

Clarification Request

References: Test BTL - 9.1.1.X4 and 9.1.1.X5

Date of BTL-WG Response: __23-Jun-2011__

Background

In both tests step 14 is incorrect, both use the wrong timestamp of step 8. Timestamp of step 13 is correct.

9.1.1.X4 Successful Alarm Re-Acknowledgment of Confirmed Event Notifications

Purpose: To verify the successful re-acknowledgment of an alarm signaled by a ConfirmedEventNotification, including notification of other workstations and updating of the Acked_Transitions status.

Test Concept: An alarm is triggered and after the specified Time_Delay of the event-generating object the IUT notifies the TD and at least one other device. The TD acknowledges the alarm and verifies that the acknowledgment is properly noted by the IUT. The IUT notifies all recipients that the alarm has been acknowledged. The TD then acknowledges the alarm again, and the IUT again notifies all recipients. This behavior was not defined before Protocol_Revision 7 and so this test shall only be performed if Protocol_Revision is present and Protocol_Revision ≥ 7.

Configuration Requirements: The IUT shall be configured with at least one object that can detect alarm conditions and send confirmed notifications. The Acked_Transitions property shall have the value B'111' indicating that all transitions have been acknowledged. The TD and at least one other BACnet device shall be recipients of the alarm notification.

Test Steps:

1. MAKE (a change that triggers the detection of an alarm event in the IUT)
2. WAIT (Time_Delay)
3. BEFORE Notification Fail Time
 - RECEIVE ConfirmedEventNotification-Request,

'Process Identifier' =	(the process identifier configured for this event),
'Initiating Device Identifier' =	IUT,
'Event Object Identifier' =	(the object detecting the alarm),
'Time Stamp' =	(the current time or sequence number),
'Notification Class' =	(the notification class configured for this event),
'Priority' =	(the priority configured for this event),
'Event Type' =	(any valid event type),
'Notify Type' =	(the notify type configured for this event),
'AckRequired' =	TRUE,
'From State' =	NORMAL,
'To State' =	(any appropriate non-normal event state),
'Event Values' =	(the values appropriate to the event type)

4. RECEIVE ConfirmedEventNotification-Request,
 DESTINATION = (at least one device other than the TD),
 SOURCE = IUT,
 'Process Identifier' = (the process identifier configured for this event),
 'Initiating Device Identifier' = IUT,
 'Event Object Identifier' = (the object detecting the alarm),
 'Time Stamp' = (the timestamp or sequence number received in step 3),
 'Notification Class' = (the notification class configured for this event),
 'Priority' = (the priority configured for this event),
 'Event Type' = (any valid event type),
 'Notify Type' = (the notify type configured for this event),
 'AckRequired' = TRUE,
 'From State' = NORMAL,
 'To State' = (any appropriate non-normal event state),
 'Event Values' = (the values appropriate to the event type)
5. VERIFY (the 'Event Object Identifier' from the event notification), Acked_Transitions = B'011'
6. TRANSMIT AcknowledgeAlarm-Request,
 'Acknowledging Process Identifier' = (the value of the 'Process Identifier' parameter in the event notification),
 'Event Object Identifier' = (the 'Event Object Identifier' from the event notification),
 'Event State Acknowledged' = (the state specified in the 'To State' parameter of the notification),
 'Time Stamp' = (the time stamp conveyed in the notification),
 'Acknowledgment Source' = (a character string)
 'Time of Acknowledgment' = (any of the forms specified for this parameter)
7. RECEIVE BACnet-Simple-ACK-PDU
8. BEFORE Notification Fail Time
 RECEIVE ConfirmedEventNotification-Request,
 'Process Identifier' = (the process identifier configured for this event),
 'Initiating Device Identifier' = IUT,
 'Event Object Identifier' = (the object detecting the alarm),
 'Time Stamp' = (the current time or sequence number),
 'Notification Class' = (the notification class configured for this event),
 'Priority' = (the priority configured for this event),
 'Event Type' = (the event type included in step 3),
 'Notify Type' = ACK_NOTIFICATION,
 'To State' = (the 'To State' used in step 3)
9. RECEIVE ConfirmedEventNotification-Request,
 DESTINATION = (at least one device other than the TD),
 SOURCE = IUT,
 'Process Identifier' = (the process identifier configured for this event),
 'Initiating Device Identifier' = IUT,
 'Event Object Identifier' = (the object detecting the alarm),
 'Time Stamp' = (the timestamp or sequence number received in step 8),
 'Notification Class' = (the notification class configured for this event),
 'Priority' = (the priority configured for this event),
 'Event Type' = (the event type included in step 3),
 'Notify Type' = ACK_NOTIFICATION,
 'To State' = (the 'To State' used in step 3)
10. VERIFY (the 'Event Object Identifier' from the event notification), Acked_Transitions = B'111'
11. TRANSMIT AcknowledgeAlarm-Request,

parameter in 'Acknowledging Process Identifier' = (the value of the 'Process Identifier'
the event notification),
'Event Object Identifier' = (the 'Event Object Identifier'
from the event notification),
'Event State Acknowledged' = (the state specified in the 'To State'
parameter of the notification),
'Time Stamp' = (the time stamp conveyed in the notification),
'Acknowledgment Source' = (a character string)
'Time of Acknowledgment' = (any of the forms specified for this
parameter)

