CAS-1000-06 – CAS BACnet BBMD

BACnet/IP Broadcast Management Device Application
Datasheet – Rev. 3

DESCRIPTION

The CAS BACnet BBMD application allows the BACnet devices on a network to send and receive broadcast messages to and from other subnetworks. The BBMD application uses UDP. The default port is 47808 and is configurable.

The application was developed for Windows and Linux devices for the BACnet protocol. The BBMD is the common name for the ANSI L.7.3-2020 standard and is used to transmit messages across subnetworks.

The BBMD emulates a passive Server, listening on the BACnet network. When configured, the BBMD listens for messages that arrive from the local network and BBMDs running on other networks. Depending on the type of message, these messages will be forwarded to other BBMDs, the local subnetwork, or foreign devices.

Features

- Runs on Windows and Linux
- Uses the CAS BACnet Stack
- Easily configurable device and broadcast distribution table
- Foreign device registration
- Communication between BACnet/IP devices in different segregated buildings/VLANs/Subnets
- Allows for a large BACnet network comprising many different subnetworks

System Specifications

List all BACnet Interoperability Building Block Supported (BIBBs Annex K):
- DS-RP-B - Data Sharing - ReadProperty - B
- DS-RPM-B - Data Sharing - ReadPropertyMultiple – B
- DM-DDB-B - Device Management - Dynamic Device Binding – B
- NM-BBMDC-B - Network Management - BBMD Configuration - B

Requirements:
- OS: Windows 10, 11, or Linux Ubuntu 22.0+
- Hard Drive: 50mb

BACnet Standardized Device Profile (Annex L):
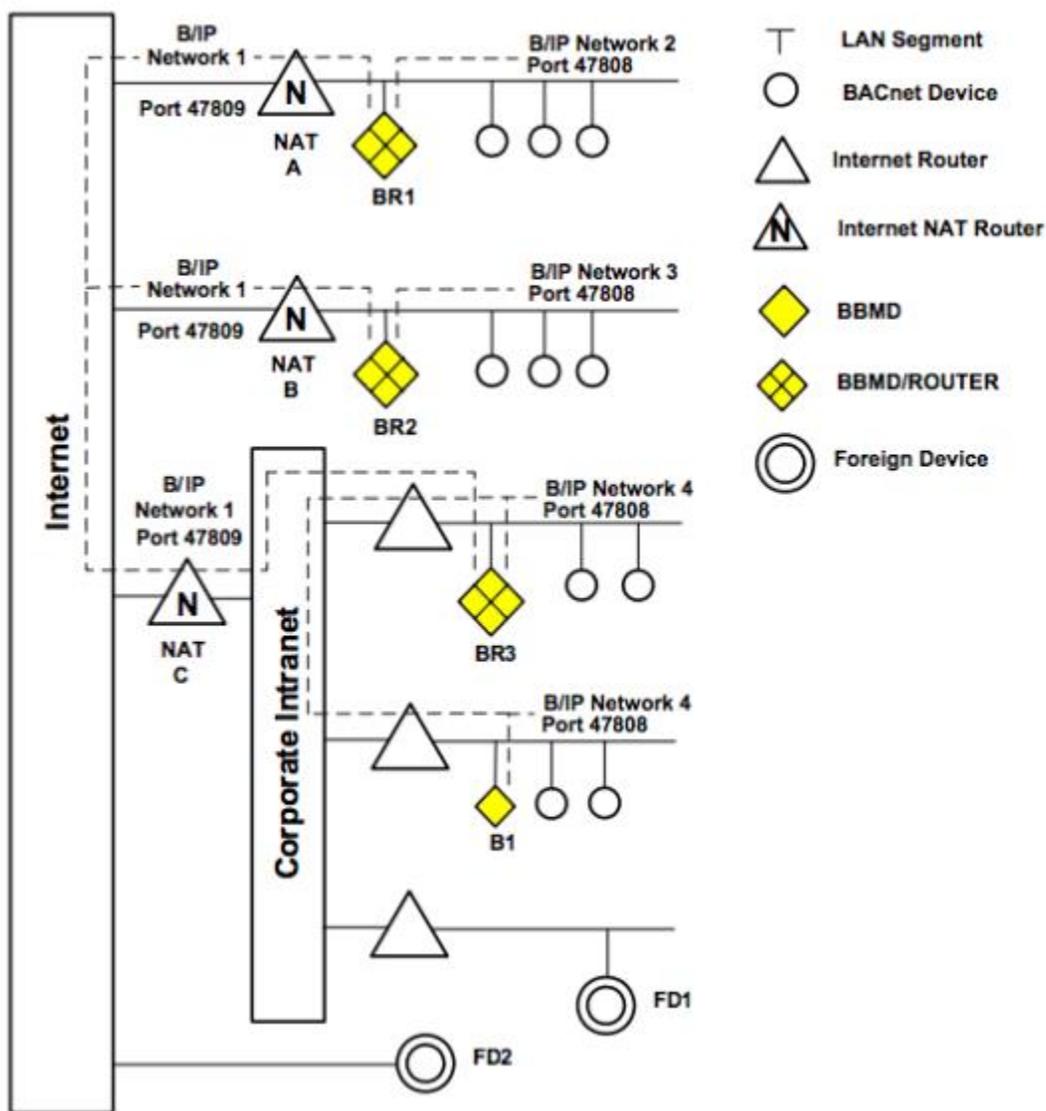- BACnet Broadcast Management Device (B-BBMD)

