

Clarification Request

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

Reference: "BTL Implementers Guide-17", "BTL Checklist-3.0.final", "ASHRAE 135.1-2003"

Background:

The test 135.1 – 8.2.1 Change of Value Notification from an Analog Input, Analog Output, and Analog Value Object Present_Value Property, requires that the device support the 'infinite' subscription. The checklist indicates that the 'Will accept infinite COV Subscriptions' is Suggested only. The Implementer's Guide has a section (7.6) which states that a client should not subscribe with infinite lifetime. I believe this test and all other tests in the 8.2 ConfirmedCOVNotification Service Initiation Tests, section of ASHRAE 135.1-2003, should be changed to enter a lifetime value large enough for the tester to complete the test and therefore not require the infinite lifetime.

Here is one of the tests out of the 8.2 section of 135.1 with the items highlighted which I believe will need to be changed.

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

Purpose: This test case verifies that the IUT can initiate ConfirmedCOVNotification service requests conveying a change of the Present_Value property of Analog Input, Analog Output, and Analog Value objects.

Test Concept: A subscription for COV notifications is established. The Present_Value of the monitored object is changed by an amount less than the COV increment and it is verified that no COV notification is received. The Present_Value is then changed by an amount greater than the COV increment and a notification shall be received. The Present_Value may be changed using the WriteProperty service or by another means such as changing the input signal represented by an Analog Input object. For some implementations it may be necessary to write to the Out_Of_Service property first to accomplish this task. For implementations where it is not possible to write to these properties at all the vendor shall provide an alternative trigger mechanism to accomplish this task. All of these methods are equally acceptable.

Configuration Requirements: At the beginning of the test, the Out_Of_Service property shall have a value of FALSE.

Test Steps:

REPEAT X = (one supported object of each type from the set Analog Input, Analog Output, and Analog Value) DO {

1. TRANSMIT SubscribeCOV-Request,
 - 'Subscriber Process Identifier' = (any value > 0 chosen by the TD),
 - 'Monitored Object Identifier' = X,
 - 'Issue Confirmed Notifications' = TRUE,
 - 'Lifetime' = 0
2. RECEIVE BACnet-SimpleACK-PDU
3. RECEIVE ConfirmedCOVNotification-Request,
 - 'Subscriber Process Identifier' = (the same value used in step 1),
 - 'Initiating Device Identifier' = IUT,
 - 'Monitored Object Identifier' = X,
 - 'Time Remaining' = 0,
 - 'List of Values' = (the initial Present_Value and initial Status_Flags)

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4. TRANSMIT BACnet-SimpleACK-PDU
5. TRANSMIT ReadProperty-Request,
   'Object Identifier' = X,
   'Property Identifier' = COV_Increment
6. RECEIVE BACnet-ComplexACK-PDU,
   'Object Identifier' = X,
   'Property Identifier' = COV_Increment,
   'Property Value' = (a value "increment" that will be used below)
7. IF (Out_Of_Service is writable) THEN
   WRITE X, Out_Of_Service = TRUE
   RECEIVE BACnet-SimpleACK-PDU
   BEFORE Notification Fail Time
   RECEIVE ConfirmedCOVNotification-Request,
     'Subscriber Process Identifier' = (the same value used in step 1),
     'Initiating Device Identifier' = IUT,
     'Monitored Object Identifier' = X,
     Time Remaining' = 0,
     'List of Values' = (the initial Present_Value and new Status_Flags)
   TRANSMIT BACnet-SimpleACK-PDU
8. IF (Present_Value is now writable) THEN
   WRITE X, Present_Value = (any value that differs from "initial Present_Value" by less
   than "increment")
   RECEIVE BACnet-SimpleACK-PDU
ELSE
   MAKE (Present_Value = any value that differs from "initial Present_Value" by less than
   "increment")
9. WAIT NotificationFailTime
10. CHECK (verify that no COV notification was transmitted)
11. IF (Present_Value is now writable) THEN
   WRITE X, Present_Value = (any value that differs from "initial Present_Value" by an
   amount greater than "increment")
   RECEIVE BACnet-SimpleACK-PDU
ELSE
   MAKE (Present_Value = any value that differs from "initial Present_Value" by an
   amount greater than "increment")
12. BEFORE NotificationFailTime
   RECEIVE ConfirmedCOVNotification-Request,
     'Subscriber Process Identifier' = (the same value used in step 1),
     'Initiating Device Identifier' = IUT,
     'Monitored Object Identifier' = X,
     Time Remaining' = 0,
     'List of Values' = (the new Present_Value and new Status_Flags)
13. TRANSMIT BACnet-SimpleACK-PDU
14. TRANSMIT SubscribeCOV-Request,
   'Subscriber Process Identifier' = (the same value used in step 1),
   'Monitored Object Identifier' = X
15. RECEIVE BACnet-SimpleACK-PDU
16. IF (Out_Of_Service is writable) THEN
   WRITE X, Out_Of_Service = FALSE
   RECEIVE BACnet-SimpleACK-PDU
}

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Question:

Is this recommendation accepted?

Response:

The BTL working group agrees that the above set of tests should be modified to allow a lifetime value to be set to a value appropriate for the tester to complete the test execution.