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CommScope expands smart Wi-Fi network for Sik Sik Yuen at Wong Tai Sin Temple

Customer

Sik Sik Yuen

Country

Hong Kong

Home to three religions (Taoism, Buddhism and Confucianism), Wong Tai Sin Temple in southern Hong Kong is one of the region's iconic and most visited religious sites. It hosts more than 10,000 Hong Kong residents and visitors per day who come to worship, sight-see and share their experiences via social media.

Owned and managed by the Sik Sik Yuen religious charity, the temple is a historic landmark that relies on a state-of-the-art Wi-Fi network to support the wireless needs of more than 600 employees and four million visitors a year. When it was time to expand and upgrade the network, Sik Sik Yuen's IT Manager, Chan Ting Pong, took no chances. He turned to CommScope and the Ruckus family of solutions.

Challenges

Expanding needs prompt network upgrade

The temple complex covers nearly 200,000 square feet (18,000 m²) and includes a traditional main worship hall, a 10,000-square-foot (930 m²) underground palace, fortune-telling arcade, three additional smaller worship halls and numerous outdoor gardens and pavilions.

Sik Sik Yuen's Wi-Fi network encompasses the temple, offices and 39 service units. Visitors enjoy free, secure Wi-Fi connectivity and access to Sik Sik Yuen's Tao-net mobile app, which provides visitors a self-guided tour from any mobile device. The Tao-net app relies on location tracking to deliver information about the temple and facilities in real time. Access to strong Wi-Fi signals and high-performance connectivity is important. At the same time, Sik Sik Yuen maintains a lean IT department. So, a system that enables IT staff to easily control and manage all aspects of the network from a centralized web-based interface is critical.

Sik Sik Yuen had successfully used the Ruckus family of ICX 6000 switches and Wi-Fi access points since 2015, adding more switches and APs as the network

requirements grew. When the ICX 6000 switches were retired, Chan and his staff saw an opportunity to expand, revamp and upgrade the network.

A very large network manufacturer approached Sik Sik Yuen with promises of free equipment, but Chan was un-impressed. At the beginning of 2018, his team began a methodical six-month process to find the right partner, comparing and testing three wireless vendors with an emphasis on reliability and performance.

In the end, Chan realized that Sik Sik Yuen had been working with the right partner all along. In mid-2018, they engaged CommScope's Ruckus Networks team again to design and deliver a new state-of-the-art Wi-Fi network.

"It came down to our experience and the strength of our Ruckus Networks portfolio—specifically, the ZoneFlex Smart Wi-Fi access points, ZoneDirector™ controllers, and ICX switches," said Wilson Ching, sales director for CommScope's Ruckus Networks team in Hong Kong and Taiwan.

Chan agreed: "They (CommScope) were the only vendor to offer complete flexibility when it came to integrating Sik Sik Yuen's innovations and third-party applications with the Wi-Fi network," he said.

CommScope solution

Innovative design and network resiliency

A key challenge to the project's success was minimizing the potential sources of interference that are part of the temple complex. "The temple has dense objects such as wooden pillars that could cause interference and disrupt the wireless network. However, with Ruckus, we can offer visitors and employees quality connections throughout the temple, even when the network experiences increased user demand," Chan explained.

The ZoneFlex access points incorporate BeamFlex+™ technology to maximize signal coverage, throughput and network capacity. ChannelFly™, another innovative technology, enables the access points to increase network capacity by learning and selecting the best radio frequency (RF) channel. When paired with the ICX fabric switches, the ZoneFlex access points easily integrate with third-party applications like real-time location tracking, while continuing to deliver a high-performance, reliable Wi-Fi network.

ICX switches run on CommScope's proprietary Metro Ring Protocol (MRP), which automatically provides fast convergence in ring topologies to prevent downtime and provide high stability. The switches work seamlessly with access points and network

controllers to deliver 10GbE throughput and support stable data sharing, storage, and off-site backup.

Wi-Fi at Sik Sik Yuen

The network's ability to stand up to the violent storms that rock Hong Kong each year was also critical. In September 2018, Typhoon Mangkhut, Hong Kong's most powerful typhoon on record, tested the resiliency of the new network while it was still under construction. "Despite hurricane-force winds and heavy rain, all Ruckus outdoor access points installed at the temple continued to work well, demonstrating their high product resiliency and quality," Chan said.

Sik Sik Yuen's goal was to future-proof its network with built-in flexibility for future applications. The deployment of Ruckus ICX switches, each with high-capacity backplanes, means the network's infrastructure can scale and grow using the existing equipment with continuous high-speed connectivity and stability.

Long-term Wi-Fi partner—peace of mind

In addition to the Wong Tai Sin temple, Sik Sik Yuen owns or operates a variety of schools, clinics and social service facilities throughout Hong Kong. The network at the temple complex has performed so well that Chan decided to deploy the CommScope Ruckus network solutions at the organization's other facilities as well.

By the end of 2018, the upgraded network was operational. "Since then, network downtime has disappeared, and the ease of management has increased exponentially," added Chan. Now his team can offer reliable, high-capacity Wi-Fi across the entire organization and manage all locations from a single web-based dashboard.

As the organization's needs continue to grow and evolve, the network can easily be customized to adapt. At some point, Chan will look to add IoT along with other capabilities. With CommScope as their go-to Wi-Fi partner, Sik Sik Yuen can continue to grow with confidence.

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