



# BCM-ETH Controller

## BACNET PROTOCOL IMPLEMENTATION CONFORMANCE STATEMENT

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Date: **July 1, 2004**  
Vendor Name: **Alerton**  
Product Name: **BCM-ETH**  
Product Model Number: **n/a**  
Application Software Version: **BCM-ETH Controller v1.10**  
Firmware Revision: **BCM-ETH Loader v1.10**  
BACnet Protocol Revision: **4**

### Product Description:

The Alerton BCM-ETH is a high-performance BACnet-compliant router and global controller that supports both a BACnet Ethernet and a BACnet MS/TP network connection.

### 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)

### BACnet Interoperability Building Blocks Supported (Annex K):

DS-RP-A,B	AE-N-A	DM-DDB-A,B	SCHED-I-B	T-VMT-I-B	NM-CE-A
DS-RPM-A,B	AE-N-I-B	DM-DOB-B	SCHED-E-B	T-VMT-E-B	NM-RC-B
DS-WP-A,B	AE-N-E-B	DM-DCC-B		T-ATR-B	
DS-WPM-B	AE-ACK-B	DM-TS-B			
DS-COV-B	AE-ASUM-B	DM-UTC-B			
DS-COVU-A,B	AE-ESUM-B	DM-RD-B			
	AE-INFO-B	DM-OCD-B			
		DM-BR-B			

### Segmentation Capability:

- Able to transmit segmented messages      Window Size: **1**
- Able to receive segmented messages      Window Size: **1**

**Standard Object Types Supported:**

**Analog Value**

Dynamically Creatable:	No
Dynamically Deletable:	No
Optional Properties Supported:	Description COV_Increment
Writable Properties <sup>1</sup> :	Present_Value Description Name Units COV_Increment
Proprietary Properties:	n/a
Property Range Restrictions:	n/a

**Binary Value**

Dynamically Creatable:	No
Dynamically Deletable:	No
Optional Properties Supported:	Description Priority_Array Relinquish_Default
Writable Properties:	Present_Value Description Relinquish_Default
Proprietary Properties:	n/a
Property Range Restrictions:	n/a

**Calendar**

Dynamically Creatable:	Yes
Dynamically Deletable:	Yes
Optional Properties Supported:	Description
Writable Properties:	Object_Name Description Date_List
Proprietary Properties:	n/a
Property Range Restrictions:	n/a

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<sup>1</sup> AVs 10000-10339 convey diagnostic information; Present\_Value, Description, and Units are not writable in these AVs.

**Device**

Dynamically Creatable:	No	
Dynamically Deletable:	No	
Optional Properties Supported:	Description Location Local_Time Local_Date UTC_Offset Daylight_Savings_Status APDU_Segment_Timeout Max_Master Max_Info_Frames Configuration Files Last_Restore_Time Backup_Failure_Timeout Active_COV_Subscriptions Max_Segments_Accepted	
Writable Properties:	Object_Name Location Description UTC_Offset Daylight_Savings_Status APDU_Segment_Timeout APDU_Timeout Number_Of_APDU_Retries Max_Master Max_Info_Frames Backup_Failure_Timeout Proprietary 1115..1119	
Proprietary Properties:	513  1115  1116  1117  1118  1119	Datatype: Character String Purpose: Diagnostics Datatype: Unsigned Purpose: DST mode Datatype: BACnetCalendarEntry Purpose: DST start date Datatype: Time Purpose: DST start time Datatype: BACnetCalendarEntry Purpose: DST end date Datatype: Time Purpose: DST end time
Property Range Restrictions:	APDU_Segment_Timeout APDU_Timeout Number_Of_APDU_Retries Max_Info_Frames	Range: 1000..60000 Range: 1000..60000 Range: 0..16 Range: 1..100

**Event Enrollment**

Dynamically Creatable:	Yes
Dynamically Deletable:	Yes
Optional Properties Supported:	Description Notification_Class
Writable Properties:	Object_Name Description Notify_Type Event_Parameters Object_Property_Reference Event_Enable

Notification\_Class  
 Proprietary Properties: n/a  
 Property Range Restrictions: n/a

**File**

Dynamically Creatable: No  
 Dynamically Deletable: No  
 Optional Properties Supported: Description  
 Writable Properties: Object\_Name Conditionally writable.  
 Description  
 File\_Type  
 File\_Size<sup>2</sup>  
 Archive  
 Proprietary Properties: n/a  
 Property Range Restrictions: File\_Size Only writable with zero.

