



Success Story

Matterhorn Group Unifies Business Network with ZyXEL WLAN, Switzerland

Overview

Customer Name

Matterhorn Group Zermatt

Customer Industry

Hospitality

Challenges

- Create a unified WLAN network for partner businesses in resort community
- Provide broad-range wireless connectivity to staff and guests
- Network must be centrally managed

Solutions

- Smart Managed PoE+ Switch

- Gigabit Layer 2 Switch
- Unified Access Point
- Wireless LAN Controller
- Outdoor Managed Access Point

Benefits

- All businesses have access to centrally managed servers
- Easy management
- Broad signal coverage indoors and outdoors
- User friendly for both guests and staff
- Built-in scalability and expandability for future-proofing



Background

Grand Hotel Zermatterhof, Kulmhotel Gornergrat, Blue Lounge Schneebar, Berg- haus Grünsee, and Buffetice Buffet/Bar are a few of the best known hospitality businesses in the Burger Community Zermatt, Switzerland, located in the leading tourist area of the Matterhorn. Together they form Matterhorn Group Zermatt, a conglomerate of hospitality businesses serving the resort community.

Today, the Matterhorn Group is one of the largest employers in the region with approximately 300 staff in winter. The hotels and restaurants of the Matterhorn Group are located in the most beautiful locations in and around Zermatt —at altitudes ranging from 1,600 to 3,800 meters above sea level.

The group is made up of a wide array of establishments – from five-star hotels to self-service restaurants.

In total, the Matterhorn Group manages approximately 300 hotel beds and a catering seating capacity of over 5,600. It generates an annual turnover of approximately CHF 33 million.

Challenges

Until recently, members of the Matterhorn Group ran their network operations independently, which made integration of their business management strategy inconvenient and unwieldy. Without cross-business connectivity it was nearly impossible for these businesses to enjoy the full benefit of their alliance. In the past, they had developed isolated applications for the management of a single business, partly with and partly without WLAN for their customers, often using an outdated network infrastructure.

Solutions and Benefits

Project planning began with an inventory of network connections to individual locations.

"A network backbone had to be set up. Without that, there's nothing we can do," said Aldo Biner of Biner IT-Consulting Ltd.

It quickly became clear that the glass fibre cables belonging to the Zermatt Mountain Railway and the Zermatt Power Station would provide the solution, and the Burger Community could rent this as dark-fibre.

The transition of this new network infrastructure into point-to-point connections from the center to all the businesses was accomplished with switches from ZyXEL's GS1910 and GS2200 series. Terminals and Property Management Systems (PMS) could access this centrally managed server, as well as VoIP telephones on their own VLAN with QoS. Dependable WLAN connectivity is high on the list of demands when surveying guests in the hospitality industry. Good coverage and easy connections to Internet are expected. Guests respond most positively if the service is also provided for free. In total, 80 ZyXEL NWA5000 series access points were installed at various locations, indoors as well as outdoors. These are centrally managed and maintained by a ZyXEL NXC5500 WLAN controller.

Product Used



The Burger Community Zermatt contacted its IT partner, Biner IT-Consulting Ltd. The management needed to be simplified through centralization, and the businesses required a more uniform networking structure. The solution would also have to include reliable indoor-outdoor wireless connectivity for guests.

When the project is finished, a total of approximately 130 APs will have been installed. To heighten image, visibility and recognition for the Matterhorn Group brand, it was decided that the group would invest in customized captive portals. No matter where a guest wants to surf the net, he or she will see the same SSID and will get to the same Matterhorn Group landing page. On this page, which is also available for advertising, a guest will see the general conditions of use. Development and management of the captive portals is handled by the project team of Studerus AG, ZyXEL's valued business partner.

The first ski season after the introduction of WLAN presented a small challenge: from time to time, the WLAN for guests seemed to be overloaded. But soon the reason was found: the snow-bar was the problem — or rather its position was to blame. Thousands of skiers and snowboarders, who dashed left and right along the slope with the cableway above them every day, launched an avalanche of their own through DHCP requests. However, by adjusting the network and reducing the cable, this problem was quickly solved.

NXC5500 Wireless LAN Controller

- Centralized WLAN management and auto provisioning
- Manages up to 512 APs with granular access control
- ZyMesh simplifies complex, inconvenient cabling Wi-Fi deployments
- Comprehensive features for WLAN performance optimization and always-on Wi-Fi connectivity
- Wireless LAN performance optimization via dynamic channel selection and load balancing



GS1910-24HP **24-port GbE Smart Managed PoE+ Switch**

- Advanced Smart GbE L2 ACL switching features
- 48 Gbps non-blocking switch fabric
- IEEE 802.3at Power over Ethernet Plus
- Supports IPv6



GS2200-24 **24-Port GbE L2 Switch**

- Comprehensive L2 switching features
- 56 Gbps non-blocking switch fabric
- 4 dual-personality (RJ-45/SFP) GbE interfaces
- Port security and enhanced 802.1X port authentication
- MAC freeze and intrusion lock
- 8 IEEE 802.1p hardware priority queues
- WFQ, WRR and SPQ queuing algorithms
- IPv6 Ready Logo approved



NWA5123-NI **802.11 a/b/g/n Dual-Radio Unified Access Point**

- Ceiling and wall mountable
- Plenum rated housing
- 2-in-1 standalone/managed AP design
- CAPWAP management supported
- 2.4 GHz and 5 GHz concurrent dual-band
- High-performance RF technology: Tx Beamforming and Rx Maximum Likelihood Demodulation (MLD)



NWA5000 Series
802.11 a/b/g/n Dual-Radio Outdoor
Managed Access Point
802.11 a/b/g/n Dual-Radio Managed
Access Point

- Higher bandwidth and superior performance with 802.11n
- Centralized management
- Advanced RF management for optimized Wi-Fi performance

About ZyXEL Communications

ZyXEL Communications Corp., founded in 1989 and headquartered in Taiwan, is the leading provider of complete broadband access solutions. As one of the early modem manufacturers, ZyXEL has gone through transformations in the fast-paced networking industry. Delivering cutting-edge communications innovations to more than 400,000 businesses and more than 100 million consumers throughout the world, today ZyXEL is one of the few companies in the world capable of offering complete networking solutions for Telcos, small to medium-sized businesses, and digital home users for a wide range of deployment scenarios. Telco solutions include Central Office Equipment, Customer Premise Equipment, Wired and Wireless Access Network Devices, and Carrier Switches. SMB and Enterprise solutions include Unified Security Gateways, LAN Switches, WLAN, and IP Telephony. Digital Home solutions include Network Connectivity Devices and Multimedia Solutions.

The company has 1000 employees and distributors in 70 countries, reaching more than 150 regional markets. The ZyXEL Communications Corp. includes 35 subsidiaries and sales offices and two research and development centers worldwide. For more information, visit the company's Website, <http://www.zyxel.com>.

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