

# ALERTON ACM-GC

## BACNET PROTOCOL IMPLEMENTATION CONFORMANCE STATEMENT

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**Date:** 3/31/16

**Vendor Name:** Alerton

**Product Name:** Ascent Control Module

**Product Model Number:** ACM-GC

**Applications Software Version:** 1.5.x

**Firmware Revision:** 1.5.x **BACnet Protocol Revision:** 15

**Product Description:**

The Alerton ACM-GC is a high-performance, BACnet-compliant integration building controller and router. It supports BACnet/Ethernet, BACnet/IP and BACnet/MSTP.

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

- BACnet Advanced Workstation (B-AWS)
- BACnet Operator Workstation (B-OWS)
- 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 (see Annex K):**

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

**Segmentation Capability:**

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

**Standard Object Types Supported:**

**Device**

- Dynamically Creatable:                      No
- Dynamically Deletable:                      No
- Optional Properties Supported:
- Location
- Description
- Local\_Time
- Local\_Date
- Daylight\_Savings\_Status
- UTC\_Offset
- APDU\_Segment\_Timeout
- Max\_Segments\_Accepted
- Max\_Master
- Max\_Info\_Frames
- Configuration\_Files
- Last\_Restore\_Time
- Backup\_Failure\_Timeout
- Backup\_Preperation\_Time
- Restore\_Preperation\_Time
- Restore\_Completion\_Time
- Backup\_And\_Restore\_State
- Active\_COV\_Subscriptions
- Serial\_Number

Writable Properties:

- Object\_Name
- Location
- Description
- UTC\_Offset
- APDU\_Segment\_Timeout
- APDU\_Timeout
- Number\_Of\_APDU\_Retries
- Max\_Info\_Frames
- Backup\_Failure\_Timeout
- Backup\_Preperation\_Time
- Restore\_Preperation\_Time
- Restore\_Completion\_Time
- Proprietary 1115..1119

Proprietary Properties:

- 512    Datatype: Octet String  
      Purpose: Diagnostics.
- 1115    Datatype: Unsigned  
      Purpose: DST mode.
- 1116    Datatype: BACnetCalendarEntry  
      Purpose: DST start date.
- 1117    Datatype: Time  
      Purpose: DST start time.
- 1118    Datatype: BACnetCalendarEntry  
      Purpose: DST end date.

1119 Datatype: Time  
 Purpose: DST end time.  
 Range: -720..720  
 Range: 1000..60000  
 Range: 1000..60000  
 Range: 0..16  
 Range: 1..100

Property Range Restrictions: UTC\_Offset  
 APDU\_Segment\_Timeout  
 APDU\_Timeout  
 Number\_Of\_APDU\_Retries  
 Max\_Info\_Frames

**Analog Input**

Dynamically Creatable: No  
 Dynamically Deletable: No  
 Optional Properties Supported: Description  
 COV\_Increment  
 Writable Properties: Object\_Name  
 Description  
 Units  
 COV\_Increment  
 Proprietary Properties: n/a  
 Property Range Restrictions: n/a

**Analog Value**

Dynamically Creatable: No  
 Dynamically Deletable: No  
 Optional Properties Supported: Description  
 COV\_Increment  
 Writable Properties: Present\_Value  
 Description  
 Units  
 COV\_Increment  
 Proprietary Properties: n/a  
 Property Range Restrictions: n/a

**Binary Input**

Dynamically Creatable: No  
 Dynamically Deletable: No  
 Optional Properties Supported: Description  
 Writable Properties: Object\_Name  
 Description  
 Proprietary Properties: n/a  
 Property Range Restrictions: n/a

**Binary Value**

Dynamically Creatable: No  
 Dynamically Deletable: No  
 Optional Properties Supported: Description  
 Change\_Of\_State\_Time  
 Change\_Of\_State\_Count  
 Time\_Of\_State\_Count\_Reset  
 Elapsed\_Active\_Time  
 Time\_Of\_Active\_Time\_Reset

Writable Properties:	Priority_Array Relinquish_Default Present_Value Description Change_Of_State_Count Elapsed_Active_Time
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Proprietary Properties:	n/a
Property Range Restrictions:	n/a

**Multi-State Value**

Dynamically Creatable:	No
Dynamically Deletable:	No
Optional Properties Supported:	State_Text
Writable Properties:	Present_Value
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

**Event Enrollment**

Dynamically Creatable:	Yes
Dynamically Deletable:	Yes
Optional Properties Supported:	Description
Writable Properties:	Object_Name Description Notify_Type Event_Parameters Object_Property_Reference Event_Enable Notification_Class Event_Detection_Enable
Proprietary Properties:	n/a
Property Range Restrictions:	n/a

**File**

Dynamically Creatable:	No
Dynamically Deletable:	No
Optional Properties Supported:	Description
Writable Properties:	File_Size (Files 5, 1024, 2048)
Proprietary Properties:	n/a
Property Range Restrictions:	n/a

**Notification Class**

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

**Program**

Dynamically Creatable:	No
Dynamically Deletable:	No
Optional Properties Supported:	Description Reson_for_Halt Description_of_Halt Program_Location Instance_of
Writable Properties:	n/a
Proprietary Properties:	n/a
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 Weekly_Schedule Exception_Schedule Schedule_Default List_of_Object_Property_Ref Priority_for_Writing
Proprietary Properties:	1021 Datatype: DateTime Purpose: next non-null cmd 1022 Datatype: DateTime Purpose: next active cmd 1027 Datatype: DateTime Purpose: next cmd
Property Range Restrictions:	Priority_for_Writing Range: 1..16

**Trend Log**

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  
 Trigger

Writable Properties:

Object\_Name  
 Description  
 Log\_Enable  
 Start\_Time  
 Stop\_Time  
 Log\_Device\_Object\_Property  
 Log\_Interval  
 Stop\_When\_Full  
 Buffer\_Size  
 Record\_Count  
 Notification\_Threshold  
 Notification\_Class  
 Event\_Enable  
 Notify\_Type  
 Logging\_Type  
 Trigger  
 Event\_Detection\_Enable

Proprietary Properties:

n/a

Property Range Restrictions:

n/a

**Data Link Layer Options:**

- BACnet IP, (Annex J)
- BACnet IP, (Annex J), Foreign Device
- ISO 8802-3, Ethernet (Clause 7)
- ANSI/ATA 878.1, 2.5 Mb. ARCNET (Clause 8)
- ANSI/ATA 878.1, EIA-485 ARCNET (Clause 8), baud rate(s) \_\_\_\_\_
- MS/TP master (Clause 9), baud rate(s): 9.6K, 19.2K, 38.4K, 76.8K, 115.2K
- 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): 38.4K
- 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 - List all routing configurations, e.g., ARCNET-Ethernet, Ethernet-MS/TP, etc.
  - BACnet IP to/from Ethernet
  - BACnet IP to/from MS/TP
  - Ethernet to/from MS/TP
- 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.

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

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

Not a gateway

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