



## Success Story

Zyxel Wireless Solution Ensures Fast and Easy Internet Access at Brazil Agricultural Fair



Expo



Feira  
Paraná



Brazil



Zyxel  
Wireless  
Solution

## Overview

### Challenges

- Provide fast wireless connectivity and avoid possible interference for over 200,000 people in the crowded venue
- Robust and weather-resistant outdoor network access solution over wide areas
- Reduce system installation complexity

### Results

- High-speed, seamless internet connection in a high-density environment
- Easy physical installation and configuration of equipment
- Exhibitors, visitors, administrators and store owners were able to connect to the internet anywhere without worrying about dropouts
- Efficient network resource usage and management through controlling network access privileges

### Solution

- Zyxel Wireless Solution

"As soon as we unpacked the equipment, one thing that caught our eye was how easy it was to physically install and set the configurations up. The local support team from Zyxel had helped us understand the concept of each product. From that point on, it was extremely simple and intuitive to put everything together."

Robson Medeiros, CEO, 1Fibra

"From the very beginning We had a good impression about Zyxel's products. The panel was pretty easy and intuitive. Talking about the performance, the equipment showed everything we expected. From high internet demand with simultaneous connections to high speed of internet connection."

João Luiz Chiarello Jr., CEO, Fibra Telecom

## Background

The Feira Paraná, Paraná Trade Fair in English, was held in Ponta Grossa from Oct. 18 to 27, 2019. The fair accommodated hundreds of technology, agribusiness, trade and service companies in a 13,000 m<sup>2</sup> area, aiming to boost the agribusiness industry in Paraná and introduce innovative technology for application in agriculture. It was divided into different zones presenting different

themes, such as Agrotech, Trade and the Micro Breweries Pavilion. Dozens of stores showcased a wide variety of products at their booths. Visitors can also find attractions such as music festivals and local rodeos. The exciting tradeshow attracted over 200,000 visitors in the 10-day trade fair, all of whom were engaged in agribusiness and interested in local agricultural products and specialties.

## Challenges

Exhibitors needed to send emails, to conduct business transactions and to stay in contact with colleagues outside the venue. The visitors at the tradeshow needed to stay connected to updates on venue events and to share photos and videos via social media. There were many booths located just short distances away from each other, contributing to interference that could slow down the connectivity speed and quality inside the crowded show venue. The organizer was facing a challenge to provide a reliable network infrastructure supporting high-speed, simultaneous connections in a high-density environment with more than tens of thousands people over wide areas. Besides good performance, the organizer wanted a system that was easy to set up and could be quickly configured.



## Solutions and Benefits

Before working with Zyxel, it was not easy to provide fast and stable internet service with few interruptions in such a large and interference heavy venue. Zyxel's wireless solution helped the organizer to carry out this challenging mission.

Zyxel's wireless solution consists of **NXC2500 Wireless LAN Controller**, **WAC6503D-S 802.11ac Dual Radio Smart Antenna 3x3 Access Points** and **WAC6553D-E 802.11ac Dual Radio External Antenna 3x3 Outdoor Access Points**. The WAC6503D-S APs can overcome co-channel interference and maintain strong signal strength, delivering the best possible connectivity regardless of user density or interference. The AP's innovative smart antennas adapt to the demands of the environment, limiting interference in the distribution and the reception of the Wi-Fi signals. WAC6553D-E APs present stable outdoor WiFi connectivity performance. The weather-resistant APs installed in the outdoor space were resistant to water and dust, delivering excellent WiFi connectivity performance even in adverse weather conditions. They provided wireless connectivity to laptops, cellphones and POS systems. As a result, exhibitors can use their laptops to contact customers, visitors can use their cellphones to share photos on Instagram, and store owners can operate POS terminals for mobile payment at high speed.

Moreover, the organizers benefitted from efficient and secure internet access management. Supporting different SSIDs, the APs allowed for access privilege. This ensured the administration had higher priority for access, and separated clients into different SSID for efficient and secure internet management.

Additionally, Zyxel's products delivered friendly configuration and intuitive setup that reduced complexity during installation. The NXC2500 Wireless LAN Controller extended WiFi coverage to places where cabling was hard, and eliminated the need for pre-installation preparation by automatically integrating into the network environment. Besides, the controller's dynamic account creation and versatile wireless user authentication methods helped the organizer to provide smooth and secured access easily.

During the 10 days of the trade fair, Zyxel helped the organizers deliver stable, fast and secure internet connection every day. The high-quality network enabled over 200,000 visitors to stay connected in the show venue. Even when people were walking around, they could still enjoy smooth VoIP calling without worrying about interruption.

## Products Used

### NXC2500 • Wireless LAN Controller



- Auto provisioning and centralized management of up to 64 APs
- ZyXel Wireless Optimizer for easy planning, deployment, and maintenance
- Advanced ZyMesh technology for streamlined AP deployment and WLAN extension
- Enhanced RF management with auto healing
- Flexible traffic forwarding with tunnel and distributed modes
- Comprehensive guest network management and granular access control

### WAC6503D-S • 802.11ac Dual Radio Smart Antenna 3x3 Access Point



- ZyXel smart antenna with over 700 optimized antenna patterns for breakthrough performance anywhere
- Ideal for high-density and interference-laden indoor environments
- Advanced IEEE 802.11ac offers combined data rates of up to 1.75 Gbps
- Industry-leading Rx sensitivity as low as -102 dBm
- APFlex™, DCS, and tool-less bracket design for streamlined deployment

### WAC6553D-E • 802.11ac Dual Radio External Antenna 3x3 Outdoor Access Point



- NebulaFlex Pro allows users to switch among standalone, on-premises controller managed or intuitive Nebula cloud managed modes as needed
- Dual-band 2.4-GHz and 5-GHz 802.11ac Wireless Access Point
- Designed with IP66-rated weather protection which is ideal for harsh outdoor environments
- Advanced IEEE 802.11ac delivers up to 1.75 Gbps combined data rates
- Industry-leading receive sensitivity as low as -102 dBm
- APFlex™ and DCS for streamlined deployment

## About ZyXel

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 telcos and service providers, business and home users. ZyXel is 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.

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