

CASE STUDY



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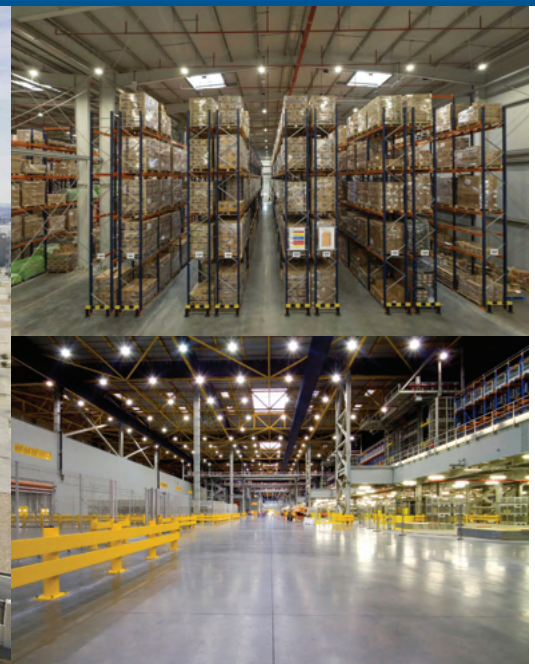


OPEN GRAPHIC™
NAVIGATOR

Warehousing Complex Umm Shahrain, Qatar



 **Mircom®**



AT A GLANCE

The newly constructed Warehousing Complex Project in Umm Shahrain, State of Qatar, is comprised of an intelligent networkable fire alarm system with a central graphical workstation for our clients Barwa Real Estate Investment Company and Manateq.

The client required a UL listed fire alarm system with a central graphical 3D workstation for monitoring and controlling forty-five (45) Fire Alarm Control Panels networked via 10 kilometers of fiber optic cable, covering 500,000 square meters of total area.

The development of this project was successfully awarded to Barwa Real Estate Co. in 2015 and Mircom's solution was selected and implemented within the client's precise timeline of 18 months.

PROJECT BACKGROUND & SCOPE

With Qatar's stated National Vision of creating a vibrant and prosperous country capable of sustaining its development and providing a high standard of living for its people by 2030, the impressive Warehousing Complex Project in Umm Shahrain is set to play a vital role in supporting the Nation's economic expansion goals.

Located in Umm Shahrain, the project sits on a plot of land spanning 500,000 square meters, with the total build up area of 287,315 square meters. The Warehousing Complex is comprised of seventeen (17) warehouses (including, dry, chilled, frozen, and air-conditioned compositions), one (1) administrative building, two (2) staff accommodation buildings, one (1) mosque, one (1) community center and various ancillary buildings (15 substations, 2 generator rooms, 6 water pump rooms, 3 security guard houses).

When the final selection for a fire detection and alarm system was required, the Warehousing coordinators selected Mircom's building solutions to protect their new property.

CHALLENGE

The project covered an extremely large compound area with the plot of land spanning 500,000 square meters and vast distances between many of the buildings.

Working with various types of storage (dry storage, air-conditioned storage, chilled storage, and freezer storage), as well as high ceilings and sizable flooring area, designing and implementing a solution to accommodate the unique frameworks created major hurdles to overcome.



THE MIRCOM SOLUTION

Mircom successfully navigated the complex challenges presented by this project and effectively and efficiently satisfied all customer requirements.

In total, more than 3,000 field devices and 45 Intelligent addressable Flex-Net alarm control panels were installed and networked using 10 kilometers of fiber optic cable. Additionally, by utilizing Mircom's Open GN, a 3D central graphic workstation, the massive area was able to be monitored and controlled centrally in a secure and robust manner.

Mircom's UL listed Flex-Net system was selected by the client for its peer-to-peer network capability, its multitude of features, and its simplicity in programming. The network programming was conveniently accomplished through any single fire alarm control panel (FACP) across the campus without the need to program each FACP individually. There was no downtime during system configuration as Flex-Net panels have the capacity to store up to 3 different configuration files, avoiding compromised safety of individuals and property.

The Modular Flex-Net system is strategically designed to be upgradeable in the future. End users have the ability to further customize the Flex-Net system in the event of building upgrades or renovations while continuing to fulfil all prior requirements.

Mircom's Open Graphic Navigator (Open GN) 3D graphic software allowed the client to monitor and control all 45 fire alarm control panels from a central control room. Open GN is a UL Listed centralized building management system that provides real-time local and/or remote monitoring & control of a building or campus. As a powerful integration tool, Open GN allows operators to monitor remote sites from multiple workstations.

