SylSmart Connected

SSA

BACnet PICS

Date: 18 September 2025	Rev. 1.1

BACnet Protocol Implementation Conformance Statement (PICS)

Vendor Name: Technology Partner, Silvair
Vendor ID: 1489
Product Name: SylSmart Connected BACnet Gateway
Product Model Number: Minew G1-E
Application Software Version: 1.1
Firmware Revision: 1.3.8

Product Description:
The SylSmart Connected BACnet Gateway integrates Bluetooth® NLC lighting systems, commissioned with SylSmart Connected Commissioning tools, into Building Management Systems (BMS). It can support up to 200 nodes and up to 100 groups per single area in the lighting system.

Data shared by the SylSmart Connected BACnet Gateway:

- **Group Health Status**: Aggregates health status from all devices, assessing connectivity and fault states hourly.
- **Group Occupancy Status:** Combines occupancy data from sensors, updating it based on the latest sensor status to reflect activity in the zone.
- **Group Energy Use**: Aggregates energy consumption across all devices in a zone, with updates every 15 minutes for precise energy monitoring.
- **Group Scene Recall**: Supports recall of four predefined scenes for lighting adjustments, enhancing room-level control directly from BMS.
- **Group Ambient Light Level**: Reports the average ambient light level across all devices in the group.
- **Group LightOn Status**: Indicates whether any device light in the group is currently on.
- **Group Light Level Set**: Allows real-time adjustment of light levels across the group for custom light level settings.
- **Group Light Level Status**: Indicates the highest light level from all devices in the group.
- **Device Health Status**: Indicates the health status of each individual device in the group, facilitating specific device troubleshooting.

BACnet Standardized Device Profile (Annex L):
BACnet Application Specific Controller (B-ASC)

BACnet Interoperability Building Blocks Supported (Annex K):

BIBB Group	BIBB	Service*
Data Sharing	ReadProperty-B	ReadProperty (EX)
	ReadPropertyMultiple-B	ReadPropertyMultiple (EX)
	WriteProperty-B	WriteProperty (EX)
	WritePropertyMultiple-B	WritePropertyMultiple (EX)
	ChangeOfValue-B	SubscribeCOV (EX) ConfirmedCOVNotification (IN) UnconfirmedCOVNotification (IN)
Device Management	DynamicDeviceBinding-B	Who-Is (EX) I-Am (IN)
	DynamicObjectBinding-B	Who-Has (EX) I-Have (IN)
	DeviceCommunicationControl-B	DeviceCommunicationControl (EX)**
	ReinitializeDevice-B	ReinitializeDevice (EX)**

	Time Synchronization-B	TimeSynchronization (EX)
	UTC Time Synchronization-B	UTCTimeSynchronization (EX)
Network Management	Foreign-Device Registration-A	–

* EX – execute, IN – initiate
** Password protected

Segmentation Capability

Segmented requests supported? No. Window Size: n/a
Segmented responses supported? No. Window Size: n/a

Standard Object Types Supported

Object Type	Dynamically creatable using the CreateObject service	Dynamically deletable using the DeleteObject service	List of the optional properties supported	List of all properties that are writable where not otherwise required by this standard	List of all properties that are conditionally writable where not otherwise required by this standard	List of proprietary properties	List of any property range restrictions
Device	No	No	• Description • Location • serial-number • property-list	None	None	None	None
Network Port	No	No	• Description • ip-dns-server • ip-dhcp-enable • property-list	None	None	None	• network-number-quality: UNKNOWN or CONFIGURED • bacnet-ip-mode: NORMAL or FOREIGN
Analog Input	No	No	• Description • Reliability	None	None	None	See 'Objects' table
Binary Input	No	No	• Description • Inactive_Text • Active_Text • Reliability	None	None	None	None
Multi-State Input	No	No	• Description • Reliability • State_Text	None	None	None	See 'Objects' table
Analog Output	No	No	• Description • Min_Pres_Value • Max_Pres_Value	None	None	None	None
Multi-State Output	No	No	• Description • Reliability • State_Text	None	None	None	See 'Objects' table
Structured View	No	No	• Description • Subordinate_Node_Types • Subordinate_Relationships	None	None	None	None

Objects

Object Name	Type	Instance	Read	Write	COV	Values	Units	Aggregation	Properties supported
Group Health Status	Multi-State Input	100-199	✓	✗	✓	1, 2, 3, 4, 5	-	-	state-text: 1. No-Fault 2. Member Fault 3. Lost & No-Fault 4. Lost & Fault 5. All Lost

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Object Name	Type	Instance	Read	Write	COV	Values	Units	Aggregation	Properties supported
	ℹ The Group Health Status is an aggregation of the health information from each node in the group (Health Fault Server Model). A Health Current Status message is considered No-Fault if the FaultArray field is empty, and Fault if it is not empty (see 'States'). A new value is computed upon receiving a new and valid Health Current Status message using the information from the message received before the last computation. States: 1. Connectivity to all group members; all group members are No-Fault 2. Connectivity to all group members; at least one group member is Fault 3. Connectivity to at least one group member is lost (but not to all); all connected group members are No-Fault 4. Connectivity to at least one group member is lost (but not to all); at least one connected group member is Fault 5. Connectivity to all group members is lost or has not yet started – default state after power-up								
Group Occupancy Status	Binary Input	200-299	✓	✗	✓	0, 1	-	OR	● active-text: Occupied ● inactive-text: Unoccupied
	ℹ The Group Occupancy Status is an aggregation of the occupancy information (a Sensor Status message with the Presence Detected Property ID) from each node in the group. A new value is computed upon receiving a new and valid message, using the data from that message and the most recent data from other group members.								
Group Energy Use	Analog Input	300-399	✓	✗	✓	-	Wh	Sum	-
	ℹ Group Energy Use is an aggregation of energy data (a Precise Total Device Energy Use from Sensor Status messages) from each active node. A new value is computed every 15 minutes based on the information from the messages received after the last computation. Only the last message from a group member is used for computation (the most recent one). The values 'value is not known' (0xFFFFFFFF) and 'value is not valid' (0xFFFFFFFE) are ignored.								
Group Scene Recall	Multi-State Output	400-499	✓	✓	✗	1, 2, 3, 4	-	-	state-text: 1. Scene Recall 0 2. Scene Recall 1 3. Scene Recall 2 4. Scene Recall 3
	ℹ Each time the Multi-State Output is written, a series of mesh messages of Scene Recall Unacknowledged is sent to an address represented by a group (the mapping between the BACnet Object ID and the mesh group address is defined in the configuration). When mesh messages are in progress for a group, new writes to Multi-State Output are queued. If a value is already queued, it is replaced by the new one, making this a single-element queue.								
Group Ambient Light Level	Analog Input	500-599	✓	✗	✓	-	lx	Average	-
	ℹ The Group Ambient Light Level is an aggregation of the Ambient Light information (a Sensor Status message containing Present Ambient Light Level Property ID) from each node in the group. A new value is computed upon receiving a new and valid message using the information from the message received before the last computation. Only the last message from a group member is used for computation (the most recent one). The value 'value is not known' (0xFFFFFF) is ignored.								
Group LightOn Status	Binary Input	600-699	✓	✗	✓	0, 1	-	OR	● active-text: On ● inactive-text : Off
	ℹ The Group LightOn Status is an aggregation of each node's LightOn Status from the Light Lightness Status message: 'off' if zero, 'on' if greater than zero. A new value is computed upon receiving a new and valid Light Lightness Status message using the information from the message received before the last computation. Only the last message from a group member is used for computation (the most recent one).								
Group Light Level Set	Analog Output	700-799	✓	✓	✗	0-100	%	-	-
	ℹ Each time the Analog Output is written, the series of mesh messages of Light Lightness Linear Set Unacknowledged are sent to an address represented by a group (the mapping between the BACnet Object ID and the mesh group address is defined in the configuration). When mesh messages are in progress for a group, new writes to Multi-State Output are queued. If a value is already queued, it is replaced by the new one, making this a single-element queue.								
Group Light Level Status	Analog Input	800-899	✓	✗	✓	-	%	Max.	-
	ℹ The Group Light Level Status is an aggregation of each node's Light Level Status from the Light Lightness Status message. A new value is computed as a maximum from all known lightness statuses of the nodes in the group upon receiving a new and valid message using the data from that message along with the most recent data from other group members.								
Device Health Status	Multi-State Input	1500-1699	✓	✗	✓	1, 2, 3, 4	-	-	state-text: 1. No-Fault 2. Light Source error 3. Control Gear error 4. System error

