Vale Church Builds a Reliable, High-Performance Network with Zyxel Nebula to Support a Growing Congregation

Overview

Zyxel Networks cloud-managed switching, WiFi, and firewall solutions deliver seamless connectivity across a multi-building campus serving thousands of weekly attendees.

Located in Bloomington, Illinois, Vale Church operates a vibrant and rapidly growing ministry that serves nearly 3,000 attendees each weekend. The church's 31,000-square-foot campus spans three buildings, supporting worship services, community programs, and administrative operations.

Throughout the week, 28 staff members rely on the network to support ministry operations, communications, and media production. On weekends, the campus transforms into a high-density environment with more than 1,000 connected devices supporting worship services, livestreaming, security systems, and guest connectivity.

From production systems and LED walls to security cameras and access control systems, Vale Church depends heavily on its network infrastructure to support ministry operations and deliver a seamless experience for staff, volunteers, and visitors. To support its continued growth, the church deployed a modern, cloud-managed networking infrastructure powered by Zyxel Networks.

Customer
Vale Church

Industry
Religious

Location
Bloomington, IL

# of Users
200-300

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Collin Probst, Systems Director
Vale Church

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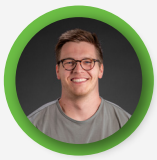

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The Challenge

Like many growing organizations, Vale Church's technology environment expanded rapidly over time. The network supported a wide variety of connected devices across the campus including:

- 30+ IP security cameras
- LED video walls and production equipment
- Audio mixing consoles and sound systems
- Network video recorders and storage systems
- Staff computers, mobile devices, and printers
- TVs, digital signage, and presentation systems
- Smart lighting and building controls
- Door access control systems and badge readers
- WiFi cameras and smart appliances
- 3D printers and robotic cleaning devices

While the church's existing infrastructure had served its initial needs, the network had become increasingly difficult to manage as more devices were added.

The environment consisted of a mix of aging wireless access points, switches, and firewall hardware from multiple vendors, some managed and others unmanaged. This patchwork infrastructure created several operational challenges:

- Network instability and reliability issues
- Inconsistent WiFi coverage across the campus
- Slow network speeds and limited throughput
- Limited visibility into network performance
- Difficulty managing multiple devices and platforms
- No efficient system for monitoring or troubleshooting problems

As the church grew and services became more media-driven, these issues began impacting day-to-day operations.

"We were dealing with a mix of hardware that didn't really work together," explained Collin Probst, Systems Director at Vale Church. "Managing the network meant jumping between different tools, and when something went wrong, it wasn't always easy to diagnose."

With weekend attendance climbing and the number of connected devices rapidly increasing, the church needed a network infrastructure that could provide greater reliability, stronger wireless coverage, and simplified management.

The Solution

Vale Church began evaluating options to modernize its network infrastructure. The project was led by Probst with support from Seth Brockmeyer, a network volunteer who assisted with planning and deployment.

After reviewing several options, the team selected Zyxel Networks as the platform for the church's complete network refresh.

A key factor in the decision was Zyxel's Nebula Cloud Networking platform, which provides centralized visibility and management across the entire network infrastructure.

"Being able to manage everything through Nebula was a huge advantage," Probst said. "Instead of juggling multiple systems, we now have a single dashboard that gives us visibility and control across the entire network."

The church replaced its entire legacy network infrastructure with Zyxel equipment, including firewalls, switches, and wireless access points designed to deliver high-performance connectivity across the campus.

