



MBS Universal-Gateway

BACnet Protocol Implementation Conformance Statement

Version: 2021, November 25

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1. Preface

This document describes the BACnet functionality implemented in the MBS Universal-Gateway.

2. BACnet PICS MBS Universal-Gateway

Date:	2021, November 25
Vendor Name:	MBS GmbH
Vendor Identifier:	50
Product Name:	Universalgateway
Product Model Names:	“Single-X”, “Double-X”, “Triple-X”
Application Software Version:	Drv.bac940 UGW-1327-dunfell
Firmware Revision:	1.22.1.1
BACnet Protocol Version:	1
BACnet Protocol Revision:	22

Product Description

The MBS Universal-Gateway provides access to BACnet-networks acting as a BACnet server or client.

BACnet Standardized Device Profile (Annex L)

- BACnet Building Controller (B-BC)
- BACnet Broadcast Management Device (B-BBMD)
- BACnet Gateway (B-GW)

List all BACnet Interoperability Building Blocks Supported (Annex K)

K.1. Data-Sharing BIBBs

Data Sharing – Read Property – A	DS-RP-A
Data Sharing – Read Property – B	DS-RP-B
Data Sharing – Read Property Multiple – A	DS-RPM-A
Data Sharing – Read Property Multiple – B	DS-RPM-B
Data Sharing – Write Property – A	DS-WP-A
Data Sharing – Write Property – B	DS-WP-B
Data Sharing – Write Property Multiple – 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

K.2. Alarm and Event BIBBs

Alarm and Event – Notification Internal – B	AE-N-I-B
Alarm and Event – Notification External – B	AE-N-E-B
Alarm and Event – ACK – B	AE-ACK-B
Alarm and Event – Alarm Summary – B	AE-ASUM-B
Alarm and Event – Enrollment Summary – B	AE-ESUM-B
Alarm and Event – Event Information – B	AE-INFO
Alarm and Event – Event Log Internal – B	AE-EL-I-B

K.3. Scheduling BIBBs

Scheduling – Internal – B	SCHED-I-B
Scheduling – External – B	SCHED-E-B

K.4. Trending BIBBs

Trending – Viewing and Modifying Trends Internal – B	T-VMT-I-B
Trending – Viewing and Modifying Trends External – B	T-VMT-E-B
Trending – Automated Trend Retrieval – B	T-ATR-B
Trending – Viewing and Modifying Multiple Values Internal – B	T-VMMV-I-B
Trending – Viewing and Modifying Multiple Values External – B	T-VMMV-E-B
Trending – Automated Multiple Values Retrieval – B	T-AMVR-B

K.5. Device and Network Management BIBBs

Device Management – Dynamic Device Binding – A	DM-DDB-A
Device Management – Dynamic Device Binding – B	DM-DDB-B
Device Management – Dynamic Object Binding – B	DM-DOB-B
Device Management – Device Communication Control – B	DM-DCC-B
Device Management – Time-Synchronization – A	DM-TS-A
Device Management – Time-Synchronization – B	DM-TS-B
Device Management – UTC-Time-Synchronization – A	DM-UTC-A
Device Management – UTC-Time-Synchronization – B	DM-UTC-B
Device Management – Reinitialize-Device – B	DM-RD-B
Device Management – Backup and Restore – B	DM-BR-B
Device Management – Restart – A	DM-R-A
Device Management – Restart – B	DM-R-B
Device Management – List Manipulation – B	DM-LM-B
Device Management – Object Creation and Deletion – B	DM-OCD-B
Device Management – Automatic Time Synchronization – A	DM-ATS-A
Device Management – Slave Proxy – B	DM-SP-B

K.6. Network Management BIBBs

Network Management – Router Configuration – B	NM-RC-B
Network Management – BBMD Configuration – B	NM-BBMDC-B
Network Management – Foreign Device Registration – A	NM-FDR-A
Network Management – Secure Connect Hub – B	NM-SCH-B

K.7. Gateway BIBBs

Gateway – Embedded Objects – B	GW-EO-B
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K.8. Audit Reporting BIBBs

No Audit Reporting BIBBs supported.

Segmentation Capability

- Segmented requests supported Window Size: 8
- Segmented responses supported Window Size: 8

Data Link Layer Options

- BACnet IP, (Annex J)
- BACnet IP, (Annex J), BACnet Broadcast Management Device (BBMD)
- BACnet IP, (Annex J), Network Address Translation (NAT Traversal)
- 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)
 - Master Slave
 - Non-isolated transceiver Isolated transceiver
 - Local 47K ohms bias resistors None Other: dip switch network bias 560 ohms
 - Transceiver unit loading: 1 1/2 1/4 other:
 - Data rates: 9600 19200 38400 57600 76800 115200
- Point-To-Point, EIA 232 (Clause 10) baud rate(s) _____

- Point-To-Point, modem, (Clause 10) baud rate(s) 1200, 2400, 4800, 9600, 19200, 38400, 57600, 76800, 115200

LonTalk, (Clause 11) medium: _____

BACnet/Zigbee (Annex O) _____

BACnet Secure Connect (Annex AB)

BACnet Secure Connect Node

If direct Connections are supported:

Maximum number of simultaneous direct connections initiated:

Maximum number of simultaneous direct connections accepted:

BACnet Secure Connect Hub Function

Maximum number of simultaneous Hub connections accepted:

HTTPS Proxy Support

List the types of HTTPS proxies supported:

Additional cipher suites supported beyond those required for TLS V1.3

The additional cipher suites supported using the cipher suite names as of the TLS Cipher Suite Registry at IANA (see RFC 8446):

Generates private keys internally, and provides matching certificate signing requests.

DNS host name resolution supported (RFC 1123)

mDNS host name resolution supported (RFC 6762)

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

Annex H, BACnet Tunneling Router over IP

BACnet/IP Broadcast Management Device (BBMD)

Does the BBMD support registrations by Foreign Devices? Yes No
(Max. 50 FD-Entries)

Does the BBMD support network address translation? Yes No

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 C 6226

Communication Gateway

This BACnet Gateway provides interfaces for several communication protocols, either proprietary or standard. For a complete list of supported protocol visit our homepage.

Standard Object Types Supported

The supported object types are:

Analog Input Object Type	(0)
Analog Output Object Type	(1)
Analog Value Object Type	(2)
Binary Input Object Type	(3)
Binary Output Object Type	(4)
Binary Value Object Type	(5)
Calendar Object Type	(6)
Command Object Type	(7)
Device Object Type	(8)
Event Enrollment Object Type	(9)
File Object Type	(10)
Loop Object Type	(12)
Multi-state Input Object Type	(13)
Multi-state Output Object Type	(14)
Notification Class Object Type	(15)
Schedule Object Type	(17)
Multi-state Value Object Type	(19)
Trend Log Object Type	(20)
Event Log Object Type	(25)
Structured View Object Type	(29)
Trend Log Multiple Object Type	(25)
BitString Object Type	(39)

CharacterString Object Type	(40)
Integer Value Object Type	(45)
Large Analog Value Object Type	(46)
Positive Integer Value Object Type	(48)
Network Port Object Type	(56)

Creation and Deletion of objects is supported for NotificationClass, Trendlog, Eventlog, TrendlogMultiple, Calendar, Schedule, Command, Loop, StructuredView and EventEnrollment. The MBS Universalgateway does not contain any proprietary properties.

Analog Input Object Type

Property Identifier	Property Datatype	CC	Available ¹	Access ²
Object_Identifier	BACnetObjectIdentifier	R	Always	Read
Object_Name	CharacterString	R	Always	R/W
Object_Type	BACnetObjectType	R	Always	Read
Present_Value	REAL	R	Always	R/W
Description	CharacterString	O	Config	R/W
Device_Type	CharacterString	O	Config	R/W
Status_Flags	BACnetStatusFlags	R	Always	Read
Event_State	BACnetEventState	R	Always	Read
Reliability	BACnetReliability	O	Config	Read
Out_Of_Service	BOOLEAN	R	Always	R/W
Update_Interval	Unsigned	O	Config	R/W
Units	BACnetEngineeringUnits	R	Always	R/W
Min_Pres_Value	REAL	O	Config	R/W
Max_Pres_Value	REAL	O	Config	R/W
Resolution	REAL	O	Config	Read
COV_Increment	REAL	O	Config	R/W
Time_Delay	Unsigned	O	Config	R/W
Notification_Class	Unsigned	O	Config	R/W
High_Limit	REAL	O	Config	R/W
Low_Limit	REAL	O	Config	R/W
Deadband	REAL	O	Config	R/W
Limit_Enable	BACnetLimitEnable	O	Config	R/W
Event_Enable	BACnetEventTransitionBits	O	Config	R/W
Acked_Transitions	BACnetEventTransitionBits	O	Config	Read
Notify_Type	BACnetNotifyType	O	Config	R/W
Event_Time_Stamps	BACnetTimeStamp	O	Config	Read
Event_Message_Texts	CharacterString	O	Config	Read
Event_Message_Texts_Config	CharacterString	O	Config	R/W
Event_Detection_Enable	BOOLEAN	O	Config	R/W
Event_Algorithm_Inhibit_Ref	BACnetObjectPropertyReference	O	Config	R/W
Event_Algorithm_Inhibit	BOOLEAN	O	Config	R/W
Time_Delay_Normal	Unsigned	O	Config	R/W
Reliability_Evaluation_Inhibit	BOOLEAN	O	Config	R/W
Property_List	BACnetPropertyIdentifier	R	Always	Read
Interface_Value	BACnetOptionalREAL	O	Config	Read
Tags	BACnetNameValue	O	Config	R/W
Profile_Location	CharacterString	O	Config	R/W

Profile_Name	CharacterString	O	Config	R/W
Fault_High_Limit	REAL	O	Config	R/W
Fault_Low_Limit	REAL	O	Config	R/W
Audit_Level	BACnetAuditLevel	O	Never	---
Auditable_Operations	BACnetAuditOperationFlags	O	Never	---

¹⁾ **Always** = Property is always present, **Config** = Property is present if configured, **Never** = Property is never present

