

# Picturemaxx

## Highlights

### Challenge

Legacy server interconnect suffered from poor reliability, lack of visibility and disastrous downtimes

### Solutions

- Arista 7050 Series Switches
- Arista EOS®

### Results

Delivery of massive performance increase, latency reduction and longterm foundation for cloudbased delivery.

## About Picturemaxx

The logo for Picturemaxx, featuring the word "picture" in a dark grey sans-serif font and "maxx" in a bold, orange sans-serif font.

For over 30 years, Picturemaxx has been an innovative and highly regarded technology and service provider to the media industry. From using carrier pigeons to transport film stock between publishing houses in Germany to a digital media library of over a petabyte, Picturemaxx has embraced new ideas to help serve thousands of customers with over one billion media assets.

With its Infiniband server interconnect suffering from poor reliability and lack of visibility, Picturemaxx turned to Arista as the foundation for a new IT infrastructure which has delivered both a massive performance increase and latency reduction. The new infrastructure also provides a longterm foundation for a move towards a cloud based delivery model and enhanced managed service capability.

Arista helps Picturemaxx support 600 applications, 10,000 clients and over one billion media assets with up to 8 times the performance of its legacy network while offering new levels of visibility and scale.

### Project Background

With a history spanning back to 1983 as a storehouse for physical print, film and microfiche, today Picturemaxx is a specialized digital supplier to the professional media market, marketing communications and the information management sectors. Picturemaxx provides Software as a Service (SaaS) and develops and licenses highly efficient Media Asset Management (MAM) software as well as Enterprise Content Management (ECM) solutions to help over 10,000 international customers.

At the heart of its offering are a range of software tools and services that allow digital content to be collected, processed, archived, distributed, marketed, managed, searched and purchased. However, Picturemaxx sits right in the middle between two different client drivers across the supply and buy sides of media distribution. For the thousands of smaller media agencies, photographers and graphic designers, the firm provides hundreds of different applications and software tools under one roof needed to fulfil job roles from accounting through to inventory control. For large customers such as news agencies, picture libraries and publishing houses; Picturemaxx acts as a trusted intermediary managing the swift delivery of content, through multiple content versions and complex user rights issues.

With over a petabyte of media under storage and constant growth pressures, Picturemaxx has employed a relatively large technical team to develop and maintain its software and IT infrastructure. "In fact, 35 out of our 44 employees are technical staff within IT," explains Christian Marnitz, Head of Technology for Picturemaxx, "But when you have 600 applications and over a billion digital media assets, making sure IT is working as planned is absolutely critical." Picturemaxx often experiences significant surges in demand that coincide with major media events. For example, the recent MTV Music Awards generated over 300,000 media transactions in a two-hour window. Other events such as Paris Fashion Week, the Sochi Winter Olympics and Cannes Film festival also lead to corresponding demand for its services with multiple terabytes of media assets content going across its network and applications for days at a time.

With a business that has evolved over 30 years, Picturemaxx developed its own compute and storage infrastructure based on an Infiniband cluster to generate the raw performance needed to support its complex workflows. "At the time when we developed our original server and storage systems, Infiniband offered us better performance versus price than deploying a fibre channel SAN. We had a lot of technical expertise in house and our self-built storage platform was able to comfortable scale in the line with the business for many years," says Marnitz.

### Solution

However, the complexity of the system and a slew of compatibility issues with Linux-based card drivers started to cause concern. The final straw came when a minor technical issue led to significant outage, which thankfully took place late at night but still provided a stark warning as to the viability of the system as a long-term mission critical platform. "We also had very little visibility over the underlying network, performance and latency statistics," explains Marnitz, "This made troubleshooting and capacity planning extremely difficult and with growing demand, the situation could only get worse."

“We knew we needed to create a better long term strategy for our network and storage by moving closer to a standardised platform that would offer us the reliability that is critical for our customers and the long term success of our business,” he adds.

The IT team at Picturemaxx started examining a number of networking alternatives and consulted with Nexenta, the provider of its storage software, as to recommendations for an alternative to Infiniband that would meet the required performance and reliability characteristics. “We were resigned to moving to an Ethernet based server interconnect and backplane and at this point we knew nothing about Arista other than the experts at Nexenta were recommending the platform over anything else,” says Marnitz, “It was only when we started looking at the capabilities did we understand why these technical guys were so complimentary about Arista.”

Picturemaxx use commodity Supermicro servers spread across their racks. Each server uses Dual 10GB Ethernet cards from Chelsio Communications and runs Citrix XenServer virtualisation as base of the Cloud Platform. The Arista switches are set up in an active/active configuration across the infrastructure to provide a high availability yet low latency configuration.”

Picturemaxx has deployed Arista Networks 7050 Series units offering the industry’s lowest power and most flexible series of purpose built 10GBASE-T switches. The 7050 offers multiple connections of 1G to 10GBASE-T with simplified migration by using low cost structured cabling while avoiding higher cost of SFP+. The Arista 7050T-36 switch includes 32 ports with auto-negotiating 100Mb/1GbE/10GbE ports based on standard RJ45 interfaces and 4 10GbE SFP+ ports. This enables Picturemaxx to deploy scalable, leaf-spine cloud networks while preserving its initial investment and minimizing intrusive upgrades.

The company also deploys Arista’s advanced Multi-Chassis Link Aggregation to use all interconnects in an active/active, Layer-2 topology. As part of a spanning Tree, ports remain active/active and this enables an increase in cross-sectional bandwidth, and faster failover times measured in the 100s of milliseconds for link or nodal failure.

### Conclusion

"For the cost, density and performance we were looking for, we could find no other solution that got close to the level of the Arista switches," explains Marnitz. On its old Infiniband based server interconnection, Picturemaxx was achieving under real world scenarios around 3.0 gigabit per sec of throughput; conversely, "The move to Arista has led to a 6 to 8 times increase in throughput with a latency reduction. In our resiliency testing, the failover is effectively instantaneous if we should lose a switch." Since installation in 05/2013, the new infrastructure has achieved 100% uptime and easily dealt with surges in demand without performance degradation.

The massive boost in performance and the improved visibility into the underlying IT infrastructure has allowed the Picturemaxx IT department to redeploy its resources to other areas. One major project is re-architecting its infrastructure into a more scalable cloud type platform. "This is a long term project that has been prompted by the success of redesigning our IT to take advantage of a commodity platform," says Marnitz, "We are now looking at offering more managed services directly to our customers with improved flexible and transparent payments for what our customers use." According to Marnitz, the move to Arista has been a "massive success" and the potential offered by the migration will have a long term benefit on the direction of the business.

For more information on Arista Networks, please visit [www.arista.com](http://www.arista.com).

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