

Clarification Request

References: Addendum 135-1-2009g

Date of BTL-WG Response: Sep 26, 2012_____

Background:

Concerning 135-1-2009g, test 8.3.X. Step 4 seems to have taken the wording from clause 19.3 in the standard, but "is accurate" got translated to "OPERATIONAL". If a device restarts, vendors can choose to send out an I-AM indicating a restart. Then the COV notification goes out informing anyone who's watching the device that the restart occurred. If the device database is significantly large (or for whatever reason), there might be other system states that the system goes through before the system actually gets to the "OPERATIONAL" state. The status sent by the COV notification on power-up will be accurate, but it might not be "OPERATIONAL" as the test describes. For those that do active network monitoring of various device states, or that watch whether restarted devices get to a steady but not operational state, this test hinders that capability.

From 19.3:

When a device is powered on, when it restarts due to a ReinitializeDevice service (COLDSTART or WARMSTART), or when it restarts for some other reason, the device shall transmit an UnconfirmedCOVNotification request. The 'Subscriber Process Identifier' parameter shall be 0, the 'Monitored Object Identifier' parameter shall reference the Device object, the 'Time Remaining' parameter shall be 0, and the 'List of Values' parameter shall contain three values, the System_Status, the Time_Of_Device_Restart, and the Last_Restart_Reason properties of the Device object. The device shall transmit this message after the complete power-up or restart sequence has been completed so that the system-status value is accurate.

Test 8.3.X - Device Restart Notifications

Purpose: To verify that the IUT initiates UnconfirmedCOVNotification service requests to each entry in its Restart_Notification_Recipients property when it resets.

Test Concept: The IUT is configured to send restart notifications and is then reset. The TD checks for the restart notifications. Device restart notifications differ from subscribed COV notifications that use the UnconfirmedCOVNotification service in two respects. First, subscription is made through the Restart_Notification_Recipients property instead of SubscribeCOV. Second, the 'Subscriber Process Identifier' parameter always has a value of zero.

Configuration Requirements: For each Recipient of the Restart_Notification_Recipients property in the IUT which is of the device form, there shall be a device on the network that will answer Who-Is requests so that the IUT can determine addressing information before sending the restart notification.

Test Steps:

1. IF (Restart_Notification_Recipients is writable) THEN
 WRITE(Restart_Notification_Recipients = any non-empty list of Recipients)
 ELSE
 MAKE (Restart_Notification_Recipients contain any non-empty list of Recipients)
2. READ T1 = Local_Time
3. MAKE(the IUT reset)
4. REPEAT X = (each entry in the Restart_Notification_Recipients) DO {
 BEFORE Notification Fail Time
 RECEIVE UnconfirmedCOVNotification-Request,
 DESTINATION = X,
 'Subscriber Process Identifier' = 0,
 'Initiating Device Identifier' = IUT,
 'Monitored Object Identifier' = (the IUT Device Identifier),
 'Time Remaining' = 0,
 'List of Values' = (System_Status=OPERATIONAL,
 Time_Of_Device_Restart = (T2),
 Last_Restart_Reason=(any valid restart reason, R))
 }
5. VERIFY Time_Of_Device_Restart = T2
6. CHECK (T1 ~= T2)
7. VERIFY Last_Restart_Reason = R

Note to tester: Not all IUTs can accurately differentiate between the types of restart reasons and thus no requirements are placed on the value returned in step 4. The test shall pass regardless of the order in which the IUT generates the UnconfirmedCOVNotification-Requests in step 4. The value of T2 shall be the same for each notification sent out in step 4.

Question:

Does the test require System_Status equal "OPERATIONAL" in Step 4?

Response:

Yes, but the BTL-WG recognizes that a device that is reset via COLDSTART might not come up in to OPERATIONAL state. Change the Testing Hints as follows: Repeat the test with each of the restart methods that the device supports and which can be performed at will (WARMSTART, power cycle, power lost, etc.), but not test for COLDSTART.

The BTL-WG will also consider a more expansive test in the future, such as for proprietary System_Status values and other values that are transient.