AUTOMATION / DATA CENTRE INFRASTRUCTURE / SPINE-LEAF NETWORK

AUTOMATED DATA CENTRE INFRASTRUCTURE

PROJECT OVERVIEW

CUSTOMER:
Telecommunications Company (Tier-2 Carrier)

INDUSTRY:
Service Provider

SOLUTION:
Automated geo-redundant Data Centre infrastructure with Juniper Apstra

VENDOR:
Juniper Networks

PRODUCTS:
- Juniper QFX5120-32C
- Juniper QFX5120-48Y
- Juniper Apstra

PROJECT SCOPE:
€1 million

SUMMARY:
With new automated Data Centre infrastructure based on Juniper Apstra, the customer now has a high-performance, flexible, and operationally efficient solution that supports future growth and easy scalability.

A key telco customer of ours operates multiple data centres across different locations using traditional architecture with redundant Layer-2 access networks, each connected to dual Layer-3 aggregation routers. However, as their business expanded, this trusted setup was increasingly showing its constraints. It was beginning to reach its limits for future demands in terms of scalability, operational efficiency and automation.

To meet the rising demands, modernising their data centre infrastructure was necessary. To begin this process, Xantaro provided support by performing a technical audit and conducting a detailed inventory assessment.

Project Goals and Requirements

The main goal of this project was clear: to replace the existing architecture with a robust, future-proof solution which needed to be highly scalable, resilient, and capable of delivering a substantial degree of automation across all operating locations.

Key requirements included:
- Standardisation of the network topology
- Simplification of operations, configuration and troubleshooting
- Reduction of manual interventions through automation
- High performance and energy efficiency

From Planning to Implementation

Based on EVPN-VxLAN as the overlay technology, a geo-redundant 3-stage CLOS (Spine-Leaf) fabric was deployed. For fully automated operation of the infrastructure, Juniper Apstra is used, centrally managing deployment, configuration, troubleshooting and software updates.

Achieved Results and Benefits

At the core of the new architecture are the powerful Juniper data centre switches, QFX5120-32C and QFX5120-48Y. These switches were chosen to form the crucial backbone offering an optimal balance of performance, energy efficiency and port density.

Juniper Apstra handles the end-to-end lifecycle management of the entire fabric – from automated deployment of new components, configuration changes, and troubleshooting to software upgrades. Another key advantage is that Apstra is vendor-agnostic. This ensures essential long-term flexibility and crucial investment protection for our customer.

Xantaro was responsible for supplying the required hardware and supported the overall project with dedicated technical consulting and necessary implementation assistance.

OUR EXPERTS LOOK FORWARD TO LEARNING MORE ABOUT YOUR REQUIREMENTS!

Xantaro Group | contact@xantaro.net

xantaro
connecting the world.