BACnet Protocol Implementation Conformance Statement

Date: 10-March-2009
Vendor Name: Control Solutions, Inc.
Product Name: Babel Buster BB2-7040
Product Model Number: BB2-7040
Applications Software Version: 3.02 **Firmware Revision:** 3.02 **BACnet Protocol Revision:** 5

Product Description:
Network gateway allowing ZigBee devices to be accessed via BACnet IP or BACnet MS/TP as a BACnet slave.

BACnet Standardized Device Profile (Annex L):

☐ **BACnet Operator Workstation (B-OWS)**
☐ **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-COV-B, DS-COVP-B, DM-DDB-B, DM-DOB-B, DM-RD-B

Segmentation Capability:

☐ Segmented requests supported   Window Size _____
☐ Segmented responses supported   Window Size _____

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
    2) Whether objects of this type are dynamically deletable using the DeleteObject service
    3) List of the optional properties supported
    4) List of all properties that are writable where not otherwise required by this standard
    5) List of proprietary properties and for each its property identifier, datatype, and meaning
    6) List of any property range restrictions

Object types: AI, AO, AV, BI, BO, BV, MSI, MSO, MSV, DEV (all static)

Property, Objects except Device	Encoding
Object_Identifier (75)	BACnetObjectIdentifier
Object_Name (77) (W)	CharacterString "Analog Input *n*"
Object_Description (28) (W)	Character String Same as Object_Name, is only alias for Object_Name
Object_Type (79)	BACnetObjectType ENUMERATED: analog-input (0) analog-output (1)

	analog-value (2) binary-input (3) binary-output (4) binary-value (5) device (8) multi-state-input (13) multi-state-output (14) multi-state-value (19)
Present_Value (85) (W)	REAL (analog objects) ENUMERATED (binary objects) Unsigned (multi-state objets) (no index) (priority required when writing commandable objects) (input objects writeable only when out of service)
Status_Flags (111)	BACnetStatusFlags BIT STRING: fault(1), out-of-service(3)
Event_State (36)	BACnetEventState ENUMERATED: normal(0), fault(1)
Reliability (103)	BACnetReliability ENUMERATED: normal(0) *Vendor specific:* BACnet device timeout (82) BACnet error returned by server/slave BACnet device (83) ZigBee device timeout (84) ZigBee device error (85) ZigBee reported invalid command (86) ZigBee reported invalid parameter (87) Other (99)
Out_Of_Service (81) (W)	BOOLEAN
COV_Increment (22) (W)	REAL (analog objects only)
COV_Period (180) (W)	Unsigned
Priority_Array (87)	BACnetPriorityArray (commandable objects only) SEQUENCE SIZE (16) OF BACnetPriorityValue REAL (each element, analog output objects) ENUMERATED (each element, binary output objects) Unsigned (each element, multi-state output objects)
Relinquish_Default (104) (W)	REAL (analog objects) ENUMERATED (binary objects) Unsigned (multi-state objets)
Polarity (84)	BACnetPolarity (binary objects only) ENUMERATED: normal(0)
Number_Of_States (74)	Unsigned (multi-state objects only)
Units (117)	BACnetEngineeringUnits (analog objects only)
<u>Property, Device Object</u>	<u>Encoding</u>
Object_Identifier (75)	BACnetObjectIdentifier

Object_Name (77)	CharacterString
Object_Type (79)	BACnetObjectType ENUMERATED: device (8)
System_Status (112)	BACnetDeviceStatus
Vendor_Name (121)	CharacterString
Vendor_Identifier (120)	Unsigned16 (should always return 208)
Model_Name (70)	CharacterString
Firmware_Revision (44)	CharacterString
Application_Software_Version (12)	CharacterString
Protocol_Version (98)	Unsigned
Protocol_Revision (139)	Unsigned
Protocol_Services_Supported (97)	BACnetServicesSupported
Protocol_Object_Types_Supported (96)	BACnetObjectTypesSupported
Object_List (76)	BACnetARRAY[N] of BACnetObjectIdentifier
Max_APDU_Length_Accepted (62)	Unsigned
Segmentation_Supported (107)	BACnetSegmentation
APDU_Timeout (11)	Unsigned
Number_Of_APDU_Retries (73)	Unsigned
Device_Address_Binding (30)	List of BACnetAddressBinding
Database_Revision (155)	Unsigned

Data Link Layer Options:

☑ BACnet IP, (Annex J)
☐ BACnet IP, (Annex J), Foreign Device
☐ ISO 8802-3, Ethernet (Clause 7)
☐ ANSI/ATA 878.1, 2.5 Mb. ARCNET (Clause 8)
☐ ANSI/ATA 878.1, RS-485 ARCNET (Clause 8), baud rate(s) _____
☑ MS/TP master (Clause 9), baud rate(s): 9600, 19200, 38400,76800
☑ MS/TP slave (Clause 9), baud rate(s): 9600, 19200, 38400,76800
☐ Point-To-Point, EIA 232 (Clause 10), baud rate(s): _____
☐ Point-To-Point, modem, (Clause 10), baud rate(s): _____
☐ LonTalk, (Clause 11), medium: _____
☐ 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

Character Sets Supported:

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

☑ ANSI X3.4	☐ IBM™/Microsoft™ DBCS	☐ ISO 8859-1
☐ ISO 10646 (UCS-2)	☐ ISO 10646 (UCS-4)	☐ JIS C 6226

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

ZigBee® wireless devices.