

ANNEX A - PROTOCOL IMPLEMENTATION CONFORMANCE STATEMENT (NORMATIVE)

(This annex is part of this Standard and is required for its use.)

BACnet Protocol Implementation Conformance Statement

Date: 25/02/2021

Vendor Name: Pharos Architectural Controls Ltd

Product Name: BACnet TCP Server IO Module

Product Model Number: _____

Application Software Version: 2.2 **Firmware Revision:** _____ **BACnet Protocol Revision:** 1.7

Product Description:

The Pharos BACnet TCP Server IO Module is a software plugin that adds BACnet functionality to the Pharos range of lighting controllers (LPC, LPCX, TCP, VLC, VLC+).

BACnet Standardized Device Profile (Annex L):

- ☐ BACnet Operator Workstation (B-OWS)
- ☐ BACnet Advanced Operator Workstation (B-AWS)
- ☐ BACnet Operator Display (B-OD)
- ☐ BACnet Building Controller (B-BC)
- ☐ BACnet Advanced Application Controller (B-AAC)
- ☒ BACnet Application Specific Controller (B-ASC)
- ☐ BACnet Smart Sensor (B-SS)
- ☐ BACnet Smart Actuator (B-SA)

List all BACnet Interoperability Building Blocks Supported (Annex K):

Data Sharing
DS-RP-B
DS-WP-B
DS-COV-B
Device and Network Management
DM-DDB-B
DM-DOB-B
DM-DCC-B

Segmentation Capability:

- ☐ Able to transmit segmented messages Window Size _____
- ☐ Able to receive segmented messages Window Size _____

Standard Object Types Supported:

Analog Input Object Type

1. Dynamically creatable using BACnet's CreateObject service? No
2. Dynamically deletable using BACnet's DeleteObject service? No

Property Name	Required, Optional, Proprietary	Supported (Readable, Writable)	Remarks
Object_Identifier	R	R	
Object_Name	R	RW	
Object_Type	R	R	
Present_Value	R	RW	
Description	O	RW	
Device_Type	O	R	
Status_Flags	R	R	
Event_State	R	R	
Reliability	O		
Out_Of_Service	R	R	
Update_Interval	O		
Units	R	R	
Min_Pres_Value	O		
Max_Pres_Value	O		
Resolution	O		
COV_Increment	O		
Time_Delay	O		
Time_Delay_Normal	O		
Notification_Class	O		
High_Limit	O		
Low_Limit	O		
Deadband	O		
Limit_Enable	O		
Event_Enable	O		
Acked_Transitions	O		
Notify_Type	O		
Event_Time_Stamps	O		
Profile_Name	O		

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Analog Output Object Type

1. Dynamically creatable using BACnet's CreateObject service? No
2. Dynamically deletable using BACnet's DeleteObject service? No

Property Name	Required, Optional, Proprietary	Supported (Readable, Writable)	Remarks
Object_Identifier	R	R	
Object_Name	R	RW	
Object_Type	R	R	
Present_Value	R	RW	
Description	O	RW	
Device_Type	O		
Status_Flags	R	R	
Event_State	R	R	
Reliability	O		
Out_Of_Service	R	R	
Update_Interval	O		
Units	R	R	
Min_Pres_Value	O		
Max_Pres_Value	O		
Resolution	O		
COV_Increment	O		
Time_Delay	O		
Time_Delay_Normal	O		
Notification_Class	O		
High_Limit	O		
Low_Limit	O		
Deadband	O		
Limit_Enable	O		
Event_Enable	O		
Acked_Transitions	O		
Notify_Type	O		
Event_Time_Stamps	O		
Profile_Name	O		

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Analog Value Object Type

1. Dynamically creatable using BACnet's CreateObject service? No
2. Dynamically deletable using BACnet's DeleteObject service? No