CAS-1000-06 – CAS BACnet BBMD

Data Link Layer Options:
- BACnet IP, (Annex J) BACnet Broadcast Management Device (BBMD)
- BACnet IP, (Annex J), Network Address Translation (NAT Traversal)

CONNECTION CONFIGURATIONS

This block diagram lists a common configuration for multiple BACnet devices spread across different subnets.

COMMUNICATION FUNCTIONS

The BACnet BBMD Application is configured as a passive server. The server is configured as a BACnet device with a network port object. Upon reception of a Who-Is broadcast, it will forward the message and respond with an I-Am containing its information.

CAS-1000-06 – CAS BACnet BBMD

The BACnet BMMD Application will forward any broadcast messages received on its subnet to every entry in its broadcast distribution table (BDT) and foreign device table (FDT). Depending on the configuration of its entry in the BDT, it may either send a directed broadcast to another subnet or send a unicast message to the BBMD in the BDT, where the BBMD on the other subnet will broadcast the message locally. For more information on how messages are forwarded, please refer to the BACnet BBMD Application manual.

CUSTOMER SUPPORT

The BACnet BBMD Application was developed by Chipkin, and we are proud to provide support for our products. For technical support, sales and customer service, please call us at 1 (866) 383-1657.

Thanks for choosing Chipkin's products and integration services to meet your building and industrial automation requirements!

Chipkin™ is a building and industrial automation protocol expert. We develop, configure, install and support gateways (protocol converters), data loggers and remote monitor and controlling applications. Founded in October 2000, Chipkin provides expert solutions for converting BACnet®, Modbus®, and LonWorks®—to name just a few—and enabling interfaces for HVAC, fire, siren, intercom, lighting, transportation and fuel systems. The high-quality products we offer (including those from other vendors) interface with Simplex™, Notifier™, McQuay™, GE™ and many others—so you can rest assured that we will select the most appropriate solution for your application.

With Chipkin you are buying a solution. Our configuration expertise in this field combined with free BACnet and other tools ensure your success; and our customer support via phone, email and remote desktop tools means that we are there when you need us. Chipkin is a small responsive company, and we live or die by the quality of our service—and with offices in two time zones—we can provide support when you need it. Give us a call now!

Sales and Customer Service
Toll free: 1-866-383-1657
Email: salesgroup1@chipkin.com

APPENDIX A: DEVICES TESTED

This tables summarize the devices that have been tested. Other devices may be supported.

DEVICE	TESTED (FACTORY/SITE)
Windows 11	Factory
Windows 10	Factory
Windows 8	Factory
Windows 7	Not Supported
Ubuntu 20.04 LTS	Factory

REVISION HISTORY

This table summarizes the update history for this protocol data sheet. Please contact Chipkin by phone or email for an updated version of this document.

DATE	RESP.	APPLICATION VERSION	DOCUMENT REVISION	COMMENTS
01 DEC 2020	JMC	0.0.1	0.1	Created document
17 DEC 2020	JMC	0.0.2	0.2	Added Linux support
18 JAN 2024	JMC	0.0.3	0.3	Updated device support