

Managed Wi-Fi revamps STC's B2B services



Drawing inspiration from Saudi Arabia's Saudi Vision 2030, Saudi Telecom Company (STC) started shifting its strategic focus towards government and enterprise services in 2016 – a move that's proved advantageous both as a response to increasing competition and also to STC's long-term interests. STC currently has more than 50,000 government and enterprise customers, a lucrative market and huge customer base that's helping us with our digital transformation journey.

By Talal Albakr, Vice President-Digital Solutions at STC Solutions

As government and enterprise customers carry out digital transformation, more businesses are rapidly migrating from fixed-access/LAN offices to wireless/Wi-Fi offices. After migrating to a wireless office, B2B customers are more likely to purchase managed Wi-Fi network services than continue to run and maintain their own network model. They can then focus more on their own services, control corporate IT spending, and implement a light-asset operation.

In view of this, STC launched a new managed Wi-Fi network service at the right time, expanding its conventional leased line services for government and enterprises and extending the pipe from enterprises' customer premises equipment (CPE) to the customer's LAN Network. Initial estimates reveal that this service will lift enterprise business revenues by over 5 percent.

Cloud management and local platforms enable campus Wi-Fi

Like most operators, STC was reluctant to sell its enterprise customers onto a cloud service provider (CSP). Instead, it opted to provide more services, including delivery, maintenance, and industry value-added services, to meet enterprises' needs, with the aim of gradually building up its own B2B service ecosystem and increasing its enterprise application business revenue while improving customer loyalty. STC carried out extensive research to select a suitable operating model for campus Wi-Fi services.

Our enterprise business team analyzed how to best approach the three stages involved in offering managed Wi-Fi network services: network planning,

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deployment, and operations and maintenance (O&M).

Conventionally, network planning requires site surveys to gain a clear understanding of how many access points (APs) and switches are required, how to install cabling, and other such information. Service deployment requires hardware installation and software commissioning engineers to work on-site at the same time. Hardware needs to be installed and then commissioning engineers must complete network commissioning before the service can be launched. Subsequent O&M is even more troublesome. The local network management center must solve all issues. Each O&M personnel can only deal with a very limited network scope, and a common fault at the customer site may require two to three days to resolve on-site. A major problem with the conventional process is high cost and low efficiency, which is also the main reason most carriers don't provide managed Wi-Fi services.

Therefore, the key to enabling managed Wi-Fi management services is centralized multi-tenant management in the cloud through a series of cloud tools that increase efficiency. First, cloud network

planning is essential. Enterprise customers just need to upload a map to the platform, and the O&M center can complete planning for future project installation. The ZTP model of deployment and acceptance is also important. Only hardware installation engineers are required at the project site to complete service provisioning and project acceptance. Supported by a series of cloud tools, subsequent O&M is the most important task. In fact, 80 percent of network problems are solved in the remote network management center.

An open cloud platform can help enterprises with data operations, which are a value-added service for enterprise customers through add-on sales. This is where the value and advantage of managed services lie, helping STC retain enterprise customers. To make this work, local deployment of the cloud platform is the key. That's why STC decided to build its own cloud platform to provide high-quality, manageable Wi-Fi services for enterprise customers.

Huawei CloudCampus

STC carried out performance testing and



competitions over 10 months, trialing various industry-leading cloud platforms, evaluating their functions, usability, and how well they matched STC's requirements. We ultimately selected Huawei's CloudCampus solution. Two years ago, we deployed the solution in our data centers and officially launched our managed Wi-Fi network services.

STC discovered that the O&M mobile app and the wide range of products offered by the CloudCampus solution are advantageous in terms of campus Wi-Fi network managed services.

With the mobile app, enterprise customers and STC's O&M center engineers can carry out network O&M anytime, anywhere. Self-service O&M by enterprise customers helps to filter out at least 30 percent of the O&M workload, significantly reducing pressure on the O&M center. Meanwhile, the cloud management platform enables real-time visibility on customer network performance and application performance. The platform uses AI to accurately predict network performance trends and automatically repair common faults, such as spectrum interference and Wi-Fi experience

deterioration, directly targeting the root causes of faults for each user and service, guaranteeing a high-quality Wi-Fi experience. Crucially, since enabling the service, STC has been able to keep its O&M team the same size as it was two years ago, despite adding a raft of government and enterprise customer network management tasks.

STC also requires a series of products for different Wi-Fi coverage scenarios as well as indoor office scenarios, including high-traffic outdoor scenarios and high-density coverage scenarios such as classrooms, stadiums, hospitals, and student dorms. The ability to cover a range of scenarios has helped STC win more government and enterprise customer projects.

An example of one of these is the Saudi Arabia Ministry of Health (MOH) project. The MOH encompasses 15 sub-departments, including healthcare and drug supervision, healthcare institutions nationwide, more than 2,000 primary health care clinics, and over 250 large hospitals. The MOH sought an operator that could manage its nationwide hospital and clinic networks using a

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unified platform and also provide network-hosting services.

To ensure the security of medical information in the country, the MOH demanded the cloud storage of healthcare and network management data could not cross borders.

Harnessing the CloudCampus platform deployed in STC's data centers, STC successfully completed network deployment and acceptance of more than 250 clinics in the first phase of the MOH project in only four months, without having to increase the number of O&M personnel.

In one Riyadh clinic, O&M center engineers were able to complete network planning and pre-configuration work on the cloud platform in five minutes, based on the indoor blueprints of the clinic and detailed project designs provided by the MOH. After configuration was completed, installation engineers brought APs and LAN switches to the clinic. They completed all their work in three hours, including cabling based on the blueprints, installing and powering on equipment, and scanning device MAC addresses and serial numbers using a cloud management app. All

told, STC was able to cut the cost of end-to-end network delivery by at least 30 percent.

Thanks to the smooth delivery of the first phase of the project and the cost-saving benefits of the platform, STC succeeded in winning managed Wi-Fi network services projects for over 800 clinics and hospitals in the second phase, which accounted for more than 50 percent of the overall project. To date, these projects have been successfully delivered and commercially deployed.

Managed Wi-Fi network services + leased lines drive new growth

Boosted by the CloudCampus solution and STC's large government and enterprise customer base, STC has successfully sold managed Wi-Fi services and leased lines into a competitive offering. More importantly, our own cloud management platform lays the physical foundation for offering more value-added services and add-on sales to fully cultivate value from enterprise customers. Today, STC is well prepared to provide high-quality managed Wi-Fi networks for more enterprise customers. [um](#)