

THE RISE OF SMART BUILDING

Today modern buildings are being designed and built to have a smaller environmental foot-print, to reduce green-house emissions, to use less power, and to be more efficient and automated.

The demand for more higher level of services for the building residents and the introduction of new building IoT systems, has given rise to the installation of more controllable systems in the field of SCADA, power, climate and HVAC, water, gas, lighting, refrigeration, cleaning and waste management, access control, parking systems, and more.



OCTOPUS
control and command

Case Study: Electra Smart Facilities

Company profile:



- ✓ Electra Ltd.
- ✓ Leading company in civil construction, commercial property development and management, building systems and consumer goods.
- ✓ Group of 31 companies with presence in 14 countries around the world
- ✓ Revenue - 1.8 Billion USD

The challenge: a smart facility management system to manage 5 new towers

- ⤴ Electra group of companies has been developing new high-rise commercial towers intended for high-end customers. Recently the company has finished building 5 new towers.
- ⤴ All towers are installed with IoT devices, smart power and water management, smart lighting, smart cleaning systems, controllable machines and sensors, security and safety systems, parking and gate systems, all which need to be both smart and green, but also offer advanced high-level services for the tower's residents and offices.
- ⤴ Electra needed to find a cloud based, smart facility management system, that could integrate, control and monitor all their towers remotely from their main HQ.
- ⤴ The system should be flexible and generic for all types of systems installed and should have customizable integration work-flows and rules for automating all sub-systems' control and operations.
- ⤴ The solution should incorporate a mobile application for all facility management staff to receive technical alarms and faults, as well as control smart elements directly from the phone.
- ⤴ The solution should have a visitor management system built-in.
- ⤴ The solution should assist in cutting down facility management costs, time of response to faults, and reduce utility charges.



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THE SOLUTION: OCTOPUS SMART CAMPUS SYSTEM

Octopus smart facility control system:

- ◆ A cloud hosted solution that can run locally at each facility but can also be managed from the top hierarchy site of the company's HQ.
- ◆ An open architecture API server that can seamlessly integrate to any IOT device, controllable systems and SCADA, and is vendor agnostic.
- ◆ An advanced integrations rule engine for easily defining rules, correlations, work-flows and automatic actions and schedules.
- ◆ Advanced incident and fault management with response procedures for facility management to deal with every scenario.
- ◆ Dynamic 3-D plan of the facility outside and inside with sensors location and control in 3-D. Integration to smart facility systems such as:
 - ◆ *Climate, air-conditioning and chillers IoT system.*
 - ◆ *Power meters, power switch and generators*
 - ◆ *Water meters, pumps and valves IoT system*
 - ◆ *Cleaning IoT system – for waste removal, wash rooms and toilets*
 - ◆ *Rodent repellent system*
 - ◆ *Power socket IoT devices*
 - ◆ *Lighting control system*
 - ◆ *Fire alarm system*
 - ◆ *Video surveillance system*
 - ◆ *Smart parking sensors and LPR's*
 - ◆ *Entrance gates and turnstiles*
- ◆ Octopus Visitor Management system for inviting and registering all visitors and suppliers and issuing them a badge.
- ◆ Octopus Smart Parking management system
- ◆ Octopus Mobile Application platform – for connecting all the staff of each facility to the system, such as: control room operators, house manager, cleaning inspector, security officer, security staff, reception staff, maintenance staff, and admin manager.

System implementation results:

- ◆ A cloud based generic platform that fits all their new facilities
- ◆ All 5 new towers are managed remotely from their HQ.
- ◆ System integration and automation allows company to save on utility costs and reduce costs by 20%
- ◆ Company has communication means with all staff via a mobile app.
- ◆ Incidents and faults are pushed directly into the phone of the responsible staff member – improving response time by 25%
- ◆ Parking management system assists in better utilization and optimization of parking spaces.
- ◆ Company management have better insight into all consolidated facilities' system status, performance, SLA and utility usage.
- ◆ System saves over \$150k a year in operational staff costs
- ◆ Visitor management system reduces equipment theft and unwanted vagrancy and solicitation by 75%.



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