12. RECEIVE BACnet-Simple-ACK-PDU
13. BEFORE Notification Fail Time
RECEIVE ConfirmedEventNotification-Request,
'Process Identifier' = (the process identifier configured for this event),
'Initiating Device Identifier' = IUT,
'Event Object Identifier' = (the object detecting the alarm),
'Time Stamp' = (the current time or sequence number),
'Notification Class' = (the notification class configured for this event),
'Priority' = (the priority configured for this event),
'Event Type' = (the event type included in step 3),
'Notify Type' = ACK_NOTIFICATION,
'To State' = (the 'To State' used in step 3)

14. RECEIVE ConfirmedEventNotification-Request,
DESTINATION = (at least one device other than the TD),
SOURCE = IUT,
'Process Identifier' = (the process identifier configured for this event),
'Initiating Device Identifier' = IUT,
'Event Object Identifier' = (the object detecting the alarm),
'Time Stamp' = (the timestamp or sequence number received in step 8)

in step 13,
'Notification Class' = (the notification class configured for this event),
'Priority' = (the priority configured for this event),
'Event Type' = (the event type included in step 3),
'Notify Type' = ACK_NOTIFICATION,
'To State' = (the 'To State' used in step 3)

15. VERIFY (the 'Event Object Identifier' from the event notification), Acked_Transitions =
B'111'

Notes to Tester: The destination address used for the acknowledgment notification in steps 9 and 14 shall be the same address used in step 4. When multiple event notifications are expected for a specific event, the order that the IUT transmits them in is irrelevant.

9.1.1.X5 Successful Alarm Re-Acknowledgment of Unconfirmed Event Notifications

Purpose: To verify the successful re-acknowledgment of an alarm signaled by an UnconfirmedEventNotification, including notification of other workstations and updating of the Acked_Transitions status.

Test Concept: An alarm is triggered and after the specified Time_Delay of the event-generating object the IUT notifies the TD and at least one other device. The TD acknowledges the alarm and verifies that the acknowledgment is properly noted by the IUT. The IUT notifies all recipients that the alarm has been acknowledged. The TD then acknowledges the alarm again, and the IUT

again notifies all recipients. This behavior was not defined before Protocol_Revision 7 and so this test shall only be performed if Protocol_Revision is present and Protocol_Revision ? 7.

Configuration Requirements: The IUT shall be configured with at least one object that can detect alarm conditions and send unconfirmed notifications. The Acked_Transitions property shall have the value B'111' indicating that all transitions have been acknowledged. The TD and at least one other BACnet device shall be recipients of the alarm notification.

Test Steps:

1. MAKE (a change that triggers the detection of an alarm event in the IUT)
2. WAIT (Time_Delay)
3. BEFORE Notification Fail Time
 - RECEIVE UnconfirmedEventNotification-Request,
 - 'Process Identifier' = (the process identifier configured for this event),
 - 'Initiating Device Identifier' = IUT,
 - 'Event Object Identifier' = (the object detecting the alarm),
 - 'Time Stamp' = (the current time or sequence number),
 - 'Notification Class' = (the notification class configured for this event),
 - 'Priority' = (the priority configured for this event),
 - 'Event Type' = (any valid event type),
 - 'Notify Type' = (the notify type configured for this event),
 - 'AckRequired' = TRUE,
 - 'From State' = NORMAL,
 - 'To State' = (any appropriate non-normal event state),
 - 'Event Values' = (the values appropriate to the event type)
4. RECEIVE UnconfirmedEventNotification-Request,
 - DESTINATION = (at least one device other than the TD),
 - SOURCE = IUT,
 - 'Process Identifier' = (the process identifier configured for this event),
 - 'Initiating Device Identifier' = IUT,
 - 'Event Object Identifier' = (the object detecting the alarm),
 - 'Time Stamp' = (the timestamp or sequence number received in step 3),
 - 'Notification Class' = (the notification class configured for this event),
 - 'Priority' = (the priority configured for this event),
 - 'Event Type' = (any valid event type),
 - 'Notify Type' = (the notify type configured for this event),
 - 'AckRequired' = TRUE,
 - 'From State' = NORMAL,
 - 'To State' = (any appropriate non-normal event state),
 - 'Event Values' = (the values appropriate to the event type)
5. VERIFY (the 'Event Object Identifier' from the event notification), Acked_Transitions = B'011'
6. TRANSMIT AcknowledgeAlarm-Request,
 - 'Acknowledging Process Identifier' = (the value of the 'Process Identifier' parameter in the event notification),
 - 'Event Object Identifier' = (the 'Event Object Identifier' from the event notification),
 - 'Event State Acknowledged' = (the state specified in the 'To State' parameter of the notification),
 - 'Time Stamp' = (the time stamp conveyed in the notification),
 - 'Acknowledgment Source' = (a character string)
 - 'Time of Acknowledgment' = (any of the forms specified for this parameter)

