

Clarification Request

Request from: Buddy Lott (blott@kmccontrols.com)

Reference: "ASHRAE 135.1-2003"

Background:

Test 9.1.2.4 is attempting to test the case where someone/something tries to acknowledge an Event-Notification using the wrong Event-State. I see two problems:

First it is unclear how an invalid "Event State Acknowledge" could be generated for Normal and Fault Event-Notifications. If a device gets an ack-alarm for either of these conditions, the time must match or test 9.1.2.5 would seem to come into play according to Appendix D Change Clause 13.5.2.

Second, the ack-alarm for the off-normal state gets even more problematic. If a device has an out-of-range Event-Enrollment object set up and hits the high-limit condition, then test 9.1.2.4 says that the device cannot accept an acknowledgement with "Event State Acknowledge" set to off-normal or low-limit. Appendix D Changes Clause 13.5.1.4 says that setting "Event State Acknowledge" to 'off-normal' will acknowledge any off-normal notification which contradicts 9.1.2.4. Appendix D Changes Clause 13.5.1.4 does not address what should happen if the high-limit condition is hit but an acknowledgement with "Event State Acknowledge" set to low-limit is received.

Test 9.1.2.4 & 9.1.2.5 are testing different aspects of the same problem.

Let's say that panel A has an Event-Enrollment object that needs an ACK for a NORMAL transition that happened at 9:30:00. All other transitions have been acked and happened at 9:00:00 (fault) & 9:15:00 (off normal). Panel A receives an Ack Alarm for a fault transitions at 9:30:00.

Test 9.1.2.5 says that this should be denied because the fault transition happened at 9:15:00 and the times do not match. The error code would be INVALID-TIME-STAMP. This assumes that we match the transition and THEN check the time-stamp..

Test 9.1.2.4 says that this should be denied because the normal transition (not the fault transition) happened at 9:30:00 and the transition type does not match. The error code would be INCONSISTENT-PARAMETER. This assumes that we match the time-stamp and then check the transition.

I don't readily see how we could pass BOTH tests. If we pass 9.1.2.5, then we would fail 9.1.2.4.

With respect to 9.1.2.4 and off-normal, we get have 6 scenarios:

- 1) Panel A has an Event-Enrollment object that needs an ack for an Off-Normal transition. If the off-normal transition was caused by an actually off-normal transition and the panel receives an off-normal ACK, then the panel should accept ack.
- 2) Panel A has an Event-Enrollment object that needs an ack for an Off-Normal transition. If the off-normal transition was caused high-limit (or low-limit) transition and the panel receives an off-normal ACK, then the panel should accept ack. Which fails according to 9.1.2.4, but should pass according to the changes in Addendum D 13.5.1.4.
- 3) Panel A has an Event-Enrollment object that needs an ack for an Off-Normal transition. If the off-normal transition was caused high-limit transition and the panel receives a high-limit ACK, then the panel should accept ack. We are fine here.

- 4) Panel A has an Event-Enrollment object that needs an ack for an Off-Normal transition. If the off-normal transition was caused low-limit transition and the panel receives a low-limit ACK, then the panel should accept ack. We are fine here.
- 5) Panel A has an Event-Enrollment object that needs an ack for an Off-Normal transition. If the off-normal transition was caused high-limit transition and the panel receives a low-limit ACK, then what should the panel do?
- 6) Panel A has an Event-Enrollment object that needs an ack for an Off-Normal transition. If the off-normal transition was caused low-limit transition and the panel receives a high-limit ACK, then what should the panel do?

Question:

Can you clarify how "invalid" event states are generated? Can you clarify what should happen for off-normal, high-limit, and low-limit acknowledgements when the acknowledgement's "Event State Acknowledge" property does not match what was sent in the Event-Notification (i.e. using a low-limit ack-alarm for a high-limit alarm)?

Response:

The "invalid" event state error is only generated when the 'Event State Acknowledge' parameter of the acknowledge alarm has a value of HIGH_LIMIT, LOW_LIMIT or a proprietary 'Event_State' value and the 'To State' parameter of the original event notification has a different off normal value.