²⁾ **Read** = Property is read only, **Write** = Property is readable and writeable, **R/W** = Property can be configured to be readable or writeable, **Range** = Property is read only using Service ReadRange, **---** = Property is not available

Output Object Type

Property Identifier	Property Datatype	CC	Available	Access
Object_Identifier	BACnetObjectIdentifier	R	Always	Read
Object_Name	CharacterString	R	Always	R/W
Object_Type	BACnetObjectType	R	Always	Read
Present_Value	REAL	W	Always	R/W
Description	CharacterString	O	Config	R/W
Device_Type	CharacterString	O	Config	R/W
Status_Flags	BACnetStatusFlags	R	Always	Read
Event_State	BACnetEventState	R	Always	Read
Reliability	BACnetReliability	O	Config	Read
Out_Of_Service	BOOLEAN	R	Always	R/W
Units	BACnetEngineeringUnits	R	Always	R/W
Min_Pres_Value	REAL	O	Config	R/W
Max_Pres_Value	REAL	O	Config	R/W
Resolution	REAL	O	Config	Read
Priority_Array	BACnetPriorityArray	R	Always	Read
Relinquish_Default	REAL	R	Always	R/W
COV_Increment	REAL	O	Config	R/W
Time_Delay	Unsigned	O	Config	R/W
Notification_Class	Unsigned	O	Config	R/W
High_Limit	REAL	O	Config	R/W
Low_Limit	REAL	O	Config	R/W
Deadband	REAL	O	Config	R/W
Limit_Enable	BACnetLimitEnable	O	Config	R/W
Event_Enable	BACnetEventTransitionBits	O	Config	R/W
Acked_Transitions	BACnetEventTransitionBits	O	Config	Read

Notify_Type	BACnetNotifyType	O	Config	R/W
Event_Time_Stamps	BACnetTimeStamp	O	Config	Read
Event_Message_Texts	CharacterString	O	Config	Read
Event_Message_Texts_Config	CharacterString	O	Config	R/W
Event_Detection_Enable	BOOLEAN	O	Config	R/W
Event_Algorithm_Inhibit_Ref	BACnetObjectPropertyReference	O	Config	R/W
Event_Algorithm_Inhibit	BOOLEAN	O	Config	R/W
Time_Delay_Normal	Unsigned	O	Config	R/W
Reliability_Evaluation_Inhibit	BOOLEAN	O	Config	R/W
Interface_Value	BACnetOptionalREAL	O	Config	Read
Property_List	BACnetPropertyIdentifier	R	Always	Read
Tags	BACnetNameValue	O	Config	R/W
Profile_Location	CharacterString	O	Config	R/W
Profile_Name	CharacterString	O	Config	R/W
Current_Command_Priority	BACnetOptionalUnsigned	R	Always	Read
Value_Source	BACnetValueSource	O	Config	R/W
Value_Source_Array	BACnetValueSource	O	Config	Read
Last_Command_Time	BACnetTimeStamp	O	Config	Read
Command_Time_Array	BACnetTimeStamp	O	Config	Read
Audit_Level	BACnetAuditLevel	O	Never	---
Auditable_Operations	BACnetAuditOperationFlags	O	Never	---
Audit_Priority_Filter	BACnetPriorityFilter	O	Never	---

Analog Value Object Type

Property Identifier	Property Datatype	CC	Available	Access
Object_Identifier	BACnetObjectIdentifier	R	Always	Read
Object_Name	CharacterString	R	Always	R/W
Object_Type	BACnetObjectType	R	Always	Read
Present_Value	REAL	R	Always	R/W
Description	CharacterString	O	Config	R/W
Status_Flags	BACnetStatusFlags	R	Always	Read
Event_State	BACnetEventState	R	Always	Read
Reliability	BACnetReliability	O	Config	Read
Out_Of_Service	BOOLEAN	R	Always	R/W
Units	BACnetEngineeringUnits	R	Always	R/W
Priority_Array	BACnetPriorityArray	O	Config	Read

Relinquish_Default	REAL	0	Config	R/W
COV_Increment	REAL	0	Config	R/W
Time_Delay	Unsigned	0	Config	R/W
Notification_Class	Unsigned	0	Config	R/W
High_Limit	REAL	0	Config	R/W
Low_Limit	REAL	0	Config	R/W
Deadband	REAL	0	Config	R/W
Limit_Enable	BACnetLimitEnable	0	Config	R/W
Event_Enable	BACnetEventTransitionBits	0	Config	R/W
Acked_Transitions	BACnetEventTransitionBits	0	Config	Read
Notify_Type	BACnetNotifyType	0	Config	R/W
Event_Time_Stamps	BACnetTimeStamp	0	Config	Read
Event_Message_Texts	CharacterString	0	Config	Read
Event_Message_Texts_Config	CharacterString	0	Config	R/W
Event_Detection_Enable	BOOLEAN	0	Config	R/W
Event_Algorithm_Inhibit_Ref	BACnetObjectPropertyReference	0	Config	R/W
Event_Algorithm_Inhibit	BOOLEAN	0	Config	R/W
Time_Delay_Normal	Unsigned	0	Config	R/W
Reliability_Evaluation_Inhibit	BOOLEAN	0	Config	R/W
Min_Pres_Value	REAL	0	Config	R/W
Max_Pres_Value	REAL	0	Config	R/W
Resolution	REAL	0	Config	Read
Property_List	BACnetPropertyIdentifier	R	Always	Read
Tags	BACnetNameValue	0	Config	R/W
Profile_Location	CharacterString	0	Config	R/W
Profile_Name	CharacterString	0	Config	R/W
Fault_High_Limit	REAL	0	Config	R/W
Fault_Low_Limit	REAL	0	Config	R/W
Current_Command_Priority	BACnetOptionalUnsigned	0	Config	Read
Value_Source	BACnetValueSource	0	Config	R/W
Value_Source_Array	BACnetValueSource	0	Config	Read
Last_Command_Time	BACnetTimeStamp	0	Config	Read
Command_Time_Array	BACnetTimeStamp	0	Config	Read
Audit_Level	BACnetAuditLevel	0	Never	---
Auditable_Operations	BACnetAuditOperationFlags	0	Never	---
Audit_Priority_Filter	BACnetPriorityFilter	0	Never	---

Binary Input Object Type

Property Identifier	Property Datatype	CC	Available	Access
Object_Identifier	BACnetObjectIdentifier	R	Always	Read
Object_Name	CharacterString	R	Always	R/W
Object_Type	BACnetObjectType	R	Always	Read
Present_Value	BACnetBinaryPV	R	Always	R/W
Description	CharacterString	O	Config	R/W
Device_Type	CharacterString	O	Config	R/W
Status_Flags	BACnetStatusFlags	R	Always	Read
Event_State	BACnetEventState	R	Always	Read
Reliability	BACnetReliability	O	Config	Read
Out_Of_Service	BOOLEAN	R	Always	R/W
Polarity	BACnetPolarity	R	Always	R/W
Inactive_Text	CharacterString	O	Config	R/W
Active_Text	CharacterString	O	Config	R/W
Change_Of_State_Time	BACnetDateTime	O	Config	R/W
Change_Of_State_Count	Unsigned	O	Config	R/W
Time_Of_State_Count_Reset	BACnetDateTime	O	Config	R/W
Elapsed_Active_Time	Unsigned32	O	Config	R/W
Time_Of_Active_Time_Reset	BACnetDateTime	O	Config	R/W
Time_Delay	Unsigned	O	Config	R/W
Notification_Class	Unsigned	O	Config	R/W
Alarm_Value	BACnetBinaryPV	O	Config	R/W
Event_Enable	BACnetEventTransitionBits	O	Config	R/W
Acked_Transitions	BACnetEventTransitionBits	O	Config	Read
Notify_Type	BACnetNotifyType	O	Config	R/W
Event_Time_Stamps	BACnetTimeStamp	O	Config	Read
Event_Message_Texts	CharacterString	O	Config	Read
Event_Message_Texts_Config	CharacterString	O	Config	R/W
Event_Detection_Enable	BOOLEAN	O	Config	R/W
Event_Algorithm_Inhibit_Ref	BACnetObjectPropertyReference	O	Config	R/W
Event_Algorithm_Inhibit	BOOLEAN	O	Config	R/W
Time_Delay_Normal	Unsigned	O	Config	R/W
Reliability_Evaluation_Inhibit	BOOLEAN	O	Config	R/W
Interface_Value	BACnetOptionalBinaryPV	O	Config	Read
Property_List	BACnetPropertyIdentifier	R	Always	Read
Tags	BACnetNameValue	O	Config	R/W
Profile_Location	CharacterString	O	Config	R/W
Profile_Name	CharacterString	O	Config	R/W
Audit_Level	BACnetAuditLevel	O	Never	---
Auditable_Operations	BACnetAuditOperationFlags	O	Never	---

