INTERPRETATION IC 135-2012-18 OF
ANSI/ASHRAE STANDARD 135-2012 BACnet® -
A Data Communication Protocol for Building
Automation and Control Networks

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Request from: Coleman Brumley, PolarSoft, Inc., 206 Alexander Ave Greensburg PA 15601.

Reference: This request for interpretation refers to the requirements presented in ANSI/ASHRAE Standard 135-2012, Clause 13.14, regarding SubscribeCOV service with indefinite lifetime.

Background:

There is a form of the SubscribeCOV service that has an indefinite lifetime. This is indicated by either an absent 'lifetime' parameter or a value of zero conveyed in the 'lifetime' parameter.

Support for this form of the service is optional. If, for example, a server does not have non-volatile storage, the use of an indefinite lifetime makes no sense as the subscription will be erased upon reboot. In this case, it's likely that the client will never re-subscribe for the value.

However, the service procedure for the SubscribeCOV service doesn't clearly state that support for the indefinite lifetime form of the service is optional.

There are two places outside of the service procedure that state indefinite lifetime subscriptions are optional. The first is found in the DS-COV-A/B BIBBs in K.1.11 and K.1.12. The second is found in section 7.6 of the BTL Implementation Guideline v0.42 that advises against using the indefinite lifetime form altogether. Client implementers who have read neither the BTL document nor the description of the COV BIBBs will incorrectly assume that support for indefinite lifetime subscriptions is mandatory. This leads to an interoperability problem if the client implementation cannot (or will not) fall back to limited subscription times and/or polling for data.

Further, the standard does not state which error codes should be returned when an implementation does not support COV subscriptions with an indefinite lifetime. While not part of this interpretation request, those error classes and codes should also be specified by the standard.

Interpretation: Server side support for SubscribeCOV requests with indefinite lifetimes is optional and servers that do not support this form of the service should return a Result(-) if this form is not supported.

Question: Is this Interpretation correct?

Answer: Yes

Comments: Clause K.1.12 clearly states that support for subscription of indefinite lifetime is optional in servers. If indefinite lifetime is not supported, a Result(-) with an 'Error Class' of SEVICES and an 'Error Code' of VALUE_OUT_OF_RANGE is expected to be returned. See Clause 13.14.1.3.1 Error Type.