

BACnet Protocol Implementation Conformance Statement (preliminary)

Date: 09.03.2009

Vendor Name: Ingenieurgesellschaft N.Hartleb mbH

Product:

Name	Model Number	Application Software Version	Firmware Version	BACnet Protocol Revision
BACnet-Gateway Smart	BACnGTW-SMART	1.005	2.0.18	1.4 - 2004
BACnet-Gateway	BACnGTW-MPC2x	1.005	2.018	1.4 - 2004

Product Description:

The BACnet-Gateway integrates standard and proprietary protocols and provides access to BACnet as a server.

BACnet Standardized Device Profile:

BACnet-Gateway (B-GW)

BACnet Interoperability Building Blocks Supported:

Data Sharing BIBBs

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
Data Sharing COV-Unsolicited-A DS-COVU-A
Data Sharing COV-Unsolicited-B DS-COVU-B

Alarm and Event BIBBs

Alarm and Event Notification-A AE-N-A
Alarm and Event Notification Internal-B AE-N-I-B

Alarm and Event Notification External-B	AE-N-E-B
Alarm and Event ACK-A	AE-ACK-A
Alarm and Event ACK-B	AE-ACK-B
Alarm and Event Alarm Summary-A	AE-ASUM-A
Alarm and Event Alarm Summary-B	AE-ASUM-B
Alarm and Event Enrollment Summary-A	AE-ESUM-A
Alarm and Event Enrollment Summary-B	AE-ESUM-B
Alarm and Event Information-A	AE-INFO-A
Alarm and Event Information-B	AE-INFO-B

Scheduling BIBBs

Scheduling Scheduling Scheduling-A	SCHED-A
Scheduling Internal-BSCHED-I-B,Internal-B	SCHED-I-B
Scheduling External-BSCHED-E-B,External-B	SCHED-E-B,

Trending BIBBs

Trending Viewing and Modifying Trends-A	T-VMT-A
Trending Viewing and Modifying Trends Int.I-B	T-VMT-I-B
Trending Viewing and Modifying Trends Ext.-B	T-VMT-E-B

Device 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 DeviceCommunicationControl-B	DM-DCC-B
Device Management Private Transfer-A	DM-PT-A
Device Management Private Transfer-B	DM-PT-B
Device Management Text Message-B	DM-TM-B
Device Management TimeSynchronization-A	DM-TS-A
Device Management UTCTimeSynchronization-A	DM-UTC-A
Device Management List Manipulation-A	DM-LM-A
Device Management List Manipulation-B	DM-LM-B
Device Management Object Creation and Deletion-A	DM-OCD-A
Device Management Object Creation and Deletion-B	DM-OCD-B

Network Management BIBBs

Network Management Connection Establishment-A	NM-CE-A
Network Management Connection Establishment-B	NM-CE-B

Segmentation Capability:

Segmentation requests supported Window Size configurable
Segmentation responses supported Window Size configurable

Standard Object Types Supported:

Object Type	Dynamically Creatable	Dynamically Deletable
Accumulator	Yes	Yes
Analog Input	Yes	Yes
Analog Output	Yes	Yes
Analog Value	Yes	Yes
Averaging	Yes	Yes
Binary Input	Yes	Yes
Binary Output	Yes	Yes
Binary Value	Yes	Yes
Calendar	Yes	Yes
Command	Yes	Yes
Device	No	No
File	Yes	Yes
Group	Yes	Yes
Live Savety Point	Yes	Yes
Live Savety Zone	Yes	Yes
Loop	Yes	Yes
Multistate Input	Yes	Yes
Multistate Output	Yes	Yes
Multistate Value	Yes	Yes
Notification Class	Yes	Yes
Program	Yes	Yes
Pulse Converter	Yes	Yes
Schedule	Yes	Yes
Trendlog	Yes	Yes

Accumulator	
Optional Properties Supported	Writetable Properties
Description Device_Type Reliability Prescale Value_Change_Time Value_Before_Change Value_Set Puls_Rate High_Limit Limit_Monitoring_Interval Notification_Class Limit_Enable Event_Enable Acked_Transitions Notify_Type	Description Reliability Out_Of_Service Max_Pres_Value Value_Set High_Limit Limit_Monitoring_Interval Notification_Class Limit_Enable Event_Enable Acked_Transitions Notify_Type

Analog Input	
Optional Properties Supported	Writetable Properties
All	Present_Value Description Reliability Out_Of_Service Update_interval Units 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

Analog Output	
Optional Properties Supported	Writetable Properties
All	Present_Value Description Reliability Out_Of_Service Update_interval Units Min_Pres_Value

	Max_Pres_Value Resolution Relinquish_Default (104 Testen) COV_Increment Time_Delay Notification_Class High_Limit Low_Limit Deadband Limit_Enable Event_Enable Acked_Transitions Notify_Type
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Analog Value	
Optional Properties Supported	Writetable Properties
All	Present_Value Description Reliability Out_Of_Service Update_interval Units Min_Pres_Value Max_Pres_Value Resolution Relinquish_Default COV_Increment Time_Delay Notification_Class High_Limit Low_Limit Deadband Limit_Enable Event_Enable Acked_Transitions Notify_Type

Averaging	
Optional Properties Supported	Writetable Properties
All	Description Object_Property_Reference Attempted_Samples Window_Intervall Window_samples

Binary Input	
Optional Properties Supported	Writetable Properties
All	Description Reliability Present_Value Out_of_Service Polarity Inactive_Text Active_Text Change_of_State_Count Elapsed_Acticve_Time TimeDelay Notification_Class Alarm_Value Event_Enable Acked_Transitions NotifyType