Binary Output Object Type

Property Identifier	Property Datatype	CC	Available	Access
Object_Identifier	BACnetObjectIdentifier	R	Always	Read
Object_Name	CharacterString	R	Always	R/W
Object_Type	BACnetObjectType	R	Always	Read
Present_Value	BACnetBinaryPV	W	Always	R/W
Description	CharacterString	O	Config	R/W
Device_Type	CharacterString	O	Config	R/W
Status_Flags	BACnetStatusFlags	R	Always	Read
Event_State	BACnetEventState	R	Always	Read
Reliability	BACnetReliability	O	Config	Read
Out_Of_Service	BOOLEAN	R	Always	R/W
Polarity	BACnetPolarity	R	Always	R/W
Inactive_Text	CharacterString	O	Config	R/W
Active_Text	CharacterString	O	Config	R/W
Change_Of_State_Time	BACnetDateTime	O	Config	R/W
Change_Of_State_Count	Unsigned	O	Config	R/W
Time_Of_State_Count_Reset	BACnetDateTime	O	Config	R/W
Elapsed_Active_Time	Unsigned32	O	Config	R/W
Time_Of_Active_Time_Reset	BACnetDateTime	O	Config	R/W
Minimum_Off_Time	Unsigned32	O	Config	R/W
Minimum_On_Time	Unsigned32	O	Config	R/W
Priority_Array	BACnetPriorityArray	R	Always	Read
Relinquish_Default	BACnetBinaryPV	R	Always	R/W
Time_Delay	Unsigned	O	Config	R/W
Notification_Class	Unsigned	O	Config	R/W
Feedback_Value	BACnetBinaryPV	O	Config	R/W
Event_Enable	BACnetEventTransitionBits	O	Config	R/W
Acked_Transitions	BACnetEventTransitionBits	O	Config	Read
Notify_Type	BACnetNotifyType	O	Config	R/W
Event_Time_Stamps	BACnetTimeStamp	O	Config	Read
Event_Message_Texts	CharacterString	O	Config	Read
Event_Message_Texts_Config	CharacterString	O	Config	R/W
Event_Detection_Enable	BOOLEAN	O	Config	R/W
Event_Algorithm_Inhibit_Ref	BACnetObjectPropertyReference	O	Config	R/W
Event_Algorithm_Inhibit	BOOLEAN	O	Config	R/W
Time_Delay_Normal	Unsigned	O	Config	R/W
Reliability_Evaluation_Inhibit	BOOLEAN	O	Config	R/W
Interface_Value	BACnetOptionalBinaryPV	O	Config	Read
Property_List	BACnetPropertyIdentifier	R	Always	Read
Tags	BACnetNameValue	O	Config	R/W

Profile_Location	CharacterString	O	Config	R/W
Profile_Name	CharacterString	O	Config	R/W
Current_Command_Priority	BACnetOptionalUnsigned	R	Always	Read
Value_Source	BACnetValueSource	O	Config	R/W
Value_Source_Array	BACnetValueSource	O	Config	Read
Last_Command_Time	BACnetTimeStamp	O	Config	Read
Command_Time_Array	BACnetTimeStamp	O	Config	Read
Audit_Level	BACnetAuditLevel	O	Never	---
Auditable_Operations	BACnetAuditOperationFlags	O	Never	---
Audit_Priority_Filter	BACnetPriorityFilter	O	Never	---

Binary Value Object Type

Property Identifier	Property Datatype	CC	Available	Access
Object_Identifier	BACnetObjectIdentifier	R	Always	Read
Object_Name	CharacterString	R	Always	R/W
Object_Type	BACnetObjectType	R	Always	Read
Present_Value	BACnetBinaryPV	R	Always	R/W
Description	CharacterString	O	Config	R/W
Status_Flags	BACnetStatusFlags	R	Always	Read
Event_State	BACnetEventState	R	Always	Read
Reliability	BACnetReliability	O	Config	Read
Out_Of_Service	BOOLEAN	R	Always	R/W
Inactive_Text	CharacterString	O	Config	R/W
Active_Text	CharacterString	O	Config	R/W
Change_Of_State_Time	BACnetDateTime	O	Config	R/W
Change_Of_State_Count	Unsigned	O	Config	R/W
Time_Of_State_Count_Reset	BACnetDateTime	O	Config	R/W
Elapsed_Active_Time	Unsigned32	O	Config	R/W
Time_Of_Active_Time_Reset	BACnetDateTime	O	Config	R/W
Minimum_Off_Time	Unsigned32	O	Config	R/W
Minimum_On_Time	Unsigned32	O	Config	R/W
Priority_Array	BACnetPriorityArray	O	Config	Read
Relinquish_Default	BACnetBinaryPV	O	Config	R/W
Time_Delay	Unsigned	O	Config	R/W
Notification_Class	Unsigned	O	Config	R/W
Alarm_Value	BACnetBinaryPV	O	Config	R/W
Event_Enable	BACnetEventTransitionBits	O	Config	R/W
Acked_Transitions	BACnetEventTransitionBits	O	Config	Read

Notify_Type	BACnetNotifyType	O	Config	R/W
Event_Time_Stamps	BACnetTimeStamp	O	Config	Read
Event_Message_Texts	CharacterString	O	Config	Read
Event_Message_Texts_Config	CharacterString	O	Config	R/W
Event_Detection_Enable	BOOLEAN	O	Config	R/W
Event_Algorithm_Inhibit_Ref	BACnetObjectPropertyReference	O	Config	R/W
Event_Algorithm_Inhibit	BOOLEAN	O	Config	R/W
Time_Delay_Normal	Unsigned	O	Config	R/W
Reliability_Evaluation_Inhibit	BOOLEAN	O	Config	R/W
Property_List	BACnetPropertyIdentifier	R	Always	Read
Tags	BACnetNameValue	O	Config	R/W
Profile_Location	CharacterString	O	Config	R/W
Profile_Name	CharacterString	O	Config	R/W
Current_Command_Priority	BACnetOptionalUnsigned	O	Config	Read
Value_Source	BACnetValueSource	O	Config	R/W
Value_Source_Array	BACnetValueSource	O	Config	Read
Last_Command_Time	BACnetTimeStamp	O	Config	Read
Command_Time_Array	BACnetTimeStamp	O	Config	Read
Audit_Level	BACnetAuditLevel	O	Never	---
Auditable_Operations	BACnetAuditOperationFlags	O	Never	---
Audit_Priority_Filter	BACnetPriorityFilter	O	Never	---

Bitstring Value Object Type

Property Identifier	Property Datatype	CC	Available	Access
Object_Identifier	BACnetObjectIdentifier	R	Always	Read
Object_Name	CharacterString	R	Always	R/W
Object_Type	BACnetObjectType	R	Always	Read
Description	CharacterString	O	Config	R/W
Present_Value	BIT_STRING	R	Always	R/W
Bit_Text	CharacterString	O	Config	R/W
Status_Flags	BACnetStatusFlags	R	Always	Read
Event_State	BACnetEventState	O	Config	Read
Reliability	BACnetReliability	O	Config	Read
Out_Of_Service	BOOLEAN	O	Config	R/W
Priority_Array	BACnetPriorityArray	O	Config	Read
Relinquish_Default	BIT_STRING	O	Config	R/W
Time_Delay	Unsigned	O	Config	R/W
Notification_Class	Unsigned	O	Config	R/W

Alarm_Values	BIT_STRING	O	Config	R/W
Bit_Mask	BIT_STRING	O	Config	R/W
Event_Enable	BACnetEventTransitionBits	O	Config	R/W
Acked_Transitions	BACnetEventTransitionBits	O	Config	Read
Notify_Type	BACnetNotifyType	O	Config	R/W
Event_Time_Stamps	BACnetTimeStamp	O	Config	Read
Event_Message_Texts	CharacterString	O	Config	Read
Event_Message_Texts_Config	CharacterString	O	Config	R/W
Event_Detection_Enable	BOOLEAN	O	Config	R/W
Event_Algorithm_Inhibit_Ref	BACnetObjectPropertyReference	O	Config	R/W
Event_Algorithm_Inhibit	BOOLEAN	O	Config	R/W
Time_Delay_Normal	Unsigned	O	Config	R/W
Reliability_Evaluation_Inhibit	BOOLEAN	O	Config	R/W
Property_List	BACnetPropertyIdentifier	R	Always	Read
Tags	BACnetNameValue	O	Config	R/W
Profile_Location	CharacterString	O	Config	R/W
Profile_Name	CharacterString	O	Config	R/W
Current_Command_Priority	BACnetOptionalUnsigned	O	Config	Read
Value_Source	BACnetValueSource	O	Config	R/W
Value_Source_Array	BACnetValueSource	O	Config	Read
Last_Command_Time	BACnetTimeStamp	O	Config	Read
Command_Time_Array	BACnetTimeStamp	O	Config	Read
Audit_Level	BACnetAuditLevel	O	Never	---
Auditable_Operations	BACnetAuditOperationFlags	O	Never	---
Audit_Priority_Filter	BACnetPriorityFilter	O	Never	---

Calendar Object Type

Property Identifier	Property Datatype	CC	Available	Access
Object_Identifier	BACnetObjectIdentifier	R	Always	Read
Object_Name	CharacterString	R	Always	R/W
Object_Type	BACnetObjectType	R	Always	Read
Description	CharacterString	O	Config	R/W
Present_Value	BOOLEAN	R	Always	R/W
DateList	BACnetCalendarEntry	R	Always	R/W
Property_List	BACnetPropertyIdentifier	R	Always	Read
Tags	BACnetNameValue	O	Config	R/W
Profile_Location	CharacterString	O	Config	R/W
Profile_Name	CharacterString	O	Config	R/W
Audit_Level	BACnetAuditLevel	O	Never	---

Auditable_Operations BACnetAuditOperationFlags O Never ---

Characterstring Value Object Type

Property Identifier	Property Datatype	CC	Available	Access
Object_Identifier	BACnetObjectIdentifier	R	Always	Read
Object_Name	CharacterString	R	Always	R/W
Object_Type	BACnetObjectType	R	Always	Read
Description	CharacterString	O	Config	R/W
Present_Value	CharacterString	R	Always	R/W
Status_Flags	BACnetStatusFlags	R	Always	Read
Event_State	BACnetEventState	O	Config	Read
Reliability	BACnetReliability	O	Config	Read
Out_Of_Service	BOOLEAN	O	Config	R/W
Priority_Array	BACnetPriorityArray	O	Config	Read
Relinquish_Default	CharacterString	O	Config	R/W
Time_Delay	Unsigned	O	Config	R/W
Notification_Class	Unsigned	O	Config	R/W
Alarm_Values	BACnetOptionalCharacterString	O	Config	R/W
Fault_Values	BACnetOptionalCharacterString	O	Config	R/W
Event_Enable	BACnetEventTransitionBits	O	Config	R/W
Acked_Transitions	BACnetEventTransitionBits	O	Config	Read
Notify_Type	BACnetNotifyType	O	Config	R/W
Event_Time_Stamps	BACnetTimeStamp	O	Config	Read
Event_Message_Texts	CharacterString	O	Config	Read
Event_Message_Texts_Config	CharacterString	O	Config	R/W
Event_Detection_Enable	BOOLEAN	O	Config	R/W
Event_Algorithm_Inhibit_Ref	BACnetObjectPropertyReference	O	Config	R/W
Event_Algorithm_Inhibit	BOOLEAN	O	Config	R/W
Time_Delay_Normal	Unsigned	O	Config	R/W
Reliability_Evaluation_Inhibit	BOOLEAN	O	Config	R/W
Property_List	BACnetPropertyIdentifier	R	Always	Read
Tags	BACnetNameValue	O	Config	R/W
Profile_Location	CharacterString	O	Config	R/W
Profile_Name	CharacterString	O	Config	R/W
Current_Command_Priority	BACnetOptionalUnsigned	O	Config	Read
Value_Source	BACnetValueSource	O	Config	R/W
Value_Source_Array	BACnetValueSource	O	Config	Read
Last_Command_Time	BACnetTimeStamp	O	Config	Read
Command_Time_Array	BACnetTimeStamp	O	Config	Read

