BACnet - BMS

Integration Overview

Purpose

BACnet is a Building Management System (BMS) protocol that presents multiple building systems on a BMS dashboard. It enables integration of various building automation and control products from different manufacturers, facilitating communication between HVAC, lighting, access control and fire safety systems.

The PDDEG-S is a certified BACnet gateway providing up to 10,000 BACnet points for monitoring and control of a Dynalite system from the BMS.
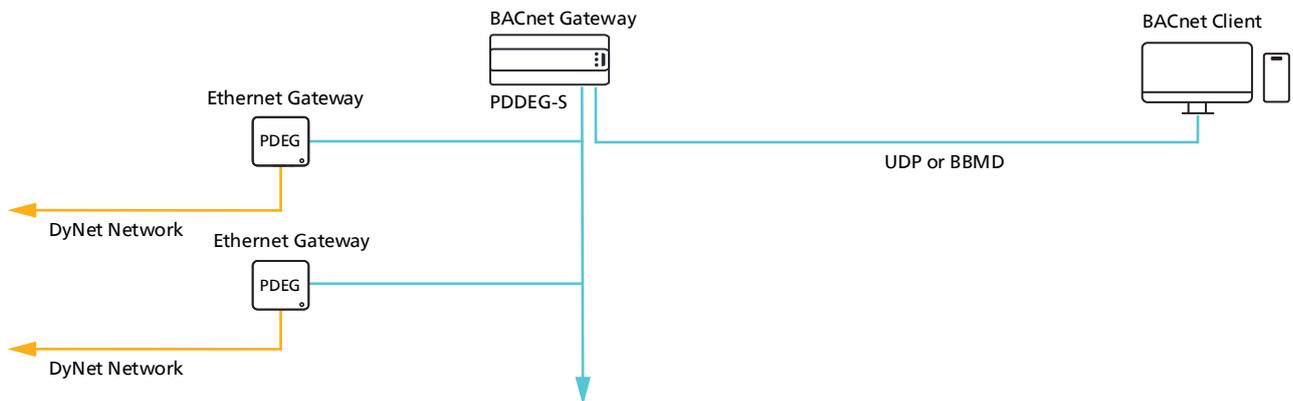
Capabilities

The PDDEG-S supports two-way BACnet integration without compromising the standard functionality of the gateway. The BACnet Configuration Wizard guides the user though the commissioning process, selecting point types, objects, properties and saving the BACnet license to the device. The BACnet client can read (monitor) all Dynalite BACnet point types and can write (control) Preset Scene, Channel (Light) Level and Temperature Setpoint point types.

A BBMD server can be configured allowing BACnet devices to communicate over different subnets.

Integration method

The PDDEG-S natively supports BACnet integration over UDP. It has two physical Ethernet ports. Port 1 can connect to a VLAN for BACnet and/or Lighting. Port 2 can only be used for BACnet to meet specific security expectations. The BACnet consultant will provide the Network ID and the default Device ID is the last (rightmost) 4 digits of the serial number.
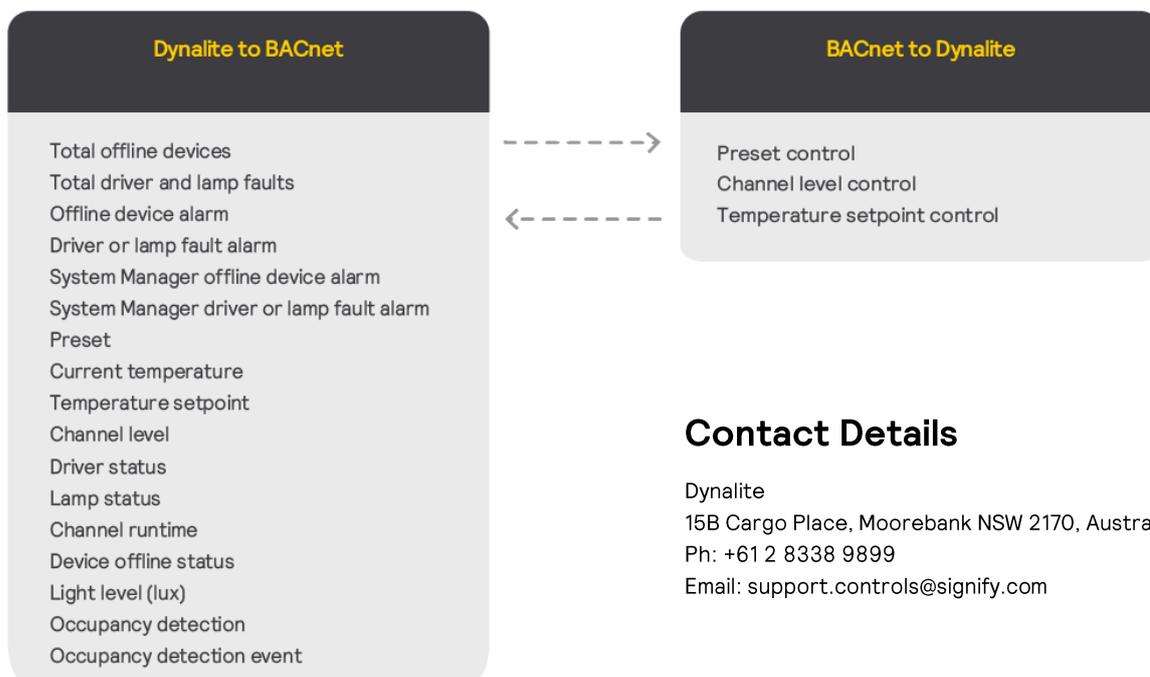
> 🔹 BACnet over RS-485 is not supported by the PDDEG-S. To connect DyNet to BACnet over RS-485, you will need a JACE® 8000 device and purchase the DyNet driver.

Technical Requirements

Dynalite environment	Partner environment
PDDEG–S Ethernet Gateway	BACnet Client.
Number and type of BACnet points required for the integration	Number and type of BACnet points required for the integration
BACnet Network ID, Device ID and Port number (Default: 47808)	PDDEG–S IP Address
PC with System builder software to configure the BACnet properties in the PDDEG–S	
BBMD Server IP Address/Hostname and Port Number (when communicating over different subnets)	BBMD server (optional)
Purchased PDDEG–S BACnet license for the required number of points: Number of points Ordering Code 100 points (FoC) SW913703370509 1000 points SW913703370609 5000 points SW913703370709 10000 points SW913703370809 Free unlimited points for 28–day trial period.	
Note: Dynalite also sells the DyNet Driver and license for customers that have purchased a Tridium VYKON JACE® 8000 controller. Ordering Code: 12NC 913703097109	BACnet over RS–485
For commissioning information, refer to the **BACnet topic** at docs.dynalite.com.	

Dataflow Diagram

Dynalite to BACnet

Total offline devices
Total driver and lamp faults
Offline device alarm
Driver or lamp fault alarm
System Manager offline device alarm
System Manager driver or lamp fault alarm
Preset
Current temperature
Temperature setpoint
Channel level
Driver status
Lamp status
Channel runtime
Device offline status
Light level (lux)
Occupancy detection
Occupancy detection event

BACnet to Dynalite

Preset control
Channel level control
Temperature setpoint control

Contact Details

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