

CASE STUDY



Overview

A leading Emirati retail conglomerate faced challenges with fragmented infrastructure, resulting in inconsistent connectivity, high operational costs, and limited network visibility across its mall locations. Tech Mahindra addressed these issues by deploying a unified Wi-Fi 6/6E-enabled Wireless LAN solution across five malls in the UAE and Egypt. The solution delivered seamless roaming, centralized management, and robust security, while simplifying operations and future-proofing the network for IoT and emerging technologies. This transformation not only improved customer experience and operational efficiency but also laid the groundwork for scalable, high-performance connectivity aligned with the client's digital innovation goals.

Client Background and Challenge.

Our client, one of the leading Emirati retail conglomerates, faced challenges with fragmented infrastructure, resulting in inconsistent connectivity, high operational costs, and limited network visibility across its mall locations. They wanted to deploy a business-optimized network infrastructure over a unified Wi-Fi 6/6E-enabled Wireless LAN solution across five malls in the UAE and Egypt.

Our Approach and Solution

Tech Mahindra first carried out site assessments and RF planning to ensure optimal access point placement and coverage. We then designed a high-density Wireless LAN architecture using Wi-Fi 6/6E standards, enabling seamless roaming, high availability, and future scalability.

The solution design included VLAN and SSID segmentation for secure access, a layered firewall and security framework, and Cisco Catalyst 9000 Series switches for robust routing and switching. Centralized management tools were deployed to simplify operations, enhance visibility, and streamline troubleshooting

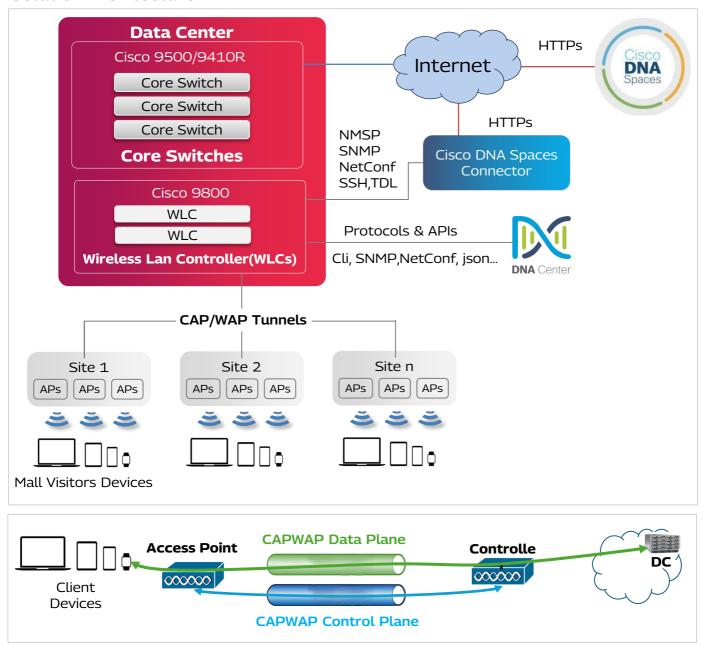
The implementation was executed in five phases:

- Discovery and Planning: Assessed existing infrastructure, conducted RF site surveys, and defined KPIs. Delivered WLAN designs, topology diagrams, and site-specific schedules.
- Configuration and Staging: Pre-configured and validated hardware/software in a lab environment, tested integrations, and prepared automation scripts. Delivered labelled hardware, backup configs, and rollback plans.
- On-Site Deployment: Coordinated after-hours installations, replaced legacy equipment, and validated connectivity. Delivered installation reports, as-built diagrams, and AP/cable logs.
- Cutover and Optimization: Transitioned live traffic, tested performance and security, fine-tuned RF and QoS settings, and trained local IT staff. Delivered validation reports and optimized configurations.
- Post-Deployment Support: Established monitoring protocols, scheduled audits, and gathered user feedback. Delivered dashboards, SLA documentation, and future enhancement recommendations.

This comprehensive solution not only addressed the client's immediate connectivity challenges but also laid the foundation for a scalable, secure, and future-ready digital infrastructure.



Solution Architecture



Business and Community Impact

- Delivered measurable improvements across five mall locations.
- Achieved up to **60% higher coverage and throughput** compared to legacy systems.
- Enabled seamless roaming and faster guest onboarding, boosting customer satisfaction and dwell time.
- Empowered IT teams with **centralized management** tools for real-time visibility
 and proactive issue resolution.
- Reduced operational overhead through simplified network operations.

- Implemented advanced security features to ensure compliance and protect users from threats.
- Enabled support for **IoT integration**, smart mall initiatives, and scalable expansion.
- Created a more connected, secure, and engaging shopping experience for thousands of daily visitors.
- Fostered digital inclusion and convenience within the community.
- Aligned with the client's long-term vision for innovation and excellence in retail.

About Tech Mahindra

Tech Mahindra (NSE: TECHM) offers technology consulting and digital solutions to global enterprises across industries, enabling transformative scale at unparalleled speed. With 148,000+ professionals across 90+ countries helping 1100+ clients, Tech Mahindra provides a full spectrum of services including consulting, information technology, enterprise applications, business process services, engineering services, network services, customer experience & design, AI & analytics, and cloud & infrastructure services. It is the first Indian company in the world to have been awarded the Sustainable Markets Initiative's Terra Carta Seal, which recognizes global companies that are actively leading the charge to create a climate and nature-positive future. Tech Mahindra is part of the Mahindra Group, founded in 1945, one of the largest and most admired multinational federation of companies. For more information on how TechM can partner with you to meet your scale at speed imperatives, please visit https://www.techmahindra.com/.













www.youtube.com/user/techmahindra09 www.twitter.com/tech mahindra www.linkedin.com/company/tech-mahindra mktg@TechMahindra.com

Copyright © Tech Mahindra Ltd 2025. All Rights Reserved.

Any unauthorized use or distribution of this content is strictly prohibited. The information in this document is provided on "as is" basis and Tech Mahindra Ltd. makes no representations or warranties, express or implied, as to the accuracy, completeness or reliability of the information provided in this document. This document is for general informational purposes only and is not intended to be a substitute for detailed research Mahindra Ltd. shall not be responsible for any loss whatsoever sustained by any person or entity by reason of access to, use of or reliance on, this material. Information in this document is subject to change without notice.