Clarification Request

References: 13.5.1 Manual Slave Binding Test

Date of BTL-WG Response: 25-July-2019

☒All Actions Necessitated have been Completed

Background:

13.5.1 Manual Slave Binding Test

Purpose: This test verifies that the IUT can find and confirm MS/TP slave devices listed in the Manual_Slave_Binding property in the IUT's device object. This test also verifies that the IUT correctly distinguishes between slave and master devices, and that it performs periodic confirmation of slave devices.

Test Concept: Configure the Manual_Slave_Binding property with the address of two MS/TP devices. Attach a slave at one of the addresses and a master that supports the Who-Is and I-Am services at the other address. Monitor the network to verify that the IUT confirms the devices and then verify that the slave device address is added into the Slave_Address_Binding property and that the master address is not. The slave is then removed, and once the IUT re-confirms the slave, it is verified that the slave is removed from the Slave_Address_Binding property.

Configuration Requirements: The MS/TP network shall contain a slave device at address A1 with a device identifier of D1 and a master device at address A2 with a device identifier of D2. The slave device shall not support the reading of its device object using the wildcard instance of 4194303. The master device shall execute the Who-Is service and initiate the I-Am service. The IUT shall be configured to perform slave proxying.

Test Steps:

```
1. BEFORE Slave Proxy Confirm Interval
     REPEAT addr=(A1, A2) DO {
         RECEIVE DESTINATION=addr, SRC=IUT
             ReadProperty-Request,
                 'Object Identifier' =      (the correct value for the address being queried),
                 'Property Identifier' =    Protocol_Services_Supported
         RECEIVE DESTINATION=IUT, SRC=addr
             BACnet-Complex-ACK,
                 'Object-Identifier' =      (the correct value for the address being queried),
                 'Property Identifier' =    Protocol_Services_Supported,
                 'Property Value' =         (any valid value for this property)
     }
2. VERIFY Slave_Address_Binding = ((A1, D1))
3. Remove the slave device from the MS/TP network
4. BEFORE Slave Proxy Confirm Interval
         RECEIVE DESTINATION=A1, SRC=IUT
             ReadProperty-Request,
                 'Object Identifier' =          (DEVICE,the correct value for the address being queried),
                 'Property Identifier' =        Protocol_Services_Supported
         -- note that the slave will not reply to this request as it is no longer connected to the network.
5. WAIT (longer than it takes for the IUT to timeout on this request)
6. VERIFY Slave_Address_Binding = ()
```

In the current test case step 3 and 4, Router validate whether slave device is removed from network using read property service using Protocol service supported property request.

Most of the devices (workstation, BBC controllers), which initiates A side request check the device connection status using system status property and who is request.

In our devices and algorithms, we use the System_Status to check whether the device is available in a network.

Question:

In the step 4, Can router use System_Status property of device object instead Protocol service supported property to check whether slave device is available in the network.?

Response:

No.

While the test does not disallow reading of System_Status, Protocol_Services_Supported must still be read. The slave proxy reads Protocol_Services_Supported to determine whether the device at that address is a slave or master device based on the value of the WHO_IS bit. See Section 12.56.54 of the standard.