Clarification Request

References: BTL – 9.11.1.9

Date of BTL-WG Response: July 11, 2019

☐All Actions Necessitated have been Completed

Background:

BTL - 9.11.1.9 Client-Supplied COV Increment		
	Test Method	**Manual**
	Configuration	As per ***BTL Specified Tests***.
	Test Conditionality	Must be executed.
	Test Directives	
	Testing Hints	
	Notes & Results	

9.11.1.9 Client-Supplied COV Increment

Reason for Change: Modify the test to work with all numeric datatypes.

Purpose: To verify that the IUT correctly generates COV notifications when the client supplies the COV increment in the SubscribeCOVProperty request. Either confirmed or unconfirmed notifications may be used but at least one of these options must be supported by the IUT.

Test Concept: A subscription for COV notification is made for a property of *numeric* datatype ~~REAL~~. The subscription request specifies a COV increment. The monitored property is changed by an amount less than the increment, and the TD waits to ensure that the IUT does not generate a notification. The monitored property is changed by an amount slightly more than is required to cause a COV notification, and the TD waits for the notification.

Test Configuration: If the property being subscribed to has a related COV_Increment property in the object, then the value of the COV_Increment property should be significantly different than the COV increment provided in the subscription service.

Test Steps:

1. TRANSMIT SubscribeCOVProperty-Request,
   'Subscriber Process Identifier' = (any valid process identifier),
   'Monitored Object Identifier' = (any object supporting COV notifications),
   'Issue Confirmed Notifications' = TRUE | FALSE,
   'Lifetime' = (any value that will ensure no re-subscription is required to complete the test),
   'Monitored Property Identifier' = (any valid property supporting COV notifications),
   'COV Increment' = (any valid increment value)
2. RECEIVE BACnet-SimpleACK-PDU
3. BEFORE **Notification Fail Time**
   IF (the subscription was for confirmed notifications) THEN
   RECEIVE BACnetConfirmedCOVNotification-Request,
   'Subscriber Process Identifier' = (the same identifier used in the subscription),
   'Initiating Device Identifier' = IUT,
   'Monitored Object Identifier' = (the same object used in the subscription),

'Time Remaining' = (the requested lifetime),
'List of Values' = (values appropriate to the object type of the monitored object including the value of monitored property)
TRANSMIT BACnet-SimpleACK-PDU
ELSE
RECEIVE BACnetUnconfirmedCOVNotification-Request,
'Subscriber Process Identifier' = (the same identifier used in the subscription),
'Initiating Device Identifier' = IUT,
'Monitored Object Identifier' = (the same object used in the subscription),
'Time Remaining' = (the requested lifetime),
'List of Values' = (values appropriate to the object type of the monitored object including the value of monitored property)

4. MAKE (the monitored property change by less than the COV increment)
5. CHECK (verify that the IUT did not transmit a notification message for the monitored property)
6. MAKE (the monitored property change by slightly more than COV Increment less the amount changed in step 5)
7. BEFORE **Notification Fail Time**
IF (the subscription was for confirmed notifications) THEN
RECEIVE BACnetConfirmedCOVNotification-Request,
'Subscriber Process Identifier' = (the same identifier used in the subscription),
'Initiating Device Identifier' = IUT,
'Monitored Object Identifier' = (the same object used in the subscription),
'Time Remaining' = ?,
'List of Values' = (values appropriate to the object type of the monitored object including the changed value that triggered the notification)
TRANSMIT BACnet-SimpleACK-PDU
ELSE
RECEIVE BACnetUnconfirmedCOVNotification-Request,
'Subscriber Process Identifier' = (the same identifier used in the subscription),
'Initiating Device Identifier' = IUT,
'Monitored Object Identifier' = (the same object used in the subscription),
'Time Remaining' = ?,
'List of Values' = (values appropriate to the object type of the monitored object including the changed value that triggered the notification)

Problem:

The above listed testcase is the part of the Base Requirement section of DS-COVP-B. The language in the test case seems to propose that the test can be run for any property of numeric data type supporting COV notifications and the value of the COV increment parameter supplied in the request should be stored and mapped with the same subscribed property. The BACnet definition of numeric is any value that represents a count or quantity that is “continuous” or can be increased or decreased within the bounds of the datatype. For example, if an Integer value, float value, etc. represents a temperature or an amount. "Numeric", however cannot be used to describe a value that represents multistate, binary, or enumerated values.

COV increment should only apply when to subscribe-to-property is:
Present value property of type numeric as per table 13-1 from 135-2016.
Properties whose datatype is REAL, in the case of the first row of table 13-1a which lists criteria used for COV reporting of properties other than those listed in table 13-1.

There are some examples of properties like time delay, Backup failure and timeout of type unsigned (numeric) and many more but these are not present value property. When these type of properties are subscribed for COV then it should follow the criteria mentioned in the second row of table 13-1a which lists criteria used for COV reporting of properties other than those listed in table 13-1 and it is as follows: If the property changes at all or if status flags changes at all (if the object has status flags property).

Question:

1) Can the notes to tester be added in the test stating "Properties listed in table 13-1 having numeric data types is the present value property of these objects which should be tested for supplied COV increment parameter in the request for this test. Apart from these, properties of Real data types should also be tested as part of the test case mentioned in table 13-1 (a)".

Response:
NO. According to the Interpretation Request response from SSPC, the Table 13-1a is incorrect. The COV Increment Parameter applies to all numeric properties.