To address the unique building framework, Mircom also utilized intelligent projected beam smoke detectors that are UL listed compatible and uniquely suited for protecting open areas with high ceilings, where other smoke detection methods are difficult to install and maintain. With the majority of wiring runs being connected to one location, the installation of the single ended reflective design allowed for the alignment to be accomplished swiftly and cost effectively.

The project consisted of a total of 300 reflective beam detectors, and Mircom's solution allowed for impressive cost savings in installation and programming.

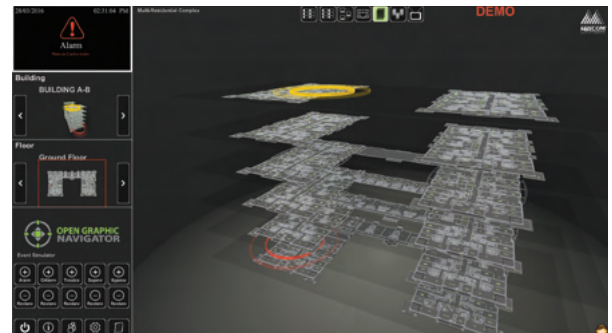
SYSTEM SUMMARY

Installation incorporated Mircom Open Graphic Navigator (Open GN) 3D central graphic station and 45 Flex-Net Series networkable fire alarm system with more than 3000 initiating and notification field devices, which included 42 Intelligent addressable expander power supply units, 300 Linear addressable beam detectors, duct detectors, 900 spot addressable detectors type and 1600 modules.

Mircom's Open Graphic Navigator is a UL Listed centralized building management system that provides real-time local or remote monitoring & control of a building or campus. As a powerful integration tool, Open GN allows operators to monitor remote sites from multiple workstations.



Open GN provides 3D troubleshooting for the entire campus, which is the perfect solution for this large campus property where being able to guide emergency personnel to precise locations is crucial.



Open GN provides 3D troubleshooting for specific buildings with active events.

A screenshot of the Open Graphic Navigator (Open GN) software interface, showing a detailed 3D model of a building. The sidebar on the left is similar to the previous screenshots, but the 'Floor' dropdown is now set to 'Ground Floor'. The main 3D view shows a detailed wireframe model of the building's structure, with a red outline highlighting a specific area on the ground floor.

Open GN provides a list of all notifications via an Event Log which one can sort or filter to troubleshoot specific events.

A screenshot of the Open Graphic Navigator (Open GN) software interface, showing a 2D floor plan layout of a building. The sidebar on the left is similar to the previous screenshots, but the 'Floor' dropdown is now set to 'Ground Floor'. The main 2D view shows a detailed floor plan of the building, with a red outline highlighting a specific area. Below the floor plan is a table with columns for 'ID', 'Name', 'Description', 'Status', 'Location', 'Device', 'Zone', 'Area', 'Type', 'Unit', and 'Count'.

Open GN provides 2D troubleshooting for a specific area or layout.

INSTALLATION AND TEAM

Mircom's Engineered System Distributor (ESD) partner on this project was International Gulf Trading Company WLL (IGTC). The IGTC team consisted of two (2) engineers, and ten (10) technicians who worked to complete the design, installation, and commissioning of Mircom's solutions.



"It was our immense pleasure and blessing to select the Mircom brand for our project because of its intelligent features and stable fiber optic network communication. To add, OPEN GN software played an important role to achieve the final finishing which was highly appreciated by the client and Qatar Civil Defense authorities, for its 3D graphic feature which helps to quickly locate the fire incident."

– Wilfy Xavier - Senior Sales Engineer
International Gulf Trading Company W.L.L

CONCLUSION

With Mircom's solutions, the installation team was able to successfully overcome the challenges faced from the massive area to protect. Mircom delivered a complete UL listed system, in both meeting and exceeding the client and the Qatar civil defense department expectations.

Spanning close to one and a half years of design, implementation and testing, our Flex-Net and Open Graphic Navigator package provided a secure, reliable, and cost-effective solution. Our ESD Partners and our end-user customers were ecstatic with the product platforms, the service and the support provided at all stages of the project.

Mircom is proud and honored to have been selected for this prestigious work and to have excellent and satisfied partners going forward as a result of a job well done!



About the Mircom

Founded in 1991, Mircom is a global designer, manufacturer and distributor of Intelligent Building Solutions. Reaching customers in over 100 countries worldwide, Mircom's portfolio includes: fire detection & alarm, communications & security, mass notification, nurse call, and building automation & smart technologies. Mircom's vision is to make buildings worldwide safer, smarter, and more livable.

Our global network of dedicated Sales and Service Offices, known as Mircom Engineered Systems, allows us to be a full solution provider. Through Mircom ES, we're able to provide and fully service our line-up of innovative and advanced solutions which are scalable to satisfy diverse user demands, from small & mid-size buildings to the world's most complex applications.

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MGC-CS-210037
08-21