its network to benefit from software defined features.

Solutions

- Arista 7050, 7150, 7280 Switches
- Arista EOS®

Results

- Arista Data Center Interconnection (DCI) solution provides seamless support for VMware NSX feature set
- Consolidated down from five to two data centres while maintaining access to critical line of business applications
- Transformational project moves 80% of manual network configuration process into software defined functions for simplified management

In 2015 Helvetia, a European insurance provider, completed a major merger involving five data centres, 1600 servers and over 300 applications. Although a major challenge, the merger created a transformational opportunity to both consolidate and upgrade its infrastructure to take advantage of software defined networking technology. With a combination of Arista Networking and VMware NSX, Helvetia is benefiting from advanced automation that is reducing complexity and improving operational efficiency.



Project Background

Helvetia has a long tradition that spans over 150 years that has seen it grow from a collection of Swiss and foreign insurance companies into a successful international insurance group. Today, Helvetia has subsidiaries in its home market Switzerland as well as Germany, Italy, Austria and Spain. With some 6,500 employees, the company provides services to more than 5 million customers. With a business volume of CHF 8.51 billion, Helvetia generated underlying earnings of CHF 491.8 million in the 2016 financial year.

In 2015, Helvetia completed a merger with Nationale Suisse, reinforcing Helvetia as Switzerland's top-3 insurer, allowing it to become one of the country's leading multi-line insurers. Behind the scenes, this would require a major IT project to consolidate and merge the new groups' infrastructure which had grown to include five separate data centres and over 300 lines of business applications.

Challenge

Alongside the needed integration of IT systems, the merger also offered an opportunity to begin a transformational project to upgrade its existing network to deliver more value to the business while streamlining operational processes.

As Andreas Hagin, lead engineer for infrastructure at Helvetia explains, "Consolidation was our main driver, but it also gave us an opportunity to look at what we wanted to do for the future. One of our goals was to remove some of the complexity and increase the level of automation and create a simpler and more reliable network architecture."

Hagin and his team began evaluating a number of software defined networking technologies to gauge the suitability for its environment and potential operational needs moving forward. As both a large user of VMware based virtualisation and Cisco networking hardware, Hagin's team examined both HDN and SDN solutions towards network virtualisation.

"We looked at both technologies closely but it was felt that NSX was the more flexible and allowed us to use a wider range of technology integration from a broader ecosystem of vendors," explains Hagin.

The decision to use NSX as the core software defined networking technology prompted Helvetia to examine its network requirements. "In our evaluation, Arista offered the best balance of performance and flexibility as well as deep support for our use of NSX."

With Helvetia planning to migrate from five down to two geographically dispersed data centres, a key benefit offered by Arista is its Data Center Interconnection (DCI) solution that provides an open and cost-effective method of providing layer-2 connectivity between data centres over a layer-3 transport network. The technology is based on the Virtual eXtensible Local Area Network (VXLAN), an open IETF specification designed to standardise an overlay encapsulation protocol, capable of relaying layer-2 traffic over IP networks.

Solution

With the networking and SDN technologies decided, a deployment schedule was created that would ensure that the 1600 hundred servers and corresponding applications could be consolidated down to just two new sites over the course of 5 weekends during a 6 month period.

The process moved batches of linked application servers across the network and then ran detailed application testing phases followed by any remediation work.

"We worked well as a team," says Hagin, "We went from proof of concept to migrating nearly 95% of our infrastructure in just a few months without any unplanned outages and only minor issues that were quickly resolved through simple configuration changes."



Conclusion

Although Helvetia still has a few servers and applications to migrate, the shutdown of two of its five remaining data centres is on schedule. With the bulk of the project complete, the network operations teams are now delivering additional benefits to the business.

“We are managing more applications and delivering more capabilities without increasing our headcount,” explains Hagin, “Now, if we want to apply a new VLAN, we don’t have to touch the hardware and instead we use NSX which makes the process faster and more reliable.”

Hagin estimates that 80% of the previously manual network administration tasks have now been virtualised and the benefits are extending towards Helvetia’s development teams that can now better access network functions as part of a move towards a dev-ops culture.

“The Arista switches are doing exactly what we want,” says Hagin, “They are effectively transparent and offer zero pain points for us, the intelligence is now in the software layer.”

Hagin also points to the wider knowledge benefits that the project has provided, “We made some decisions that were not always liked by everybody, but ultimately we have kept an open mind and learned some valuable lessons about what works and how to build a better infrastructure that is ready for the future.

“We have also listened to our teams and retained a lot of the knowledge inside our organisation which will help us to evolve over time as our needs change,” Hagin concludes.



Santa Clara—Corporate Headquarters

5453 Great America Parkway,
Santa Clara, CA 95054

Phone: +1-408-547-5500

Fax: +1-408-538-8920

Email: info@arista.com

Ireland—International Headquarters

3130 Atlantic Avenue
Westpark Business Campus
Shannon, Co. Clare
Ireland

Vancouver—R&D Office

9200 Glenlyon Pkwy, Unit 300
Burnaby, British Columbia
Canada V5J 5J8

San Francisco—R&D and Sales Office 1390

Market Street, Suite 800
San Francisco, CA 94102

India—R&D Office

Global Tech Park, Tower A & B, 11th Floor
Marathahalli Outer Ring Road
Devarabeesanahalli Village, Varthur Hobli
Bangalore, India 560103

Singapore—APAC Administrative Office

9 Temasek Boulevard
#29-01, Suntec Tower Two
Singapore 038989

Nashua—R&D Office

10 Tara Boulevard
Nashua, NH 03062



Copyright © 2017 Arista Networks, Inc. All rights reserved. CloudVision, and EOS are registered trademarks and Arista Networks is a trademark of Arista Networks, Inc. All other company names are trademarks of their respective holders. Information in this document is subject to change without notice. Certain features may not yet be available. Arista Networks, Inc. assumes no responsibility for any errors that may appear in this document. Oct. 13, 2017