

BACnet Protocol Implementation Conformance Statement

Date: 11.06.2019

Vendor Name: NETxAutomation

Product Name: NETx Multi Protocol Server

Application Software Version: R1

Firmware Revision: Build 1501

BACnet Protocol Revision: 1.12

Product Description:

The aim of the NETx Multi Protocol Server is to solve the problem that arises when heterogeneous building automation systems are used. To achieve this, the NETx Multi Protocol Server collects data and information from the field level of the building automation system using different fieldbus technologies. In NETx Multi Protocol Server this data can originate from KNX, Modbus, or BACnet networks. In addition, connections to other systems like Fidelio/Opera, Protel, JSON or to foreign systems that already provide an OPC connection are possible.

Once the data is available within the NETx Multi Protocol Server, management clients can access the data through the provided management interfaces.

BACnet Standardized Device Profile (Annex L):

- BACnet Operator Workstation (B-OWS)
- BACnet Advanced Operator Workstation (B-AWS)
- BACnet Operator Display (B-OD)
- 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):

Data Sharing-ReadProperty-A (DS-RP-A)
Data Sharing-ReadProperty-B (DS-RP-B)
Data Sharing-ReadPropertyMultiple-A (DS-RPM-A)
Data Sharing-ReadPropertyMultiple-B (DS-RPM-B)
Data Sharing-WriteProperty-A (DS-WP-A)
Data Sharing-WriteProperty-B (DS-WP-B)
Data Sharing-WritePropertyMultiple-A (DS-WPM-A)
Data Sharing-WritePropertyMultiple-B (DS-WPM-B)
Data Sharing-COV-A (DS-COV-A)
Data Sharing-COV-B (DS-COV-B)
Data Sharing-COVP-A (DS-COVP-A)
Data Sharing-COVP-B (DS-COVP-B)
Device Management-Dynamic Device Binding-A (DM-DDB-A)
Device Management-Dynamic Device Binding-B (DM-DDB-B)
Device Management-Dynamic Object Binding-A (DM-DOB-A)

BACnet Protocol Implementation Conformance Statement for NETx Multi Protocol Server

Device Management-Dynamic Object Binding-B (DM-DOB-B)
 Device Management-DeviceCommunicationControl-A (DM-DCC-A)
 Device Management-DeviceCommunicationControl-B (DM-DCC-B)

Segmentation Capability:

- Able to transmit segmented messages Window Size _____
- Able to receive segmented messages Window Size _____

Standard Object Types Supported:

If not stated otherwise, the following statements apply to all supported BACnet object types:

- Creating or deleting of dynamic objects is not supported
- No additional writable properties (other than the ones required by this standard) are supported
- No additional conditionally writable properties (other than the ones required by this standard) are supported are
- No proprietary properties are implemented
- No range restrictions on properties exist

Accumulator

List of optional properties supported: Description, Device_Type, Reliability, Prescale, Value_Change_Time, Value_Before_Change, Value_Set, Logging_Record, Logging_Object, Pulse_Rate, Profile_Name

Analog Input

List of optional properties supported: Description, Device_Type, Reliability, Update_Interval, Min_Pres_Value, Max_Pres_Value, Resolution, COV_Increment, Profile_Name

Analog Output

List of optional properties supported: Description, Device_Type, Reliability, Min_Pres_Value, Max_Pres_Value, Resolution, COV_Increment, Profile_Name

Analog Value

List of optional properties supported: Description, Reliability, Priority_Array, Relinquish_Default, COV_Increment, Profile_Name

Binary Input

List of optional properties supported: Description, Device_Type, Reliability, Inactive_Text, Active_Text, Profile_Name

Binary Output

List of optional properties supported: Description, Device_Type, Reliability, Inactive_Text, Active_Text, Profile_Name

Binary Value

List of optional properties supported: Description, Reliability, Inactive_Text, Priority_Array, Relinquish_Default, Active_Text, Profile_Name

BACnet Protocol Implementation Conformance Statement for NETx Multi Protocol Server

Multistate Input

List of optional properties supported: Description, Device_Type, Reliability, State_Text, Profile_Name

Multistate Output

List of optional properties supported: Description, Device_Type, Reliability, State_Text, Profile_Name

Multistate Value

List of optional properties supported: Description, Device_Type, Reliability, State_Text, Priority_Array, Relinquish_Default, Profile_Name

Pulse Convert

List of optional properties supported: Description, Input_Reference, Reliability, COV_Increment, COV_Period, Profile_Name

Device

List of optional properties supported: Location, Description, Local_Time, Local_Date, UTC_Offset

Life Safety Zone

List of optional properties supported: Description, Device_Type, Profile_Name

Life Safety Point

List of optional properties supported: Description, Device_Type, Profile_Name

Schedule

List of optional properties supported: Description, Profile_Name

CharacterString Value

List of optional properties supported: Description, Event_State, Reliability, Out_Of_Service, Priority_Array, Relinquish_Default

DateTime Value

List of optional properties supported: Description, Event_State, Reliability, Out_Of_Service, Priority_Array, Relinquish_Default, Is_UTC

Large Analog Value

List of optional properties supported: Description, Event_State, Reliability, Out_Of_Service, Priority_Array, Relinquish_Default, COV_Increment

Integer Value

List of optional properties supported: Description, Event_State, Reliability, Out_Of_Service, Priority_Array, Relinquish_Default, COV_Increment

Positive Integer Value

List of optional properties supported: Description, Event_State, Reliability, Out_Of_Service, Priority_Array, Relinquish_Default, COV_Increment

BACnet Protocol Implementation Conformance Statement for NETx Multi Protocol Server

Data Link Layer Options:

- BACnet IP, (Annex J)
- BACnet IP, (Annex J), Foreign Device
- ISO 8802-3, Ethernet (Clause 7)
- ATA 878.1, 2.5 Mb. ARCNET (Clause 8)
- ATA 878.1, EIA-485 ARCNET (Clause 8), baud rate(s) _____
- MS/TP master (Clause 9), baud rate(s): _____
- MS/TP slave (Clause 9), baud rate(s): _____
- Point-To-Point, EIA 232 (Clause 10), baud rate(s): _____
- Point-To-Point, modem, (Clause 10), baud rate(s): _____
- LonTalk, (Clause 11), medium: _____
- BACnet/ZigBee (ANNEX O)
- 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
 - Does the BBMD support network address translation? Yes No

Network Security Options:

- Non-secure Device - is capable of operating without BACnet Network Security
- Secure Device - is capable of using BACnet Network Security (NS-SD BIBB)
 - Multiple Application-Specific Keys:
 - Supports encryption (NS-ED BIBB)
 - Key Server (NS-KS BIBB)

BACnet Protocol Implementation Conformance Statement for NETx Multi Protocol Server

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

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

NETx Multi Protocol Server provides following interfaces to non-BACnet systems:

- KNX
- Modbus/TCP
- JSON
- Fidelio/Opera
- Protel
- OPC DA

Further information and contact:

More information can be found at our website <http://www.netxautomation.com> or can be requested via office@netxautomation.com

Product folder:

<https://www.netxautomation.com/netx/en/products/netx-mp-server/overview>

Manual:

<https://www.netxautomation.com/kb/display/PLATFORM/NETx+BMS+Platform+and+NETx+Multi+Protocol+Server+Documentation>