Audit_Level	BACnetAuditLevel	O	Never	---
Auditable_Operations	BACnetAuditOperationFlags	O	Never	---
Audit_Priority_Filter	BACnetPriorityFilter	O	Never	---

Command Object Type

Property Identifier	Property Datatype	CC	Available	Access
Object_Identifier	BACnetObjectIdentifier	R	Always	Read
Object_Name	CharacterString	R	Always	R/W
Object_Type	BACnetObjectType	R	Always	Read
Description	CharacterString	O	Config	R/W
Present_Value	Unsigned	W	Always	R/W
In_Process	BOOLEAN	R	Always	R/W
All_Writes_Successful	BOOLEAN	R	Always	R/W
Action	BACnetActionList	R	Always	R/W
Action_Text	CharacterString	O	Config	R/W
Property_List	BACnetPropertyIdentifier	R	Always	Read
Status_Flags	BACnetStatusFlags	R	Always	Read
Event_State	BACnetEventState	R	Always	Read
Reliability	BACnetReliability	O	Config	Read
Event_Detection_Enable	BOOLEAN	O	Config	R/W
Notification_Class	Unsigned	O	Config	R/W
Event_Enable	BACnetEventTransitionBits	O	Config	R/W
Acked_Transitions	BACnetEventTransitionBits	O	Config	Read
Notify_Type	BACnetNotifyType	O	Config	R/W
Event_Time_Stamps	BACnetTimeStamp	O	Config	Read
Event_Message_Texts	CharacterString	O	Config	Read
Event_Message_Texts_Config	CharacterString	O	Config	R/W
Reliability_Evaluation_Inhibit	BOOLEAN	O	Config	R/W
Tags	BACnetNameValue	O	Config	R/W
Profile_Location	CharacterString	O	Config	R/W
Profile_Name	CharacterString	O	Config	R/W
Value_Source	BACnetValueSource	O	Config	R/W
Audit_Level	BACnetAuditLevel	O	Never	---
Auditable_Operations	BACnetAuditOperationFlags	O	Never	---

Device Object Type

Property Identifier	Property Datatype	CC	Available	Access
Object_Identifier	BACnetObjectIdentifier	R	Always	Read
Object_Name	CharacterString	R	Always	R/W
Object_Type	BACnetObjectType	R	Always	Read

Property Identifier	Property Datatype	CC	Available	Access
System_Status	BACnetDeviceStatus	R	Always	Read
Vendor_Name	CharacterString	R	Always	Read
Vendor_Identifier	Unsigned16	R	Always	Read
Model_Name	CharacterString	R	Always	Read
Firmware_Revision	CharacterString	R	Always	Read
Application_Software_Version	CharacterString	R	Always	Read
Location	CharacterString	O	Config	R/W
Description	CharacterString	O	Config	R/W
Protocol_Version	Unsigned	R	Always	Read
Protocol_Revision	Unsigned	R	Always	Read
Protocol_Services_Supported	BACnetServicesSupported	R	Always	Read
Protocol_Object_Types_Supported	BACnetObjectTypesSupported	R	Always	Read
Object_List	BACnetObjectIdentifier	R	Always	Read
Structured_Object_List	BACnetObjectIdentifier	O	Config	Read
Max_APDU_Length_Accepted	Unsigned	R	Always	Read
Segmentation_Supported	BACnetSegmentation	R	Always	Read
Max_Segments_Accepted	Unsigned	O	Config	Read
VT_Classes_Supported	BACnetVTClass	O	Never	"---"
Active_VT_Sessions	BACnetVTSession	O	Never	"---"
Local_Time	Time	O	Config	Read
Local_Date	Date	O	Config	Read
UTC_Offset	INTEGER	O	Config	Read
Daylight_Savings_Status	BOOLEAN	O	Config	Read
APDU_Segment_Timeout	Unsigned	O	Config	Read
APDU_Timeout	Unsigned	R	Always	Read
Number_Of_APDU_Retries	Unsigned	R	Always	Read
Time_Synchronization_Recipients	BACnetRecipient	O	Config	R/W
Max_Master	Unsigned	O	Config	R/W
Max_Info_Frames	Unsigned	O	Config	R/W
Device_Address_Binding	BACnetAddressBinding	R	Always	Read
Database_Revision	Unsigned	R	Always	Read
Configuration_Files	BACnetObjectIdentifier	O	Config	Read
Last_Restore_Time	BACnetTimeStamp	O	Config	Read
Backup_Failure_Timeout	Unsigned16	O	Config	R/W
Backup_Preparation_Time	Unsigned16	O	Config	R/W
Restore_Preparation_Time	Unsigned16	O	Config	R/W
Restore_Completion_Time	Unsigned16	O	Config	R/W

Property Identifier	Property Datatype	CC	Available	Access
Backup_And_Restore_State	BACnetBackupState	O	Config	R/W
Active_COV_Subscriptions	BACnetCOVSubscription	O	Config	Read
Last_Restart_Reason	BACnetRestartReason	O	Config	Read
Time_Of_Device_Restart	BACnetTimeStamp	O	Config	Read
Restart_Notification_Recipients	BACnetRecipient	O	Config	R/W
UTC_Time_Synchronization_Recipients	BACnetRecipient	O	Config	R/W
Time_Synchronization_Interval	Unsigned	O	Config	R/W
Align_Intervals	BOOLEAN	O	Config	R/W
Interval_Offset	Unsigned	O	Config	R/W
Serial_Number	CharacterString	O	Config	Read
Property_List	BACnetPropertyIdentifier	R	Always	Read
Status_Flags	BACnetStatusFlags	O	Config	Read
Event_State	BACnetEventState	O	Never	"---"
Reliability	BACnetReliability	O	Never	"---"
Event_Detection_Enable	BOOLEAN	O	Never	"---"
Notification_Class	Unsigned	O	Never	"---"
Event_Enable	BACnetEventTransitionBits	O	Never	"---"
Acked_Transitions	BACnetEventTransitionBits	O	Never	"---"
Notify_Type	BACnetNotifyType	O	Never	"---"
Event_Time_Stamps	BACnetTimeStamp	O	Never	"---"
Event_Message_Texts	CharacterString	O	Never	"---"
Event_Message_Texts_Config	CharacterString	O	Never	"---"
Reliability_Evaluation_Inhibit	BOOLEAN	O	Never	"---"
Active_COV_Multiple_Subscriptions	BACnetCOVMultipleSubscription	O	Config	R/W
Tags	BACnetNameValue	O	Config	R/W
Device_UUID	OCTET_STRING	O	Config	Read
Profile_Location	CharacterString	O	Never	"---"
Deployed_Profile_Location	CharacterString	O	Never	"---"
Profile_Name	CharacterString	O	Never	"---"
Audit_Notification_Recipient	BACnetRecipient	O	Never	---
Audit_Level	BACnetAuditLevel	O	Never	---
Auditable_Operations	BACnetAuditOperationFlags	O	Never	---

Event Enrollment Object Type

Property Identifier	Property Datatype	CC	Available	Access
Object_Identifier	BACnetObjectIdentifier	R	Always	Read
Object_Name	CharacterString	R	Always	R/W
Object_Type	BACnetObjectType	R	Always	Read

Description	CharacterString	O	Config	R/W
Event_Type	BACnetEventType	R	Always	Read
Notify_Type	BACnetNotifyType	R	Always	R/W
Event_Parameters	BACnetEventParameter	R	Always	R/W
Object_Property_Reference	BACnetDeviceObjectPropertyReference	R	Always	R/W
Event_State	BACnetEventState	R	Always	Read
Event_Enable	BACnetEventTransitionBits	R	Always	R/W
Acked_Transitions	BACnetEventTransitionBits	R	Always	Read
Notification_Class	Unsigned	R	Always	R/W
Event_Time_Stamps	BACnetTimeStamp	R	Always	Read
Event_Message_Texts	CharacterString	O	Config	Read
Event_Message_Texts_Config	CharacterString	O	Config	R/W
Event_Detection_Enable	BOOLEAN	R	Always	R/W
Event_Algorithm_Inhibit_Ref	BACnetObjectPropertyReference	O	Config	R/W
Event_Algorithm_Inhibit	BOOLEAN	O	Config	R/W
Time_Delay_Normal	Unsigned	O	Config	R/W
Status_Flags	BACnetStatusFlags	R	Always	Read
Reliability	BACnetReliability	R	Always	Read
Fault_Type	BACnetFaultType	O	Config	Read
Fault_Parameters	BACnetFaultParameter	O	Config	R/W
Reliability_Evaluation_Inhibit	BOOLEAN	O	Config	R/W
Property_List	BACnetPropertyIdentifier	R	Always	Read
Tags	BACnetNameValue	O	Config	R/W
Profile_Location	CharacterString	O	Config	R/W
Profile_Name	CharacterString	O	Config	R/W
Audit_Level	BACnetAuditLevel	O	Never	---
Auditable_Operations	BACnetAuditOperationFlags	O	Never	---

Event Log Object Type

Property Identifier	Property Datatype	CC	Available	Access
Object_Identifier	BACnetObjectIdentifier	R	Always	Read
Object_Name	CharacterString	R	Always	R/W
Object_Type	BACnetObjectType	R	Always	Read
Property_List	BACnetPropertyIdentifier	R	Always	Read
Description	CharacterString	O	Config	R/W
Status_Flags	BACnetStatusFlags	R	Always	Read
Event_State	BACnetEventState	R	Always	Read
Reliability	BACnetReliability	O	Config	Read

