

## Clarification Request

**References:** ASHRAE 135.1-2023, ASHRAE 135-2024, Test Package 26.0.

**Date of BTL-WG Response:** May 15, 2025

### Background:

#### U.2.5 Forwarded-Address-Resolution: Purpose

This message is unicast by B/IPv6 BBMDs to determine the B/IPv6 address of a known virtual address belonging to a different multicast domain.

##### U.2.5.1 Forwarded-Address-Resolution: Format

The Forwarded-Address-Resolution message consists of six fields:

BVLC Type:	1-octet	X'82'	BVLL for BACnet/IPv6
BVLC Function:	1-octet	X'04'	Forwarded-Address-Resolution
BVLC Length:	2-octets	X'001C'	Length, in octets, of the BVLL message
Original-Source-Virtual-Address	3-octets		
Target-Virtual-Address	3-octets		
Original-Source-B/IPv6-Address	18-octets		

The Forwarded-Address-Resolution message is unicast to each address in the broadcast distribution and foreign device tables.

#### U.2.6 Address-Resolution-ACK: Purpose

This message is the reply to either the Address-Resolution or the Forwarded-Address-Resolution messages.

##### U.2.6.1 Address-Resolution-ACK: Format

The Address-Resolution-ACK message consists of five fields:

BVLC Type:	1-octet	X'82'	BVLL for BACnet/IPv6
BVLC Function:	1-octet	X'05'	Address-Resolution-ACK
BVLC Length:	2-octets	X'000A'	Length, in octets, of the BVLL message
Source-Virtual-Address	3-octets		
Destination-Virtual-Address	3-octets		

The Address-Resolution-ACK message is unicast to the B/IPv6 node that originally initiated the Address-Resolution message.

#### 12.4.4.1.4 Forwarded-Address-Resolution

**Purpose:** To verify that the IUT, configured as a BBMD, will process a Forwarded-Address-Resolution request when the target virtual address is not the virtual address of the IUT.

**Configuration Requirements:** TD shall operate as BBMD1 and listed in the IUTs Broadcast Distribution Table.

**Notes to Tester:** The execution of step 7 is not significant but is shown here in order to demonstrate the completion of the BVLC. The order of the messages transmitted by the IUT is not significant.

**Test Steps:**

1. TRANSMIT  
DA = IUT,  
SA = TD,  
Forwarded-Address-Resolution,  
Original-Source-Virtual-Address = FD1,  
Target-Virtual-Address = FD2  
Original-Source-B/IPv6-Address = FD1
2. RECEIVE  
DA = B/IPv6 Link Local Multicast Address,  
SA = IUT,  
Forwarded-Address-Resolution,  
Original-Source-Virtual-Address = FD1,  
Target-Virtual-Address = FD2,  
Original-Source-B/IPv6-Address = FD1
3. RECEIVE  
DA = FD2,  
SA = IUT,  
Forwarded-Address-Resolution,  
Original-Source-Virtual-Address = FD1,  
Target-Virtual-Address = FD2,  
Original-Source-B/IPv6-Address = FD1
5. TRANSMIT  
DA = TD,  
SA = FD2,  
Address-Resolution-ACK,  
Source-Virtual-Address = FD2,  
Destination-Virtual-Address = TD

**Problem:**

Step 5 specifies the Destination-Virtual-Address is the TD which is the BBMD that forwarded the Address-Resolution request when it should be FD1.

**Question:**

Should the Destination-Virtual-Address in Step 5 be FD1?

**Response:**

**Yes**