

**INTERPRETATION IC 135-2016-13 OF
ANSI/ASHRAE STANDARD 135-2016 BACnet® -
A Data Communication Protocol for Building
Automation and Control Networks**

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Request from: Horst Hannappel, MBS GmbH, Roemerstrasse 15, Krefeld D-47809.

Reference: This request for interpretation refers to the requirements presented in ANSI/ASHRAE Standard 135-2016, Figure 6-12, regarding router discovery.

Background: A BACnet router that receives a request with a destination network, that the router currently does not know in its routing table is supposed to search for a router that advertises the destination network and then either to forward the request or reject if no appropriate router could be found.

In the BTL WG there is discussion how to adjust tests for that router behavior. In the proposed tests there are timeout parameters how long the router does search for the next router until it fails the search. The original problem triggering the discussion was a router that would immediately reject without really doing a search first. The idea would be, the vendor of the router should document the timeouts they use. The open question is how a lab should decide whether the documented values are acceptable. It was felt the BTL WG was not in a position to decide that question but the SSPC should be asked.

Interpretation: Timeouts in the range from 10 % of standard APDU timeout up to 200 % of APDU timeout are acceptable. Also configurable timeout is allowed.

Question: Is this Interpretation correct?

Answer: No.

Comments: The standard does not provide any guidance on how long a router should wait before declaring that the attempt to locate the next router failed.

While there is no explicit minimum time, it is expected that routers wait long enough that the attempt would succeed if the next hop router responded immediately.