INTERPRETATION IC 135-2004-28 OF
ANSI/ASHRAE STANDARD 135-2004 BACnet® -
A Data Communication Protocol for Building
Automation and Control Networks

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Reference: This request for interpretation refers to the requirements presented in ANSI/ASHRAE Standard 135-2004, Sections 15.10.1.3.1 and 18.8.4 relating to WritePropertyMultiple with incorrect datatype.

Background: Clause 15.10.1.3.1 mandates a specific Result(-) return for the case where one element of a WritePropertyMultiple-Request contains the wrong datatype for the property being written; this concept also appears in ANSI/ASHRAE Standard 135.1-2007 Clause 9.23.2.6.

However, Standard 135 Clause 18.8.4 (Reject Reason INVALID_TAG) notes the possibility of there being an "invalid tag" in an APDU with no clear definition of what makes a tag "invalid" -- leaving it up to the implementer. The clause also permits other possible Reject Reasons including INVALID_ PARAMETER_DATA_TYPE. One will note that parameter datatypes do not appear in the Clause 20.1 "Fixed Part of BACnet APDUs", therefore the Reject Reasons must generally apply to the Clause 21 elements of service requests.

One notes too that (Standard 135) Clause 20.1.8 states, "The BACnet Reject-PDU is used to reject… based on syntactical flaws or other protocol errors that prevent the PDU from being interpreted --> or the requested service from being provided. <--" (emphasis added).

From these it seems clear that there is support in Standard 135 for BACnet parsers that are able to check for correct datatypes during the parsing of a service request conducted in its totality before execution begins, in this case said execution being governed by (Standard 135) Clause 15.10. But (Standard 135.1) Clause 9.23.2.6 will cause devices that contain such "pre-parsers" to fail; this seems to be an oversight excluding a valid implementation.

Interpretation: It was not the intent of Standard 135 to prohibit datatype checking before the execution of a service request begins.

Question: Is this interpretation correct?

Answer: Yes.

Comments: The standard will be modified accordingly.

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