DPG Media Group choose Arista Networks to deliver high performance IP Media network for new campus and broadcast studios

Highlights

Challenge

Building a new headquarters to support the growing DPG Media Group provided the perfect opportunity to create a progressive IP based media network using Arista Networks spine and leaf technologies that has provided performance, reliability, and room to grow in line with its evolving needs.

Solutions

- Deep buffer switching platforms
- Extensible Operating System
- Precision Timing Protocol

Results

- High performance IP-based media network delivering mission critical reliability
- Open standards-based approach to simplify support, upgrades, and automation
- Full support for evolving broadcast IP standards including SMPTE 2110 to ensure future upgrades

As one of the most well-known media companies in the Flanders region, DPG Media Group's recent merger prompted the larger entity to build new headquarters that would also include several broadcast studios. With the need to move towards a more IP based broadcast workflow, DPG Media chose Arista Networks as the core of a new spine and leaf architecture to power an IP-based media network and to link its two campuses. The successful project has delivered scalable performance, reliability, and a simple transition for DPG to meet its broadcast operations goals and create a solid foundation for future innovation.

Project Background

DPG Media Group is a diversified media company with operations in publishing, broadcasting, and digital media. With a heritage stretching back to the 1880's, the Group employs over 1800 staff and owns a portfolio of local and regional newspapers, including Het Laatste Nieuws, the most widely read daily newspaper in Belgium. The diverse group holding includes commercial TV VTM, along with radio stations Q-music and JOE plus special interest web sites focused on car sales, career, and fashion.

Challenge

Following the merger of De Persgroep Publishing and Medialaan in 2018, it was decided that the expanded group would build a new campus at Mediaplein in Antwerp. The new DPG Media Group headquarters would support around 1000 staff and accommodate, among others, News City, and the editorial offices of Het Laatste Nieuws, HLN.be, De Morgen, VTM NIEUWS and Dag Allemaal.

DPG Media had already built an all-new ST2110-based IP production facility at the former Medialaan campus in Vilvoorde, but the new Mediaplein headquarters would also host several studios to support the group's news and entertainment TV output. As a result of these changes, DPG Media began examining options for a dedicated IP based media network for the new site and a dedicated WAN link to seamlessly connect between both sites.

As Ivan Verbeeck, network administrator for DPG Media explains, "We had already upgraded our old Medialaan studios in Vilvoorde to a hybrid IP and SDI infrastructure to support SMPTE 2110, but the new facility at Mediaplein was effectively a blank slate which allowed us the luxury of being able to specify exactly what we wanted for our IP connectivity from the ground up."

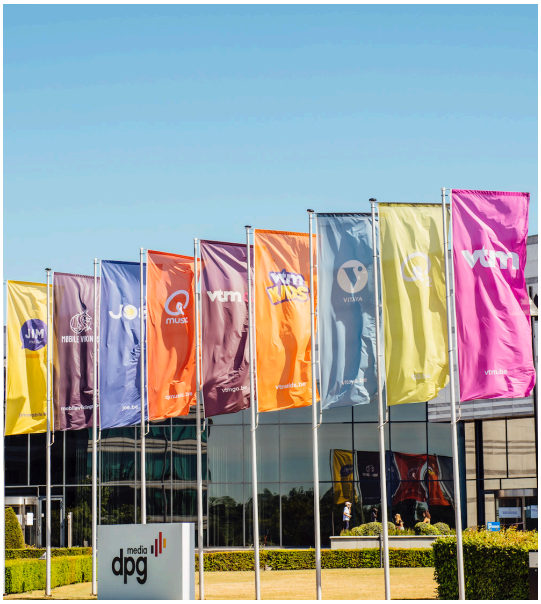
Solution

Verbeeck and his team had effectively used the same legacy supplier for over twenty years, but the new campus gave DPG Media an option to look at innovative alternatives. This entailed a multi-month evaluation process and proof of concept testing with five initial networking vendors which was reduced to a shortlist of just two. "We chose Arista for several reasons but primarily because we were impressed by its focus on spine and leaf switching and the creation of a seamless solution that was based on a unified software design," explains Verbeeck. "The raw performance and reliability of the Arista solution easily met our needs and we also found it extremely easy to transition from our previous vendor in what was a simple implementation process."

To build the new IP-based media network, DPG Media used a leaf and spine design with Arista 7280 series switches for the spine and Arista 7020 leaf switches. These switches employ deep buffers which allow DPG Media to build a completely lossless system for reliable and performant media transport.

All Arista devices are running the single binary Arista EOS (Extensible Operating System) to reduce operational day-to-day burden by providing consistent operation and upgrade procedures. Precision Timing Protocol throughout the network provides a scalable means of ensuring that all end-devices meet their very accurate timing requirements.

To link the Vilvoorde and new Mediaplein sites, an Arista 7280 series switch connected by a dark fibre link was utilised and the entire project followed a phased approach to ensure that there was no downtime for its studio output during the implementation project.



Conclusion

The new IP-media network and studios went live late in 2019 and, "the network has performed extremely well" says Verbeeck. "It not only handles all our streaming, playout and ingest requirements, the design has ample capacity to grow as needed and has so far delivered 100% reliability."

"The implementation project also went smoothly, and we have to commend the Arista team we worked with who were helpful, professional and provided technical advice throughout the entire process. As we move to a fully IP based architecture in the future, Arista will be part of that journey," Verbeeck 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