Enable	BOOLEAN	W	Always	R/W
Start_Time	BACnetDateTime	O	Config	R/W
Stop_Time	BACnetDateTime	O	Config	R/W
Stop_When_Full	BOOLEAN	R	Always	R/W
Buffer_Size	Unsigned32	R	Always	R/W
Log_Buffer	BACnetEventLogRecord	R	Always	Range
Record_Count	Unsigned32	W	Always	R/W
Total_Record_Count	Unsigned32	R	Always	R/W
Notification_Threshold	Unsigned32	O	Config	R/W
Records_Since_Notification	Unsigned32	O	Config	R/W
Last_Notify_Record	Unsigned32	O	Config	R/W
Notification_Class	Unsigned	O	Config	R/W
Event_Enable	BACnetEventTransitionBits	O	Config	R/W
Acked_Transitions	BACnetEventTransitionBits	O	Config	Read
Notify_Type	BACnetNotifyType	O	Config	R/W
Event_Time_Stamps	BACnetTimeStamp	O	Config	Read
Event_Message_Texts	CharacterString	O	Config	Read
Event_Message_Texts_Config	CharacterString	O	Config	R/W
Event_Detection_Enable	BOOLEAN	O	Config	R/W
Event_Algorithm_Inhibit_Ref	BACnetObjectPropertyReference	O	Config	R/W
Event_Algorithm_Inhibit	BOOLEAN	O	Config	R/W
Reliability_Evaluation_Inhibit	BOOLEAN	O	Config	R/W
Tags	BACnetNameValue	O	Config	R/W
Profile_Location	CharacterString	O	Config	R/W
Profile_Name	CharacterString	O	Config	R/W
Audit_Level	BACnetAuditLevel	O	Never	---
Auditable_Operations	BACnetAuditOperationFlags	O	Never	---

File Object Type

Property Identifier	Property Datatype	CC	Available	Access
Object_Identifier	BACnetObjectIdentifier	R	Always	Read
Object_Name	CharacterString	R	Always	R/W
Object_Type	BACnetObjectType	R	Always	Read
Description	CharacterString	O	Config	R/W
File_Type	CharacterString	R	Always	Read
File_Size	Unsigned	R	Always	R/W
Modification_Date	BACnetDateTime	R	Always	Read
Archive	BOOLEAN	W	Always	R/W
Read_Only	BOOLEAN	R	Always	R/W
File_Access_Method	BACnetFileAccessMethod	R	Always	Read
Record_Count	Unsigned	O	Config	R/W
Property_List	BACnetPropertyIdentifier	R	Always	Read
Tags	BACnetNameValue	O	Config	R/W
Profile_Location	CharacterString	O	Config	R/W
Profile_Name	CharacterString	O	Config	R/W
Audit_Level	BACnetAuditLevel	O	Never	---
Auditable_Operations	BACnetAuditOperationFlags	O	Never	---

Integer Value Object Type

Property Identifier	Property Datatype	CC	Available	Access
Object_Identifier	BACnetObjectIdentifier	R	Always	Read
Object_Name	CharacterString	R	Always	R/W
Object_Type	BACnetObjectType	R	Always	Read
Description	CharacterString	O	Config	R/W
Present_Value	INTEGER	R	Always	R/W
Status_Flags	BACnetStatusFlags	R	Always	Read
Event_State	BACnetEventState	O	Config	Read
Reliability	BACnetReliability	O	Config	Read
Out_Of_Service	BOOLEAN	O	Config	R/W
Units	BACnetEngineeringUnits	R	Always	R/W
Priority_Array	BACnetPriorityArray	O	Config	Read
Relinquish_Default	INTEGER	O	Config	R/W
COV_Increment	Unsigned	O	Config	R/W
Time_Delay	Unsigned	O	Config	R/W
Notification_Class	Unsigned	O	Config	R/W
High_Limit	INTEGER	O	Config	R/W

Low_Limit	INTEGER	O	Config	R/W
Deadband	Unsigned	O	Config	R/W
Limit_Enable	BACnetLimitEnable	O	Config	R/W
Event_Enable	BACnetEventTransitionBits	O	Config	R/W
Acked_Transitions	BACnetEventTransitionBits	O	Config	Read
Notify_Type	BACnetNotifyType	O	Config	R/W
Event_Time_Stamps	BACnetTimeStamp	O	Config	Read
Event_Message_Texts	CharacterString	O	Config	Read
Event_Message_Texts_Config	CharacterString	O	Config	R/W
Event_Detection_Enable	BOOLEAN	O	Config	R/W
Event_Algorithm_Inhibit_Ref	BACnetObjectPropertyReference	O	Config	R/W
Event_Algorithm_Inhibit	BOOLEAN	O	Config	R/W
Time_Delay_Normal	Unsigned	O	Config	R/W
Reliability_Evaluation_Inhibit	BOOLEAN	O	Config	R/W
Min_Pres_Value	REAL	O	Config	R/W
Max_Pres_Value	REAL	O	Config	R/W
Resolution	REAL	O	Config	Read
Property_List	BACnetPropertyIdentifier	R	Always	Read
Tags	BACnetNameValue	O	Config	R/W
Profile_Location	CharacterString	O	Config	R/W
Profile_Name	CharacterString	O	Config	R/W
Fault_High_Limit	INTEGER	O	Config	R/W
Fault_Low_Limit	INTEGER	O	Config	R/W
Current_Command_Priority	BACnetOptionalUnsigned	O	Config	Read
Value_Source	BACnetValueSource	O	Config	R/W
Value_Source_Array	BACnetValueSource	O	Config	Read
Last_Command_Time	BACnetTimeStamp	O	Config	Read
Command_Time_Array	BACnetTimeStamp	O	Config	Read
Audit_Level	BACnetAuditLevel	O	Never	---
Auditable_Operations	BACnetAuditOperationFlags	O	Never	---
Audit_Priority_Filter	BACnetPriorityFilter	O	Never	---

Large Analog Value Object Type

Property Identifier	Property Datatype	CC	Available	Access
Object_Identifier	BACnetObjectIdentifier	R	Always	Read
Object_Name	CharacterString	R	Always	R/W
Object_Type	BACnetObjectType	R	Always	Read
Description	CharacterString	O	Config	R/W
Present_Value	Double	R	Always	R/W
Status_Flags	BACnetStatusFlags	R	Always	Read
Event_State	BACnetEventState	O	Config	Read
Reliability	BACnetReliability	O	Config	Read
Out_Of_Service	BOOLEAN	O	Config	R/W
Units	BACnetEngineeringUnits	R	Always	R/W
Priority_Array	BACnetPriorityArray	O	Config	Read
Relinquish_Default	Double	O	Config	R/W
COV_Increment	Double	O	Config	R/W
Time_Delay	Unsigned	O	Config	R/W
Notification_Class	Unsigned	O	Config	R/W
High_Limit	Double	O	Config	R/W
Low_Limit	Double	O	Config	R/W
Deadband	Double	O	Config	R/W
Limit_Enable	BACnetLimitEnable	O	Config	R/W
Event_Enable	BACnetEventTransitionBits	O	Config	R/W
Acked_Transitions	BACnetEventTransitionBits	O	Config	Read
Notify_Type	BACnetNotifyType	O	Config	R/W
Event_Time_Stamps	BACnetTimeStamp	O	Config	Read
Event_Message_Texts	CharacterString	O	Config	Read
Event_Message_Texts_Config	CharacterString	O	Config	R/W
Event_Detection_Enable	BOOLEAN	O	Config	R/W
Event_Algorithm_Inhibit_Ref	BACnetObjectPropertyReference	O	Config	R/W
Event_Algorithm_Inhibit	BOOLEAN	O	Config	R/W
Time_Delay_Normal	Unsigned	O	Config	R/W
Reliability_Evaluation_Inhibit	BOOLEAN	O	Config	R/W
Min_Pres_Value	Double	O	Config	R/W
Max_Pres_Value	Double	O	Config	R/W
Resolution	Double	O	Config	Read
Property_List	BACnetPropertyIdentifier	R	Always	Read
Tags	BACnetNameValue	O	Config	R/W
Profile_Location	CharacterString	O	Config	R/W
Profile_Name	CharacterString	O	Config	R/W
Fault_High_Limit	Double	O	Config	R/W
Fault_Low_Limit	Double	O	Config	R/W

Current_Command_Priority	BACnetOptionalUnsigned	O	Config	Read
Value_Source	BACnetValueSource	O	Config	R/W
Value_Source_Array	BACnetValueSource	O	Config	Read
Last_Command_Time	BACnetTimeStamp	O	Config	Read
Command_Time_Array	BACnetTimeStamp	O	Config	Read
Audit_Level	BACnetAuditLevel	O	Never	---
Auditable_Operations	BACnetAuditOperationFlags	O	Never	---
Audit_Priority_Filter	BACnetPriorityFilter	O	Never	---

Loop Value Object Type

Property Identifier	Property Datatype	CC	Available	Access
Object_Identifier	BACnetObjectIdentifier	R	Always	Read
Object_Name	CharacterString	R	Always	R/W
Object_Type	BACnetObjectType	R	Always	Read
Present_Value	REAL	R	Always	R/W
Description	CharacterString	O	Config	R/W
Status_Flags	BACnetStatusFlags	R	Always	Read
Event_State	BACnetEventState	R	Always	Read
Reliability	BACnetReliability	O	Config	Read
Out_Of_Service	BOOLEAN	R	Always	R/W
Update_Interval	Unsigned	O	Config	R/W
Output_Units	BACnetEngineeringUnits	R	Always	R/W
Manipulated_Variable_Reference	BACnetObjectPropertyReference	R	Always	R/W
Controlled_Variable_Reference	BACnetObjectPropertyReference	R	Always	R/W
Controlled_Variable_Value	REAL	R	Always	R/W
Controlled_Variable_Units	BACnetEngineeringUnits	R	Always	R/W
Setpoint_Reference	BACnetSetpointReference	R	Always	R/W
Setpoint	REAL	R	Always	R/W
Action	BACnetAction	R	Always	R/W
Proportional_Constant	REAL	O	Config	R/W
Proportional_Constant_Units	BACnetEngineeringUnits	O	Config	R/W
Integral_Constant	REAL	O	Config	R/W
Integral_Constant_Units	BACnetEngineeringUnits	O	Config	R/W
Derivative_Constant	REAL	O	Config	R/W
Derivative_Constant_Units	BACnetEngineeringUnits	O	Config	R/W
Bias	REAL	O	Config	R/W
Maximum_Output	REAL	O	Config	R/W
Minimum_Output	REAL	O	Config	R/W
Priority_For_Writing	Unsigned	R	Always	R/W

