Babel Buster 2
BACnet-ZigBee
NETWORK GATEWAY
MODEL BB2-7040

CS CONTROL SOLUTIONS MINNESOTA

Put ZigBee® devices on a BACnet® IP or BACnet MS/TP network!

Control Solutions' Babel Buster BB2-7040 is a BACnet® client/server device that functions as a ZigBee® Coordinator and gateway. After setting up the appropriate mappings in the BB2-7040, data from ZigBee sensors will appear as BACnet objects on BACnet IP and/or BACnet MS/TP. Data written to BACnet objects can also be propagated to ZigBee actuators by the BB2-7040. As a BACnet client, the BB2-7040 can also read data from other BACnet devices and share that with ZigBee devices.

The BB2-7040 expects most ZigBee endpoints to be low power devices that spend most of their time sleeping. The BB2-7040 operates primarily in Listen mode, simply waiting for ZigBee devices to report in. When the ZigBee devices do report in, the BB2-7040 searches its known device list and data maps to see if the reported data should be saved as a local BACnet object's Present Value.

The collection of BACnet objects found in the BB2-7040 will maintain the most recently received ZigBee data as their Present Value. Other BACnet clients may then query the BB2-7040 server to obtain that most recent data using a simple Read Property request.

BACnet clients may use a Write Property request to any of the BB2-7040's output objects to send data to a ZigBee device when mapped for writing. The BB2-7040 will transmit to the ZigBee device, and a properly configured ZigBee device will receive the transmission at the end of its sleep period.

FEATURES

• Read/Write ZigBee devices via BACnet objects
• Functions as ZigBee Coordinator (Router optional)
• AI, AO, AV, BI, BO, BV, MSI, MSO, MSV objects
• COV, COVP subscription support
• BBMD support
• Bidirectional communication between BACnet and ZigBee
• Commandable BACnet objects implement priority array
• User programmable with Script Basic
• Embedded web server supports User HTML web pages
• Hardened EIA-485 transceiver for MS/TP port
• MS/TP baud rates: 9600, 19200, 38400, 76800
• Powered by 12-24V DC/AC 50/60 Hz
• Power Consumption: 0.2A @ 24VDC
• Transmit power: 50mW North America, 10mW Europe
• DIN rail mounting, 100mm H x 70mm W x 60mm D
         (excluding antenna - RPSMA connector)
• Pluggable screw terminal blocks
• Operating temperature -40°C to +85°C
• Humidity 5% to 90% non-condensing
• FCC, CE Mark
• Listed to UL 916 and (Canadian) C22.2 No. 205-M1983

Member of BACnet® International

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Built-In Web Server for Configuration and Diagnostics

BACnet Protocol Implementation Conformance Statement (Abbreviated)

Date: 10 March 2010
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: 2

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 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: (None)

Standard Object Types Supported:
Object types: AI, AO, AV, BI, BO, BV, MSI, MSO, MSV, DEV (all static)
See additional documentation for optional & proprietary properties.

Data Link Layer Options:
► BACnet IP (Annex J)
► MS/TP Master (clause 9), baud rates: 9600, 19200, 38400, 76800
► MS/TP Slave (clause 9), baud rates: 9600, 19200, 38400, 76800

Device Address Binding:
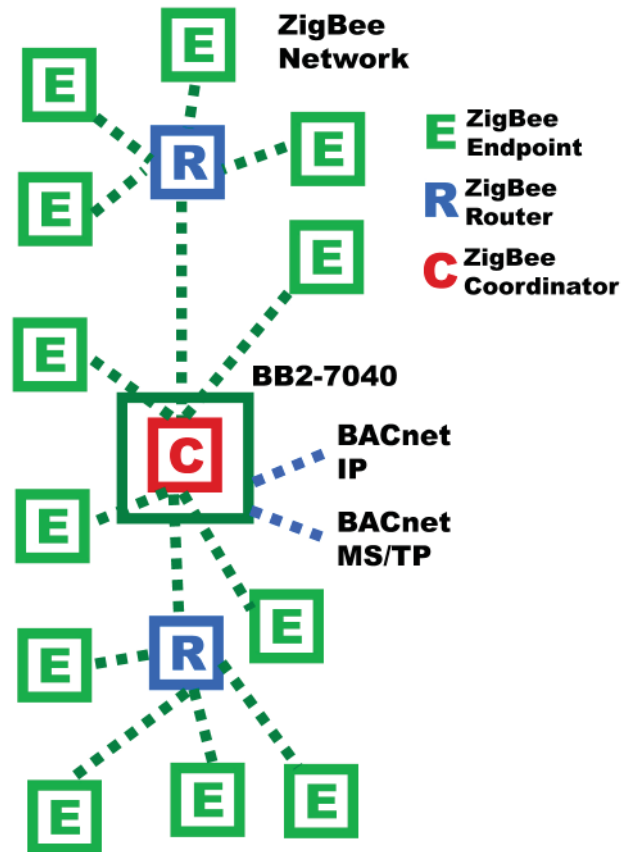*Is static device binding supported? No*
Networking Options: (None)
Character Sets Supported: ANSI X3.4

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

ZigBee wireless devices.

Typical Network

ZigBee Network

E **ZigBee Endpoint**
R **ZigBee Router**
C **ZigBee Coordinator**

BB2-7040

BACnet IP

BACnet MS/TP

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