

BACnet Protocol Implementation Conformance Statement

Date: May 20, 2014

Vendor Name: Coppertree Analytics.

Product Name: CopperCube

Product Model Number:

Application Software Version: 1.4

Firmware Revision: 4.2.2

BACnet Protocol Revision: 12

Product Description

The CopperCube is BACnet device for archiving trend log data samples from other BACnet devices for long term storage. The archived trend log data is intended to then be pushed to CopperTree's cloud servers for storage and analytic processing. The CopperCube can also send the trend log data to an external SQL database.

BACnet Standardized Device Profile (Annex L)

BACnet General (B-General)

BACnet Interoperability Building Blocks (Annex K)

CopperCube supports the following BIBBs:

Data Sharing	DS-RP-A	Data Sharing-ReadProperty-A
	DS-RP-B	Data Sharing-ReadProperty-B
	DS-RPM-A	Data Sharing-ReadPropertyMultiple-A
	DS-RPM-B	Data Sharing-ReadPropertyMultiple-B
	DS-WP-B	Data Sharing-WriteProperty-B
	DS-WPM-B	Data Sharing-WriterPropertyMultiple-B

Alarm and Event Management	AE-N-A	Alarm and Event-Notification-A
----------------------------	--------	--------------------------------

Trending	T-ATR-A	Trending-Automated Trend Retrieval-A
----------	---------	--------------------------------------

Device and Network Management	DM-DDB-A	Device Management-Dynamic Device Binding-A
-------------------------------	----------	--

	DM-DDB-B	Device Management-Dynamic Device Binding-B
	DM-DOB-B	Device Management-Dynamic Object Binding-B
	DM-ANM-A	Device Management-Automatic Network Mapping-A

Segmentation Capability

- Able to transmit segmented message Window Size = 4
- Able to receive segmented message Window Size = 4

Standard Object Types Supported

- Dynamically creatable using the CreateObject service. Not Applicable
- Dynamically deletable using the DeleteObject service. Not Applicable

Standard Properties Summary

Object Type	Property Identifier	Writable	Optional	Property Range Restriction
Device Object	APDU_Segment_Timeout	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	APDU_Timeout	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Align_Intervals	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	Daylight_Savings_Status	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Description	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Limited to 255 characters
	Interval_Offset	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	Last_Restart_Reason	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Local_Date	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Local_Time	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Location	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Limited to 1023 characters
	Max_Segments_Accepted	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Number_Of_APDU_Retries	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Object_Name	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Limited to 255 characters
	Restart_Notification_Recipients	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	Time_Of_Device_Restart	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Time_Synchronization_Recipients	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	Time_Synchronization_Interval	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	UTC_Time_Synchronization_Recipients	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	UTC_Offset	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	File Object	Archive	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Description		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Limited to 2000 characters
File_Type		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
File_Size		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Read_Only		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Object_Name		<input checked="" type="checkbox"/>	<input type="checkbox"/>	Limited to 255

Proprietary Properties Summary

Proprietary properties are supported.

Data Link Layer Options

- BACnet IP, (Annex J)
- BACnet IP, (Annex J), Foreign Device
- ISO 8802-3, Ethernet (Clause 7)
- ATA 878.1, 2.5 Mb. ARCNET (Clause 8)
- ATA 878.1, EIA-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):
- Point-To-Point, modem, (Clause 10), baud rate(s):
- LonTalk, (Clause 11), medium:
- BACnet/ZigBee (Annex O)
- Other:

Device Address Binding

Is static device binding supported? 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
 - Does the BBMD support network address translation? Yes No

Character Set Supported

- ISO 10646 (UTF-8)
- ISO 10646 (UCS-2)
- ISO 10646 (ICS-4)
- ISO 8859-1
- IBM/Microsoft DBCS
- JIS X 0208

Communication Gateway

CopperCube is not a communications gateway.

Network Security Options

- Non-secure Device – is capable of operating without BACnet Network Security
- Secure Device – is capable of using BACnet Network Security (NS-SD BIBB)
 - Multiple Application-Specific Keys
 - Supports encryption (NS-ED BIBB)
 - Key Server (NS-KS BIBB)