



Testing and Conformance Clarification-Request No.: 20071119-36

(Request-Nr, assigned by moderator: yyyyymmxx where xx=sequence# within the month)

Request from: Frank.Schubert@mbs-software.de
(From BTF Intensive Workshop in Krefeld)

Stage:

- Request
- Listed by moderator
- Analysis by (TGTC or individual):.....
- Resolved

Reference: [referenced document(s) with number and revision]

7.3.1.10 requires a TimeDelay for TO_FAULT alarms

Background:

In step 11 the test requires a WAIT(TimeDelay), TO_FAULT alarms shall be reported immediately.

Question / proposed solution:

Change WAIT(TimeDelay) to read WAIT(InternalProcessingFailTime).

Response:

[By BIG-EU TGTC or by BTL-WG]

7.3.1.10 Event_Enable Tests

Dependencies: ConfirmedEventNotification Service Initiation Tests, 8.4; UnconfirmedEventNotification Service Initiation Tests, 8.5; ReadProperty Service Execution Tests, 9.18; WriteProperty Service Execution Tests, 9.22.

BACnet Reference Clauses: 12.1.23, 12.2.24, 12.3.20, 12.5.22, 12.6.26, 12.7.24, 12.11.10, 12.14.18, 12.15.18, 12.16.33, 12.17.17, 12.18.18, 12.19.18 and 12.23.23.

Purpose: To verify that notification messages are transmitted only if the bit in Event_Enable corresponding to the event transition has a value of TRUE. This test applies to Event Enrollment objects and Analog Input, Analog Output, Analog Value, Binary Input, Binary Output, Binary Value, Life Safety Point, Life Safety Zone, Loop, Multi-state Input, Multi-state Output, and Multi-state Value objects that support intrinsic reporting.

Test Concept: The IUT is configured such that the Event_Enable property indicates that some event transitions are to trigger an event notification and some are not. Each event transition is triggered and the IUT is monitored to verify that notification messages are transmitted only for those transitions for which the Event_Enable property has a value of TRUE.

Configuration Requirements: The Event_Enable property shall be configured with a value of TRUE for either the TO-OFFNORMAL transition or the TO-NORMAL transition and the other event transition shall have a value of FALSE. For analog objects the Limit_Enable property shall be configured with the value (TRUE, TRUE). The referenced event-triggering property shall be set to a value that results in a NORMAL condition. If



a Notification Class object is being used to configure recipient information the value of the Transitions parameter for all recipients shall be (TRUE, TRUE, TRUE).

In the test description below, "X" is used to designate the event-triggering property.

1. VERIFY Event_State = NORMAL
2. WAIT (Time_Delay + **Notification Fail Time**)
3. IF (X is writable) THEN
 - WRITE X = (a value that is OFFNORMAL)
 - ELSE
 - MAKE (X have a value that is OFFNORMAL)
4. WAIT (Time_Delay)
5. BEFORE **Notification Fail Time**
 - IF (the Transitions bit corresponding to the TO-OFFNORMAL transition is TRUE) THEN
 - RECEIVE ConfirmedEventNotification-Request,
 - 'Process Identifier' = (any valid process ID),
 - 'Initiating Device Identifier' = IUT,
 - 'Event Object Identifier' = (the event-generating object configured for this test),
 - 'Time Stamp' = (the current local time),
 - 'Notification Class' = (the class corresponding to the object being tested),
 - 'Priority' = (the value configured to correspond to a TO-OFFNORMAL transition),
 - 'Event Type' = (any valid event type),
 - 'Notify Type' = EVENT | ALARM,
 - 'AckRequired' = TRUE | FALSE,
 - 'From State' = NORMAL,
 - 'To State' = OFFNORMAL,
 - 'Event Values' = (values appropriate to the event type)
 - ELSE
 - CHECK (verify that the IUT did not transmit an event notification message)
6. VERIFY Event_State = OFFNORMAL
7. IF (X is writable) THEN
 - WRITE X = (a value that is NORMAL)
 - ELSE
 - MAKE (X have a value that is NORMAL)
8. WAIT (Time_Delay)
9. BEFORE **Notification Fail Time**
 - IF (the Transitions bit corresponding to the TO-NORMAL transition is TRUE) THEN
 - RECEIVE ConfirmedEventNotification-Request,
 - 'Process Identifier' = (any valid process ID),
 - 'Initiating Device Identifier' = IUT,
 - 'Event Object Identifier' = (the event-generating object configured for this test),
 - 'Time Stamp' = (the current local time),
 - 'Notification Class' = (the class corresponding to the object being tested),
 - 'Priority' = (the value configured to correspond to a TO-NORMAL transition),
 - 'Event Type' = (any valid event type),
 - 'Notify Type' = EVENT | ALARM,
 - 'AckRequired' = TRUE | FALSE,
 - 'From State' = OFFNORMAL,
 - 'To State' = NORMAL,
 - 'Event Values' = (values appropriate to the event type)
 - ELSE
 - CHECK (verify that the IUT did not transmit an event notification message)
10. VERIFY Event_State = NORMAL



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11. IF (the event-triggering object can be placed into a fault condition) THEN {
    MAKE (the event-triggering object change to a fault condition)
    WAIT (Time_Delay)
    BEFORE Notification Fail Time
      IF (the Transitions bit corresponding to the TO-FAULT transition is TRUE) THEN

        RECEIVE ConfirmedEventNotification-Request,
          'Process Identifier' =      (any valid process ID),
          'Initiating Device Identifier' = IUT,
          'Event Object Identifier' =  (the event-generating object configured for this test),
          'Time Stamp' =              (the current local time),
          'Notification Class' =      (the class corresponding to the object being tested),
          'Priority' =                 (the value configured to correspond to a TO-FAULT
transition),
          'Event Type' =              (any valid event type),
          'Notify Type' =             EVENT | ALARM,
          'AckRequired' =             TRUE | FALSE,
          'From State' =              NORMAL,
          'To State' =                FAULT,
          'Event Values' =            (values appropriate to the event type)
        ELSE
          CHECK (verify that the IUT did not transmit an event notification message)
          VERIFY Event_State = FAULT
        }
  }

```

Notes to Tester: The UnconfirmedEventNotification service may be substituted for the ConfirmedEventNotification service. The 'Message Text' parameter is omitted in the test description because it is optional. The IUT may include this parameter in the notification messages.