

Clarification Request

References: BTL Test Plan 5.0, BTL Specified Tests 13.X1.1 Execution of a Full Backup and Restore Procedure

Date of BTL-WG Response: __04-Aug-2011__

Background / Proposed Solution:

A Protocol_Revision 4 IUT in the lab delays its responsive SimpleACK-PDU to the ReinitializeDevice(STARTBACKUP) and ReinitializeDevice(STARTRESTORE) for a few seconds while it gets into the necessary mode.

13.X1.1 Execution of Full Backup and Restore Procedure

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

Reason for Change: The IUT does not have to provide a means - other than performing a restore procedure - by which the Database_Revision property can be incremented.

Purpose: This test case verifies that the IUT can execute a full Backup and Restore procedure.

Test Concept: This test takes the IUT through a full Backup and Restore procedure. The Database_Revision and Last_Restore_Time properties are noted before the procedure begins for later comparison. The IUT is then commanded to enter the Backup state; all the files are read, and the IUT is commanded to end the backup. If the Database_Revision property can be changed by means other than the restore procedure, it is modified and checked to insure that it incremented correctly, then the IUT is commanded to enter the Restore state. If the file objects do not exist on the IUT, the IUT is commanded to create them. The files are then truncated to size 0. The file contents are then written to the IUT, and the IUT is commanded to end the restore. The Database_Revision and Last_Restore_Time properties are checked to insure that they incremented or advanced correctly.

For IUTs that use Stream Access when performing the AtomicReadFile and AtomicWriteFile services, a Maximum Requested Octet Count and a Maximum Write Data Length must be calculated before starting the test. These values will be used during the test. The Maximum Requested Octet Count shall be sixteen (16) less than the minimum of the TD's Max_APDU_Length_Accepted and the IUT's maximum transmittable APDU length. The Maximum Write Data Length shall be twenty one (21) less than the minimum of the TD's maximum transmittable APDU length and the IUT's Max_APDU_Length_Accepted.

Configuration Requirements: At the start of the test, the device configuration must match the epics.

Test Steps:

1. TRANSMIT ReadProperty-Request,
 'Object Identifier' = (The IUT's Device object)
 'Property Identifier' = Database_Revision
2. RECEIVE ReadProperty-ACK

- 'Object Identifier' = (The IUT's Device object)
- 'Property Identifier' = Database_Revision
- 'Property Value' = (any value)
- 3. TRANSMIT ReadProperty-Request,
 - 'Object Identifier' = (The IUT's Device object)
 - 'Property Identifier' = Last_Restore_Time
- 4. RECEIVE ReadProperty-ACK
 - 'Object Identifier' = (The IUT's Device object)
 - 'Property Identifier' = Last_Restore_Time
 - 'Property Value' = (any value)
- 5. TRANSMIT ReinitializeDevice-Request,
 - 'Reinitialized State of Device' = STARTBACKUP,
 - 'Password' = (any valid password)
- 6. RECEIVE BACnet-Simple-ACK-PDU
- 7. VERIFY (the IUT's Device object), Configuration_Files = (any non-empty array of BACnetObjectIdentifiers)
- . . .
- 9. TRANSMIT ReinitializeDevice-Request,
 - 'Reinitialize State Of Device' = ENDBACKUP,
 - 'Password' = (any valid password)
- 10. RECEIVE BACnet-Simple-ACK-PDU
- 11. VERIFY (the IUT's Device object), System_Status != BACKUP_IN_PROGRESS
- . . .
- 13. TRANSMIT ReinitializeDevice-Request,
 - 'Reinitialize State Of Device' = STARTRESTORE,
 - 'Password' = (any valid password)
- 14. RECEIVE BACnet-Simple-ACK-PDU
- . . .

Question:

Should test be considered Failed if the responsive BACnet-SimpleACK-PDU to the ReinitializeDevice(STARTBACKUP) and ReinitializeDevice(STARTRESTORE) takes longer than a single APDU_Timeout? Or if it takes longer than a the entire period of retry attempts? Or is that responsive BACnet-SimpleACK-PDU not considered critical in a device with Protocol_Revision less than 10?

Response:

If a device cannot pass this test, then it is not a correct implementation of Backup and Restore. For those that cannot meet this requirement, B&R will not be tested and no indication of B&R will appear on the Listing.