COV_Increment	REAL	O	Config	R/W
Time_Delay	Unsigned	O	Config	R/W
Notification_Class	Unsigned	O	Config	R/W
Error_Limit	REAL	O	Config	R/W
Deadband	REAL	O	Config	R/W
Event_Enable	BACnetEventTransitionBits	O	Config	R/W
Acked_Transitions	BACnetEventTransitionBits	O	Config	Read
Notify_Type	BACnetNotifyType	O	Config	R/W
Event_Time_Stamps	BACnetTimeStamp	O	Config	Read
Event_Message_Texts	CharacterString	O	Config	Read
Event_Message_Texts_Config	CharacterString	O	Config	R/W
Event_Detection_Enable	BOOLEAN	O	Config	R/W
Event_Algorithm_Inhibit_Ref	BACnetObjectPropertyReference	O	Config	R/W
Event_Algorithm_Inhibit	BOOLEAN	O	Config	R/W
Time_Delay_Normal	Unsigned	O	Config	R/W
Reliability_Evaluation_Inhibit	BOOLEAN	O	Config	R/W
Property_List	BACnetPropertyIdentifier	R	Always	Read
Low_Diff_Limit	BACnetOptionalREAL	O	Config	R/W
Tags	BACnetNameValue	O	Config	R/W
Profile_Location	CharacterString	O	Config	R/W
Profile_Name	CharacterString	O	Config	R/W
Audit_Level	BACnetAuditLevel	O	Never	---
Auditable_Operations	BACnetAuditOperationFlags	O	Never	---

Multi State Input Object Type

Property Identifier	Property Datatype	CC	Available	Access
Object_Identifier	BACnetObjectIdentifier	R	Always	Read
Object_Name	CharacterString	R	Always	R/W
Object_Type	BACnetObjectType	R	Always	Read
Present_Value	Unsigned	R	Always	R/W
Description	CharacterString	O	Config	R/W
Device_Type	CharacterString	O	Config	R/W
Status_Flags	BACnetStatusFlags	R	Always	Read
Event_State	BACnetEventState	R	Always	Read
Reliability	BACnetReliability	O	Config	Read
Out_Of_Service	BOOLEAN	R	Always	R/W
Number_Of_States	Unsigned	R	Always	R/W
State_Text	CharacterString	O	Config	R/W
Time_Delay	Unsigned	O	Config	R/W

Notification_Class	Unsigned	O	Config	R/W
Alarm_Values	Unsigned	O	Config	R/W
Fault_Values	Unsigned	O	Config	R/W
Event_Enable	BACnetEventTransitionBits	O	Config	R/W
Acked_Transitions	BACnetEventTransitionBits	O	Config	Read
Notify_Type	BACnetNotifyType	O	Config	R/W
Event_Time_Stamps	BACnetTimeStamp	O	Config	Read
Event_Message_Texts	CharacterString	O	Config	Read
Event_Message_Texts_Config	CharacterString	O	Config	R/W
Event_Detection_Enable	BOOLEAN	O	Config	R/W
Event_Algorithm_Inhibit_Ref	BACnetObjectPropertyReference	O	Config	R/W
Event_Algorithm_Inhibit	BOOLEAN	O	Config	R/W
Time_Delay_Normal	Unsigned	O	Config	R/W
Reliability_Evaluation_Inhibit	BOOLEAN	O	Config	R/W
Interface_Value	BACnetOptionalUnsigned	O	Config	Read
Property_List	BACnetPropertyIdentifier	R	Always	Read
Tags	BACnetNameValue	O	Config	R/W
Profile_Location	CharacterString	O	Config	R/W
Profile_Name	CharacterString	O	Config	R/W
Audit_Level	BACnetAuditLevel	O	Never	---
Auditable_Operations	BACnetAuditOperationFlags	O	Never	---

Multi State Output Object Type

Property Identifier	Property Datatype	CC	Available	Access
Object_Identifier	BACnetObjectIdentifier	R	Always	Read
Object_Name	CharacterString	R	Always	R/W
Object_Type	BACnetObjectType	R	Always	Read
Present_Value	Unsigned	W	Always	R/W
Description	CharacterString	O	Config	R/W
Device_Type	CharacterString	O	Config	R/W
Status_Flags	BACnetStatusFlags	R	Always	Read
Event_State	BACnetEventState	R	Always	Read
Reliability	BACnetReliability	O	Config	Read
Out_Of_Service	BOOLEAN	R	Always	R/W
Number_Of_States	Unsigned	R	Always	R/W
State_Text	CharacterString	O	Config	R/W
Priority_Array	BACnetPriorityArray	R	Always	Read
Relinquish_Default	Unsigned	R	Always	R/W
Time_Delay	Unsigned	O	Config	R/W

Notification_Class	Unsigned	O	Config	R/W
Feedback_Value	Unsigned	O	Config	R/W
Event_Enable	BACnetEventTransitionBits	O	Config	R/W
Acked_Transitions	BACnetEventTransitionBits	O	Config	Read
Notify_Type	BACnetNotifyType	O	Config	R/W
Event_Time_Stamps	BACnetTimeStamp	O	Config	Read
Event_Message_Texts	CharacterString	O	Config	Read
Event_Message_Texts_Config	CharacterString	O	Config	R/W
Event_Detection_Enable	BOOLEAN	O	Config	R/W
Event_Algorithm_Inhibit_Ref	BACnetObjectPropertyReference	O	Config	R/W
Event_Algorithm_Inhibit	BOOLEAN	O	Config	R/W
Time_Delay_Normal	Unsigned	O	Config	R/W
Reliability_Evaluation_Inhibit	BOOLEAN	O	Config	R/W
Interface_Value	BACnetOptionalUnsigned	O	Config	Read
Property_List	BACnetPropertyIdentifier	R	Always	Read
Tags	BACnetNameValue	O	Config	R/W
Profile_Location	CharacterString	O	Config	R/W
Profile_Name	CharacterString	O	Config	R/W
Current_Command_Priority	BACnetOptionalUnsigned	R	Always	Read
Value_Source	BACnetValueSource	O	Config	R/W
Value_Source_Array	BACnetValueSource	O	Config	Read
Last_Command_Time	BACnetTimeStamp	O	Config	Read
Command_Time_Array	BACnetTimeStamp	O	Config	Read
Audit_Level	BACnetAuditLevel	O	Never	---
Auditable_Operations	BACnetAuditOperationFlags	O	Never	---
Audit_Priority_Filter	BACnetPriorityFilter	O	Never	---

Multi State Value Object Type

Property Identifier	Property Datatype	CC	Available	Access
Object_Identifier	BACnetObjectIdentifier	R	Always	Read
Object_Name	CharacterString	R	Always	R/W
Object_Type	BACnetObjectType	R	Always	Read
Present_Value	Unsigned	R	Always	R/W
Description	CharacterString	O	Config	R/W
Status_Flags	BACnetStatusFlags	R	Always	Read
Event_State	BACnetEventState	R	Always	Read
Reliability	BACnetReliability	O	Config	Read
Out_Of_Service	BOOLEAN	R	Always	R/W
Number_Of_States	Unsigned	R	Always	R/W

State_Text	CharacterString	O	Config	R/W
Priority_Array	BACnetPriorityArray	O	Config	Read
Relinquish_Default	Unsigned	O	Config	R/W
Time_Delay	Unsigned	O	Config	R/W
Notification_Class	Unsigned	O	Config	R/W
Alarm_Values	Unsigned	O	Config	R/W
Fault_Values	Unsigned	O	Config	R/W
Event_Enable	BACnetEventTransitionBits	O	Config	R/W
Acked_Transitions	BACnetEventTransitionBits	O	Config	Read
Notify_Type	BACnetNotifyType	O	Config	R/W
Event_Time_Stamps	BACnetTimeStamp	O	Config	Read
Event_Message_Texts	CharacterString	O	Config	Read
Event_Message_Texts_Config	CharacterString	O	Config	R/W
Event_Detection_Enable	BOOLEAN	O	Config	R/W
Event_Algorithm_Inhibit_Ref	BACnetObjectPropertyReference	O	Config	R/W
Event_Algorithm_Inhibit	BOOLEAN	O	Config	R/W
Time_Delay_Normal	Unsigned	O	Config	R/W
Reliability_Evaluation_Inhibit	BOOLEAN	O	Config	R/W
Property_List	BACnetPropertyIdentifier	R	Always	Read
Tags	BACnetNameValue	O	Config	R/W
Profile_Location	CharacterString	O	Config	R/W
Profile_Name	CharacterString	O	Config	R/W
Current_Command_Priority	BACnetOptionalUnsigned	O	Config	Read
Value_Source	BACnetValueSource	O	Config	R/W
Value_Source_Array	BACnetValueSource	O	Config	Read
Last_Command_Time	BACnetTimeStamp	O	Config	Read
Command_Time_Array	BACnetTimeStamp	O	Config	Read
Audit_Level	BACnetAuditLevel	O	Never	---
Auditable_Operations	BACnetAuditOperationFlags	O	Never	---
Audit_Priority_Filter	BACnetPriorityFilter	O	Never	---

