

Schuberg Philis selects Arista for its Mission Critical Cloud as part of a successful and ongoing journey to meet its 100% principle

Highlights

Challenge

Schuberg Philis need a flexible switching architecture, to better support the features in its "Cloud Pods" to create a mission critical cloud for its customers.

Solutions

- Arista 7150 Family Switches
- Arista EOS®

Results

- Arista switches running operationally without downtime for nearly five years
- Externally and independently validated network throughput exceeded public cloud by 3x
- Seamless support for CloudStack supports beneficial DevOps culture

Schuberg Philis is a household name across the Dutch technology landscape. Although not the largest firm, it has consistently won recognition and awards for everything from customer service to environmental responsibility while serving both multinational giants and smaller local organisations. Yet it is in innovation where the company has led the way as an early pioneer in areas like open source, cloud computing, virtual networking and increasingly within the fields of DevOps and automation. In its 5 year relationship with Arista, the teams at Schuberg Philis have found a networking technology that allows them to deliver the highest levels of performance and reliability while pushing the technology envelope even further.

The logo for Schuberg Philis features a blue vertical bar on the left side, followed by the company name "SCHUBERG PHILIS" in a bold, grey, sans-serif font. The text is arranged in two lines: "SCHUBERG" on top and "PHILIS" below it.

Project Background

Schuberg Philis is an IT partner that focuses exclusively on the development and orchestration of the application infrastructures that are vitally important for organizations and society. Self-steering teams of experts with a broad authorization work with customers and partners to find solutions for the most complex IT challenges. Their work enables customers to innovate continuously and to seize new opportunities in a rapidly changing environment. In 2015, the 195 colleagues within Schuberg Philis achieved a turnover of €51 million working with customers including Rabobank International Direct Banking, ING, Eneco Energy Trade, Jumbo, Air France-KLM, BKWI, Loodswezen (marine pilotage), ASR the Netherlands (insurance), ACTIAM (asset management), MoneYou, LeasePlan Bank, Hartwig Medical Foundation and Achmea Investment Management.

Challenge

Schuberg Philis is driven by an ethos that it describes as the 100% principle. This applies to everything from product quality, through customer satisfaction and even openness. With almost 500 customers that range in diversity from the largest bank in the Netherlands to a major supermarket chain, Schuberg Philis clients demand mission critical infrastructure along with the highest levels of expertise to help them on their IT journey.

From its headquarters near Schiphol Airport, nearly 200 staff delivers a wide portfolio of services ranging from infrastructure configuration, engineering and managing software platforms to the integration and orchestration of entire application landscapes. Although often considered a Dutch company, many of its customers are global and most are 24/7-focused organisations requiring IT expertise available almost anytime and anywhere.

In 2011, a time when cloud computing was starting to ramp up in its hype cycle, Schuberg Philis looked at the concept after gauging views from its customers. As Edwin Beekman, a Mission Critical Engineer that has been with the company since Schuberg Philis was founded explains, "Many of our customers were quite conservative and back then the notion of cloud sounded good, but they were not ready – especially for something like a public cloud. We knew the agility and flexibility offered by cloud computing would be vital for both of us over the next few years, so we began a project to build our own Mission Critical Cloud from the ground up. Internally, we agreed on a set of very stringent security and performance criteria that the new cloud solution had to meet in order to match our high quality standards."

Solution

As a deeply technical organisation with a deep DevOps culture, the company had previously worked with both OpenStack and CloudStack and created a proof of concept cloud using both open source platforms to test their feature sets and ultimate viability. The teams eventually began contributing back to CloudStack even to the point of sponsoring conferences. However, the core platform was just one element of its cloud concept. The hardware including its notion of using 'cloud pods' of networking, compute and storage also needed vital consideration.

“We knew about Arista back then for its high performance and ultra-low latency, but the area we were more interested in was that this was open Linux on a true production switch,” says Beekman, “For us, this opened up the potential to deliver some powerful new capabilities along with much more automation across the entire Critical Cloud Infrastructure.”

In Beekman’s view, the choice of Arista was critical. “Our developers could now effectively manage the physical infrastructure – an entire process that would previously require input from multiple people could be automated with just a few lines of code.”

Schuberg Philis used Arista 7150 Series switches as the effective top of rack switch for the “cloud pods” it created as standardised rack deployment including compute and storage for its critical cloud infrastructure. Each pod is managed using ‘Cosmic’, the Schuberg Philis fork of the original CloudStack platform with over 100 pods deployed across its four high availability data centres to make up its resilient cloud infrastructure.

“We have the Arista platforms running operationally now for nearly five years and the performance along with the integration into our SDN architecture is phenomenal,” says Beekman, “But what is just as important is our relationship with the Arista team – this goes beyond just support, by providing us access to some incredibly knowledgeable people has allowed us to develop new features that have added some unique capabilities to the way we manage our cloud.”



Conclusion

Since the official launch of its critical cloud, Schuberg Philis has enjoyed absolute reliability and 100% uptime, but it is in less visible areas that many of the benefits are also felt. For example, along with integration of automation technologies such as Chef and Puppet, the infrastructure management team of 6 engineers that previously looked after around 500 servers now manage close to 5000 with the same headcount. "The level of automation we have built into the cloud means that a migration project like banking server infrastructure that would take weeks now literally takes minutes to replicate into our cloud," Beekman explains.

Its cloud has also been independently validated by Cloud Spectator that ran its iterative benchmark suite on virtual machines (VM) hosted within Amazon Web Services, Microsoft Azure and Schuberg Philis. As the 2016 report from the analyst firm states: "Results from this study show that, Schuberg Philis VMs displayed strong overall performance. Schuberg Philis VMs demonstrated high performance for processing, memory bandwidth, storage and internal network. Its network-attached storage produced the largest amount of maximum IOPS observed in the study for read/write operations. Internal network throughput levels exceeded those of AWS and Azure by magnitudes of 3x and more."

Over the last few years, the number of Schuberg Philis customers that have migrated to its critical cloud has grown steadily but Beekman believes that the journey is not over. "We have a real DevOps culture and we are now starting a new project to determine how we can continuously meet the changing requirements of our customers, aiming for maximum customer satisfaction," he says, "We know that with innovation and progressive thinking we can continue to cut cost, increase efficiency and make IT more agile for our customers – the 100% principle never ends."

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