

Clarification Request

Request from: BTL Manager (btl-manager@bacnetinternational.org)

Reference: "ASHRAE 135.1-2003"

Background:

The test 135.1 – 9.32.2.2 does not indicate that the test was written with the assumption that the TD and the IUT are on the same network and that the TD is spoofing the IUT by putting in a SNET and SADR to make the packet look like it came from a remote network.

When this test is run using a setup where the TD is on a different network from the IUT, the test parameters need to be different than the test indicates. Here is an example of the actual parameters needed in this case:

DESTINATION = LOCAL BROADCAST
SA = TD,
DNET = IUT_NET,
DLEN = 0

The router will take this packet from the TD, strip the DNET and add the SNET/SADR of the TD before sending it to the IUT.

Here is the original test:

9.32.2.2 Object ID Version, Remote Broadcast

Purpose: To verify the ability of the IUT to recognize the origin of a remotely broadcast Who-Has service request and to respond such that the device originating the request receives the response.

Test Steps:

1. TRANSMIT

DESTINATION = LOCAL BROADCAST,
SA = TD,
SNET = (any remote network number),
SADR = (any MAC address valid for the specified network),
Who-Has-Request,
'Object Identifier' = (any object identifier specified in the EPICS)

2. WAIT Internal Processing Fail Time

3. RECEIVE DESTINATION = GLOBAL BROADCAST | REMOTE BROADCAST (to the network specified in step 1),

I-Have-Request,
'Device Identifier' = (the IUT's Device object),
'Object Identifier' = (the object identifier specified in step 1),
'Object Name' = (the object name specified in the EPICS for this object)

Question:

Is this interpretation correct?

Response :

Many of the tests written in this section of 135.1 were written with the assumption that the TD and the IUT were to be on the same network during the test. If the test setup does not match this assumption than it is necessary for the tester to make appropriate changes to the test in order to achieve the same results.

For example, the above test would be changed to:

Test Steps:

1. TRANSMIT
 - DA = (router to IUT_NET),
 - SA = TD,
 - DNET = IUT_NET,
 - DLEN = 0, (BROADCAST)
 - Who-Has-Request,
 - 'Object Identifier' = (any object identifier specified in the EPICS)
2. WAIT Internal Processing Fail Time
3. RECEIVE (GLOBAL)
 - DA = LOCAL BROADCAST
 - SA = (router to IUT_NET)
 - SNET = IUT_NET,
 - SADR = IUT_MAC,
 - DNET = GLOBAL
 - DLEN = 0
 - I-Have-Request,
 - 'Device Identifier' = (the IUT's Device object),
 - 'Object Identifier' = (the object identifier specified in step 1),
 - 'Object Name' = (the object name specified in the EPICS for this object)

OR

- RECEIVE (REMOTE)
 - DA = LOCAL BROADCAST
 - SA = (router to IUT_NET)
 - SNET = IUT_NET,
 - SADR = IUT_MAC,
 - I-Have-Request,
 - 'Device Identifier' = (the IUT's Device object),
 - 'Object Identifier' = (the object identifier specified in step 1),
 - 'Object Name' = (the object name specified in the EPICS for this object)

The BTL Working Group will create a proposal to include this clarification information in the 135.1 standard.