

Oman Shipping Company Head Office

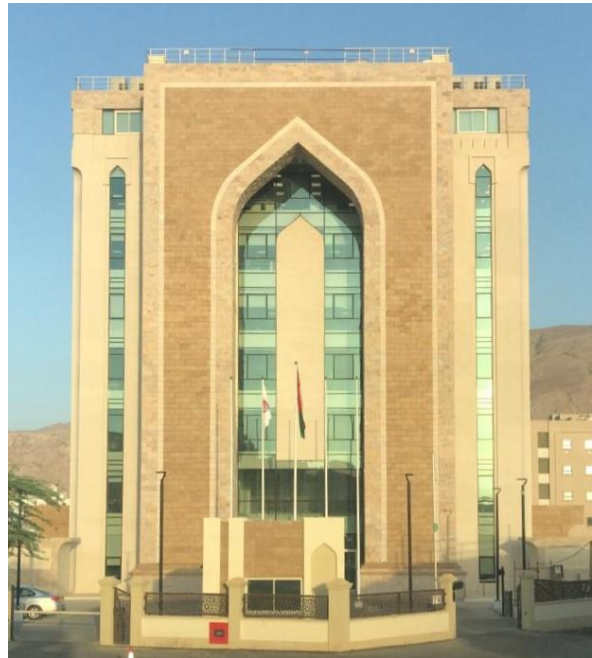
Reliable and energy-efficient building technology

COMPANY HISTORY:

Set up in 2003, Oman Shipping Company SAOC (OSC) grew out of the Omani government's vision to develop a national fleet catering to the maritime transportation requirements of the country's rapidly growing hydrocarbon, petrochemical, mining, and metallurgical industries.

Initially focused on the transportation of domestically produced liquefied natural gas (LNG) cargoes to international markets, OSC's fleet has evolved to include Very Large Crude Carriers (VLCCs), Product Tankers, Chemical Tankers, LPG Carriers Very Large Ore Carriers (VLOCs), Bulk Carriers, multi-purpose vessels and, lately, a containership as well.

Today, with a well-diversified fleet of 49 modern vessels (owned and chartered-in), OSC is unquestionably the nation's shipping transportation services provider of choice. Its business investments and growth strategy are closely aligned with the strategic maritime transportation interests of the Sultanate's rapidly industrializing economy.



OMAN SHIPPING COMPANY HEAD OFFICE:

OSC's eleven storey head office is a new landmark on the sultanate's skyline. The landmark building is providing high quality office space, a large head office. The development is located in Bawsher area.

High quality office space, training areas, meeting rooms, conference room and coffee lounge and date center.

The building is with three basement parking, ground floor entrance with reception area, six floors and penthouse.

Project Team

Client: Oman Shipping Company SAOC

Construction: 2018-2021

Location: Muscat, Sultanate of Oman



Architect: Lines and Visions Engineering Constancy

Main contractor: Abu Hatim Co. LLC

KNX LIGHTING CONTROL SYSTEM:

As per the initial design of the project, it was not the KNX system which was implemented. The decision for a KNX solution was made due to the open and standardized system and the capability of being extended at any time by devices and products of further manufacturers. Also the feasibility to interface with building's MEP equipment's.

KNX Proportion: 400, 000 US Dollars

The lighting control, HVAC, Curtain Control system in the new headquarters comprises lights that cover all lift lobbies, main entrance, reception area, office areas, management offices, meetings rooms. Parking area and external façade lighting is scheduled using timer and photocell. Over 90% of the lighting in the building is efficiently controlled by presence detectors, brightness sensors, time based functions and schedules ensure that lighting circuits are only switched on when they are required during daylight without any loss of comfort or convenience.

The building is also equipped with meeting rooms, board rooms, managerial offices, CEO and Chairman Offices. All these areas are controlled by individual KNX capacitive touch glass switches (Eelectron 9025) with scenes (25%, 50%, 100%, off) which can be called as required, for normal meetings and presentations. All the open work spaces are fitted with KNX capacitive touch glass switches (Eelectron 9025) with individual control and master control. Each floor common area equipment idocking station for floor and zone wise control.



A visualization of the central operation, monitoring and control of entire KNX system is implemented with Esuite software for control and monitoring of full building. The central monitoring PC is located in the basement floor control room for ease of use by maintenance team where they can easily check the building using graphical representation to control as required.

The system is interfaced with building's MEP equipment's using BACnet IP and ModBus.

INTERFACING WITH OTHER SYSTEMS:

Building's MEP Equipment:

The KNX lighting control system is interfaced Building's MEP Equipment's using Universal Interface, Modbus and BACnet gateways. MEP Equipment's are

- UPS
- Fire Suppression System
- Fire Alarm System
- Closed Control Unit
- Access Control System
- SMDB / MDB
- Generator
- Pumps & Tanks
- HVAC
- Fans & Air Curtains

- Several systems working together to optimize energy efficiency
- Easy interfacing option with other system(BMS, fire alarm)
- Easy to extend

AREA OF APPLICATION:

Head Office

FUNCTIONS:

- Lighting Control
- Presence Detection
- HVAC Control
- Visualization
- Remote Control
- Interfacing with other systems
- External Façade Lighting

BENEFITS OF KNX FOR THIS PROJECT:

- Automated system reduces consumption of electricity
- Lighting & HVAC enhances security, comfort and convenience
- Visualization
- Entire system can be controlled and monitored from a central point
- Operation via docking station in each floor

NUMBER OF KNX DEVICES:

- 900
- Eelectron - For all backbone and field devise
- Intesis - BACnet KNX Gateway for HVAC Interface
- Eissound – Back Ground Music and PA System Interface
- Arcus – External Facade

TECHNICAL HIGHLIGHTS: