Omada
by tp-link

T3 Terminal Network Deployment
Tan Son Nhat International Airport
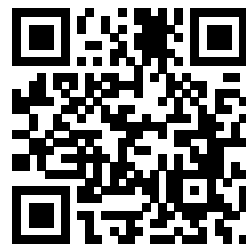
Partner Information

Partner: VTC Telecom

Industry: Travel & Transportation

Scale: 20 million passengers/year

Location: Tan Son Nhat International Airport

Deployed Products

- **2×** Router VPN ER8411
- **4×** Switch 10G SX6632YF
- **23×** Switch PoE SG2210MP
- **7×** Switch PoE SG3210XHP-M2
- **53×** AP EAP625-Outdoor HD
- **71×** AP EAP660 HD
- **2×** Controller OC400

Scan QR code
for more details

❖ BACKGROUND

Tan Son Nhat International Airport is the largest airport in Vietnam, located in Ho Chi Minh City. To ensure efficient and modern operations, the new T3 Passenger Terminal was built with a total area of 112,500 m², comprising one basement and four above-ground floors, and integrating advanced Smart Airport technologies. Designed to serve around 20 million passengers annually — approximately 7,000 at peak hours — the terminal features the ACV Self Services system, shared check-in kiosks, as well as auxiliary facilities like a shopping center, hotel, and restaurants, all of which demand a powerful, stable, secure, and centrally managed network infrastructure.

❖ CHALLENGES

The T3 terminal at Tan Son Nhat International Airport required a high-performance, reliable network system to serve up to 20 million passengers per year and accommodate peak-hour traffic of 7,000 users. The network had to handle thousands of simultaneous connections, including both airport staff and passengers, without interruptions. Full Wi-Fi coverage was needed across all areas — from indoor zones like lounges and restaurants to outdoor areas like parking lots. Additionally, the system needed to be highly available, scalable, and resilient to hardware failures to ensure uninterrupted operations.