Network Port Object Type

Property Identifier	Property Datatype	CC	Available	Access
Object_Identifier	BACnetObjectIdentifier	R	Always	Read
Object_Name	CharacterString	R	Always	R/W
Object_Type	BACnetObjectType	R	Always	Read
Description	CharacterString	O	Config	R/W
Status_Flags	BACnetStatusFlags	R	Always	Read
Reliability	BACnetReliability	R	Always	Read
Out_Of_Service	BOOLEAN	R	Always	R/W
Network_Type	BACnetNetworkType	R	Always	Read
Protocol_Level	BACnetProtocolLevel	R	Always	Read
Reference_Port	Unsigned	O	Never	"---"
Network_Number	Unsigned16	O	Config	R/W
Network_Number_Quality	BACnetNetworkNumberQuality	O	Config	Read
Changes_Pending	BOOLEAN	R	Always	Read
Command	BACnetNetworkPortCommand	O	Never	"---"
MAC_Address	OCTET_STRING	O	Config	Read
APDU_Length	Unsigned	O	Config	Read
Link_Speed	REAL	R	Always	Read
Link_Speeds	REAL	O	Config	Read
Link_Speed_Autonegotiate	BOOLEAN	O	Never	"---"
Network_Interface_Name	CharacterString	O	Config	Read
BACnet_IP_Mode	BACnetIPMode	O	Config	R/W
IP_Address	OCTET_STRING	O	Config	Read
BACnet_IP_UDP_Port	Unsigned16	O	Config	R/W
IP_Subnet_Mask	OCTET_STRING	O	Config	Read
IP_Default_Gateway	OCTET_STRING	O	Config	Read
BACnet_IP_Multicast_Address	OCTET_STRING	O	Never	"---"
IP_DNS_Server	OCTET_STRING	O	Config	Read
IP_DHCP_Enable	BOOLEAN	O	Never	"---"
IP_DHCP_Lease_Time	Unsigned	O	Never	"---"
IP_DHCP_Lease_Time_Remaining	Unsigned	O	Never	"---"
IP_DHCP_Server	OCTET_STRING	O	Never	"---"
BACnet_IP_NAT_Traversal	BOOLEAN	O	Never	"---"
BACnet_IP_Global_Address	BACnetHostNPort	O	Never	"---"
BBMD_Broadcast_Distribution_Table	BACnetBDTEntry	O	Config	R/W
BBMD_Accept_FD_Registrations	BOOLEAN	O	Config	R/W
BBMD_Foreign_Device_Table	BACnetFDTEEntry	O	Config	Read
FD_BBMD_Address	BACnetHostNPort	O	Config	R/W
FD_Subscription_Lifetime	Unsigned16	O	Config	R/W
BACnet_IPv6_Mode	BACnetIPMode	O	Never	"---"

IPv6_Address	OCTET_STRING	O	Never	"---"
IPv6_Prefix_Length	Unsigned8	O	Never	"---"
BACnet_IPv6_UDP_Port	Unsigned16	O	Never	"---"
IPv6_Default_Gateway	OCTET_STRING	O	Never	"---"
BACnet_IPv6_Multicast_Address	OCTET_STRING	O	Never	"---"
IPv6_DNS_Server	OCTET_STRING	O	never	"---"
IPv6_Auto_Addressing_Enable	BOOLEAN	O	Never	"---"
IPv6_DHCP_Lease_Time	Unsigned	O	Never	"---"
IPv6_DHCP_Lease_Time_Remaining	Unsigned	O	Never	"---"
IPv6_DHCP_Server	OCTET_STRING	O	Never	"---"
IPv6_Zone_Index	CharacterString	O	Never	"---"
Max_Master	Unsigned8	O	Config	R/W
Max_Info_Frames	Unsigned8	O	Config	R/W
Slave_Proxy_Enable	BOOLEAN	O	Config	R/W
Manual_Slave_Address_Binding	BACnetAddressBinding	O	Config	R/W
Auto_Slave_Discovery	BOOLEAN	O	Config	R/W
Slave_Address_Binding	BACnetAddressBinding	O	Config	R/W
Virtual_MAC_Address_Table	BACnetVMACEntry	O	Never	"---"
Routing_Table	BACnetRouterEntry	O	Config	Read
Event_Detection_Enable	BOOLEAN	O	Never	"---"
Notification_Class	Unsigned	O	Never	"---"
Event_Enable	BACnetEventTransitionBits	O	Never	"---"
Acked_Transitions	BACnetEventTransitionBits	O	Never	"---"
Notify_Type	BACnetNotifyType	O	Never	"---"
Event_Time_Stamps	BACnetTimeStamp	O	Never	"---"
Event_Message_Texts	CharacterString	O	Never	"---"
Event_Message_Texts_Config	CharacterString	O	Never	"---"
Event_State	BACnetEventState	O	Never	"---"
Reliability_Evaluation_Inhibit	BOOLEAN	O	Never	"---"
Property_List	BACnetPropertyIdentifier	R	Always	Read
Tags	BACnetNameValue	O	Never	"---"
Profile_Location	CharacterString	O	Never	"---"
Profile_Name	CharacterString	O	Never	"---"
Audit_Level	BACnetAuditLevel	O	Never	---
Auditable_Operations	BACnetAuditOperationFlags	O	Never	---

Notification Class Object Type

Property Identifier	Property Datatype	CC	Available	Access
Object_Identifier	BACnetObjectIdentifier	R	Always	Read
Object_Name	CharacterString	R	Always	R/W
Object_Type	BACnetObjectType	R	Always	Read
Description	CharacterString	O	Config	R/W
Priority	Unsigned	R	Always	R/W
Ack_Required	BACnetEventTransitionBits	R	Always	R/W
Recipient_List	BACnetDestination	R	Always	R/W
Property_List	BACnetPropertyIdentifier	R	Always	Read
Status_Flags	BACnetStatusFlags	O	Config	Read
Event_State	BACnetEventState	O	Config	Read
Reliability	BACnetReliability	O	Config	Read
Event_Detection_Enable	BOOLEAN	O	Config	R/W
Notification_Class	Unsigned	R	Always	R/W
Event_Enable	BACnetEventTransitionBits	O	Config	R/W
Acked_Transitions	BACnetEventTransitionBits	O	Config	Read
Notify_Type	BACnetNotifyType	O	Config	R/W
Event_Time_Stamps	BACnetTimeStamp	O	Config	Read
Event_Message_Texts	CharacterString	O	Config	Read
Event_Message_Texts_Config	CharacterString	O	Config	R/W
Reliability_Evaluation_Inhibit	BOOLEAN	O	Config	R/W
Tags	BACnetNameValue	O	Config	R/W
Profile_Location	CharacterString	O	Config	R/W
Profile_Name	CharacterString	O	Config	R/W
Audit_Level	BACnetAuditLevel	O	Never	---
Auditable_Operations	BACnetAuditOperationFlags	O	Never	---

Positive Integer Value Object Type

Property Identifier	Property Datatype	CC	Available	Access
Object_Identifier	BACnetObjectIdentifier	R	Always	Read
Object_Name	CharacterString	R	Always	R/W
Object_Type	BACnetObjectType	R	Always	Read
Description	CharacterString	O	Config	R/W
Present_Value	Unsigned	R	Always	R/W
Status_Flags	BACnetStatusFlags	R	Always	Read
Event_State	BACnetEventState	O	Config	Read

Reliability	BACnetReliability	O	Config	Read
Out_Of_Service	BOOLEAN	O	Config	R/W
Units	BACnetEngineeringUnits	R	Always	R/W
Priority_Array	BACnetPriorityArray	O	Config	Read
Relinquish_Default	Unsigned	O	Config	R/W
COV_Increment	Unsigned	O	Config	R/W
Time_Delay	Unsigned	O	Config	R/W
Notification_Class	Unsigned	O	Config	R/W
High_Limit	Unsigned	O	Config	R/W
Low_Limit	Unsigned	O	Config	R/W
Deadband	Unsigned	O	Config	R/W
Limit_Enable	BACnetLimitEnable	O	Config	R/W
Event_Enable	BACnetEventTransitionBits	O	Config	R/W
Acked_Transitions	BACnetEventTransitionBits	O	Config	Read
Notify_Type	BACnetNotifyType	O	Config	R/W
Event_Time_Stamps	BACnetTimeStamp	O	Config	Read
Event_Message_Texts	CharacterString	O	Config	Read
Event_Message_Texts_Config	CharacterString	O	Config	R/W
Event_Detection_Enable	BOOLEAN	O	Config	R/W
Event_Algorithm_Inhibit_Ref	BACnetObjectPropertyReference	O	Config	R/W
Event_Algorithm_Inhibit	BOOLEAN	O	Config	R/W
Time_Delay_Normal	Unsigned	O	Config	R/W
Reliability_Evaluation_Inhibit	BOOLEAN	O	Config	R/W
Min_Pres_Value	REAL	O	Config	R/W
Max_Pres_Value	REAL	O	Config	R/W
Resolution	REAL	O	Config	Read
Property_List	BACnetPropertyIdentifier	R	Always	Read
Tags	BACnetNameValue	O	Config	R/W
Profile_Location	CharacterString	O	Config	R/W
Profile_Name	CharacterString	O	Config	R/W
Fault_High_Limit	Unsigned	O	Config	R/W
Fault_Low_Limit	Unsigned	O	Config	R/W
Current_Command_Priority	BACnetOptionalUnsigned	O	Config	R/W
Value_Source	BACnetValueSource	O	Config	R/W
Value_Source_Array	BACnetValueSource	O	Config	Read
Last_Command_Time	BACnetTimeStamp	O	Config	Read
Command_Time_Array	BACnetTimeStamp	O	Config	Read
Audit_Level	BACnetAuditLevel	O	Never	---
Auditable_Operations	BACnetAuditOperationFlags	O	Never	---
Audit_Priority_Filter	BACnetPriorityFilter	O	Never	---

