



# BACnet Protocol Implementation Conformance Statement

Universal-Gateways

## BACnet Protocol Implementation Conformance Statement

Date: 20.05.2009  
Vendor Name: MBS GmbH, Krefeld Germany  
Product Name: MBS Universal-Gateways  
Product Model Number: 1.0  
Applications Software Version: 1.0  
Firmware Revision: 1.0  
BACnet Protocol Revision: 1.2 (BACnet ANSI/ASHRAE 135-2001)

### Product Description:

The MBS Universal-Gateways provides access to BACnet-networks acting either as a BACnet-Client or as a BACnet-Server.

### BACnet Standardized Device Profile (Annex L):

- BACnet Operator Workstation (B-OWS)
- 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):

#### 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-A	DS-WPM-A
Data Sharing Write-Property-Multiple-B	DS-WPM-B
Data Sharing COV-A	DS-COV-A
Data Sharing COV-B	DS-COV-B



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## 2. Alarm and Event BIBBs

Alarm and Event-Notification-Internal B	AE-N-I-B
Alarm and Event-Acknowledge-B	AE-ACK-B
Alarm and Event-Alarm Summary-B	AE-ASUM-B
Alarm and Event-Enrollment Summary-B	AE-ESUM-B

## 3. Scheduling BIBBs

Scheduling-B	SCHED-B
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## 4. Trending BIBBs

## 5. Device Management BIBBs

Device Management-Dynamic Device Binding-B	DM-DDB-B
Device Management-Dynamic Object Binding-B	DM-DOB-B
Device Management-List Manipulation-A	DM-LM-A
Device Management-List Manipulation-B	DM-LM-B
Device Management-TimeSynchronization- A	DM-TS-A
Device Management-TimeSynchronization- B	DM-TS-B
Device Management-UTCTimeSynchronization- A	DM-UTC-A
Device Management-UTCTimeSynchronization- B	DM-UTC-B

## 6. Network Management BIBBs:

### Segmentation Capability:

<input checked="" type="checkbox"/> Segmented requests supported	Window Size	16
<input checked="" type="checkbox"/> Segmented responses supported	Window Size	16

**Standard Object Types Supported: Analog-Input-Object**

Object-Type	Supported	Dynamically Creatable	Dynamically Deleteable	Optional Properties Supported	Writable Properties	Proprietary Properties	Property Range Restrictions
Analog Input	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Description Device Type Reliability Min_Pres_Value Max_Pres_Value Resolution COV_Increment Time_Delay Notification_Class High_Limit Low_Limit Deadband Limit_Enable Event_Enable Acked_Transitions Notify_Type Event_Time_Stamps	configurable	-	



**Standard Object Types Supported: Analog-Output-Object**

Object-Type	Supported	Dynamically Creatable	Dynamically Deleteable	Optional Properties Supported	Writable Properties	Proprietary Properties	Property Range Restrictions
Analog Output	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Description Device Type Reliability Min_Pres_Value Max_Pres_Value Resolution Priority_Array Relinquish_Default COV_Increment Time_Delay Notification_Class High_Limit Low_Limit Deadband Limit_Enable Event_Enable Acked_Transitions Notify_Type Event_Time_Stamps	configurable	-	



**Standard Object Types Supported: Analog-Value-Object**

Object-Type	Supported	Dynamically Creatable	Dynamically Deleteable	Optional Properties Supported	Writable Properties	Proprietary Properties	Property Range Restrictions
Analog Value	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Description Reliability COV_Increment Priority_Array Relinquish_Default Time_Delay Notification_Class High_Limit Low_Limit Deadband Limit_Enable Event_Enable Acked_Transitions Notify_Type Event_Time_Stamps	configurable	-	



**Standard Object Types Supported: Binary-Input-Object**

Object-Type	Supported	Dynamically Creatable	Dynamically Deleteable	Optional Properties Supported	Writable Properties	Proprietary Properties	Property Range Restrictions
Binary Input	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Description Device_Type Reliability Inactive_Text Active_Text Time_Delay Notification_Class Alarm_Value Event_Enable Acked_Transitions Notify_Type Event_Time_Stamps	configurable	-	



**Standard Object Types Supported: Binary-Output-Object**

Object-Type	Supported	Dynamically Creatable	Dynamically Deleteable	Optional Properties Supported	Writable Properties	Proprietary Properties	Property Range Restrictions
Binary Output	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Description Device_Type Reliability Inactive_Text Active_Text Time_Delay Notification_Class Feedback_Value Event_Enable Acked_Transitions Notify_Type Event_Time_Stamps	configurable	-	