Property Name	Required, Optional, Proprietary	Supported (Readable, Writable)	Remarks
Object_Identifier	R	R	
Object_Name	R	RW	
Object_Type	R	R	
Present_Value	R	RW	
Description	O	RW	
Device_Type	O		
Status_Flags	R	R	
Event_State	R	R	
Reliability	O		
Out_Of_Service	R	R	
Update_Interval	O		
Units	R	R	
Min_Pres_Value	O		
Max_Pres_Value	O		
Resolution	O		
COV_Increment	O		
Time_Delay	O		
Time_Delay_Normal	O		
Notification_Class	O		
High_Limit	O		
Low_Limit	O		
Deadband	O		
Limit_Enable	O		
Event_Enable	O		
Acked_Transitions	O		
Notify_Type	O		
Event_Time_Stamps	O		
Profile_Name	O		

Binary Input Object Type

1. Dynamically creatable using BACnet's CreateObject service? No
2. Dynamically deletable using BACnet's DeleteObject service?

Property Name	Required, Optional, Proprietary	Supported (Readable, Writable)	Remarks
Object_Identifier	R	R	
Object_Name	R	RW	
Object_Type	R	R	
Present_Value	R	RW	
Description	O	RW	
Device_Type	O		
Status_Flags	R	R	
Event_State	R	R	
Reliability	O		
Out_Of_Service	R	R	
Update_Interval	O		
Units	R	R	
Min_Pres_Value	O		
Max_Pres_Value	O		
Resolution	O		
COV_Increment	O		
Time_Delay	O		
Time_Delay_Normal	O		
Notification_Class	O		
High_Limit	O		
Low_Limit	O		
Deadband	O		
Limit_Enable	O		
Event_Enable	O		
Acked_Transitions	O		
Notify_Type	O		
Event_Time_Stamps	O		
Profile_Name	O		

Binary Output Object Type

1. Dynamically creatable using BACnet's CreateObject service? No
2. Dynamically deletable using BACnet's DeleteObject service?

Property Name	Required, Optional, Proprietary	Supported (Readable, Writable)	Remarks
Object_Identifier	R	R	
Object_Name	R	RW	
Object_Type	R	R	
Present_Value	R	RW	
Description	O	RW	
Device_Type	O		
Status_Flags	R	R	
Event_State	R	R	
Reliability	O		
Out_Of_Service	R	R	
Update_Interval	O		
Units	R	R	
Min_Pres_Value	O		
Max_Pres_Value	O		
Resolution	O		
COV_Increment	O		
Time_Delay	O		
Time_Delay_Normal	O		
Notification_Class	O		
High_Limit	O		
Low_Limit	O		
Deadband	O		
Limit_Enable	O		
Event_Enable	O		
Acked_Transitions	O		
Notify_Type	O		
Event_Time_Stamps	O		
Profile_Name	O		

Binary Value Object Type

1. Dynamically creatable using BACnet's CreateObject service? No
2. Dynamically deletable using BACnet's DeleteObject service? No

Property Name	Required, Optional, Proprietary	Supported (Readable, Writable)	Remarks
Object_Identifier	R	R	
Object_Name	R	RW	
Object_Type	R	R	
Present_Value	R	RW	
Description	O	RW	
Device_Type	O		
Status_Flags	R	R	
Event_State	R	R	
Reliability	O		
Out_Of_Service	R	R	
Update_Interval	O		
Units	R	R	
Min_Pres_Value	O		
Max_Pres_Value	O		
Resolution	O		
COV_Increment	O		
Time_Delay	O		
Time_Delay_Normal	O		
Notification_Class	O		
High_Limit	O		
Low_Limit	O		
Deadband	O		
Limit_Enable	O		
Event_Enable	O		
Acked_Transitions	O		
Notify_Type	O		
Event_Time_Stamps	O		
Profile_Name	O		

Device Object Type

1. Dynamically creatable using BACnet's CreateObject service? No
2. Dynamically deletable using BACnet's DeleteObject service?

