

Clarification Request

References: Specified Tests 20.0.1 14.YY.2.1.2

Date of BTL-WG Response: July 14, 2022

Background: 135-2020 AB 2.5.1

14.YY.2.1.2 Local Broadcast Execution Test

Reference: YY.5.3.3

Purpose: To verify that IUT, as a hub, correctly accepts and processes broadcast messages.

Test Concept: With the IUT operating as a hub, send a broadcast to the hub. Verify that the message is forwarded to all hub connectors except the one that originated it. Also verify that the hub's local node processes the broadcast.

Configuration Requirements: The IUT is operating as a hub and devices D2, D3 and D4 are connected to it.

Test Steps:

1. TRANSMIT PORT (D4-IUT hub WebSocket),

Encapsulated-NPDU,

-- 'Originating Virtual Address' absent

'Destination Virtual Address' = X'FFFFFFF', -- the local broadcast VMAC

-- 'Destination Options' absent

'Data Options' = ({X'41'}), -- Secure Path

'Payload'

Who-Is-Request

2. REPEAT Dx = (D2, D3) {

RECEIVE PORT (Dx-IUT hub WebSocket),

Encapsulated-NPDU,

'Originating Virtual Address' = (D4's VMAC),

'Destination Virtual Address' = X'FFFFFFF', -- the local broadcast VMAC

-- 'Destination Options' absent

'Data Options' = ({X'41'}), -- Secure Path

'Payload'

Who-Is-Request

}

3. RECEIVE PORT (D4-IUT hub WebSocket),

Encapsulated-NPDU,

'Originating Virtual Address' = (IUT's VMAC)

'Destination Virtual Address' = (D4's VMAC or X'FFFFFFF', the local broadcast VMAC)

-- 'Destination Options' absent

'Data Options' = ({X'41'}), -- Secure Path

'Payload'

I-Am-Request,

'I Am Device Identifier' = (the IUT's Device object),

'Max APDU Length Accepted' = (the value specified in the EPICS),

'Segmentation Supported' = (the value specified in the EPICS),

'Vendor Identifier' = (the identifier registered for this vendor)

Notes to Tester: The order of the broadcasts sent by the hub, and the I-Am response can be sent in any order.

Problem:

In step 3 the test spec expects the IUT as a Hub to send an Iam request to D4 with Originating Virtual Address IUT's VMAC and DVMAC optionally D4's VMAC. But according to AB 2.5.1 the originating address and the destination VMAC can be skipped for connection peer nodes.

Question:

Should it be accepted in testing if the IUT skips any of the VMAC's in step 3?

RESPONSE:

No. The originating virtual address is required to be present as the message was not received on a connection to a peer node but rather a connection to the hub.

The destination virtual address specification in the test is incorrect. This will be changed to:

'Destination Virtual Address' = (absent or X'FFFFFFFF', the local broadcast VMAC)