**Standard Object Types Supported: Binary-Value-Object**

Object-Type	Supported	Dynamically Creatable	Dynamically Deleteable	Optional Properties Supported	Writable Properties	Proprietary Properties	Property Range Restrictions
Binary Value	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Description Reliability Priority_Array Relinquish_Default Inactive_Text Active_Text Time_Delay Notification_Class Alarm_Value Event_Enable Acked_Transitions Notify_Type Event_Time_Stamps	configurable	-	



**Standard Object Types Supported: Calendar-Object**

Object-Type	Supported	Dynamically Creatable	Dynamically Deleteable	Optional Properties Supported	Writable Properties	Proprietary Properties	Property Range Restrictions
Calendar	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Description	configurable	-	



**Standard Object Types Supported: Device-Object**

Object-Type	Supported	Dynamically Creatable	Dynamically Deleteable	Optional Properties Supported	Writable Properties	Proprietary Properties	Property Range Restrictions
Device Object	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Location Description Local_Time Local_Date UTC_Offset Daylight_Savings_Status APDU_Segment_Timeout Max_Segments_Accepted Active_COV_Subscription	configurable	-	



**Standard Object Types Supported: Multistate-Input Object**

Object-Type	Supported	Dynamically Creatable	Dynamically Deleteable	Optional Properties Supported	Writable Properties	Proprietary Properties	Property Range Restrictions
Multistate-Input-Object	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Description Device_Type Reliability State_Text Time_Delay Notification_Class Alarm_Values Fault_Values Event_Enable Acked_Transitions Notify_Type Event_Time_Stamps	configurable	-	



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## Standard Object Types Supported: Multistate-Output Object

Object-Type	Supported	Dynamically Creatable	Dynamically Deletable	Optional Properties Supported	Writable Properties	Proprietary Properties	Property Range Restrictions
Multistate-Output-Object	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Description Device_Type Reliability State_Text Time_Delay Notification_Class Feedback_Values Event_Enable Acked_Transitions Notify_Type Event_Time_Stamps	configurable	-	



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## Standard Object Types Supported: Multistate-Value-Object

Object-Type	Supported	Dynamically Creatable	Dynamically Deletable	Optional Properties Supported	Writable Properties	Proprietary Properties	Property Range Restrictions
Multistate-Value-Object	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Description Reliability Priority_Array Relinquish_Default State_Text Time_Delay Notification_Class Alarm_Values Fault_Values Event_Enable Acked_Transitions Notify_Type Event_Time_Stamps	configurable	-	



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## Standard Object Types Supported: Notification Class Object

Object-Type	Supported	Dynamically Creatable	Dynamically Deleteable	Optional Properties Supported	Writable Properties	Proprietary Properties	Property Range Restrictions
Notification Class Object	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Description	configurable	-	



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## Standard Object Types Supported: Schedule Object

Object-Type	Supported	Dynamically Creatable	Dynamically Deletable	Optional Properties Supported	Writable Properties	Proprietary Properties	Property Range Restrictions
Schedule	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Description Weekly_Schedule Exception_Schedule	Weekly_Schedule Exception_Schedule	-	



**Data Link Layer Options:**

- BACnet IP, (Annex J)
- BACnet IP, (Annex J), Foreign Device
- ISO 8802-3, Ethernet (Clause 7)
- ASTM 878.1, 2.5 Mb. ARCNET (Clause 8)
- ASTM 878.1, RS-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): max. EIA 232
- Point-To-Point, modem, (Clause 10), baud rate(s): max. modem
- LonTalk, (Clause 11), medium: \_\_\_\_\_
- Other: \_\_\_\_\_

**Networking Options:**

- Router, Clause 6 - List all routing configurations, e.g., ARCNET-Ethernet, Ethernet-MS/TP, etc.  
Halfrouter PTP, Ethernet-BACnet/IP
- Annex H, BACnet Tunneling Router over IP
- BACnet Broadcast Management Device (BBMD)  
Does the BBMD support registrations by Foreign Devices?  Yes  
 No

**Character Sets Supported:**

Indicating support for multiple character sets does not imply that they can all be supported simultaneously.

- ANSI X3.4
- IBM™/Microsoft™ DBCS
- ISO 8859-1
- ISO 10646 (UCS-2)
- ISO 10646 (ICS-4)
- JIS C 6226

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

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

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[www.mbs-software.de](http://www.mbs-software.de)