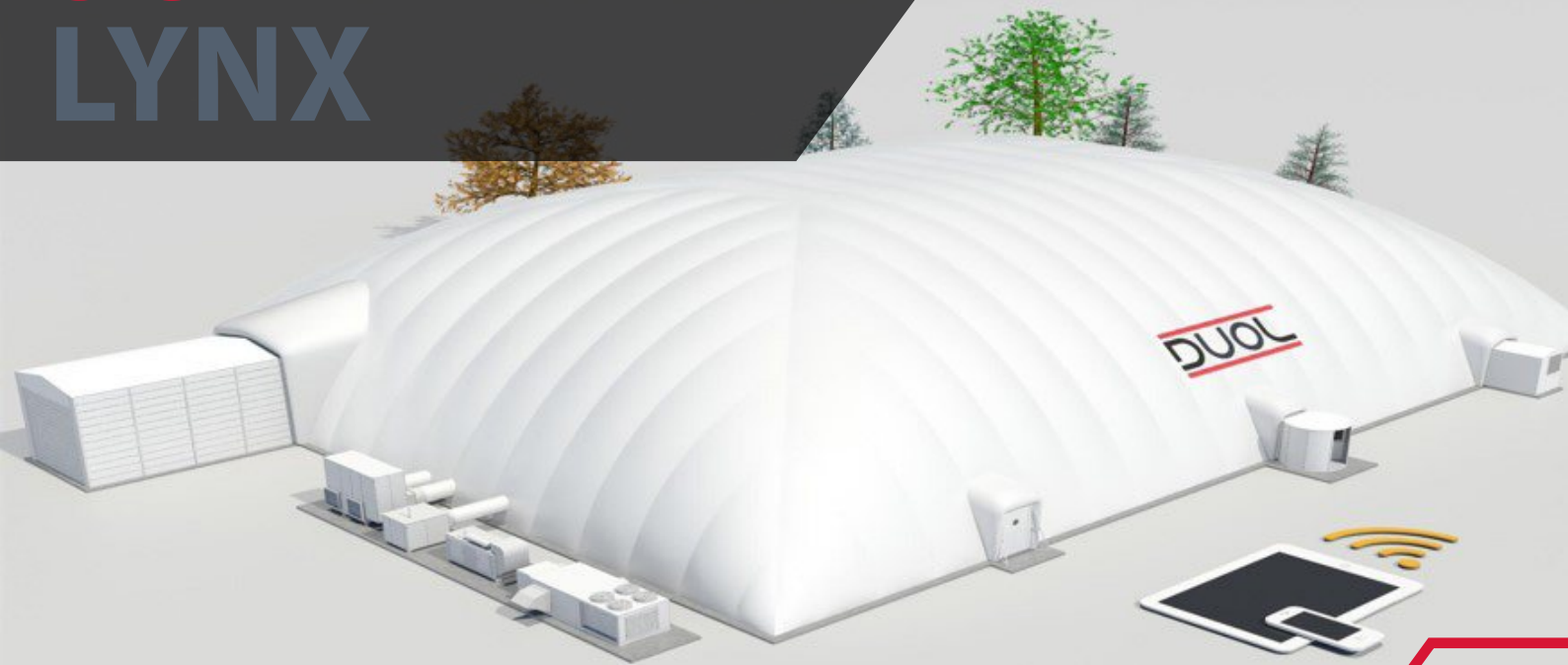


SOLVERA LYNX



CASE STUDY

Intelligent monitoring solutions for air domes

Project:

Solution for asset
management

Client:

DUOL Company

Tools:

GamaLogic Platform
ComBox.M Data Logger

The Project Intro

DUOL Company designs, manufactures and installs some of the most unique and versatile fabric structures in the world. They are experts in Air domes, Prefabricated frame structures (wooden & metal), and Tents.

DUOL is the leader in air-supported structures and since company foundation 25 years ago, DUOL has installed more than 1500 structures all over the world: Europe, Asia, Middle East, Africa and South America.



WHY?

DUOL provides not only engineering, production and assembling of the tents, but also an aftersales service of their structures. Efficient facility management is one of the DUOL's important priorities. In order to optimize operational processes, control air dome assets, protect from potential structure damages and energy waste they have decided to introduce Smart air dome monitoring and management solution that enables remote monitoring and management of the air dome statuses.

