

Clarification Request

References: ASHRAE 135.1-2023

Date of BTL-WG Response: January 23, 2025

Background: ASHRAE 135.1-2023 - 10.7.3 Router Binding via Who-Is-Router-To-Network

Purpose: To verify that the IUT can initiate requests to a remote network after the IUT uses the Who-Is-Router-To-Network Network Layer service to discover the MAC address of the router to that remote network.

Test Concept: The IUT broadcasts a Who-Is-Router-To-Network request to discover the router to the desired network. The TD transmits a request to a device on the remote network without performing any further form of dynamic router binding. If the IUT does not support Who-Is-Router-To-Network router binding, then this test shall be omitted. **If the IUT cannot initiate a ReadProperty request, then another confirmed service can be substituted.** The IUT may use either the general query or specific network number query form of the Who-Is-Router-To-Network service.

Note that Clause 6.5.3 specifically mentions router binding via Who-Is-Router-To-Network and does not mention router binding by lurking and noting unsolicited I-Am-Router-To-Network messages.

Test Steps:

1. MAKE (IUT transmit Who-Is-Router-To-Network to discover the router to DNET2)
2. RECEIVE
DA = BROADCAST,
SA = IUT,
Who-Is-Router-To-Network,
| (DA = BROADCAST,
SA = IUT,
Who-Is-Router-To-Network,
DNET = DNET2)
3. TRANSMIT
DESTINATION = BROADCAST,
SOURCE = TD,
I-Am-Router-To-Network,
Network Numbers = DNET2
4. MAKE (IUT transmit a ReadProperty request to the D2A device on the remote network)
5. RECEIVE
DA = TD,
SA = IUT,
DNET = DNET2,
DADR = D2A,
Hop Count = 255,
BACnet-Confirmed-Request-PDU,
'Service Choice' = ReadProperty-Request,
'Object Identifier' = (OI, any BACnet standard object in D2A),
'Property Identifier' = (PI, any required property of the specified object)
6. TRANSMIT
DA = IUT,
SA = TD,
SNET = DNET2,

SADR = D2A,
BACnet-ComplexACK-PDU,
'Service ACK Choice' = ReadProperty-ACK,
'Object Identifier' = O1,
'Property Identifier' = P1,
'Property Value' = (any valid value)

Problem:

The Test requires the IUT to initiate a ReadProperty or some other confirmed request after discovering the network. The IUT does not initiate any confirmed requests.

Question:

If the IUT does not initiate any confirmed requests, can the confirmed request come from another device that the IUT forwards to the remote network?

Response:

YES