

## Clarification Request

**References:** BTL Test Plan 12.0

**Date of BTL-WG Response:** July 18, 2013

### Background:

#### Cases In Which ReadProperty Shall Be Used After ReadPropertyMultiple Fails

The tests defined in this clause are used to verify that an IUT which initiates ReadPropertyMultiple is able to obtain external property values via the ReadProperty service when interoperating with a device that does not support the ReadPropertyMultiple service.

#### **135.1-2009i-6 - 8.20.Y1.1 - The IUT Determines the TD does not Support the ReadPropertyMultiple Service**

**Purpose:** Verifies the IUT's ability to automatically change its service choice from ReadPropertyMultiple to ReadProperty when the IUT determines the TD does not support the ReadPropertyMultiple service.

**Test Concept:** The IUT is configured in a manner that would normally cause it to access one or more properties in the TD via the ReadPropertyMultiple service. Prior to sending a ReadPropertyMultiple request, however, the IUT determines that the TD does not support the ReadPropertyMultiple service. The IUT instead attempts to access the TD's property values via the ReadProperty service (it is assumed that the IUT will make this determination by reading the TD's Protocol\_Services\_Supported property, but this test specifically does not attempt to verify this behavior).

**Configuration Requirements:** The TD is configured so that it does not support the ReadPropertyMultiple service. The IUT is configured such that it is capable of accessing one or more properties of a single object in the TD via the ReadProperty and ReadPropertyMultiple services. If the IUT cannot be configured in this way, then this test shall be omitted.

#### Test Steps:

1. MAKE (a condition in the IUT that would normally cause it to send a ReadPropertyMultiple request to the TD to  
access one or more properties values of a single object)
2. WAIT (a time interval specified by the vendor as sufficient for the IUT to determine that the TD does not support the  
ReadPropertyMultiple service)
3. REPEAT X = (the properties that the IUT is to read) DO {  
RECEIVE ReadProperty-Request,  
'Object Identifier' = (object identifier referenced by X),  
'Property Identifier' = (property identifier referenced by X)  
TRANSMIT ReadProperty-Ack,  
'Object Identifier' = (object identifier referenced by X),  
'Property Identifier' = (property identifier referenced by X),  
'Property Value' = (any valid value)  
}

#### **135.1-2009i-6 - 8.20.Y1.2 - Fallback to ReadProperty on Reject - UNRECOGNIZED\_SERVICE Response**

**BACnet Reference Clauses:** 15.5 and 15.7

**Purpose:** Verifies the IUT's ability to automatically change its service choice from ReadPropertyMultiple to ReadProperty when the TD returns a Reject-PDU and a Reject Reason of UNRECOGNIZED\_SERVICE.

**Test Concept:** The IUT is configured to send the TD a ReadPropertyMultiple request to access one or more properties of a single object. The TD responds with a Reject-PDU and a Reject Reason of UNRECOGNIZED\_SERVICE. With no additional configuration, the IUT sends one or more ReadProperty requests to the TD, where each ReadProperty request specifies an individual property from the original ReadPropertyMultiple request.

**Configuration Requirements:** The TD is configured so that it does not support the ReadPropertyMultiple service. The IUT is configured such that it attempts to acquire values from the TD using the ReadPropertyMultiple service without first interrogating the TD's Protocol\_Services\_Supported property. If the IUT cannot be configured in this way then this test shall be omitted.

**Test Steps:**

1. RECEIVE ReadPropertyMultiple-Request,
  - 'Object Identifier' = (object identifier of the specified object),
  - 'List of Property References' = (one or more properties of the specified object)
2. TRANSMIT BACnet-Reject-PDU,
  - 'Reject Reason' = UNRECOGNIZED\_SERVICE
3. REPEAT X = (the properties from Step 1) DO {
  - RECEIVE ReadProperty-Request,
    - 'Object Identifier' = (object identifier referenced by X),
    - 'Property Identifier' = (property identifier referenced by X)
  - TRANSMIT ReadProperty-Ack,
    - 'Object Identifier' = (object identifier referenced by X),
    - 'Property Identifier' = (property identifier referenced by X),
    - 'Property Value' = (any valid value)

**From the vendor:** The only context in IUT which uses RPM-A is to retrieve Present\_Value and Status\_Flags. When falling back from RPM to RP, the test states IUT should issue one RP request for each property in the original RPM. When falling back to RP the decision was made to only retrieve Present\_Value, partly because the BACnet Standard did not read to us as though getting Status\_Flags separately was absolutely required, and partly due to a lack of confidence that Status\_Flags would necessarily be accurate if not read simultaneously with Present\_Value. Do you know if this case was considered when the test was crafted or whether it's waived in this narrow context?

**BTL Manager notes:** In test 8.20.Y1.2 (which going forward, will be numbered as 135.1-2011 - 8.20.5.2)

3. REPEAT X = (the properties from Step 1) DO {

is distinct, for no good reason I can think of, from the similar but different step in test 8.20.Y1.1 (going forward, numbered as 135.1-2011 - 8.20.5.1)

3. REPEAT X = (the properties that the IUT is to read) DO {

I have to think that if there is latitude in the one, there is latitude in the other.

#### **Question:**

Should test 8.20.Y1.2 be relaxed to permit behavior that does not issue one RP request for each property in the original RPM, i.e. RP requests for some, but not for each, property in the original RPM?

**Response:**

**In BTL Specified Tests, derive both tests 8.20.5.1 and 8.20.5.2 from 135.1-2011, adding a Notes to tester that: In step 3. observing a ReadProperty of the properties from Step 1 is what is expected, but it is acceptable if fewer properties are read with ReadProperty, if those which are omitted are not essential to the operation being performed**