

## ANNEX A - PROTOCOL IMPLEMENTATION CONFORMANCE STATEMENT (NORMATIVE)

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

Text in red describes functionality that depends on the host application implementation together with an explanation. This content may need to be changed depending on the host application hosting the ABCC.

### BACnet Protocol Implementation Conformance Statement

**Date:** 2015-10-06

**Vendor Name:** HMS Industrial Networks (Vendor can be changed using the BACnet host object)

**Product Name:** ABCC BACnet MSTP (Product name can be changed using the BACnet host object)

**Product Model Number:** N/A

**Application Software Version:** 1.02.01 **Firmware Revision:** 1.02.01 **BACnet Protocol Revision:** 7

#### Product Description:

Communication module enabling BACnet MSTP communication. (The product description of the product using the ABCC should be added here).

#### 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):

DS-RP-B, DS-RPM-B, DS-WP-B, DS-WPM-B, DS-COV-B, AE-N-I-B, AE-ACK-B, AE-ASUM-B, AE-INFO-B, DM-DDB-A, DM-DDB-B, DM-DOB-B, DM-DCC-B, DM-TS-B, DM-RD-B

#### Segmentation Capability:

- ☒ Able to transmit segmented messages      Window Size 480
- ☒ Able to receive segmented messages      Window Size 480

#### Standard Object Types Supported:

##### DEVICE

- **Dynamically creatable:** No
- **Dynamically deletable:** No
- **Optional properties:** Max\_Segments\_Accepted, Local\_Time, Local\_Date, Max\_Master, Max\_Info\_Frames, APDU\_Segment\_Timeout, Active\_COV\_Subscriptions
- **Writable properties:** Object\_Identifier, Object\_Name (Object\_Name is only writable if the Object name attribute in the BACnet host application object is writable), APDU\_Timeout, Number\_Of\_APDU\_Retries, Max\_Master, Max\_Info\_Frames APDU\_Segment\_Timeout
- **Conditionally writable properties:** -

- **Proprietary properties:** -
- **Property range restrictions:**
  - APDU\_Timeout: 0-65535
  - Number\_Of\_APDU\_Retries: 0-255
  - Max\_Master: 1-127
  - Max\_Info\_Frames: 1-255
  - APDU\_Segment\_Timeout: 0-65535

#### NOTIFICATION\_CLASS

- **Dynamically creatable:** No
- **Dynamically deletable:** No
- **Optional properties:**
- **Writable properties:** Object\_Name, Priority, Ack\_Required, Recipient\_List
- **Conditionally writable properties:** -
- **Proprietary properties:**
  - Recipient\_Error\_Field (600).  
BACnet Bit string of maximum 60 bits. One bit per element present in Recipient\_List. If the corresponding bit is set an event notification error is present for the corresponding recipient entry in the Recipient\_List property. Read only property.
- **Property range restrictions:**
  - Priority: 0-255

#### ANALOG\_VALUE

Analog value objects only exist if ADIs corresponding to analog value objects exist in the host application.

- **Dynamically creatable:** No
- **Dynamically deletable:** No
- **Optional properties:** COV\_Increment, Time\_Delay, Notification\_Class, High\_Limit, Low\_Limit, Deadband, Limit\_Enable, Event\_Enable, Acked\_Transitions, Notify\_Type, Event\_Time\_Stamps (These properties are only present if the corresponding ADI is mapped on write process data).
- **Writable properties:** Present\_Value, COV\_Increment, Time\_Delay, Notification\_Class, High\_Limit, Low\_Limit, Deadband, Limit\_Enable, Event\_Enable, Notify\_Type (These properties are only present if the corresponding ADI is mapped on write process data).
- **Conditionally writable properties:** -
- **Proprietary properties:** -
- **Property range restrictions:** Present\_Value (The min and max value for the data type of the corresponding ADI is used as value range restriction).

#### BINARY\_VALUE

Binary value objects only exist if ADIs corresponding to binary value objects exist in the host application.

- **Dynamically creatable:** No
- **Dynamically deletable:** No
- **Optional properties:** Time\_Delay, Notification\_Class, Alarm\_Value, Event\_Enable, Acked\_Transitions, Notify\_Type, Event\_Time\_Stamps (These properties are only present if the corresponding ADI is mapped on write process data).
- **Writable properties:** Present\_Value, Time\_Delay, Notification\_Class, Alarm\_Value, Event\_Enable, Notify\_Type (These properties are only present if the corresponding ADI is mapped on write process data).
- **Conditionally writable properties:** -
- **Proprietary properties:** -
- **Property range restrictions:** -

#### MULTISTATE\_VALUE

Multistate value objects only exist if ADIs corresponding to multistate value objects exist in the host application.

- **Dynamically creatable:** No
- **Dynamically deletable:** No
- **Optional properties:** Reliability, Time\_Delay, Notification\_Class, Alarm\_Values, Fault\_Values, Event\_Enable, Acked\_Transitions, Notify\_Type, Event\_Time\_Stamps (These properties are only present if the corresponding ADI is mapped on write process data), State\_Text
- **Writable properties:** Present\_Value, Time\_Delay, Notification\_Class, Alarm\_Values, Fault\_Values, Event\_Enable, Notify\_Type (These properties are only present if the corresponding ADI is mapped on write process data).
- **Conditionally writable properties:** -
- **Proprietary properties:** -
- **Property range restrictions:** -

#### 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) \_\_\_\_\_
- X MS/TP master (Clause 9), baud rate(s): 9600 bps, 19200 bps, 38400 bps, 76800 bps
- ☐ 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:

- X 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.

|   |   |                                     |
|---|---|-------------------------------------|
| <input checked="" type="checkbox"/> ISO 10646 (UTF-8) | <input type="checkbox"/> IBM™/Microsoft™ DBCS | <input type="checkbox"/> ISO 8859-1 |
| <input type="checkbox"/> ISO 10646 (UCS-2)            | <input type="checkbox"/> ISO 10646 (UCS-4)    | <input type="checkbox"/> JIS X 0208 |

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

Not a gateway.