Property Name	Required, Optional, Proprietary	Supported (Readable, Writable)	Remarks/Example
Object_Identifier	R	R	
Object_Name	R	RW	
Object_Type	R	R	8
System_Status	R	R	
Vendor_Name	R	R	"Pharos Architectural Controls Ltd."
Vendor_Identifier	R	R	1116
Model_Name	R	R	Controller type e.g. "LPC"
Firmware_Revision	R	R	Controller firmware version e.g. "2.8"
Application_Software_Version	R	R	Module version number
Location	O	R	
Description	O	R	Controller name in project e.g. "Controller 1"
Protocol_Version	R	R	1
Protocol_Revision	R	R	7
Protocol_Services_Supported	R	R	
Protocol_Object_Types_Supported	R	R	
Object_List	R	R	
Structured_Object_List	O		
Max_APDU_Length_Accepted	R	R	
Segmentation_Supported	R	R	
Max_Segments_Accepted	O		
VT_Classes_Supported	O		
Local_Time	O	R	
Local_Date	O	R	
UTC_Offset	O	R	
Daylight_Saving_Status	O	R	
APDU_Segment_Timeout	O		
APDU_Timeout	R	R	6000
Number_Of_APDU_Retries	R	R	0
Max_Master	O		
Max_Info_Frames	O		
Device_Address_Binding	R	R	{ }
Database_Revision	R	R	0

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Configuration_Files	O		
Last_Restore_Time	O		
Backup_Failure_Timeout	O		
Backup_Preparation_Time	O		
Restore_Preparation_Time	O		
Restore_Completion_Time	O		
Backup_And_Restore_State	O		
Active_COV_Subscriptions	O		
Slave_Proxy_Enable	O		
Manual_Slave_Address_Binding	O		
Auto_Slave_Discovery	O		
Slave_Address_Binding	O		
Last_Restart_Reason	O	R	
Time_Of_Device_Restart	O	R	DateTime of last boot
Restart_Notification_Recipients	O		
UTC_Time_Synchronization_Recipients	O		
Time_Synchronization_Interval	O		
Align_Intervals	O		
Interval_Offset	O		
Profile_Name	O		

Data Link Layer Options:

- ☒ BACnet IP, (Annex J)
☐ BACnet IP, (Annex J), Foreign Device
☐ ISO 8802-3, Ethernet (Clause 7)
☐ ATA 878.1, 2.5 Mb. ARCNET (Clause 8)
☐ ATA 878.1, EIA-485 ARCNET (Clause 8), baud rate(s) _____ ☐ MS/TP master (Clause 9),
 baud rate(s): _____ ☐ MS/TP slave (Clause 9), baud rate(s): _____
☐ Point-To-Point, EIA 232 (Clause 10), baud rate(s): _____
☐ Point-To-Point, modem, (Clause 10), baud rate(s): _____
☐ LonTalk, (Clause 11), medium: _____
☐ BACnet/ZigBee (ANNEX O)
☐ Other: _____

Device Address Binding:

Is static device binding supported? (This is currently necessary for two-way communication with MS/TP slaves and certain other devices.) ☐ Yes ☒ No

Networking Options:

- ☐ Router, Clause 6 - List all routing configurations, e.g., ARCNET-Ethernet, Ethernet-MS/TP, etc.
☐ Annex H, BACnet Tunneling Router over IP
☐ BACnet/IP Broadcast Management Device (BBMD)
 Does the BBMD support registrations by Foreign Devices? ☐ Yes ☐ No
 Does the BBMD support network address translation? ☐ Yes ☐ No

Network Security Options:

- ☒ Non-secure Device - is capable of operating without BACnet Network Security
☐ Secure Device - is capable of using BACnet Network Security (NS-SD BIBB) ☐ Multiple
 Application-Specific Keys:
☐ Supports encryption (NS-ED BIBB)
☐ Key Server (NS-KS BIBB)

Character Sets Supported:

Indicating support for multiple character sets does not imply that they can all be supported simultaneously.

- ☒ ISO 10646 (UTF-8) ☐ IBM[®]/Microsoft[®] DBCS ☐ ISO 8859-1
☐ ISO 10646 (UCS-2) ☐ ISO 10646 (UCS-4) ☐ JIS X 0208

If this product is a communication gateway, describe the types of non-BACnet equipment/networks(s) that the gateway supports:
