MOXA MGate 5217 Gateway

BACnet Protocol Implementation Conformance Statement

1-Dec-2020

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Date: December 1, 2020
Vendor Name: MOXA Inc.
Product Name: MGate 5217 Series
Product Model Number: MGate 5217I-600-T, MGate 5217I-1200-T
Application Software Version: 1.0
Firmware Revision: 0.9.1
BACnet Protocol Revision: 19

Product Description:

The MGate 5217I series are industrial Ethernet gateway for converting Modbus RTU/ASCII/TCP to
BACnet/IP network communications. To integrate existing Modbus devices onto a BACnet/IP network, use
the gateway as a Modbus master to collect data and exchange data with BACnet/IP system.

BACnet Standardized Device Profile (Annex L):

☐ BACnet Operator Workstation (B-OWS)
☐ BACnet Advanced Operator Workstation (B-AWS)
☐ 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)
■ BACnet Gateway (B-GW)

List all BACnet Interoperability Building Blocks Supported (Annex K):

Data Sharing	DS-RP-B	Data Sharing-ReadProperty-B
	DS-RPM-B	Data Sharing-ReadPropertyMultiple-B
	DS-WP-B	Data Sharing-WriteProperty-B
	DS-WPM-B	Data Sharing-WritePropertyMultiple-B
	DS-COV-B	Data Sharing-Change Of Value-B
Device Management	DS-WPM-B	Device Management-Dynamic Device Binding-B
	DM-DOB-B	Device Management-Dynamic Object Binding-B
	DM-DCC-B	DeviceCommunicationControl-B
Gateway	GW-VN-B	Gateway-Virtual Network-B

Segmentation Capability:

☐ Able to transmit segmented messages   Window Size _____
☐ Able to receive segmented messages   Window Size _____

Standard Object Types Supported:

An object type is supported if it may be present in the device. For each standard Object Type supported
provide the following data:

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Object Type Supported	Can Be Created Dynamically	Can be Deleted Dynamically
Analog Input	No	No
Analog Output	No	No
Analog Value	No	No
Binary Input	No	No
Binary Output	No	No
Binary Value	No	No
Device	No	No
Multi-state Input	No	No
Multi-state Output	No	No
Multi-state Value	No	No
Integer Value	No	No
Positive Integer Value	No	No

Object Type	Supported	Readable/Writable
Analog Input	object-name	R
	object-type	R
	present-value	R
	description	R
	status-flags	R
	event-state	R
	out-of-service	R/W
	units	R
	cov-increment	R
Analog Output	object-name	R
	object-type	R
	present-value	R/W
	description	R
	status-flags	R
	event-state	R
	out-of-service	R/W
	units	R
	priority-array	R
	relinquish-default	R
Analog Value	object-name	R
	object-type	R
	present-value	R/W
	description	R
	status-flags	R
	event-state	R
	out-of-service	R/W
	units	R
	priority-array	R
	relinquish-default	R
	cov-increment	R
Binary Input	object-name	R
	object-type	R
	present-value	R
	description	R
	status-flags	R
	event-state	R

	out-of-service	R/W
Binary Output	object-name	R
	object-type	R
	present-value	R/W
	description	R
	status-flags	R
	event-state	R
	out-of-service	R/W
	priority-array	R
Binary Value	object-name	R
	object-type	R
	present-value	R/W
	description	R
	status-flags	R
	event-state	R
	out-of-service	R/W
	priority-array	R
Multi-state Input	object-name	R
	object-type	R
	present-value	R
	description	R
	status-flags	R
	event-state	R
	out-of-service	R/W
	number-of-states	R
	state-text	R
Multi-state Output	object-name	R
	object-type	R
	present-value	R/W
	description	R
	status-flags	R
	event-state	R
	out-of-service	R/W
	number-of-states	R
	state-text	R
	priority-array	R
	relinquish-default	R
Multi-state Value	object-name	R
	object-type	R
	present-value	R/W
	description	R
	status-flags	R
	event-state	R
	out-of-service	R/W
	number-of-states	R
	state-text	R
	priority-array	R
	relinquish-default	R
Integer Value	object-name	R
	object-type	R
	present-value	R
	status-flags	R

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	out-of-service	R/W
	units	R
	cov-increment	R
Positive Integer Value	object-name	R
	object-type	R
	present-value	R
	status-flags	R
	out-of-service	R/W
	units	R
	cov-increment	R
Device	object-name	R
	object-type	R
	system-status	R
	vendor-name	R
	vendor-identifier	R
	model-name	R
	firmware-revision	R
	application-software-version	R
	description	R/W
	protocol-version	R
	protocol-revision	R
	protocol-services-supported	R
	protocol-object-types-supported	R
	object-list	R
	max-apdu-length-accepted	R
	local-time	R
	local-date	R
	apdu-timeout	R/W
	number-of-apdu-retries	R/W
	daylight-savings-status	R
	database-revision	R
	utc-offset	R

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:

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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.
☐ 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

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)

Character Sets Supported:

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

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

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

Moxa BACnet gateway can convert Modbus RTU/ASCII/TCP into BACnet/IP protocol.