

BACnet IP to MS/TP Router plus Modbus TCP Gateway

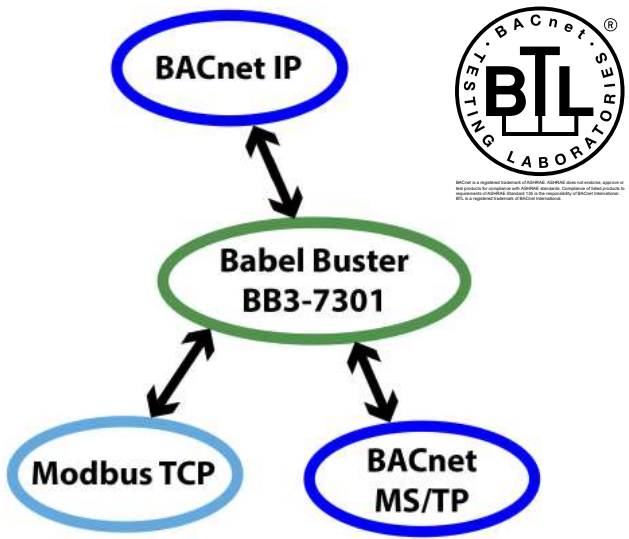
Control Solutions' Babel Buster BB3-7301 is a BACnet router, slave proxy, and client/server gateway that allows remapping objects from multiple slaves into one master. You can use the BB3-7301 as just a router, just a slave proxy, just a client/server, or all three at the same time. The BB3-7301 also includes BBMD support. The BB3-7301 is a performance upgrade of Control Solutions' original BB2-7030 BACnet router.

The BB3-7301 as a BACnet Router will route IP to MS/TP and vice versa via its local ports, and supports full router capability for multi-hop internetworks including via NAT WAN routers. Routing is simple to set up. Routing can be used without any other gateway features enabled.

The BB3-7301 as a BACnet Slave Proxy will provide I-Am responses on behalf of devices that do not have I-Am support, or are slave-only devices. The slave proxy capability will allow systems to utilize dynamic address binding with devices that do not support dynamic binding.

The BB3-7301 as a BACnet Client/Server Gateway will poll BACnet IP and/or BACnet MS/TP slaves or servers, and retain copies of selected object properties. Upstream clients may then query the BB3-7301 to receive data originating from multiple devices.

The BB3-7301 also includes a Modbus TCP Client/Server. This allows interconnecting BACnet devices with Modbus TCP devices and systems.



Babel Buster BB3-7301 Object Summary

- Analog Input, Analog Output, Analog Value
- Binary Input, Binary Output, Binary Value
- Multi-State Input, Output, Value

- Up to 5,000 Objects

- Objects from pool can be assigned to any of above types
- Maximum of 1024 states for multi-state, includes state text (actual value supported varies by resource usage per object)



Built-In Secure Web Server for Configuration and Diagnostics



BACnet Protocol Implementation Conformance Statement (Abbreviated)

Date: 29 September 2021
 Vendor Name: Control Solutions, Inc.
 Product Name: Babel Buster Product Model Number: BB3-7301
 Applications Software Version: 3.16.7 Firmware Revision: 3.16.7

Product Description: BACnet IP to MS/TP Router with Modbus TCP Gateway

- BACnet Standardized Device Profile (Annex L):
- ▶ BACnet Application Specific Controller (B-ASC)
 - ▶ BACnet Gateway (B-GW)
 - ▶ BACnet Router (B-RTR)

List all BACnet Interoperability Building Blocks Supported (Annex K):
 DS-RP-A, DS-RP-B, DS-RPM-B, DS-WP-A, DS-WP-B, DS-WPM-B, DS-COV-B,
 DS-COVU-B, DM-DDB-A, DM-DDB-B, DM-DOB-B, DM-DCC-B, DM-RD-B,
 DM-R-B, GW-EO-B, DM-SP-B, NM-RC-B, NM-BBMD-C-B, NM-FDR-A
 Segmentation Capability: Request & response, window size 8

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)
- ▶ BACnet MS/TP master & slave (9600, 19200, 38400, 76800 baud)

Device Address Binding:
 Is static device binding supported? Yes

Networking Options: ▶ Router, Clause 6, BACnet IP-MS/TP
 ▶ Annex H.1, Mapping Non-BACnet Networks onto BACnet Routers
 ▶ BACnet IP Broadcast Management Device (BBMD)
 (Support registrations by Foreign Device: Yes)

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:
 Modbus TCP

FEATURES

- BACnet IP to MS/TP Router
- Slave proxy to support MS/TP slave-only devices
- Client/Server gateway for remapping BACnet objects
- Read/Write any standard BACnet objects as a Gateway
 - Up to 5,000 objects
 - Analog, Binary, Multi-State object types
 - Input, Output, Value objects
- BBMD, COV support
- BB3-7301 is also Modbus TCP client/server
- Bidirectional data exchange between BACnet and Modbus
- Direct import of CSV files for faster point mapping
- Supports Modbus “coils”, input registers, holding registers
- Single or double Modbus registers, signed, unsigned, IEEE 754
- Commandable BACnet objects implement priority array
- Hardened EIA-485 transceiver for BACnet MS/TP
- 10/100BaseT Ethernet for BACnet IP and Modbus TCP
- Includes “10X” file capacity
- Powered by 10-30VDC or 24VAC 50/60 Hz
- Power Consumption: 0.1A @ 24VDC
- DIN rail mounting, 100mm H x 70mm W x 60mm D
- Pluggable screw terminal block for power & RTU network
- Operating temperature -40°C to +85°C
- Humidity 5% to 90% non-condensing
- FCC Class A, CE Mark
- BTL Certified
- Listed to UL 916 and (Canadian) C22.2 No. 205-M1983

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