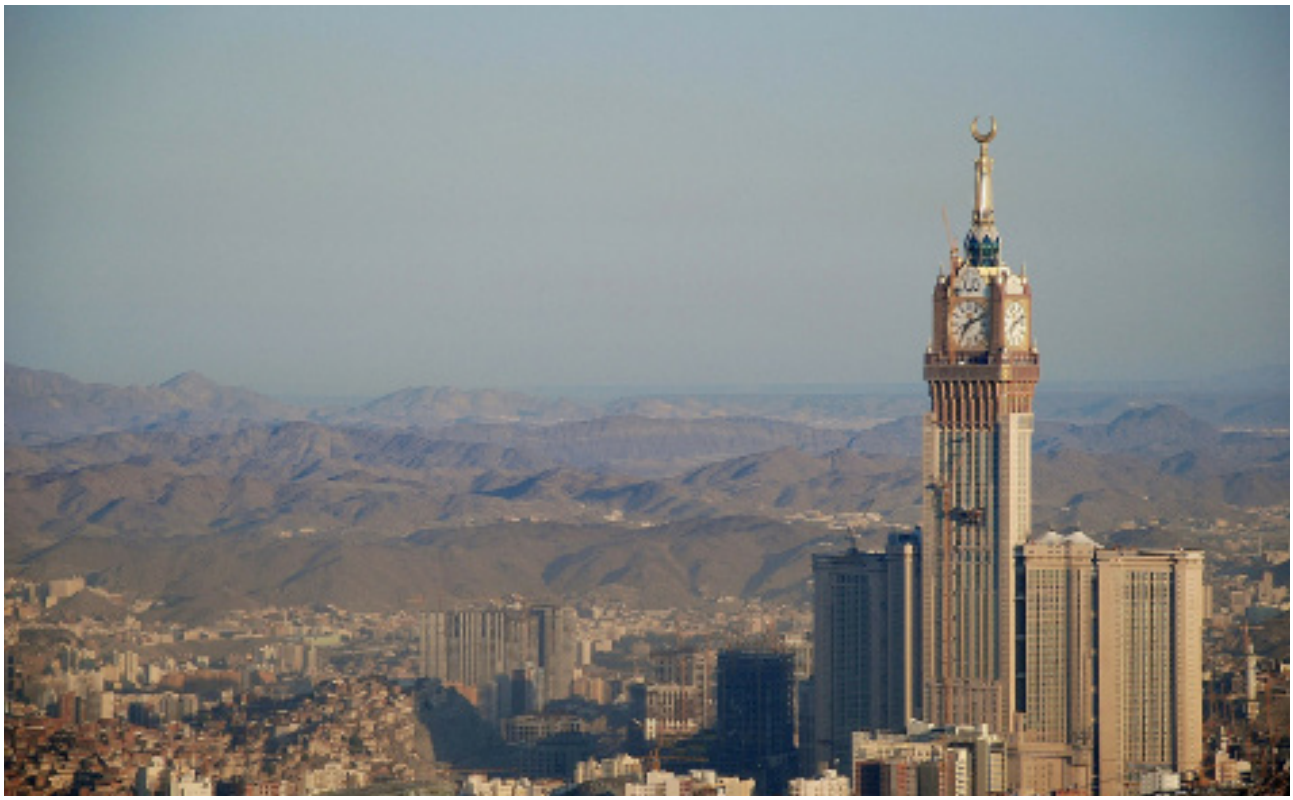
Success Story

Wireless Surveillance infrastructure Jabal Omar Construction Project

Anywhere
INTELLIGENT CONNECTIVITY



Overview

The King Abdul Aziz Road (KAAR) construction project in Jabal Omar is one of the most important development projects of an ambitious Government program to be implemented in Makkah by Umm Al Qura.

This development fully supports the Government's strategic plans to rehabilitate some of the least developed districts in the city, upgrading the existing infrastructure, creating a major movement axis in Makkah, supporting a prominent gateway to the Holy City, specifically the Haram Area and deploying future transportation technologies. KAAR project is a unique urban theme to support religious, social and commercial activities all year round.

