

Clarification Request

References: BTL Test Plan 12.0, BTL - 9.21.1.X1 - ReadRange Support for All List Properties

Date of BTL-WG Response: November 27, 2014

☒ All actions necessitated have been completed

Background:

Positive test 9.21.1.X1 for all list properties present in any IUT that supports execution of the ReadRange, was added at Test Plan-12.0. The intention is to get the use of ReadRange more widespread, to accommodate long-standing problems in the BACnet standard, such as reading an overlong Active_COV_Subscriptions property, that are not amenable to solution by use of other services.

The BTL Test Plan calls for the ReadRange, with no restricting parameters, and then with any valid ByPosition parameters, to be applied to every list property present in an IUT that supports execution of the ReadRange. That has become the minimum capability required in any IUT, if it supports execution of the ReadRange, in order to become BTL Listed. It shall support ReadRange to every list property present in an IUT, as well as to the Log_Buffer property in any objects that it contains.

BTL - 9.21.1.X1 - ReadRange Support for All List Properties		
	Test Method	
	Configuration	As per <i>BTL Specified Tests</i> .
	Test Conditionality	Must be executed.
	Test Directives	
	Testing Hints	
	Notes & Results	

9.21 ReadRange Service Execution Tests

9.21.1.X1 ReadRange Support for All List Properties

Reason for change: Need a ReadRange test for non-Log_Buffer list properties.

Purpose: To verify that all list properties of all objects can be read using the 3 by position forms of the ReadRange service.

Test Steps:

1. REPEAT X = (all objects in the IUT's database) DO {
 - REPEAT Y = (all list properties in object X) DO {
 - TRANSMIT ReadRange-Request
 - 'Object Identifier' = X,
 - 'Property Identifier' = Y,
 - RECEIVE ReadRange-ACK
 - 'Object Identifier' = X,
 - 'Property Identifier' = Y,
 - 'Result Flags' = (? , ? , ?),
 - 'Item Count' = (C: up to number of items in Y)
 - 'Item Data' = (the first C elements of Y)
 - TRANSMIT ReadRange-Request

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        'Object Identifier' = X,
        'Property Identifier' = Y,
        'Reference Index' = 1,
        'Count' = (C: any valid positive value)
    RECEIVE ReadRange-ACK
        'Object Identifier' = X,
        'Property Identifier' = Y,
        'Result Flags' = (TRUE, ?, ?),
        'Item Count' = (C2: up to C)
        'Item Data' = (the first C2 elements of Y)
    TRANSMIT ReadRange-Request
        'Object Identifier' = X,
        'Property Identifier' = Y,
        'Reference Index' = (the number of elements in Y),
        'Count' = (C: any valid negative value)
    RECEIVE ReadRange-ACK
        'Object Identifier' = X,
        'Property Identifier' = Y,
        'Result Flags' = (?, TRUE, ?),
        'Item Count' = (C2: up to abs(C))
        'Item Data' = (the last C2 elements of Y)
    }
}

```

This test, and its location in the Base Requirements line item with Conformance Code R (required), mandates that all IUTs that indicate support for ReadRange service, then shall also have positive ReadRange execution at every list property, when sent with no restricting parameters, and with valid ByPosition parameters. It mandates that support for execution of the ReadRange-Request not just for Log_Buffer properties.

Questions:

- 1) Is it acceptable, when ReadRange service request was sent to read certain list properties, that IUT responded with Error Class: PROPERTY, Error Code: 'read-access-denied' - - because we don't support ReadRange service for these list properties?
- 2) Should the BTL Test Plan instead put this testing into a line item with Conformance Code O (optional), under the 4.16 Data Sharing - Executes ReadRange - B section in the Checklist, instead of including it in the Base Requirements line item with Conformance Code R (required)?

Response:

No. No. If the server supports multiple services for the reading of its property values, it shall support each service for all properties. The standard leaves up to the client the choice of which service to use to acquire property values. A device is not able to advertise which services will execute for which properties, so all services that the server supports are required for all properties.