**Notification Class**

Dynamically Creatable: Yes  
 Dynamically Deletable: Yes  
 Optional Properties Supported: Description  
 Writable Properties: Object\_Name  
 Description  
 Priority  
 Ack\_Required  
 Recipient\_List  
 Proprietary Properties: n/a  
 Property Range Restrictions: n/a

**Program**

Dynamically Creatable: No  
 Dynamically Deletable: No  
 Optional Properties Supported: Reason\_For\_Halt  
 Description\_Of\_Halt  
 Program\_Location  
 Description  
 Instance\_Of  
 Writable Properties: Program\_Change  
 Proprietary Properties: 513 Datatype: CharacterString  
 Purpose: Diagnostics  
 Property Range Restrictions: n/a

**Schedule**

Dynamically Creatable: Yes  
 Dynamically Deletable: Yes  
 Optional Properties Supported: Description  
 Weekly\_Schedule  
 Exception\_Schedule  
 Writable Properties: Object\_Name  
 Description  
 Effective\_Period  
 Weekly\_Schedule  
 Exception\_Schedule  
 Schedule\_Default  
 List\_Of\_Object\_Property\_References  
 Priority\_For\_Writing

<sup>2</sup> File 0 only, conditional upon state of Program 0.

	Status_Flags
	Reliability
	Out_Of_Service
Proprietary Properties:	n/a
Property Range Restrictions:	n/a

**Trendlog**

Dynamically Creatable:	Yes
Dynamically Deletable:	Yes
Optional Properties Supported:	Description
	Start_Time
	Stop_Time
	Log_Device_Object_Property
	Log_Interval
	Notification_Threshold
	Records_Since_Notification
	Last_Notify_Record
	Notification_Class
	Event_Enable
	Acked_Transitions
	Notify_Type
	Event_Time_Stamps
Writable Properties:	Description
	Start_Time
	Stop_Time
	Log_Device_Object_Property
	Log_Interval
	Stop_When_Full
	Buffer_Size
	Record_Count
	Notification_Threshold
	Notification_Class
	Event_Enable
Proprietary Properties:	n/a
Property Range Restrictions:	n/a
[end]	

### Data Link Layer Options:

- BACnet IP, (Annex J)
- BACnet IP, (Annex J), Registers as Foreign Device
- ISO 8802-3, Ethernet (Clause 7), 10BASET, 100BASETX
- ANSI/ATA 878.1, 2.5 Mb, ARCNET (Clause 8), coax
- ANSI/ATA 878.1, RS-485ARCNET (Clause 8), baud rate(s):
- MS/TP master (Clause 9), baud rate(s): 9.6k, 38.4k, 57.5k, 115.2k bps
- MS/TP slave (Clause 9), baud rate(s):
- Point-To-Point, EIA 232 (Clause 10), baud rate(s): 9.6k, 38.4k, 57.5k, 115.2k bps
- Point-To-Point, modem (Clause 10), baud rate(s): 9.6k, 38.4k, 57.5k, 115.2k bps
- LonTalk, (Clause 11), medium:
- 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, routing configurations:
  - BACnet IP (Annex J) - Ethernet
  - BACnet IP (Annex J) - MS/TP
  - BACnet IP (Annex J) - PTP
  - Ethernet - MS/TP
  - Ethernet - PTP
  - MS/TP - PTP
- Annex H, BACnet Tunneling Router over IP
- BACnet/IP 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.

- |   |   |  |
|---|---|--|
| <input checked="" type="checkbox"/> ANSI X3.4         | <input checked="" type="checkbox"/> IBM <sup>™</sup> /Microsoft <sup>™</sup> DBCS | <input checked="" type="checkbox"/> ISO 8859-1 |
| <input checked="" type="checkbox"/> ISO 10646 (UCS-2) | <input checked="" type="checkbox"/> ISO 10646 (ICS-4)                             | <input checked="" type="checkbox"/> JIS C 6226 |

### Gateway to:

n/a

Specifications subject to change without notice.

V1.0