CHALLENGES

DUOL company was facing several challenges that required the implementation of an intelligent monitoring system in order to:

- Remotely monitor and manage the air dome.
- Remotely manage of the dome sub-systems like lights, HVAC and other specific systems installed in the dome.
- Implement reliable alarm system in case of any fault signals

SmartDome Solution

Dome Monitor + Dome Management

Local control (automation), Remote supervision & data acquisition, Alarming (SMS, e-mail), Energy Management



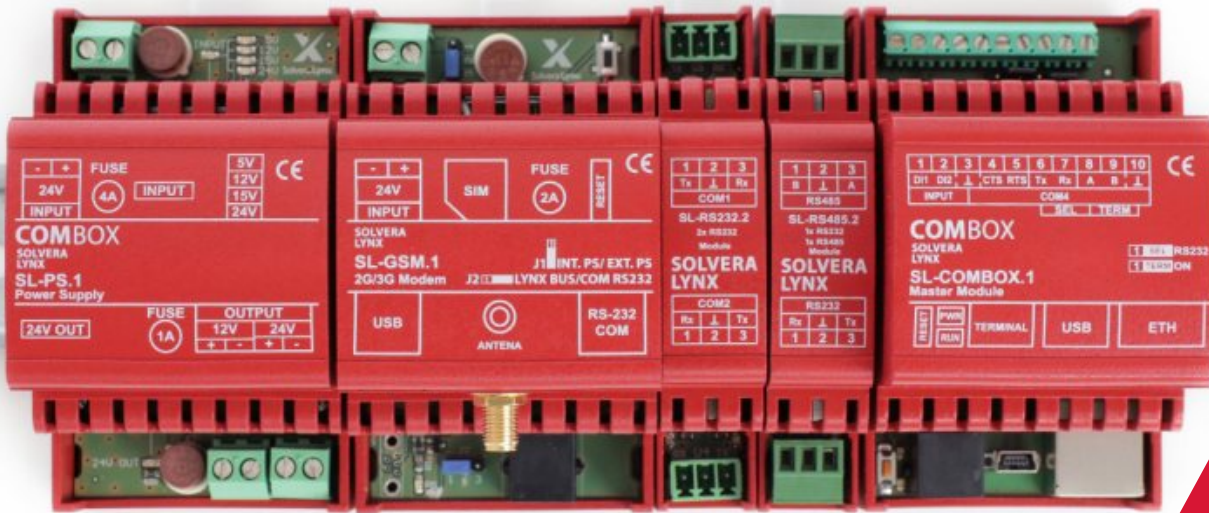
A Duol intelligent air dome monitoring and management solution DomeMonitor and DomeManager are web based applications that enable remote monitoring and management of the air dome statuses. Communication devices are installed on site and gather the information for the specific air dome and send the data to the web based application, where the data can be accessed via PC, mobile or tablet device. In case of DomeManager you can not only to monitor the dome, but also remotely manage the domes subsystems like lights, HVAC and other specific systems installed in the dome.

DomeMonitor system enables monitoring of the HVAC, inside and outside temperature and air dome pressure. The solution enables email and SMS notification in case of any alarm or fault signals.

DomeManager is an upgrade of the system DomeMonitor providing additional features for management of lights and in addition video surveillance.

Hardware

ComBox.M



ComBox.M is an innovative solution for today's energy management market. It incorporates an energy data concentrator with data logging functionalities for supervision and control solutions.

Power supply:	230 V
Internal battery:	24 V
Communic. module:	GSM
Connection type:	GPRS
Input signals:	Analog input 4-20 mA (pressure sensor)
	Serial interface RS485 (temperature, humidity sensor)
	Digital input 24V DC over relay (12/24V DC or 230V AC)
Output signals:	Digital output 24V DC over relay (12/24V DC or 230V AC)

Software

GemaLogic Platform



Multi-sites, multi-languages, multi-utilities, and fully inferable with production and building management systems; Offers advanced analytic techniques, predictive models, and state-of-the-art interfaces. Features: Current data overview, Data archive overview, Alarms (adding and setting), Web weather forecast, IP camera streaming, Output signals weekly schedule, Dashboard

