

Clarification Request

References: 135-2008 for specification of I-Am behavior,
BTL Specified Tests-5.0.final for Register-Foreign-Device behavior

Background / Proposed Solution:

In test **14.X2.3 Original-Broadcast-NPDU**

Reason for Change: No test exists for this functionality. This change is in RL-001.

Purpose: This test case verifies that the IUT can issue a broadcast on its own IP subnet.

BACnet Reference Clause: J.2.12

Test Concept: The IUT is caused to initiate a broadcast message on its IP subnet. If the IUT cannot initiate a broadcast message conveying a BACnet NPDU, then this test shall be omitted.

1. MAKE (the IUT initiate a broadcast)
2. RECEIVE DESTINATION = Local IP Broadcast, SOURCE = IUT,
Original-Broadcast-NPDU

but there is no indication of a required Distribute-Broadcast-To-Network, nor does 14.X2.3 explicitly indicate that it should be conducted after Register-Foreign-Device.

In test **14.X2.1 Distribute-Broadcast-To-Network**

Reason for Change: No test exists for this functionality. This change is in RL-001.

Dependencies: 14.X1, "Registering as a Foreign Device"

Purpose: This test case verifies that the IUT, registered as a foreign device, can issue a request to a BBMD to broadcast the message on all subnets in the BBMD's BDT.

BACnet Reference Clause: J.2.10

Test Concept: The IUT is configured to register itself as a foreign device with the TD, then after registration is achieved it is caused to initiate a broadcast message to be conveyed to the BBMD for distribution. If the IUT does not support foreign device registration, or cannot initiate broadcast messages conveying a BACnet NPDU, then this test shall be omitted.

Test Steps:

1. RECEIVE DESTINATION = TD, SOURCE = IUT,
Register-Foreign-Device
2. TRANSMIT DESTINATION = IUT, SOURCE = TD,
BVLC-Result,
'Result Code' = Successful completion
3. MAKE (the IUT initiate a broadcast)
4. RECEIVE DESTINATION = TD, SOURCE = IUT,
Distribute-Broadcast-To-Network
5. TRANSMIT SA = TD, DA = Local IP Broadcast,
Original-Broadcast-NPDU,

NPDU = Who-Is
6. RECEIVE DA = Local IP Broadcast, SOURCE = IUT,
Original-Broadcast-NPDU,
NPDU = I-Am |
RECEIVE DA = TD, SOURCE = IUT,
Original-Unicast-NPDU,
NPDU = I-Am

Question:

Should the test BTL - 14.X2.1 add the steps highlighted above, since in the existing test there is no indication of compliance with (phrasing taken from 135-2008q-1) that “the I-Am shall be sent in such a manner that the BACnet-user that sent the Who-Is will receive the resulting I-Am.”? Is there any similar requirement regarding other Local IP Broadcast, such as in test **9.32.1.1 Execution of Who-Has Service Requests Originating from the Local Network** ?

Response:

No. A device registered as a Foreign Device should not generate an Original-Broadcast-NPDU on the local IP subnet.