Success Story

Zyxel Delivers Fail-Safe, Low-Cost Network to Swiss Indoor Skydiving Center

INDUSTRY
Sport

CUSTOMER
Windwerk

COUNTRY
Switzerland

SOLUCIÓN
Zyxel Mobile Broadband and Wireless Solution

Overview

Challenges

- Deploy from scratch a failsafe network with abundant redundancies
- Implement infrastructure within affordable budget
- Ensure stable network connectivity of existing infrastructure from different providers

Solution

- Zyxel Wireless Solution
- Zyxel Mobile Broadband Solution

Results

- A unified, failsafe network provides extreme reliability, with two fiber optic and one LTE connections, and four switches
- Preconfigured backup switches can be launched without need for technical expertise
- High-speed network connectivity ensures a smooth online booking experience
- Effective network monitoring quickly detects any Internet connection or hardware failures

Summary

When wind tunnel Windwerk was founded to allow local Swiss to skydive indoors, safety was priority No. 1. That first meant getting German-engineered equipment for the 17-meter-high tunnel, which blasts winds at speeds of up to 280 kph. Then there was the network controlling the wind tunnel's operations as well as the facility's customer service needs. With these high stakes, there could be no room for an outage: Windwerk demanded a network with ultra-high reliability. Here's how we delivered.

Background

Always wanted to try sky diving but don't have the guts to jump out of a plane? Indoor skydiving is for you. Air is moved up a vertical tunnel at a tremendous speed, keeping you floating in one spot and giving you an accurate but somewhat less death-defying taste of the real thing.

That's what is offered at Windwerk, a recently opened indoor skydiving facility in northern Switzerland. It gives thrills to first-timers as well as serves as a training space where pro skydivers can practice their formations.

As Windwerk was preparing to open, one key concern was its network. There were to be a lot of moving parts, and to keep operations safe and smooth, a solution with high reliability and availability was an absolute necessity.

Challenges

The operations of the "flights," as the indoor skydiving sessions are called, would exist offline but still rely fundamentally on the network. Meanwhile, the customer service side of business – such as the booking system and flight information displays – would rely on the cloud and thus require fast internet connectivity.

Windwerk's safety-first culture and mindset didn't end at the wind tunnel. It wanted robust infrastructure and firewalls that would together ensure a reliable, fail-safe network.

To realize this vision, Windwerk called in the pros from Studerus AG, a local Zyxel partner.

Solutions and Benefits

To meet Windwerk's strict requirements, Studerus AG devised a blueprint emphasizing network redundancy. Zyxel was selected as the supplier, as its diverse and affordable product line offered the precise equipment required.

Come opening day, the new network was firing on all cylinders, running four switches, two firewalls, four WLAN access points, and an LTE router.

Windwerk's network reduces costs while still achieving high reliability with two separate connections from two different providers. A slower FTTH connection is used for VoIP purposes whereas the second connection has speeds of 1 Gbps is used for all other needs. Either fiber-optic connection can be immediately replaced if it fails.

In addition, a third internet connection – this one powered by a Zyxel **LTE3301-M209 LTE Indoor Router** – is on standby, serving as a backup in the event both fiberoptic connections are interrupted.

The **XGS3700-48HP 48-port GbE L2+ PoE Switch with 10GbE Uplink** switches are also adopted to protected against failures. Four of these pre-configured backup switches are on site, with two being actively used. If either fails, the cables simply need to be unplugged and hooked into one of the two backup switches – something even the laypeople could do. The Windwerk employees have been trained to deal do so in case of equipment failure. Even in the event of a weekend breakdown, the system will run again after five minutes.

The best compliment Zyxel can get is that a customer doesn't notice its network, and that's exactly the case at Windwerk. With the comprehensively planned failsafe infrastructure in place, customers have been floating and staff working without interruption or any worry about a network failure or slow connection.

ZYXEL
N E T W O R K S

Products Used

XGS3700-48HP • 48-port GbE L2+ PoE Switch with 10GbE Uplink

- Physical stacking up to 8 units and 384 Gigabit ports
- Four 10GbE SFP+ uplink flexibility
- Internal and hot-swappable power supply design
- PoE model supports IEEE 802.3at with high PoE power budget up to 1000W

LTE3301-M209 • LTE Indoor Router

- LTE Cat. 4 / downlink 150 Mbps
- WiFi in-LAN service with up to 300 Mbps
- Supports single (LTE) or multiple mode (LTE/3G/2G)
- Multiple-band is supported and varied in different countries
- Supports bridge or router mode
- TR-069 remote management

ZyWALL USG1100 • Next-Gen Unified Security Gateway Extreme Series

- UTM Firewall for medium- and large-sized businesses and campuses
- Complete network protection with firewall, Anti-Virus, AntiSpam, Content Filtering 2.0, IDP, Application Patrol
- Robust SSL, IPSec, and L2TP over IPSec VPN connectivity and VPN High Availability (HA)
- Device HA Pro ensures smart handover
- Built-in WLAN controller for centralized AP management and effortless WLAN scalability of up to 1024 APs
- Cloud-based intelligent analytics and report service support
- Facebook WiFi for intelligent social media authentication

About Zyxel Networks

Focused on innovation and customer-centricity, Zyxel has been connecting people to the Internet for over 30 years. Our ability to adapt and innovate with networking technology places us at the forefront of creating connectivity for business and home users.
We're building the networks of tomorrow, unlocking potential, and meeting the needs of the modern workplace — powering people at work, life, and play. Zyxel, Your Networking Ally.