

Clarification Request

Request from: BTL Manager (btl-manager@bacnetinternational.org)

References: BTL Specified Tests 5.0.final

Stage: ☒Request, ☒Listed, ☒Analysis, ☒Resolved

Background / Proposed Solution:

BTL-8.2.1 Change of Value Notification from an Analog Input, Analog Output, and Analog Value Object Present_Value Property

This test checks that the receipt of the COVNotification listOfValues parameter contains the Present_Value and Status_Flags properties in Step 7.

One vendor also includes the Units property in their COV Notification. They explain that they need this property to help their local displays display the appropriate units for the Present_Value. Their devices will correctly remove this extra parameter if the client returns an INVALID_TAG in response to the notification.

The vendor also reports that they have not run into any client that does not accept the extra property so they are not seeing any interoperability issues.

Section 13.6.1.6 List of Values

"This parameter shall convey a list of one or more property values whose contents depends on the type of object being monitored. Table 13-1 summarizes the BACnet standard objects and those property values that shall be returned in the 'List of Values' parameter when those objects are enabled for COV reporting. The property values are returned in the order shown in Table 13.1."

Table 13-1 Standardized Objects That May Support COV Reporting (Analog only)

Object Type	Criteria	Properties Reported
Analog Input, Analog Output, Analog Value	If Present_Value changes by COV_Increment or Status_Flags changes at all	Present_Value, Status_Flags

Question:

Can a device return an extra property in the 'List Of Values' parameter of this service? Are there interoperability concerns with this implementation?

Response:

The standard clearly states the allowed properties for each object type and therefore, extra properties in the COV notification are not allowed.

Yes, there are interoperability concerns with the extra property in the COV notification. Client devices only allocating enough space for the expected number of properties may not handle the larger size response appropriately.

There are also problems with the suggested fallback mechanism. Unconfirmed COV notifications do not allow an error response and therefore, there is no way to force the IUT to generate the proper message. It is also important to note that there are a number of different error codes that a client device may return so detection of that particular failure might be difficult.

A recommended alternative would be to program the client which is currently using the extra property to perform a ReadProperty request of the Units property when it receives the COV notification.