❖ SOLUTION

TP-Link delivered a comprehensive network solution for the T3 terminal using advanced products from its Omada SDN lineup. The setup includes the high-performance ER8411 VPN router for powerful routing and large-scale load capacity. 10G core switches (SX6632YF) manage high-speed data traffic across different network zones. Wi-Fi 6 access points — EAP625-Outdoor HD and EAP660 HD — provide high-speed, stable wireless coverage for both indoor and outdoor environments. Centralized network management is handled by the OC400 controller, enabling easy remote configuration, monitoring, and maintenance.
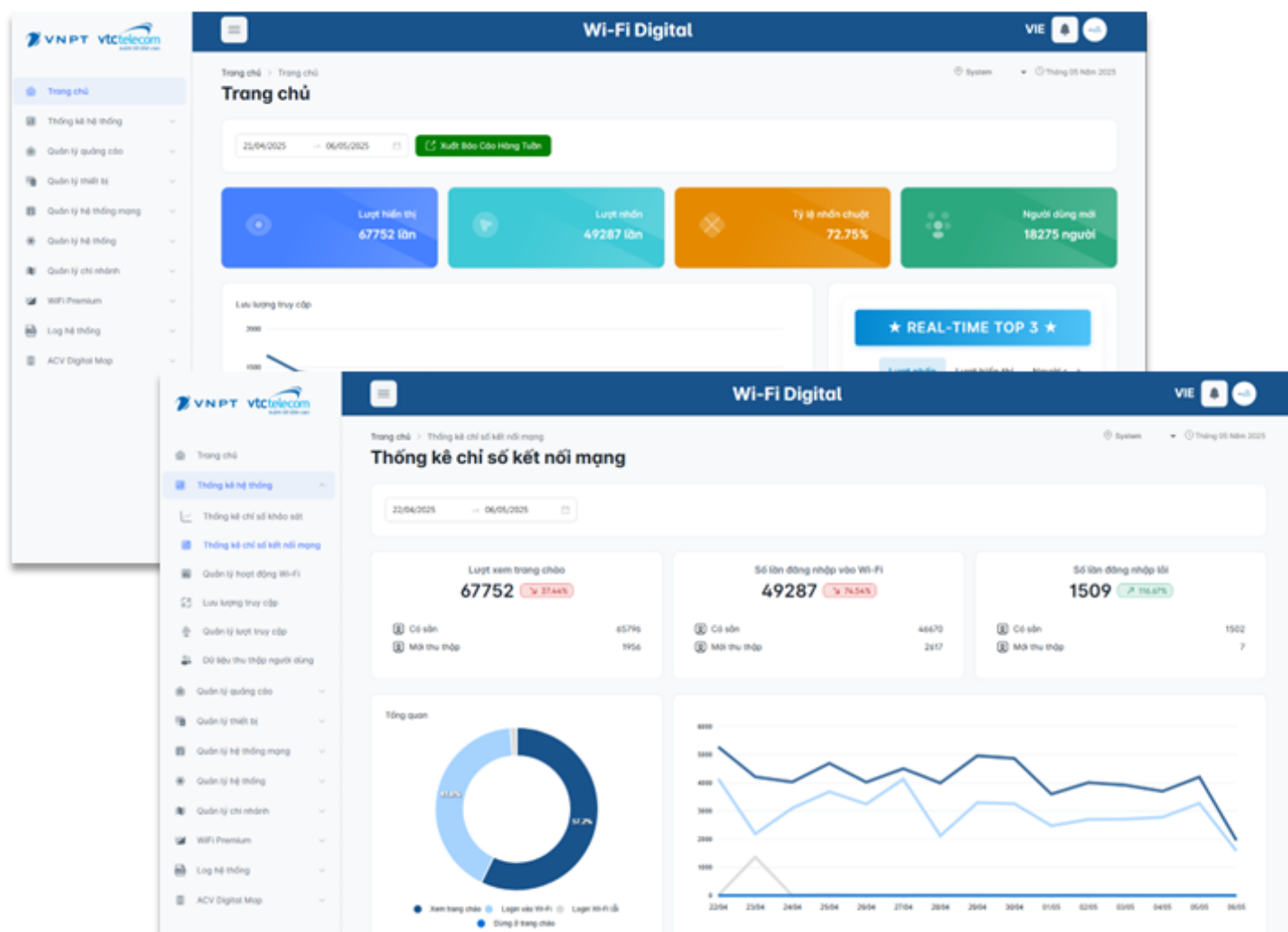
❖ WIFI DIGITAL

WiFi Digital is a comprehensive software platform for managing and monitoring public WiFi services, built on modern information and telecommunications technologies. The system enables centralized connection and management of WiFi infrastructure deployed nationwide, supporting efficient operations, service quality control, and user experience optimization.

In addition, WiFi Digital integrates WiFi Marketing features that allow businesses to launch advertising campaigns through wireless connections at high-traffic locations.

