Scalair migrates to Arista Networks to improve performance, reliability and reduce time to market for cloud services by 50%

Highlights

Challenge

Scalair needed to upgrade its legacy network architecture to a more advanced leaf and spine design to overcome stability issues and deliver performance enhancements while supporting automation for faster service provisioning.

Solutions

- Arista 7280 Series spine / leaf switches for high performance, low latency and scale
- Arista Software Driven Cloud Networking delivering standard based SDN innovation including automated service provisioning

Results

- Improved performance and lower latency across a highly resilient yet scalable network architecture
- 75% reduction in the time it takes to deploy a new switch into the network or at a customer site
- 50% reduction in the time needed to bring new cloud services to market leading to greater business agility

As an agile provider of cloud services for enterprises across France, Scalair decided to upgrade its core and edge network to a new leaf and spine, non-blocking network architecture along with Software Defined Networking to improve reliability, performance and to speed up delivery times.

Scalair

Project Background

Scalair provides support for businesses with their cloud strategy including hosting, integration, facility management along with setting up secure, scalable, hybrid infrastructure with on-demand resource consumption. Scalair is part of the OktoCampus Group which employs around 120 people in San Francisco, Montreal, Hong Kong and Tokyo, as well as in Hem (Lille area), Betton (in Brittany), and Paris in France. To support around the 1000 customers in France, Scalair maintains 6 datacentres and has invested nearly 15% of its turnover in R & D by participating in national projects such as the OCCIWARE project and works in collaboration with major customers, particularly around topics of elasticity and scalability of infrastructures.

Challenge

In 2016, Scalair began a major project to upgrade its core networking infrastructure following stability issues with its legacy Avaya networking switches. "Along with reliability concerns, the Avaya switches used a proprietary software defined network technology," explains Florent Cahagne, network engineer lead at Scalair. "This gave us very little scope to implement the automation we desired – so we decided to upgrade the network to a more modern and open platform."

Alongside its core network, Scalair also maintains network switches at customer premises to ensure a fully managed cloud service. As part of the upgrade, Scalair would move from its traditional three tier network architecture to a more agile spine and leaf design. "This would not only give us better performance but is also simpler to design, implement and scale," says Florent Cahagne.

Scalair examined several vendor solutions but was impressed by the openness of the Arista platform as well as the performance metrics after it put a few devices through its own test labs.

Solution

As part of a 14-month project, Scalair migrated its core network and several major customer sites onto Arista technology. The network includes Arista 7280R Series switches for Universal Leaf and IP Storage Networks offering dynamic and deep buffering for lossless forwarding with high density 100G and roadmap to 400G Ethernet. At several clients' sites and edge locations, Scalair deployed Arista's 7020R and 7050 Series switches offering an efficient 1RU platform to serve different requirements around 1G, 10G, 25G and 100G connectivity.

All the Arista switches running the same Arista EOS (Extensible Operating System) as part of a spine and leaf architecture has made it easy for Florent Cahagne and his team to add additional network capacity. In addition, the VXLAN based deployment includes several automation scripts created by the network team using Ansible© for customer onboarding: "…the automation scripts have helped us to reduce potential human error when setting up new clients," says Cahagne, "and made day to day operations a lot easier."

Benefits

With more than 55 switches within its network migrated to Arista, Florent Cahagne has been able to quantify the improvements delivered by the project. These include a 75% reduction in the time it takes to deploy a new switch into the network or at a customer site. The scripting and automation features have allowed the network team to delegate new client VXLAN network provisioning to the customer support team which has allowed Scalair to reduce the time needed to bring services to market by 50%.

"The upgrade has been a success that has boosted reliability and performance while making it easier to provision new services," says Florent Cahagne. "The last stage of the project is to replace all of our edge routers with Arista equivalents and move completely to a layer 3 network architecture which is our plan over the next year."

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