

Clarification Request

Request from: Chad Ziehm (chad.ziehm@siemens.com)

References: 135-2008, 135.1-2007

Stage: Request, Listed, Analysis, Resolved

Background / Proposed Solution:

There appears to be an inconsistency in the Standard in regards to the service-request parameter of a BACnet-Confirmed-Request-PDU. Clause 20.1.2 requires the service-request parameter to be present while Clause 21 states it is optional.

Siemens is asking for an exception from BTL-WG due to our implementation of WPM service using Clause 20.1.2. If a service-request parameter is present, our device will respond with Reject:Unrecognized-Service. If a service-request parameter is not present, our device will respond with Reject:Missing-Required-Parameter.

Below are Clause 20.1.2 and Clause 21. The difference is the **OPTIONAL** in Clause 21

20.1.2 BACnet-Confirmed-Request-PDU (135-2008, pg 406)

The BACnet-Confirmed-Request-PDU is used to convey the information contained in confirmed service request primitives.

```
BACnet-Confirmed-Request-PDU ::= SEQUENCE {
    pdu-type           [0] Unsigned (0..15), -- 0 for this PDU type
    segmented-message  [1] BOOLEAN,
    more-follows       [2] BOOLEAN,
    segmented-response-accepted [3] BOOLEAN,
    reserved           [4] Unsigned (0..3), -- must be set to zero
    max-segments-accepted [5] Unsigned (0..7), -- as per 20.1.2.4
    max-APDU-length-accepted [6] Unsigned (0..15), -- as per 20.1.2.5
    invokeID          [7] Unsigned (0..255),
    sequence-number    [8] Unsigned (0..255) OPTIONAL, -- only if segmented msg
    proposed-window-size [9] Unsigned (1..127) OPTIONAL, -- only if segmented msg
    service-choice     [10] BACnetConfirmedServiceChoice,
    service-request    [11] BACnet-Confirmed-Service-Request
-- Context specific tags 0..11 are NOT used in header encoding
vs
```

Clause 21 (135-2008, pg 429)

```
BACnet-Confirmed-Request-PDU ::= SEQUENCE {
    pdu-type           [0] Unsigned (0..15), -- 0 for this PDU type
    segmented-message  [1] BOOLEAN,
    more-follows       [2] BOOLEAN,
    segmented-response-accepted [3] BOOLEAN,
    reserved           [4] Unsigned (0..3), -- must be set to zero
    max-segments-accepted [5] Unsigned (0..7), -- as per 20.1.2.4
```

max-APDU-length-accepted [6] Unsigned (0..15), -- as per 20.1.2.5
 invokeID [7] Unsigned (0..255),
 sequence-number [8] Unsigned (0..255) OPTIONAL, -- only if segmented msg
 proposed-window-size [9] Unsigned (1..127) OPTIONAL, -- only if segmented msg
 service-choice [10] BACnetConfirmedServiceChoice,
 service-request [11] BACnet-Confirmed-Service-Request **OPTIONAL**
 -- Context-specific tags 0..11 are NOT used in header encoding

The test that is being applied and failing is 135.1-2007-9.39.1 (see below)

9.39.1 Unsupported Confirmed Services Test

Dependencies: None

BACnet Reference Clause: UNRECOGNIZED_SERVICE, 18.8.9

Purpose: This test case verifies that the IUT will reject any confirmed services that it does not support.

Test Steps:

1. REPEAT X = (all confirmed services that the IUT does not execute) DO {
 - TRANSMIT X
 - RECEIVE BACnet-Reject-PDU,
 - 'Reject Reason' = UNRECOGNIZED_SERVICE
2. TRANSMIT (a currently undefined confirmed service)
3. RECEIVE BACnet-Reject-PDU,
- 'Reject Reason' = UNRECOGNIZED_SERVICE

Passing Result: The device responds correctly for each unsupported confirmed service.

Question:

If the 'service-request' parameter is not present is a response of Reject : Missing-required-parameter a valid response?

Response:

Yes but only for defined services. The tester's script should include a valid service-request.