# OPC UA - BMS

Integration Overview

'Works with Dynalite' certification provides customers with confidence that a partner's integration with the Dynalite system is functionally sound and performs as designed. This helps integrators reduce deployment risk, lower total cost of ownership, and improve the user experience related to the integrated service.

Purpose

OPC UA Unified Architecture is a cross-platform independent data exchange standard for machine-to-machine communication used in Building Management Systems. It enables integration of various building automation and control systems, such as HVAC, drapery, lighting, and security systems.

The Dynalite System Manager OPC UA server shares control and status data from the System Manager Data Access and Alarm Events databases with an OPC UA client.
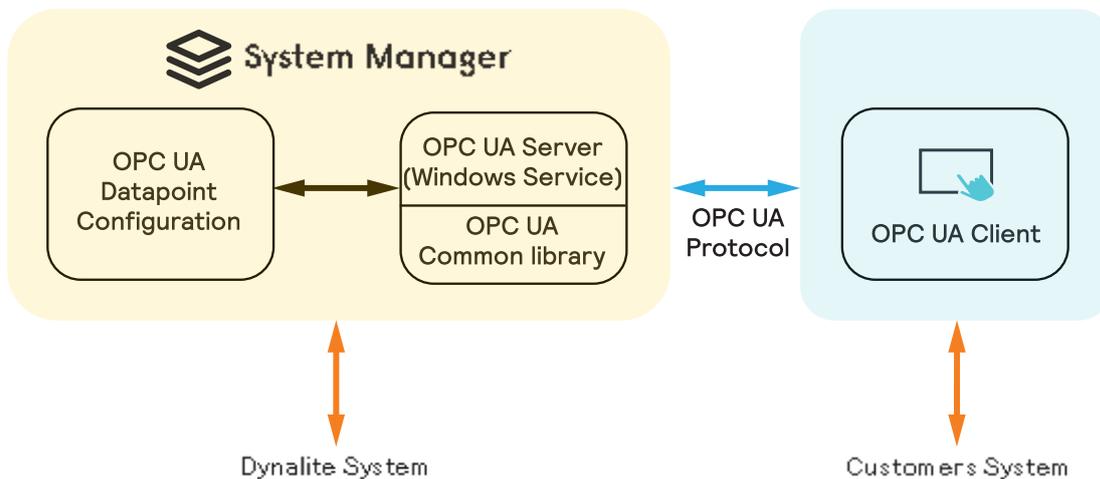
Capabilities

OPC UA Data points are dynamically updated by the server based on system events. These are read only. However, OPC UA Methods enables control of the system from the client the using SetAreaPreset, SetAreaTemperature, SetAreaTemperatureUpDown, and SetLogicalChannelLevel commands.

A free 28-day trial unlimited point license is initially provided. To continue using OPC UA, please purchase an OPC UA license for at least the number of points used in your integration.
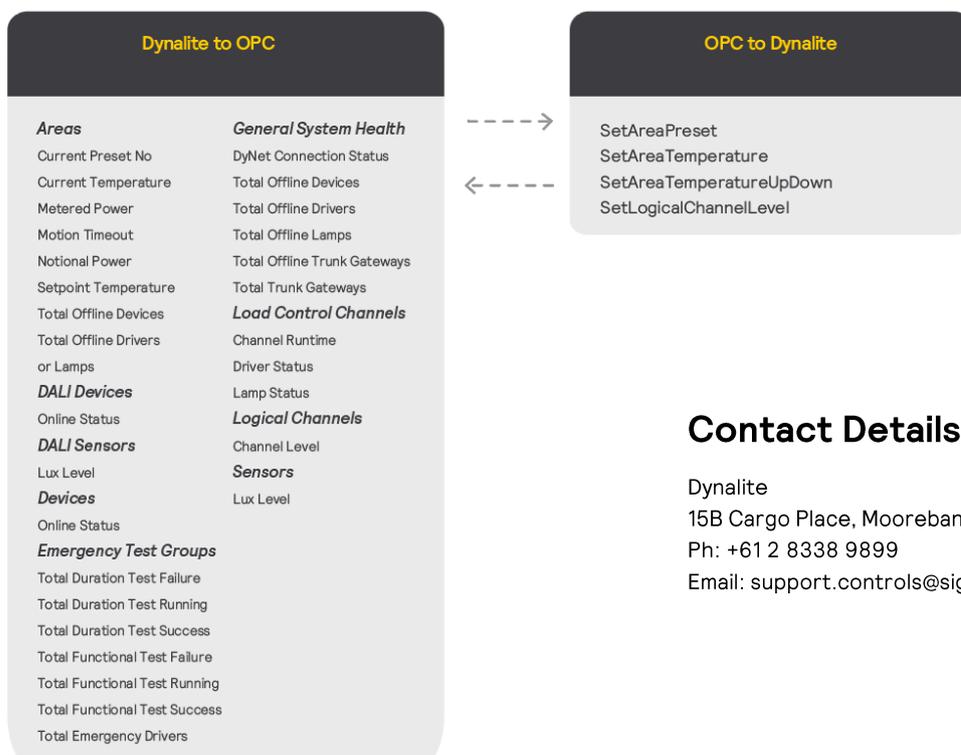
Integration method

Opening System Manager Configuration > Site Settings > OPC UA > Data Points, scans the project database and automatically maps Dynalite system elements to OPC UA data points. To enable OPC UA integration, unselect the unrequired data points and click Save & Apply. Data points can also be imported and exported.

Secure communication is enabled by generating a self-signed certificate from the System Manager Configuration tool and saving the certificate on the server and client machines.

Technical Requirements

Dynalite environment	Partner environment
Dynalite system with System Manager and OPC UA option	OPC UA based BMS system
System Manager server must be licensed, configured and running	OPC UA Client.
The OPC UA service must be configured and running on the server	OPC UA Client discovers SM server machine URL endpoint at opc.tcp://localhost:48030
Certificate installed on server for secure communications (optional)	Certificate installed on client for secure communications (optional)
Purchased System Manager license. Ordering code: SW913703089909	
Purchased OPC UA license and requested license in SM Configuration tool for the required number of points: Number of points Ordering Code 100 points (FoC) SW913703370109 1000 points SW913703370209 5000 points SW913703370309 10000 points SW913703370409 Free unlimited points for 28-day trial period.	
For commissioning information, refer to the OPC UA topic at to https://docs.dynalite.com/	

Dataflow Diagram

Dynalite to OPC

Areas
Current Preset No
Current Temperature
Metered Power
Motion Timeout
Notional Power
Setpoint Temperature
Total Offline Devices
Total Offline Drivers or Lamps

DALI Devices
Online Status

DALI Sensors
Lux Level

Devices
Online Status

Emergency Test Groups
Total Duration Test Failure
Total Duration Test Running
Total Duration Test Success
Total Functional Test Failure
Total Functional Test Running
Total Functional Test Success
Total Emergency Drivers

General System Health
DyNet Connection Status
Total Offline Devices
Total Offline Drivers
Total Offline Lamps
Total Offline Trunk Gateways
Total Trunk Gateways

Load Control Channels
Channel Runtime
Driver Status
Lamp Status

Logical Channels
Channel Level

Sensors
Lux Level

OPC to Dynalite

SetAreaPreset
SetAreaTemperature
SetAreaTemperatureUpDown
SetLogicalChannelLevel

Contact Details

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