Solution to redmine #3115 cRp16-cBr16

Date: October 19, 2021

Abstract test case: (no change)

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| cRp16 | Verify the DUT can handle pre-assigned URCBs |

Test procedure(s):

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| **cRp16** | **Pre-assigned URCBs** | 🞎 Passed  🞎 Failed  🞎 Inconclusive |
| IEC 61850-6 clause 9.3.8  IEC 61850-7-2 clause 17.2, TISSUE #1276  IEC 61850-8-1 clause 17.1, 17.2  *PIXIT Rp24, Rp25* | | |
| Expected result   1. DUT does use the URCBs assigned to DUT and does not use the URCBs assigned to other clients 2. DUT reserves and configures the pre-assigned URCBs to DUT and does not use the URCBs assigned to other client 3. DUT may reserve and configures the pre-assigned URCBs to DUT and does not use the URCBs assigned to other client | | |
| Test description   1. Configure firstURCB01 assigned to DUT and firstURCB02 to another client, and secondURCB01 to another client and secondURCB02 to DUT and start the SERVER SIMULATOR 2. Load the SCD in DUT 3. Start the DUT   a) When PIXIT Rp25=N continue with step 4 and skip step 5 and 6  4) The DUT configures the pre-assigned URCB instance  b) When PIXIT Rp25=Y skip step 4 and continue with step 5 and 6  5) The DUT first reserves and then configures the pre-assigned URCB instance. An Ed2Amd1 server simulator accepts the reservation  6) The DUT may reserve and then configures the pre-assigned URCB instance. An Ed2 server simulator refuses the reservation | | |
| Comment  Extract from part 6 clause 9.3.8  According to IEC 61850-7-2, a report control block is dedicated to at most one client at a time. This means that if max > 1 is given for RptEnabled, more than one report control block (RCB) of this type might be instantiated in the IED.  Part a) and/or b) is applicable | | |

Same change for cBr16

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| **cBr16** | **Pre-assigned BRCBs** | 🞎 Passed  🞎 Failed  🞎 Inconclusive |
| IEC 61850-6 clause 9.3.8  IEC 61850-7-2 clause 17.2, TISSUE #1276  IEC 61850-8-1 clause 17.1, 17.2  *PIXIT Rp24, Rp25* | | |
| Expected result  4. DUT does use the BRCBs assigned to DUT and does not use the BRCBs assigned to  another client(s)  5. DUT reserves and configures the pre-assigned URCBs to DUT and does not use the URCBs assigned to other client  6. DUT may reserve and configures the pre-assigned URCBs to DUT and does not use the URCBs assigned to other client | | |
| Test description   1. Configure firstBRCB01 assigned to DUT and firstBRCB02 to another client, and secondBRCB01 to another client and secondBRCB02 to DUT and start the SERVER SIMULATOR 2. Load the SCD in the DUT 3. Start the DUT   a) When PIXIT Rp25=N continue with step 4 and skip step 5 and 6  4) The DUT configures the pre-assigned BRCB instance  b) When PIXIT Rp25=Y skip step 4 and continue with step 5 and 6  5) The DUT first reserves and then configures the pre-assigned BRCB instance. An Ed2Amd1 server simulator accepts the reservation  6) The DUT may reserve and then configures the pre-assigned BRCB instance. An Ed2 server simulator refuses the reservation | | |
| Comment  Note: The assignment is based on the RptEnable ClientLN. The DUT can use its own IP-address and the IP-address in the SCD to determine which RCB are assigned.  *According to IEC 61850-7-2, a report control block is dedicated to at most one client at a time.*  *This means that if max > 1 is given for RptEnabled, more than one report control block (RCB)*  *of this type is instantiated in the IED.* ***Observe that for all permanently used buffered control***  ***blocks, a ClientLN shall be preconfigured,*** *and ResvTms set to -1, if it exists. For all other*  *control block instances an existing ResvTms shall be set to 0.* | | |

Table A4.2:

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| 5: Unbuffered Reporting | cRp3, cRp4, cRp5, cRp8, cRp9, cRp10, cRp11, cRp13a, cRp14, cRp15, cRp19, cRpN2, cRpN5, cRpN6 | PICS-GetLogicalNodeDirectory(URCB): cRp1, cRpN1  PICS-SetURCBValues(trgops, optflds): cRp2  PICS-Buffer time: cRp6  PICS-General interrogation: cRp7  PIXIT-Rp2 Dataset=Y and PIXIT-Ds11 dataset creation supported: cRp12, cRp13b  PIXIT-Non test equipment and preassigned reports are not reserved cRp16a  PIXIT- Reserve pre-assigned: cRp16b  PIXIT-Owner: cRp17  SCL-supportsLdName: cRp18 |
| 6: Buffered Reporting | cBr3, cBr4, cBr5, cBr8, cBr9, cBr10, cBr11, cBr13a, cBr14, cBr15, cBr19, cBr30, cBr31, cBrN2, cBrN5, cBrN6 | PICS-GetLogicalNodeDirectory(BRCB): cBr1, cBrN1  PICS-SetBRCBValues(trgops, optflds): cBr2  PICS-Buffer time: cBr6  PICS-General interrogation: cBr7  PIXIT-Rp2 Dataset=Y and PIXIT-Ds11 dataset creation supported: cBr12, cBr13b  PIXIT- Non test equipment and preassigned reports are not reserved: cBr16a  PIXIT-Reserve pre-assigned: cBr16b  PIXIT-Owner: cBr17  SCL-supportsLdName: cBr18  PIXIT-Purge buffer: cBr32  PIXIT-ResvTms: cBr33 |

PIXIT:

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| Rp22 | 1,2 | Does the client support writing resvTms | Y/N |
| Rp23 | 2 | Does the client support reading owner | Y/N |
| Rp24 | 2 | Does the device function only as test equipment? | Y/N |
| Rp25 | 2 | Does the client reserve the URCB/BRCB even when it is pre-assigned (this is required in Ed2Amd1)  Is this behavior: | Y/N/Not Applicable  Fixed / Configurable / Depending on edition of the server / other |

Certificate:

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| 5: Unbuffered Reporting | cRp3, cRp4, cRp5, cRp8, cRp9, cRp10, cRp11, cRp13a, cRp14, cRp15, cRp19, cRpN2, cRpN5, cRpN6 | cRp1, cRp2, cRp6, cRp7, cRp12, cRp13b, cRp16a, cRp16b, cRp17, cRp18, cRpN1 |
| 6: Buffered Reporting | cBr3, cBr4, cBr5, cBr8, cBr9, cBr10, cBr11, cBr13a, cBr14, cBr15, cBr19, cBr30, cBr31, cBrN2, cBrN5, cBrN6 | cBr1, cBr2, cBr6, cBr7, cBr12, cBr13b, cBr16a, cRp16b, cBr17, cBr18, cBr32, cBr33, cBrN1 |