Schedule Object Type

Property Identifier	Property Datatype	CC	Available	Access
Object_Identifier	BACnetObjectIdentifier	R	Always	Read
Object_Name	CharacterString	R	Always	R/W
Object_Type	BACnetObjectType	R	Always	Read
Present_Value	Any	R	Always	R/W
Description	CharacterString	O	Config	R/W
Effective_Period	BACnetDateRange	R	Always	R/W
Weekly_Schedule	BACnetDailySchedule	O	Config	R/W
Exception_Schedule	BACnetSpecialEvent	O	Config	R/W
Schedule_Default	Any	R	Always	R/W
List_Of_Object_Property_References	BACnetDeviceObjectPropertyReference	R	Always	R/W
Priority_For_Writing	Unsigned	R	Always	R/W
Status_Flags	BACnetStatusFlags	R	Always	Read
Reliability	BACnetReliability	R	Always	Read
Out_Of_Service	BOOLEAN	R	Always	R/W
Event_Detection_Enable	BOOLEAN	O	Config	R/W
Notification_Class	Unsigned	O	Config	R/W
Event_Enable	BACnetEventTransitionBits	O	Config	R/W
Event_State	BACnetEventState	O	Config	Read
Acked_Transitions	BACnetEventTransitionBits	O	Config	R/W
Notify_Type	BACnetNotifyType	O	Config	R/W
Event_Time_Stamps	BACnetTimeStamp	O	Config	R/W
Event_Message_Texts	CharacterString	O	Config	R/W
Event_Message_Texts_Config	CharacterString	O	Config	R/W
Reliability_Evaluation_Inhibit	BOOLEAN	O	Config	R/W
Property_List	BACnetPropertyIdentifier	R	Always	R/W
Tags	BACnetNameValue	O	Config	R/W
Profile_Location	CharacterString	O	Config	R/W
Profile_Name	CharacterString	O	Config	R/W
Audit_Level	BACnetAuditLevel	O	Never	---
Auditable_Operations	BACnetAuditOperationFlags	O	Never	---

Structured View Object Type

Property Identifier	Property Datatype	CC	Available	Access
Object_Identifier	BACnetObjectIdentifier	R	Always	Read
Object_Name	CharacterString	R	Always	R/W
Object_Type	BACnetObjectType	R	Always	Read
Description	CharacterString	O	Config	R/W
Node_Type	BACnetNodeType	R	Always	R/W
Node_Subtype	CharacterString	O	Config	R/W
Subordinate_List	BACnetDeviceObjectReference	R	Always	R/W
Subordinate_Annotations	CharacterString	O	Config	R/W
Property_List	BACnetPropertyIdentifier	R	Always	Read
Subordinate_Tags	BACnetNameValueCollection	O	Config	R/W
Subordinate_Node_Types	BACnetNodeType	O	Config	R/W
Subordinate_Relationships	BACnetRelationship	O	Config	R/W
Default_Subordinate_Relationship	BACnetRelationship	O	Config	R/W
Represents	BACnetDeviceObjectReference	O	Config	R/W
Tags	BACnetNameValue	O	Config	R/W
Profile_Location	CharacterString	O	Config	R/W
Profile_Name	CharacterString	O	Config	R/W
Audit_Level	BACnetAuditLevel	O	Never	---
Auditable_Operations	BACnetAuditOperationFlags	O	Never	---

Trend Log Object Type

Property Identifier	Property Datatype	CC	Available	Access
Object_Identifier	BACnetObjectIdentifier	R	Always	Read
Object_Name	CharacterString	R	Always	RW
Object_Type	BACnetObjectType	R	Always	Read
Description	CharacterString	O	Config	"---"
Enable	BOOLEAN	W	Always	R/W
Start_Time	BACnetDateTime	O	Config	R/W
Stop_Time	BACnetDateTime	O	Config	R/W
Log_DeviceObjectProperty	BACnetDeviceObjectPropertyReference	O	Config	R/W
Log_Interval	Unsigned	O	Config	R/W
COV_Resubscription_Interval	Unsigned	O	Config	R/W
Client_COV_Increment	BACnetClientCOV	O	Config	R/W
Stop_When_Full	BOOLEAN	R	Always	R/W

Property Identifier	Property Datatype	CC	Available	Access
Buffer_Size	Unsigned32	R	Always	R/W
Log_Buffer	BACnetLogRecord	R	Always	Range
Record_Count	Unsigned32	W	Always	R/W
Total_Record_Count	Unsigned32	R	Always	Read
Logging_Type	BACnetLoggingType	R	Always	R/W
Align_Intervals	BOOLEAN	O	Config	R/W
Interval_Offset	Unsigned	O	Config	R/W
Trigger	BOOLEAN	O	Config	R/W
Status_Flags	BACnetStatusFlags	R	Always	Read
Reliability	BACnetReliability	O	Config	Read
Notification_Threshold	Unsigned32	O	Config	R/W
Records_Since_Notification	Unsigned32	O	Config	R/W
Last_Notify_Record	Unsigned32	O	Config	R/W
Event_State	BACnetEventState	R	Always	Read
Notification_Class	Unsigned	O	Config	R/W
Event_Enable	BACnetEventTransitionBits	O	Config	R/W
Acked_Transitions	BACnetEventTransitionBits	O	Config	Read
Notify_Type	BACnetNotifyType	O	Config	R/W
Event_Time_Stamps	BACnetTimeStamp	O	Config	Read
Event_Message_Texts	CharacterString	O	Config	Read
Event_Message_Texts_Config	CharacterString	O	Config	R/W
Event_Detection_Enable	BOOLEAN	O	Config	R/W
Event_Algorithm_Inhibit_Ref	BACnetObjectPropertyReference	O	Config	R/W
Event_Algorithm_Inhibit	BOOLEAN	O	Config	R/W
Reliability_Evaluation_Inhibit	BOOLEAN	O	Config	R/W
Property_List	BACnetPropertyIdentifier	R	Always	Read
Tags	BACnetNameValue	O	Config	R/W
Profile_Location	CharacterString	O	Config	R/W
Profile_Name	CharacterString	O	Config	R/W
Audit_Level	BACnetAuditLevel	O	Never	---
Auditable_Operations	BACnetAuditOperationFlags	O	Never	---

Trend Log Multiple Object Type

Property Identifier	Property Datatype	CC	Available	Access
Object_Identifier	BACnetObjectIdentifier	R	Always	Read
Object_Name	CharacterString	R	Always	R/W

Property Identifier	Property Datatype	CC	Available	Access
Object_Type	BACnetObjectType	R	Always	Read
Description	CharacterString	O	Config	R/W
Status_Flags	BACnetStatusFlags	R	Always	Read
Event_State	BACnetEventState	R	Always	Read
Reliability	BACnetReliability	O	Config	Read
Enable	BOOLEAN	W	Always	R/W
Start_Time	BACnetDateTime	O	Config	R/W
Stop_Time	BACnetDateTime	O	Config	R/W
Log_DeviceObjectProperty	BACnetDeviceObjectPropertyReference	R	Always	R/W
Logging_Type	BACnetLoggingType	R	Always	R/W
Log_Interval	Unsigned	R	Always	R/W
Align_Intervals	BOOLEAN	O	Config	R/W
Interval_Offset	Unsigned	O	Config	R/W
Trigger	BOOLEAN	O	Config	R/W
Stop_When_Full	BOOLEAN	R	Always	R/W
Buffer_Size	Unsigned32	R	Always	R/W
Log_Buffer	BACnetLogMultipleRecord	R	Always	Range
Record_Count	Unsigned32	W	Always	R/W
Total_Record_Count	Unsigned32	R	Always	Read
Notification_Threshold	Unsigned32	O	Config	R/W
Records_Since_Notification	Unsigned32	O	Config	R/W
Last_Notify_Record	Unsigned32	O	Config	R/W
Notification_Class	Unsigned	O	Config	R/W
Event_Enable	BACnetEventTransitionBits	O	Config	R/W
Acked_Transitions	BACnetEventTransitionBits	O	Config	Read
Notify_Type	BACnetNotifyType	O	Config	R/W
Event_Time_Stamps	BACnetTimeStamp	O	Config	Read
Event_Message_Texts	CharacterString	O	Config	Read
Event_Message_Texts_Config	CharacterString	O	Config	R/W
Event_Detection_Enable	BOOLEAN	O	Config	R/W
Event_Algorithm_Inhibit_Ref	BACnetObjectPropertyReference	O	Config	R/W
Event_Algorithm_Inhibit	BOOLEAN	O	Config	R/W
Reliability_Evaluation_Inhibit	BOOLEAN	O	Config	R/W
Property_List	BACnetPropertyIdentifier	R	Always	Read
Tags	BACnetNameValue	O	Config	R/W
Profile_Location	CharacterString	O	Config	R/W
Profile_Name	CharacterString	O	Config	R/W
Audit_Level	BACnetAuditLevel	O	Never	---
Auditable_Operations	BACnetAuditOperationFlags	O	Never	---

Supported object types as BACnet-Client

MBS Universal gateway acting as a BACnet client supports the following standard object types:

Accumulator Object Type	Access Door Object Type
Analog Input Object Type	Event Log Object Type
Analog Output Object Type	Load Control Object Type
Analog Value Object Type	Structured View Object Type
Averaging Object Type	Trend Log Multiple Object Type
Binary Input Object Type	Access Point Object Type
Binary Output Object Type	Access Zone Object Type
Binary Value Object Type	Access User Object Type
Calendar Object Type	Access Rights Object Type
Command Object Type	Access Credential Object Type
Device Object Type	Credential Data Input Object Type
Event Enrollment Object Type	CharacterString Value Object Type
File Object Type	DateTime Value Object Type
Group Object Type	Large Analog Value Object Type
Life Safety Point Object Type	BitString Value Object Type
Life Safety Zone Object Type	OctetString Value Object Type
Loop Object Type	Time Value Object Type
Multi-state Input Object Type	Integer Value Object Type
Multi-state Output Object Type	Positive Integer Value Object Type
Multi-state Value Object Type	Date Value Object Type
Notification Class Object Type	DateTime Pattern Value Object Type
Program Object Type	Time Pattern Value Object Type
Pulse Converter Object Type	Date Pattern Value Object Type
Schedule Object Type	Network Security Object Type
Trend Log Object Type	Global Group Object Type

3. Annex

A1. Registered Trademarks

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A3. Document Revision

Date	Autor	Remarks
25. November 2021	HHA	initial Version for BACnet protocol revision 22