Object Name	Type	Instance	Read	Write	COV	Values	Units	Aggregation	Properties supported
	ℹ The Device Health Status is the health information from a node in the group (Health Fault Server Model). A Health Current Status message is considered No-Fault if the FaultArray field is empty, and Fault if it is not empty (see 'States'). A new value is computed upon receiving a new and valid Health Current Status message. States: 1. No-Fault 2. Light Source error. When either DIAA Vendor specific fault 0x81 or SylSmart Connected Vendor specific fault 0x82 is present in the FaultArray. The array can also include other errors from the 'System' or 'Control Gear' error categories. 3. Control Gear error. When at least one of the following is present in the FaultArray: DIAA Vendor specific faults 0x80, 0x85, 0x86, 0x87, 0x88; SylSmart Connected Vendor specific faults 0x81, 0x87, 0x88; or Bluetooth assigned fault 0x2F. The array can also include other errors from the 'System' error category, but none from the 'Light Source' error category. 4. System error. Any other SylSmart Connected Vendor specific faults, DIAA Vendor specific faults, or Bluetooth assigned faults. The fault array can include multiple errors, but none from the 'Light Source' or 'Control gear' error categories.								
Group Light Level Status	Structured View	90	✓	✗	✗	-	-	-	-
Group Ambient Light Level	Structured View	91	✓	✗	✗	-	-	-	-
Group LightOn Status	Structured View	92	✓	✗	✗	-	-	-	-
Group Light Level Set	Structured View	93	✓	✗	✗	-	-	-	-
Group Scene Recall	Structured View	94	✓	✗	✗	-	-	-	-
Group Occupancy Status	Structured View	95	✓	✗	✗	-	-	-	-
Group Energy Use	Structured View	96	✓	✗	✗	-	-	-	-
Group Health Status	Structured View	97	✓	✗	✗	-	-	-	-
Area Name	Structured View	98	✓	✗	✗	-	-	-	-
	ℹ Area Name that is controlled by the gateway contains Mesh Topology Information.								
Project Name	Structured View	99	✓	✗	✗	-	-	-	-
	ℹ Project Name that contains Area (Instance 98). This is an entry point for Mesh Topology Information.								
Gateway Status	Structured View	50	✓	✗	✗	-	-	-	-
UART TX	Analog Input	51	✓	✗	✓	-	-	-	-
UART RX	Analog Input	52	✓	✗	✓	-	-	-	-
ℹ UART RX and UART TX objects count the data sent to and from BLE radio to BACnet application – for debugging purposes.									
MESH TX	Analog Input	53	✓	✗	✓	-	-	-	-
MESH RX	Analog Input	54	✓	✗	✓	-	-	-	-
ℹ MESH RX and MESH TX objects count the data received and sent by the BLE radio – for debugging purposes.									
Firmware status	Analog Input	55	✓	✗	✓	-	-	-	-
	Status of the firmware: 1. Firmware unprovisioned 2. Firmware unprovisioned in attention state 3. Firmware provisioned not in a mesh range (no MESH RX activity) 4. Firmware provisioned in a mesh range (MESH RX activity) 5. Firmware provisioned in attention state in a mesh range (MESH RX activity)								

BACnet Data Link Layer Options

BACnet/IP (Annex J)

Device Address Binding
Is static device binding supported? No.

Networking Options
BACnet/IP (Annex J) – non-BBMD functionality

Character Sets Supported
ISO 10646 (UTF-8)

Revision	Date	Editor	Changes
1.0	21 Aug 2025	CM	First release

Contact information

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