This solution is designed for businesses offering public WiFi services — including shopping malls, train stations, airports, retail chains, or any venue requiring WiFi connectivity combined with user engagement campaigns.
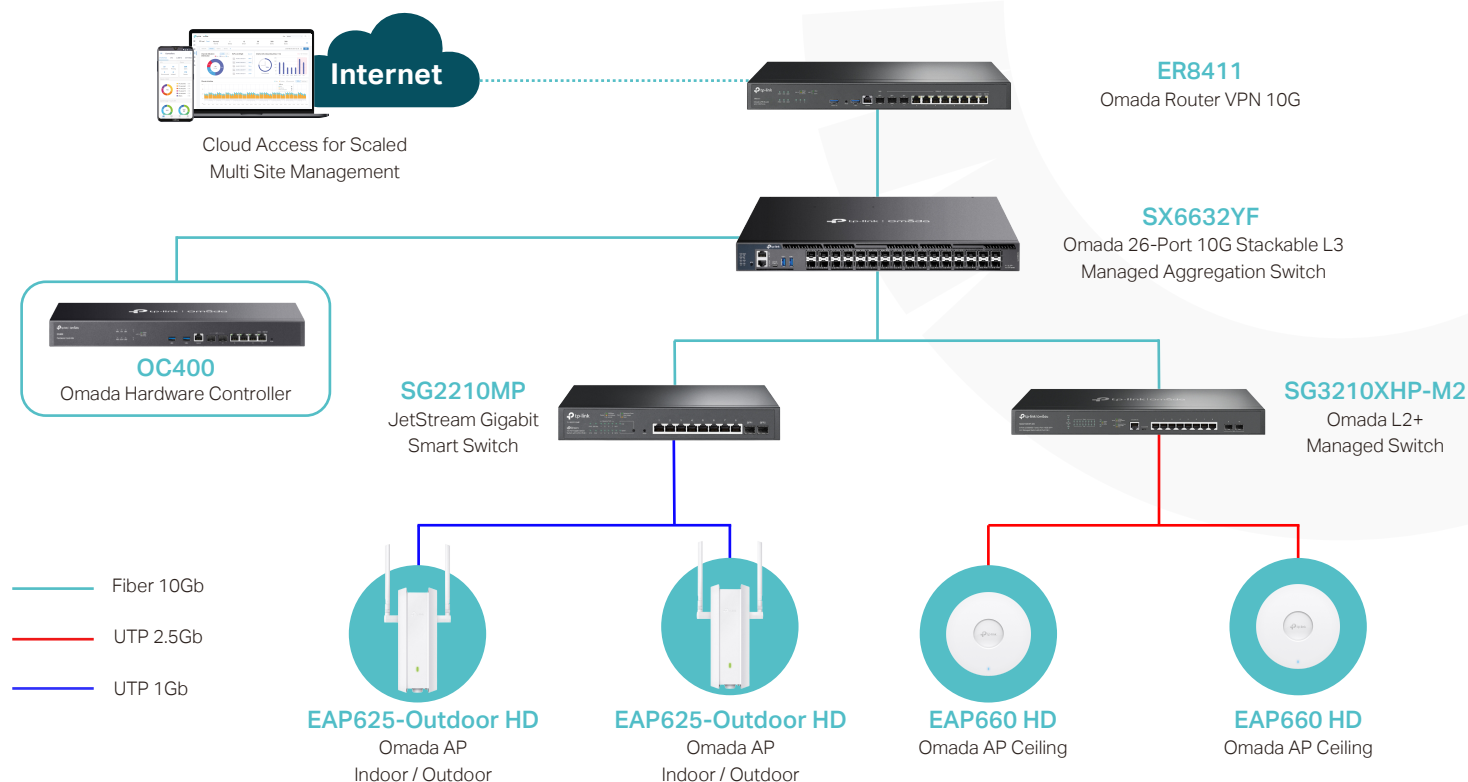
❖ KEY FEATURES

- Integration with VNPT – VTC Telecom centralized management system

- Monitor and track clicks, views, and user access through the WiFi Marketing system

- Provide statistics on network traffic, user visits, survey metrics, user data collection, and WiFi activity

- Manage advertisements and advertising campaigns

- Manage installed network devices

- Manage network systems including RADIUS server, portal, WLAN, VLAN, bandwidth limitation, etc.

- Manage Premium WiFi services including vouchers and Passpoint

- Support report generation by day, week, month, quarter, and year

◆ TOPOLOGY

Internet

Cloud Access for Scaled
Multi Site Management

ER8411
Omada Router VPN 10G

SX6632YF
Omada 26-Port 10G Stackable L3
Managed Aggregation Switch

OC400
Omada Hardware Controller

SG2210MP
JetStream Gigabit
Smart Switch

SG3210XHP-M2
Omada L2+
Managed Switch

—— Fiber 10Gb
—— UTP 2.5Gb
—— UTP 1Gb

EAP625-Outdoor HD
Omada AP
Indoor / Outdoor

EAP625-Outdoor HD
Omada AP
Indoor / Outdoor

EAP660 HD
Omada AP Ceiling

EAP660 HD
Omada AP Ceiling

◆ PROJECT RESULT

TP-Link's network solution delivered outstanding performance, enabling the T3 terminal to operate smoothly even during peak hours with thousands of simultaneous connections. Comprehensive Wi-Fi coverage was achieved across all areas of the terminal — from waiting lounges and dining zones to outdoor spaces like parking lots — ensuring passengers could stay connected anytime, anywhere. The system experienced zero service interruptions thanks to the high availability and flexible redundancy of the deployed devices. Moreover, the solution offers easy scalability and upgradability, ready to support the terminal's future growth and adoption of new technologies.