

## Clarification Request

**Request from:** BTL Manager ([btl-manager@bacnetinternational.org](mailto:btl-manager@bacnetinternational.org))

**Reference:** "BTL Specified Tests-3.0.final"

### Background:

The following test is to be run on IP devices that do not support BBMD mode in order to verify that the IUT can process a Forwarded NPDU message. The test however does not specify if the TD should be on the same subnet as the IUT or on a different subnet. Or if the TD is on the same subnet, the 'originating-device' should specify a device on a separate subnet. It seems reasonable that the IUT might respond differently depending on the originating device's subnet of the message received. For instance it seems reasonable for the IUT to ignore Forwarded NPDU broadcasts that are received with an 'originating-device' on the local subnet in order to avoid excessive traffic on the local network.

### 14.1.7 Forwarded-NPDU

Reason for Change: The original test specified a unicast message in step 1, which is incorrect for a Forwarded-NPDU on an IP subnet. Also, step 3 now specifies clearly what the IUT is not to do. This test is not contained in any SSPC proposal.

Purpose: To verify that an IUT, not configured as a BBMD, will process a Forwarded-NPDU message.

1. TRANSMIT DESTINATION = Local IP Broadcast, SOURCE = TD,  
Forwarded-NPDU,  
Originating-Device = TD,  
NPDU = Who-Is
2. RECEIVE DESTINATION = Local IP Broadcast, SOURCE = IUT,  
Original-Broadcast-NPDU,  
NPDU = I-Am
3. CHECK (The IUT shall not issue any Forwarded-NPDUs)

### Question:

Is this test correct when it indicates that the SOURCE and the 'Originating-Device' should both be set to the value TD?

Should this test only be run with the TD address on a different subnet from the IUT?

If the test is run with the TD on the same subnet as the IUT and the 'Originating-Device' set to the TD, can the IUT ignore the request?

### Response:

The test, as currently defined, is a One-hop Distribution test and requires that the TD be placed on a separate subnet from the IUT. The BTL-WG will clarify this configuration requirement and add another test for Two-hop Distribution.

**Changes Required:**

[change BTL Specified Tests, 14.1.7, pg 126]

**14.1.7 Forwarded-NPDU (*One-hop Distribution*)**

Reason for Change: The original test specified a unicast message in step 1, which is incorrect for a Forwarded-NPDU on an IP subnet. Also, step 3 now specifies clearly what the IUT is not to do. This test is not contained in any SSPC proposal.

Purpose: To verify that an IUT, not configured as a BBMD, will process a Forwarded-NPDU message.

*Configuration Requirements: The IUT shall not be configured as a BBMD. The TD shall be on a different IP subnet than that of the IUT.*

1. TRANSMIT DESTINATION = Local IP Broadcast, SOURCE = TD,  
Forwarded-NPDU,  
Originating-Device = TD,  
NPDU = Who-Is
2. RECEIVE DESTINATION = Local IP Broadcast, SOURCE = IUT,  
Original-Broadcast-NPDU,  
NPDU = I-Am
3. CHECK (The IUT shall not issue any Forwarded-NPDUs)

[add to BTL Specified Tests, section 14.1, pg 126]

**14.1.X1 Forwarded-NPDU (*Two-hop Distribution*)**

Reason for Change: No relevant test exists in 135.1 to test this functionality. This test is not contained in any SSPC proposal.

Purpose: To verify that an IUT, not configured as a BBMD, will process a Forwarded-NPDU message.

*Configuration Requirements: The IUT should not be configured as a BBMD. The TD shall be on the same subnet as the IUT. D1 is a device on a different IP subnet than the TD.*

1. TRANSMIT DESTINATION = Local IP Broadcast, SOURCE = TD,  
Forwarded-NPDU,  
Originating-Device = D1,  
NPDU = Who-Is
2. RECEIVE DESTINATION = Local IP Broadcast, SOURCE = IUT,  
Original-Broadcast-NPDU,  
NPDU = I-Am
3. CHECK (The IUT shall not issue any Forwarded-NPDUs)