

**INTERPRETATION IC 135-2020-33 OF
ANSI/ASHRAE STANDARD 135-2020 BACnet® -
A Data Communication Protocol for Building
Automation and Control Networks**

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Request from: Michael Osborne, BTB Consulting, 408 - 9864 Fourth St, Sidney, BC, Canada V8L 2Z4.

Reference: This request for interpretation refers to ANSI/ASHRAE Standard 135-2020 Addendum cf and the change from Must Understand to Every Segment in Data Options.

Background: Addendum cf (Protocol Revision 25) Section 2, changed the Data Options, 'Must Understand' bit to 'Every Segment' to allow future Data Options to be optionally sent only with the first segment of a segmented request.

For Protocol Revision < 25, the Must Understand bit mandates the data option must be understood to consume the message.

Bit 6:	Must Understand	1 = This header option must be understood for consuming the message. 0 = This header option can be ignored if not understood.
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Addendum cf (Protocol Revision = 25), the Every Segment bit replaced the Must Understand bit.

Bit 6:	Every Segment	1 = This header option shall be sent with every segment. 0 = This header option shall be sent with the first, or only, segment and shall not be sent with subsequent segments
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Scenario

A device at Protocol Revision ≥ 25 sends a message that contains a new Data Options, 'Header Options Type' that is required to be in each segment of a segmented message and this message is meant to be processed by older devices. If the receiving device is at a Protocol Revision < 25, it will see a Data Options, 'Header Options Type' that it does not understand with the 'Must Understand' bit set to 1 so it must drop the message.

Every Segment

Presently Secure Path is the only standard Data Option. Since the Secure Path data option is part of a NPDU payload so it must be included in each segment of a segmented request.

In the future, any requirement for a data option to be in every segment can be specified in the definition of the new data option.

Future Proofing

Resurrecting the Must Understand bit allows new data options to control how existing devices will process the message.

Interpretation: Section 2 of 135-2020 Addendum cf should not have replaced Must Understand bit with Every Segment bit.

Question: Is this Interpretation correct?

Answer: Yes.

Comment: This error will be corrected in an erratum.