Binary Output	
Optional Properties Supported	Writetable Properties
All	Description Reliability Present_Value Out_of_Service Polarity Inactive_Text Active_Text Change_of_State_Count Elapsed_Acticve_Time Minimum_Off_Time Minimum_On_Time Relinquish_Default TimeDelay Notification_Class Alarm_Value Event_Enable Acked_Transitions NotifyType

Binary Value	
Optional Properties Supported	Writetable Properties
All	Description Reliability Present_Value Out_of_Service Polarity Inactive_Text Active_Text Change_of_State_Count Elapsed_Acticve_Time

	Minimum_Off_Time Minimum_On_Time Relinquish_Default TimeDelay Notification_Class Alarm_Value Event_Enable Acked_Transitions NotifyType
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Calendar	
Optional Properties Supported	Writetable Properties
All	Description Object_Property_Reference Date_List

Command	
Optional Properties Supported	Writetable Properties
All	Description Present_Value Action_Text Action

Device	
Optional Properties Supported	Writetable Properties
Location Description Local_Time Local_Date UTC_Offset Daylight_Saving_Status APDU_Segement_Timeout APDU_Timeout Number_Of_APDU_Retries Time_Synchronisation_Recipients Configuration_Files Backup_Failure_Timeout Active_COV_Subscriptions	Description APDU_Segment_Timeout APDU_Timeout Number_Of_APDU_Retries Time_Synchronisation_Recipients Backup_Failure_Timeout

Event Enrollment	
Optional Properties Supported	Writetable Properties
Description Notification_Class Profile_Name	Description Notification_Class Object_Property_Reference

File	
Optional Properties Supported	Writetable Properties
Description Profile_Name	Description

Group	
Optional Properties Supported	Writetable Properties
All	Description List_Of_Group_Members

Life Safety Point	
Optional Properties Supported	Writetable Properties
All	Description Reliability Mode Out_of_Service Units Mode Member_Of Time_Delay Notification_Class Event_Enable Notify_Type Acked_Transitions Alarm_Values Fault_Values Life_Safety_Alarm_Values

Life Safety Zone	
Optional Properties Supported	Writetable Properties
All	Description Reliability Mode Out_of_Service Units Mode Member_Of Time_Delay Notification_Class Event_Enable Acked_Transitions Notify_Type Alarm_Values Fault_Values

	Life_Safety_Alarm_Values
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Loop	
Optional Properties Supported	Writetable Properties
All	Description Reliability Present_Value Out_Of_Service Update_Interval Output_units Manipulated_Variable_Reference Controlled_Variable_Reference Controlled_Variable_Units Setpoint Action Proportional_Constant Proportional_Constant_Units Integral_Constant Integral_Constant_Units Derivative_Constant Derivative_Constant_Units Bias Maximum_Output Minimum_Output Priority_For_Writing COV_increment Time_Delay Notification_Class Error_limit Event_Enable Notify_Type

Multistate Input	
Optional Properties Supported	Writetable Properties
All	Description Device_Type Reliability Present_Value Out_of_Service Polarity Number_Of_States State_Text Change_of_State_Count Elapsed_Acticve_Time TimeDelay Notification_Class Alarm_Values Fault_Values Event_Enable Acked_Transitions NotifyType

Multistate Output	
Optional Properties Supported	Writetable Properties
All	Description Reliability Present_Value Out_of_Service Polarity Number_Of_States State_Text Relinquish_Default Change_of_State_Count Elapsed_Acticve_Time TimeDelay Notification_Class Alarm_Values Fault_Values Event_Enable Acked_Transitions NotifyType

Multistate Value	
Optional Properties Supported	Writetable Properties
All	Description Reliability Present_Value Out_of_Service Number_Of_States State_Text Relinquish_Default Change_of_State_Count Elapsed_Acticve_Time TimeDelay Notification_Class Alarm_Values Fault_Values Event_Enable Acked_Transitions NotifyType

Notification Class	
Optional Properties Supported	Writetable Properties
All	Description Recipient_List Ack_Required

Program	
Optional Properties Supported	Writable Properties
Program_Location Description Instance_Of	Description Reliability Program_Change

Pulse Converter	
Optional Properties Supported	Writable Properties
All	Description Present_Value Out_of_Service Reliability Units Scale_Factor Adjust_Value Count COV_Increment Notification_Class Time_Delay High_Limit Low_Limit Deadband Limit_Enable Event_Enable Acked_Transitions Notify_Type

Schedule	
Optional Properties Supported	Writable Properties
All	Description Present_Value Out_of_Service Effective_Period Weekly_Schedule Exeption_Schedule List_of_Object_Property_Reference Priority_For_Writing Reliability

Trendlog	
Optional Properties Supported	Writable Properties
Description Start_Time Stop_Time Log_Device_Object_Property Notification_Theshold Records_Since_Notification	Description Log_Enable Start_Time Stop_Time Log_Device_Object_Property Buffer_Size

Notification_Class	Record_Count
Event_Enable	Notification_Theshold
Acked_Transitions	Notification_Class
Notify_Type	Notify_Type
Event_Time_Stamps	Event_Enable
Profile_Name	Acked_Transitions

Data Link Layer Options:

BACnet IP (Annex J)
BACnet IP , Annex J) Foreign Device

NetWorking Options:

Router (1 BACnet/IP, Multiple Ethernet)
– Supports registrations by Foreign Devices

Character Sets Supported:

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