

Case Study


Enterprise LAN

The Service Provider Boosts IT Network with PicOS® Switch Solution

A Polish service provider enhanced its IT infrastructure by implementing PicOS® switches, utilizing MLAG for redundancy and high-bandwidth support. The solution improved network scalability, efficiency, and reliability while enabling pre-purchase testing with PicOS-V.

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Country

 Poland

Industry

 ISP

Network Type

 Enterprise Data Centers

Solutions

 Enterprise LAN

Highlights

- Leveraged PicOS® S5860 series switches to achieve high-bandwidth interconnectivity, meeting growing business demands.
- Deployed an MLAG redundant solution to ensure uninterrupted network services.

Key Stats

- Achieved 80Gbps bandwidth aggregation through MLAG architecture.
- S5860-24MG-U supports 100M/1000M/2.5G/5G PoE++ ports for enhanced connectivity.
- Verified switch configurations at zero cost using the free PicOS-V virtual machine.

Overview

A Polish company providing operational services aims to enhance its IT infrastructure by upgrading to higher-performance switches in its two server rooms. This upgrade is necessary to accommodate the increasing demands of its business.

Challenges

The client required switches equipped with 2.5Gb PoE ports to support their network and aimed to establish a 100G bandwidth architecture. Additionally, they sought a solution that would allow them to evaluate network performance and feature reliability through pre-purchase testing of critical functionalities, including BGP and OSPF.

Solutions

FS proposed a network solution tailored to the client's specific needs. The PicOS® switches, S5860-20SQ and S5860-24MG-U, were recommended for their robust performance and support for high-bandwidth MLAG configurations. In particular, the S5860-24MG-U comes equipped with 24x 100M/1000M/2.5G/5G PoE++ ports, catering to high wireless bandwidth environments. To enable the client to test crucial features, FS provided access to the free virtual machine (VM) PicOS-V. This allowed the client to verify switch configurations without the need to wait for physical hardware.

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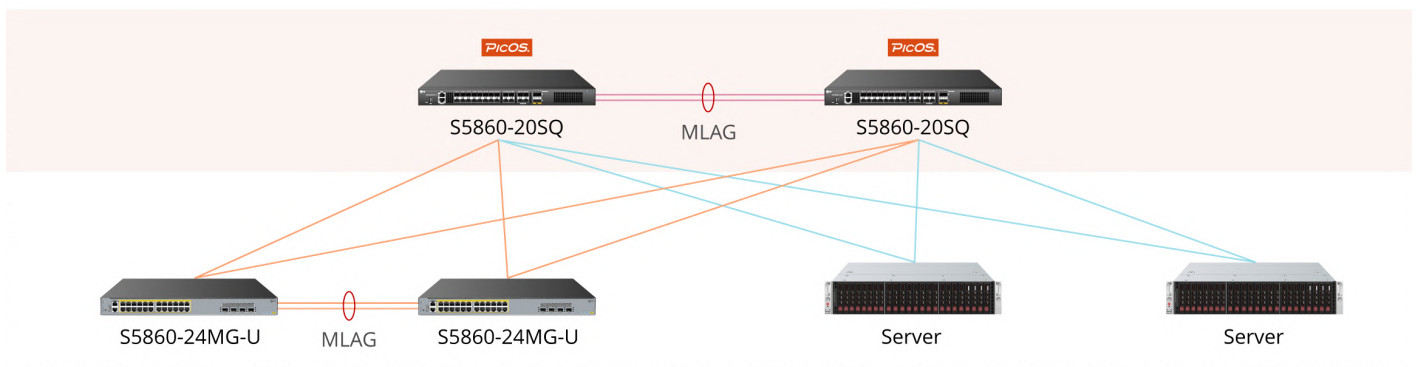


During the design phase, FS worked closely with the client to understand their initial network topology. Recognizing a limitation in the number of uplink ports on the S5860-24MG-U, FS's technical team optimized the network design. The improved solution utilized the 40G ports on the S5860-20SQ switches to establish MLAG-based device-level link redundancy, with their 25G ports connecting to the S5860-24MG-U switches. This approach enhanced bandwidth efficiency while ensuring the reliability and scalability of the network.

Results

Although the initial requirement was for 100G bandwidth, the client found that leveraging an MLAG architecture with a maximum of 80G bandwidth sufficiently met their business needs and network upgrade goals. The optimized solution not only improved port utilization but also enhanced network reliability through redundant connections, ensuring smooth and uninterrupted operations. Throughout the project, FS maintained close collaboration with the client, offering proactive support to address challenges and ensure the solution met both current and future demands.

- 40G Fiber Link
- 25G Fiber Link
- 10G Fiber Link





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