INTERPRETATION IC 135-2004-23 OF
ANSI/ASHRAE STANDARD 135-2004 BACnet® -
A Data Communication Protocol for Building
Automation and Control Networks

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Reference: This request for interpretation refers to the requirements presented in ANSI/ASHRAE Standard 135-2004, Section 13.2 relating to intrinsic reporting.

Background: BACnet is ambiguous about the application of eventing and alarming from within BACnet objects (also called "intrinsic reporting").

Analyzing the different statements in Chapter 13 of Standard 135-2004:

A. Clause 13.2 "Intrinsic Reporting" states:
"….Intrinsic reporting allows a BACnet device to provide one or more alarm or event sources, intrinsic to the device, which generate alarm or event notifications that may be directed to one or more destinations…"
This sentence is not specific about which object types may generate alarm or event notifications.
B. Further-on this clause states:
"…Certain BACnet standard objects may optionally support intrinsic reporting by providing optional properties for defining the type of alarm or event to be generated and options for handling and routing of the notifications…."
C. Further down in the 3rd paragraph of Clause 13.2 a sentence reads
"… The standardized objects that may optionally provide intrinsic event notification support and the event types they shall employ are summarized in Table 13-2…"
Considering citations A, B and C we conclude, that the expression " Certain BACnet standard objects may optionally support intrinsic reporting by providing optional properties.." is not specific to certain types of objects but may be applied to any object-type that indicates the need for intrinsic reporting by supporting either the Event_State or the Reliability property.
D. Clause 13.2 also states in its first paragraph:
".. Internal status changes and alarms may also use intrinsic reporting to generate diagnostic notifications…"
and further down in the same paragraph:
" If a standard object provides intrinsic reporting, then changes of value of specific properties of the object, in some cases based on programmable criteria, or changes of status internal to the object trigger event notifications to be sent to one or more destinations based on notification class."
None of these citations gives any indication, that the "changes of status internal to the object" limits the object types to those listed in Table 13-2 nor that this intenal status change has to be reflected in a transition to / from OFFNORMAL or FAULT state. There are already

examples of event notifications without status changes in the standard, i.e. a NORMAL to NORMAL transition is notified.

E. Clause 13.2 furthermore states in it's 3rd paragraph:
"…Proprietary intrinsic reporting shall use the services described in 13.8 and 13.9…."
This sentence supports statement D. There is no restriction of object types mentioned. (Be aware that "proprietary intrinsic reporting" denotes the reporting kind not the originating object type).

Conclusion: The standard is ambiguous about usage of the different kind of event. Providing FAULT event- and "internal status change" event-notifications for any standard objects is covered by the wording of the standard, Applying these events to any object type does not cause any interoperability issues. It even provides for better interoperability in case of reliability issues within a device or in specific objects.

Interpretation: The BACnet standard only limits the application of OFFNORMAL events to a finate list of standard object types. Other kind of event notifications may be issued by any object type.

Question: Is this interpretation correct?

Answer: No.

Comments: As described in point C, Clause 13.2 states that only the objects listed in Table 13-2 may support intrinsic reporting. Other standard object types may not support intrinsic reporting. In addition, supporting the Event_State and/or Reliability property is not allowed for standard object types because this is not one of the four specifically allowed mechanisms for extending the standard.