The project is located in the western region of Makkah, extending 3,650 m from the western entrance of the Grand Mosque leading to Jabal Omar. The total area of the project is around 1.2 Km and includes 9 km of roads, a wide pedestrian boulevard, street furniture, retail facilities, 4 multi-story parking structures, bridges, highway structures, Bus Rapid Transit (BRT) facilities/ infrastructure, metro stations and lines, utility systems and much more.

Umm Al Qura needed to have surveillance during the construction of the project. Since a construction site is always changing and needs to adapt and expand, there are difficulties with achieving line of sight. Therefore, traditional Point to Point and Point to Multipoint solutions did not work. With Anywhere Networks' patented Intellgent Connectivity Anywhere technology, Umm Al Qura is reliably able to connect a demanding number of IP cameras, overcoming the physical constraint of the construction area and providing a reliable, highly secure and redundant wireless network.

Customer
Umm Al Qura

Distribution Partner
SECURNA

System Integrator
ESE Al-Ajou

Deployment Location
Mecca, Kingdom Of Saudi Arabia

Application
HD surveillance for critical Construction

Products Deployed
X20 Anywhere Network Nodes

Competition
Conventional point-to-multipoint wireless system

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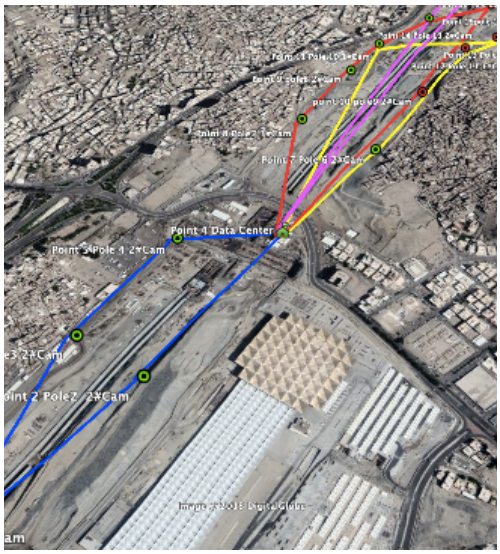
The Challenge

- High throughput requirements – up to 28 outdoor location with more than two IP cameras at each location. Up to 800 Mbps of throughput required.
- High interference environment with more than one microwave system in place.
- The entire system requires full hardware redundancy.
- Fast auto-recovery time for critical infrastructure – less than 10 seconds.
- Umm Al Qura had previously tried a PtMP wireless solution that didn't work and were looking for a scalable, redundant solution that could overcome problems with line of sight.

> "The challenging construction environment with no direct Line of Sight between all cameras and the data centre makes using traditional Point to multi point solutions impossible. Intelligent Connectivity Anywhere technology overcomes this problem entirely with the robust ring design and self-healing redundancy."

The Solution

- 28 x X20 Anywhere Network Nodes were used to deploy four wireless mesh rings with multiple hops. This solved the line of sight issues, since the line of sight from each location can be used to connect to the next location.
- Two single radio offload points for each ring at the data center for full hardware redundancy and no single point of failure.
- Each locations have various PTZ and Fixed cameras from different vendors installed. All cameras and MeshRangers are powered using a solar solution.



The Result

- X20 series products deliver an impressive throughput and stability performance, despite the challenging environment.
- 4x mesh rings deployed to connect 60 full HD cameras at difficult to reach locations. Easily adaptable for future expansion.
- Negligible latency and packet loss.
- Redundancy and automatic rerouting in case of failure.

About Anywhere Networks

Anywhere Networks develops and globally markets network infrastructure solutions and services for Smart City applications with focus on public safety, intelligently connecting IoT devices and video surveillance cameras for public and private customers. Anywhere Operating Systems, A-OS, and Anywhere Network Nodes, A-NN, offer scalable, high-capacity, secure network solutions based on Anywhere's Intelligent Networking Technology for bandwidth-demanding applications and mission critical network infrastructure. Anywhere Networks solutions and services are well suited for public safety and video surveillance applications for Smart Cities, Safe Cities, Transportation Networks, and Industrial Environments.

Visit www.anywherenetworks.com or contact **sales@anywherenetworks.com** for more details.

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