

Case Study

# Enterprise WLAN

TACMC Upgrades Church Network Performance with FS Comprehensive Wireless Network Solution

Discover how TACMC enhanced its church connectivity with FS comprehensive wireless network solution, featuring Wi-Fi 6 technology and expert installation services.

## TACMC Upgrades Church Network Performance with FS Comprehensive Wireless Network Solution

### Country

Singapore

### Industry

Non-Profit

### Network Type

Small Campus Wireless Network

### Solutions

Enterprise WLAN

- FS S3400 series PoE+ switches offers powerful VLAN capabilities for efficient traffic management.
- The SG-5105 multi-service security gateway strengthens security and streamlines network management for the church.
- FS team offers on-site surveys, installation, and troubleshooting services independently, eliminating the need for local service providers.

## Key Stats

- The S3400 series switches provide Smart PoE+ with IEEE 802.3af/at standards, delivering up to 30W per port while minimizing energy consumption and costs.
- The AP-N505, utilizing Wi-Fi 6 technology, offers up to 3000 Mbps with 2x2 MU-MIMO, smart antennas for better coverage.
- The S3400 series switches provide gigabit port configuration, with options for 24 to 48 ports.
- FS local technical team provides installation services that save time within 1 week and reduce costs by 30-40%.
- Large SG warehouse stock ensures 100% on-time delivery and deployment.

## Highlights

- Wi-Fi 6 technology delivers fast and reliable connectivity, effectively meeting the heightened network demands of churches during peak attendance.

## Overview

The customer TACMC (Telok Ayer Chinese Methodist Church) is an institution in Singapore that focuses on providing theological education and training. It is not just a place of worship but a community dedicated to nurturing faith and serving others. With its rich heritage and diverse ministries, TACMC aims to make a meaningful impact in the lives of its members and the broader community.

The customer owns two churches in Singapore, known as TA and TA2. They previously purchased FS's products for the TA2 church. With the renovation of the TA church completed, the customer wished to directly adopt FS's complete wireless network solution and had a strong demand for related installation services. This clearly reflects the customer's trust and recognition of FS's products and services.



### Challenges

The customer faced outdated equipment, with unmanaged switches lacking VLAN functionality. After renovating the new church, increased foot traffic highlighted the need for VLAN capabilities to manage network traffic effectively. Additionally, the rise in digital devices amplified the demand for better network coverage and bandwidth, complicating management and troubleshooting.

With limited technical expertise and no dedicated team, the customer struggled to resolve issues independently. Budget constraints made it essential to balance high-quality network services with cost management. FS's comprehensive solution effectively addressed these challenges, providing the reliability and support needed for a seamless network experience and delivering significant value.

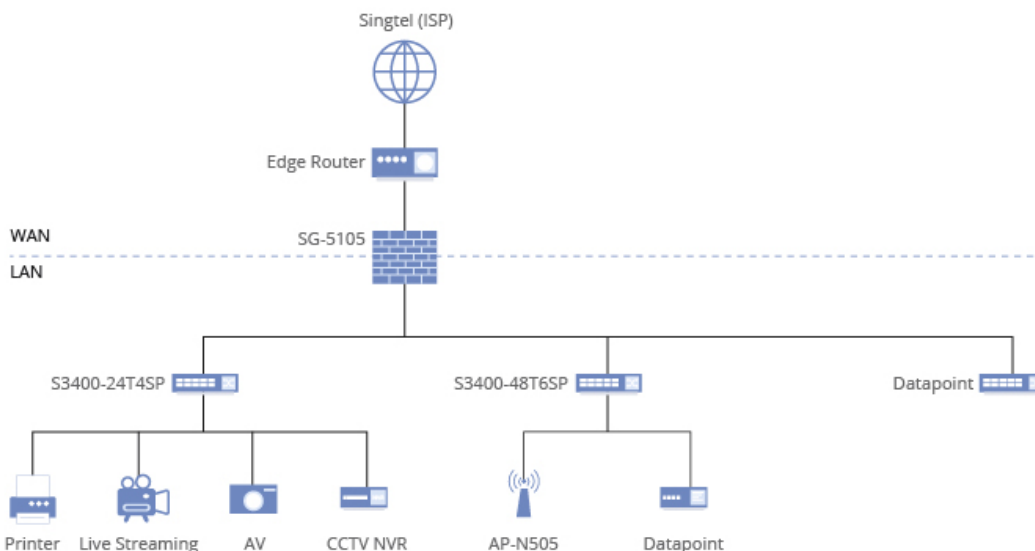
### Solutions

Under the guidance of FS's professional team, the customer implemented a comprehensive wireless network upgrade solution for the church. This solution not only established a high-speed and stable network infrastructure but also optimized the configuration and utilization of network resources.

Firstly, the church introduced the multi-WAN security gateway SG-5105, equipped with 10 WAN SFP+, SFP, and RJ45 ports, capable of meeting various internet access needs. The multi-WAN load balancing optimized bandwidth usage across all WAN ports.

At the access layer, FS deployed the S3400 series managed PoE switches, which featured 24 to 48 ports to support a wide variety of devices, including wireless access points, printers, live streaming equipment, AV systems, and CCTV NVRs, thereby simplifying power deployment and enhancing connectivity throughout the church. At the access layer, FS deployed the S3400 series managed PoE switches to connect wireless access points, simplifying power deployment for these devices. Additionally, its private VLAN functionality effectively conserved resources and enhanced security, facilitating network traffic management. The virtual deployment of dual switches, scalable architecture, and intelligent operations and maintenance provided the church with a simple, flexible, and high-performance network solution.

Finally, FS strategically placed multiple access points based on the church's layout, ensuring extensive wireless coverage and stable network connectivity. The AP-N505 featured the latest Wi-Fi 6 (802.11ax) technology, offering superior coverage, ease of installation and management, and support for multiple users simultaneously, effectively handling peak traffic demands.



## Results

### | Enhanced Network Performance

FS's team successfully helped the church in upgrading its wireless network, establishing a high-speed and reliable infrastructure. The SG-5105 multi-WAN gateway optimized bandwidth for smooth connectivity, while S3400 PoE switches improved network efficiency and security through advanced VLAN functionality. The AP-N505 access points, utilizing Wi-Fi 6 technology, provided extensive coverage and stable connections during peak usage. This upgrade improved network performance and offered the church flexibility and scalability for future growth.

### | Full-Stack Localized Services

Professional installation and testing services ensured that the on-site network setup was correct. The local technical team in Singapore offered installation services without the need to involve local service providers, reducing costs by 30-40%. Throughout the process, FS worked closely with the customer, providing ongoing support from pre-sales training to post-sales maintenance to ensure smooth implementation.

### | Fast Installation and Delivery

The professional project team responded promptly within 24 hours, providing comprehensive solutions. Additionally, FS established global and local warehouses with an intelligent warehousing system, ensuring over 90% of orders were shipped the same day. This significantly shortened project delivery times and reduced procurement challenges for customers.



## Singapore

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