

# METRO SERVICES WITH GLOBAL CLAIM WITH DATACENTER RHEIN-NECKAR II PFALZKOM STEPS IT UP A NOTCH



The data centre services market is booming; medium-sized and large companies fall back on external infrastructures for a variety of reasons. Regional network operators, who already have appropriate transport routes, can benefit from the situation by supplementing their network infrastructure with data. With the new DATACENTER RHEIN-NECKAR II, PFALZKOM | MANET has taken the opportunity to reach new dimensions as a Metro provider.

Germany is the largest data centre services market in Europe and the third largest in the world. The reasons for using external data centre infrastructures are multifarious. Large companies are increasing their capacities, need multi-cloud scenarios or simply need backup services. SMEs increasingly use software in the cloud or focus on their core business by using the expertise and technology of external service providers. Metro concepts are becoming increasingly important in this scenario.

PFALZKOM | MANET entered the telecommunications business in 1998 as a spin-off of the Pfalzwerke and continuously adapted the network to the evolving network technologies throughout the years. Today, they operate a Terabit NGN/WDM fibre-optic network covering 12,000 square kilometres with 1,400 road-kilometres and 250 access points.

The company recognised the development at an early stage and focused on data centre services in addition to pure transport services. Back in 2010, the high-security Datacenter Rhein-Neckar was built, which not only serves medium-sized customers in the region, but also a multitude of large multinational companies. With three redundant routes to the DE-CIX and peering to a large number of national and international carriers, PfalzKom ensures the necessary connectivity to the global network.

## Confirmation of the Corporate Strategy

The corporate strategy was confirmed by the first data centre's fully saturated operation. "We were just booked", remembers Marco Zietz, head of IP Networks at PfalzKom. "The decision to build a new data centre was made in 2015, which set the timeline: schedule one year, approve one year and build one year." The task now was to develop a completely different network infrastructure for the new data centre, which meets both today's but also tomorrow's requirements and is also capable of integrating the existing data centre technologically.

"We have set up a project that should enable us to virtually run both data centres from a network view, is completely transparent to the customer, and has a transmission capacity of at least 10 Gbit/s. With existing technology, this was no longer possible." Searching for an alternative technique, they quickly came together with the service integrator Xantaro.

## PROJECT OVERVIEW

### BACKGROUND & REQUIREMENTS

- expansion of the DC portfolio
- building of the largest commercial data centre in the region
- design and network concept for the integration of existing infrastructures
- flexibility and scalability

ARISTA



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“We have been in contact with Xantaro since 2012. The planning of the new data centre provided the opportunity to use Xantaro’s expertise for the planning and implementation of the new network”, remembers Zietz.

Based on an open workshop to clarify the requirements and parameters, possible architectures and designs were developed. Finally, the optimal technological solution was defined. The final decision made was in favour of using the solution from Arista Networks. “In total, Arista not only offered the best technology but also the best price/performance ratio for the complex task”, explains Zietz. “In addition, the interoperability tests with the existing Cisco and Nokia infrastructure have been consistently positive.”

After delivering a proof-of-concept, Xantaro was assigned to provide hardware delivery, implementation, commissioning and maintenance services for the next three years. “In addition to the recommending technology, Xantaro’s enormous know-how was central to awarding the contract. Without it, the conception and realisation in the given time period would not have been possible.”

## PROJECT OVERVIEW

### CONCEPT & REALISATION

- workshop to clarify requirements and parameters
- evaluation of the best possible solution
- conception based on Arista VXLAN, Layer 3 Leaf / Spine, virtual data centre, Arista 7280R and 7060X switches and CloudVision management platform
- proof-of-concept and verification of all features and compatibility
- hardware delivery, installation and commissioning, maintenance services

### 125 Terabit Maximum Capacity

Arista is particularly sold on the VXLAN concept, a tunnelling mechanism that runs between virtual and physical switches. It allows applications to be deployed and moved to any server within the data centre, regardless of the IP subnets or physical hosts. “We simply didn’t want to operate Layer 2 anymore in our own network and aimed at going completely without Spanning Tree,” explains Zietz. „This will allow us to realise new services effortlessly.”

To accomplish this task, Arista provides CloudVision, a management platform that delivers a unified operating and ecosystem that acts as a single-point-of-integration. „With the Zero-Touch provisioning, we are able to expand faster and more flexibly,” explains Zietz.

In sum, PfalzKom currently operates 36 switches with a theoretical maximum capacity of 125 terabits. Approximately 1200 ports with 10G connection power are available for customer connection. Meanwhile, both the cloud and the VoIP platforms are connected and the data centre is integrated into the core routing network. „In terms of technology, we are now on a par with the leading data centre and cloud operators in the world”, Zietz explains.

This benefit directly transfers to their regional customers. The reliability and quality of the connections has increased significantly, while latencies have noticeably reduced.

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With the new architecture, PfalzKom strengthens its position as leading IT outsourcing service provider for companies in the region and as a partner of international carriers. Most customers are connected directly to the data centre via fibre optics, so that the pure capacity hardly plays a role.

Rather, with the new Datacenter Rhein-Neckar II PfalzKom now also gains the conditions for future tasks such as the Internet of Things or the comprehensive digitisation of companies.

### **Metro Networks with Global Claim**

The PfalzKom example underlines the trend towards regional or metro networks with a global footprint. On the one hand, local providers can offer their regional customers an individual service, on the other hand they can provide a technology that is on par with global players.

In addition, service providers such as PfalzKom fulfil national and international security requirements and compliance with national or industry guidelines.

The realisation of a project of this dimension certainly requires cooperation with partners who are not only able to provide the required technology, but also provide competent support for planning, implementation and subsequent maintenance services.

„Xantaro is staffed with competent employees who know what they are doing. The switches were delivered, implemented and operational in a short period of time“, says Zietz. After the development of the basic conception, the testing in the own lab environment and the implementation of the configuration rules in the management platform, nothing stood in the way of the roll-out.

„Since moving the services together with our clients to the new Arista platform, our customers have benefited from improved performance and quality. We benefit from simplified and worry-free operation and have created a basis that scales easily in both width and height. We look forward to further growth in our data centre network!“

### **PROJECT OVERVIEW**

#### **Result**

- high-performance network architecture
- integration of existing areas
- fast, flexible and transparent provisioning of new services
- open and scalable for new customer requirements

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