7. RECEIVE BACnet-Simple-ACK-PDU
8. BEFORE Notification Fail Time
 - RECEIVE UnconfirmedEventNotification-Request,
 - 'Process Identifier' = (the process identifier configured for this event),
 - 'Initiating Device Identifier' = IUT,
 - 'Event Object Identifier' = (the object detecting the alarm),
 - 'Time Stamp' = (the current time or sequence number),
 - 'Notification Class' = (the notification class configured for this event),
 - 'Priority' = (the priority configured for this event),
 - 'Event Type' = (the event type included in step 3),
 - 'Notify Type' = ACK_NOTIFICATION,
 - 'To State' = (the 'To State' used in step 3)
9. RECEIVE UnconfirmedEventNotification-Request,
 - DESTINATION = (at least one device other than the TD),
 - SOURCE = IUT,
 - 'Process Identifier' = (the process identifier configured for this event),
 - 'Initiating Device Identifier' = IUT,
 - 'Event Object Identifier' = (the object detecting the alarm),
 - 'Time Stamp' = (the timestamp or sequence number received in step 8),
 - 'Notification Class' = (the notification class configured for this event),
 - 'Priority' = (the priority configured for this event),
 - 'Event Type' = (the event type included in step 3),
 - 'Notify Type' = ACK_NOTIFICATION,
 - 'To State' = (the 'To State' used in step 3)
10. VERIFY (the 'Event Object Identifier' from the event notification), Acked_Transitions = B'111'
11. TRANSMIT AcknowledgeAlarm-Request,
 - 'Acknowledging Process Identifier' = (the value of the 'Process Identifier' parameter in the event notification),
 - 'Event Object Identifier' = (the 'Event Object Identifier' from the event notification),
 - 'Event State Acknowledged' = (the state specified in the 'To State' parameter of the notification),
 - 'Time Stamp' = (the time stamp conveyed in the notification),
 - 'Acknowledgment Source' = (a character string)
 - 'Time of Acknowledgment' = (any of the forms specified for this parameter)
12. RECEIVE BACnet-Simple-ACK-PDU
13. BEFORE Notification Fail Time
 - RECEIVE UnconfirmedEventNotification-Request,
 - 'Process Identifier' = (the process identifier configured for this event),
 - 'Initiating Device Identifier' = IUT,
 - 'Event Object Identifier' = (the object detecting the alarm),
 - 'Time Stamp' = (the current time or sequence number),
 - 'Notification Class' = (the notification class configured for this event),
 - 'Priority' = (the priority configured for this event),
 - 'Event Type' = (the event type included in step 3),
 - 'Notify Type' = ACK_NOTIFICATION,
 - 'To State' = (the 'To State' used in step 3)
14. RECEIVE UnconfirmedEventNotification-Request,
 - DESTINATION = (at least one device other than the TD),
 - SOURCE = IUT,
 - 'Process Identifier' = (the process identifier configured for this event),

'Initiating Device Identifier' = IUT,
'Event Object Identifier' = (the object detecting the alarm),
'Time Stamp' = (the timestamp or sequence number received in step 8)
in step 13,
'Notification Class' = (the notification class configured for this event),
'Priority' = (the priority configured for this event),
'Event Type' = (the event type included in step 3),
'Notify Type' = ACK_NOTIFICATION,
'To State' = (the 'To State' used in step 3)
15. VERIFY (the 'Event Object Identifier' from the event notification), Acked_Transitions =
B'111'

Notes to Tester: The destination address used for the acknowledgment notification in steps 9 and 14 shall be the same address used in step 4. When multiple event notifications are expected for a specific event, the order that the IUT transmits them in is irrelevant.

Proposal:

Correct as proposed above.

Response:

Yes.