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: _____October 12, 2023_____
Vendor Name: Chipkin Automation Systems
Product Name: RP2040-BACnetServerExample
Product Model Number: CAS-1000-15
Application Software Version: ___0.0.1___ **Firmware Revision:** 4.1.19.0 **BACnet Protocol Revision:** _____19_____

Product Description:
Server example using the Raspberry PI RP2040 WiFi chip. Uses the CAS BACnet stack to generate a simple BACnet server with an Analog Input, Multi-state-value (MSV), and Network Port object. The analog input displays the CPU temperature and can be configured with Celsius or Fahrenheit units. The MSV shows the current mode of the built-in LED. A BACnet client (such as the CAS BACnet Explorer) can be used to write to this MSV to change the mode. The MSV allows for three possible values to be written, Off, On, Blink, and Fast Blink._____
_____
_____
_____

BACnet Standardized Device Profiles Supported (Annex L):

☑ BACnet Smart Actuator (B-SA)

BACnet Interoperability Building Blocks Supported (Annex K): DS-RP-B: Data Sharing ReadProperty-B, DS-RPM-B: Data Sharing ReadPropertyMultiple-B, DS-WP-B: Data Sharing - WriteProperty-B, DM-DDB-B: Device and Network Management - Dynamic Device Binding-B (Who-Is), DM-DOB-B: Device and Network Management - Dynamic Object Binding-B (Who-Has)_____
_____

Segmentation Capability:

☑Able to transmit segmented messages   Window Size _____1497_____
☑Able to receive segmented messages   Window Size _____1497_____

Standard Object Types Supported:

An object type is supported if it may be present in the device. For each standard Object Type supported provide the following data:
    1) Whether objects of this type are dynamically creatable using the CreateObject service
    N/A
    2) Whether objects of this type are dynamically deletable using the DeleteObject service
    N/A
    3) List of the optional properties supported

    Analog Input (0)
    This object represents the CPU temperature of the Raspberry Pi Pico W
    Optional properties supported:
    - Description
    - Units
    Writable properties:
    - Units

Device (8)
This object is the BACnet device running the RP2040-BACnetServerExample
Optional properties supported:
- Description
- Application Software Version

Multi-state Value (19)
This object represents the value of the LED mode on the Pico. It contains the modes OFF, ON, BLINK, and FAST BLINK. These are settable by writing to the present value property.
Optional properties supported:
- State Text
Writable properties:
- Present Value

Network Port (56)
The network port object of the RP2040-BACnetServerExample
Optional Properties Supported:
Writable properties:
- FD BBMD Address
- FD Subscription Lifetime

BACnet Data Link Layer Options:

☑ BACnet IP, (Annex J)

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:

N/A

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

Gateway Options:

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

If this product is a communication gateway which presents a network of virtual BACnet devices, a separate PICS shall be provided that describes the functionality of the virtual BACnet devices. That PICS shall describe a superset of the functionality of all types of virtual BACnet devices that can be presented by the gateway.