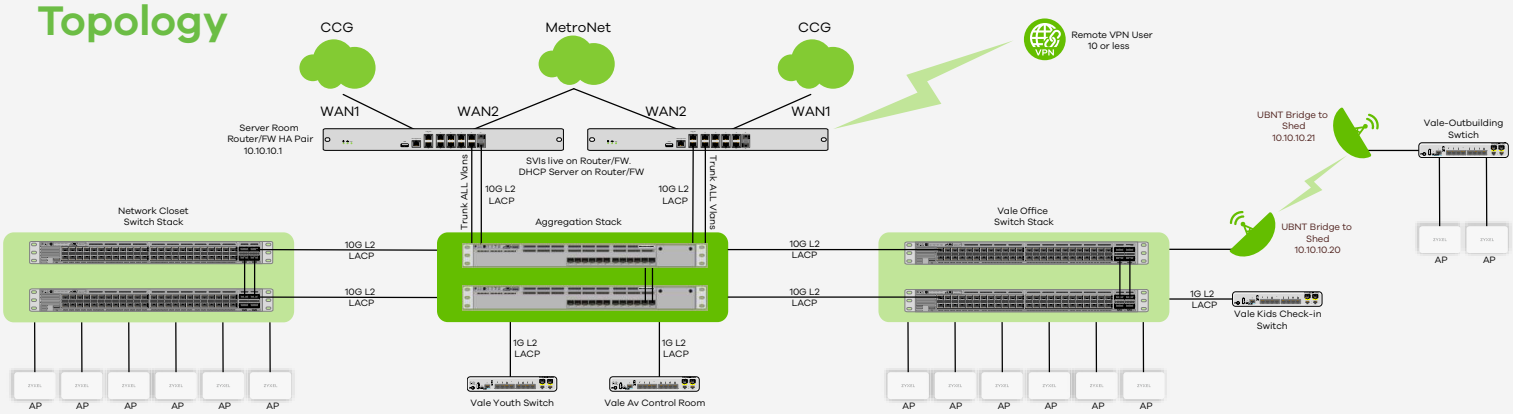
Zyxel equipment deployed included:

- USG FLEX 700H Firewalls
- XS3800-28 10GbE L3 Aggregation Switches
- XGS2220-54FP GbE L3 Access Switches
- GS2220-28HP GbE L2+ Managed Switches
- WBE660S WiFi 7 Access Points
- NWA55AXE WiFi 6 Outdoor Access Points
- NWA110BE WiFi 7 Access Points

Together, these networking solutions deliver a high-performance wired backbone and robust wireless coverage across the church's three-building campus, ensuring reliable connectivity for staff, volunteers, production systems, and guests. The deployment process was straightforward, thanks in part to Zyxel's streamlined setup and Nebula Cloud onboarding.

"The Zyxel hardware was easy to install and configure," Probst explained. "The hardest part of the project was actually removing the old cabling that had been run through packed conduits."

Topology



Results

Since deploying the Zyxel solution, Vale Church has significantly improved network reliability, stability, and overall performance across its three-building campus.

The upgraded infrastructure provides a stronger network backbone and higher throughput, enabling faster, more reliable communication between devices and supporting bandwidth-intensive systems such as video production, streaming, and security monitoring.

“We’ve seen a significant improvement in stability and reliability,” said Probst. “The new backbone is much faster and everything just works the way it’s supposed to.”

Equally important, the Nebula Cloud Management platform has streamlined network administration. Previously, the church relied on separate monitoring software running on a local server to detect network issues. With Nebula, those capabilities are built directly into the platform.

“Now we can monitor and manage the entire network from a single interface,” Probst said. “We don’t need separate monitoring tools just to know if something is wrong.”

The new Zyxel infrastructure has positioned Vale Church to support its growing congregation while delivering a seamless connectivity experience for staff, volunteers, and guests.

With the scalability and flexibility of Zyxel’s Nebula Cloud Networking platform, Vale Church now has a modern network foundation capable of supporting future growth, expanding digital ministry initiatives, and delivering reliable connectivity for years to come.

Key Results

- Significantly improved network reliability and stability
- High-performance wired backbone supporting media production and streaming
- Consistent WiFi coverage across the entire three-building campus
- Scalable infrastructure supporting 1,000+ connected devices during services
- Simplified network management through the Nebula Cloud platform
- Faster troubleshooting with centralized network visibility
- Reduced IT complexity with a single management interface
- Future-ready infrastructure to support continued church growth