

THE DUBAI MALL

CASE STUDY

UNITED ARAB
EMIRATES



RETAIL

DUBAI MALL BUILDS SERVICE DIFFERENCE ON LIMITLESS WI-FI

EMAAR

MALLS

Wi-Fi delivers critical service
advantage at world's largest mall



Dubai is a shoppers' paradise. The city contains some of the world's largest malls, crammed with designer brands and global retailers. Visitors may also find indoor ski slopes, fine dining, concert venues and an aquarium with 400 sharks.

In a city where summer temperatures regularly top 40° Celsius, Dubai's air-conditioned malls are more than a place to shop. They are a place of refuge. A trip to the mall is chance to meet friends and to socialise.

"The mall is a meeting point," says Muzamil Abdul Karim, Senior Director, IT, Emaar, one of Dubai's leading real estate developers and mall operators.

CREATING THE WORLD'S MOST EXCITING SHOPPING DESTINATION

Emaar owns some of the city's most prestigious shopping malls, including Souk Al Bahar, the Ranches Souk and Dubai Marina Mall. It also built and manages the giant Dubai Mall, with 1,600 stores and more than 200 dining outlets. It is home to Bloomingdales and Galeries Lafayette, an ice rink, 25-screen cinema and the 400-shark aquarium.

"Dubai Mall is a city within a city," says Abdul Karim. "People can come for hours, never visit a shop, and never get bored."

Emaar's malls are a go-to for Dubai's five million tourists and a regular destination for the city's 3.5 million inhabitants. The Dubai Mall alone sees up to 300,000 visitors a day. Annual visitors are over 100 million.



REQUIREMENTS

- Ensure high performance Wi-Fi throughout the world's largest mall
- Support a range of business use cases
- Capture the data to inform service improvement

SOLUTION

- Wi-Fi 6 Access Points
- Mobility Controllers
- Mobility Conductor
- ClearPass Policy Manager for NAC
- AirWave Network Management
- Integration with Aislelabs guest Wi-Fi, analytics and marketing

OUTCOMES

- Ensures free Wi-Fi access for more than 300,000 visitors per day
- Delivers 150Mb bandwidth for all users
- Supports continuous CSAT focus
- Enables location-aware services
- Generates the heatmaps and user data to inform mall development

BLENDING EXCITEMENT WITH FAMILIARITY

Part of the appeal of the Dubai Mall, in the shadow of the Burj Khalifa, the world's tallest building, is that it blends excitement with familiarity. Emaar wants the mall to deliver entertainment and spectacle, yet feel comfortable. Dubai Mall takes great care around lighting, music, signposting and services.

Another aspect of the home-from-home feeling is the availability of free high performance Wi-Fi. Abdul Karim says standard Wi-Fi is now seen as a basic utility, but superior connectivity can create a competitive point of difference. Emaar wanted to establish the best Wi-Fi performance of any mall in the city.

"We will not compromise on Wi-Fi quality or continuity," says Abdul Karim. "This is a directive from the very top of the Emaar organisation. It is a critical component of our



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MUZAMIL ABDUL KARIM
Senior Director, IT, Emaar

service objectives. Residents demand it and tourists, without a roaming plan, appreciate it.”

Building a wireless network across a site this size, with no dead spots, is a daunting challenge. The Dubai Mall covers an area of 1.124 million sqm. It includes indoor and outdoor areas, with huge car parks. The malls are open for 15 hours a day; they can be near empty or accommodating a weekend influx. Customers expect the same Wi-Fi performance wherever and whenever.

ENSURING AN ALWAYS-ON NETWORK

Wireless access at the Dubai Mall is built on Aruba technology. The mall is blanketed in more than 2,200 wireless access points, Aruba AirWave manages network health and Aruba ClearPass is used for the network’s business users.

Aruba Wi-Fi infrastructure ensures an always-on network. Emaar has the ability to conduct live updates, avoiding network downtime. With access points managed within a cluster, there is a seamless failover as individual access points are upgraded.



In addition, Emaar is adding Aruba User Experience Insight sensors (UXI), around the mall. The aim is to enhance end-user experience on the network by proactively monitoring, troubleshooting and addressing application and network resource performance issues in real time.

Pankaj Kumar, Head of Network Infrastructure, Emaar, points out that with the level of visibility and automation offered by the Aruba architecture, there has been significant increase in simplicity and efficiency in the network operations which give 100% availability of services to the company’s customers.

“Planned upgrades or new deployments have become far easier and automated, with very little disruption,” he says. “When it comes to troubleshooting, we can now be far more proactive and efficient. The Aruba UXI sensors offer a clear dashboard over the health of the network resources and deliver a significant level of rapid self-healing to our network.”

WIRELESS CONNECTIVITY AS CSAT CONTRIBUTOR

Dubai Mall sees around 40,000 unique users on its wireless network every day. The capacity is such that visitors will make a special trip to download a film or FaceTime a relative. It is common for visitors to come to the mall, meet friends, have a coffee and watch live sport streaming on their smartphone. Abdul Karim says each user can expect 150Mb download speeds.

“We know that some people will video call friends while shopping, to check their reaction to a purchase,” he points out. “Our network extends through every store. It is seamless across the entire mall.”

The strength of the network is a contributor towards an improved customer satisfaction score. In 2021, CSAT was up to 4.81/5, its highest yet, says Abdul Karim. Emaar is rigorous in chasing feedback from visitors across all mall services.

“Any occasion we score less than 3/5 we follow up with phone call. Whether it’s a comment about the toilets, quality of food or Wi-Fi, we take these matters seriously,” says Abdul Karim. “We never see 3/5 on the Wi-Fi.”



GENERATING THE DATA TO DRIVE CONTINUOUS IMPROVEMENT

The solidity of the wireless network allows Emaar to develop its Dubai Mall app. The app offers an increasing number of location-aware features: users can find friends in the mall, order items to be delivered to their car (or home), check for quiet parking areas and even upload a photo of their car registration to help them find their car. Navigation steers visitors to specific stores. Users can opt-in for notifications on discounts or offers from their favourite retailers.

Abdul Karim says the data generated is “oxygen” for the business. Heatmaps show dwell areas and pinch points, or which facilities are over- or under-used. This helps inform service teams and signposting. For instance, cleaning crews can go to the most frequently used toilets or empty bins near high traffic exits. Emaar also understands the impact a rise in outside temperature has on visitor numbers.

Logging on to the network also generates user data. In a city as diverse as Dubai, Emaar now sits on a wealth of knowledge about different styles of shopper. It can tailor its marketing and promotions to different languages, age groups and demographics.

TOWARDS A HYBRID FUTURE

This would be useful data if Emaar were content only to have the best malls in Dubai. The company has bigger am-



bitions. The business is eyeing international opportunities. It already operates the giant Emaar Square Mall in Istanbul and is building the intelligence to compete with global rivals. It has the data, the tenants, the digital developer teams and the service mindset to be a world leader in the mall industry.

The business understands that the future of retail will be hybrid, says Abdul Karim: “We know the physical environment will be complemented by a digital layer. The Wi-Fi network has gone from being a standard utility to being mission critical.”