Clarification Request

References: 135-2012 Clauses 20.1.2.3 and 20.1.2.4 and 20.1.2.5

Date of BTL-WG Response: September 18, 2014
☒All actions necessitated have been completed

Background:

There appears to be a consideration in all BACnet-Confirmed-Request-PDU that is untested in the BTL Test Plan. This could be tested, and initiating with misinformation should fail a test.

From 135-2012, clauses 20.1.2.3, 20.1.2.4 and 20.1.2.5

20.1.2.3 segmented-response-accepted

This parameter shall be TRUE if the device issuing the confirmed request will accept a segmented complex acknowledgment as a response. It shall be FALSE otherwise. This parameter is included in the confirmed request so that the responding device may determine how to convey its response.

20.1.2.4 max-segments-accepted

This optional parameter specifies the maximum number of segments that the device will accept. This parameter is included in the confirmed request so that the responding device may determine how to convey its response. The parameter shall be encoded as follows:

B'000'	Unspecified number of segments accepted.
B'001'	2 segments accepted.
B'010'	4 segments accepted.
B'011'	8 segments accepted.
B'100'	16 segments accepted.
B'101'	32 segments accepted.
B'110'	64 segments accepted.
B'111'	Greater than 64 segments accepted.

20.1.2.5 max-APDU-length-accepted

This parameter specifies the maximum size of a single APDU that the issuing device will accept. This parameter is included in the confirmed request so that the responding device may determine how to convey its response. The parameter shall be encoded as follows:

B'0000'	Up to MinimumMessageSize (50 octets)
B'0001'	Up to 128 octets
B'0010'	Up to 206 octets (fits in a LonTalk frame)
B'0011'	Up to 480 octets (fits in an ARCNET frame)
B'0100'	Up to 1024 octets
B'0101'	Up to 1476 octets (fits in an ISO 8802-3 frame)

Question:

1. Should the BACnet-Confirmed-Request-PDU be required to only advertise a max-APDU-length-accepted value, if the device is on a data-link layer that would accept that max-APDU-length?

2. Should the BACnet-Confirmed-Request-PDU be required to only set the segmented-response-accepted parameter as TRUE, if the device is on a data-link layer which supports segmentation?

Response:

1: Yes, for devices that have a single data-link. If the device has a configurable max-APDU-length-accepted, then that is not a failure but a misconfiguration. It is always preferred that a device ship with a value that matches the value which that data-link layer would accept. On a router, the value shall not exceed the maximum of the supported data-links.

2: No, all data-links support segmentation.