Solution to redmine #3115 cRp16-cBr16

Date: September 15, 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 9.3.8IEC 61850-7-2 clause 17.2, TISSUE #1276IEC 61850-8-1 clause 17.1, 17.2*PIXIT Rp24, Rp25* |
| Expected result1. 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
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| Test description1. 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 64) The DUT configures the pre-assigned URCB instanceb) When PIXIT Rp25=Y skip step 4 and continue with step 5 and 65) The DUT first reserves and then configures the pre-assigned URCB instance. An Ed2Amd1 server simulator accepts the reservation6) The DUT may reserve and then configures the pre-assigned URCB instance. An Ed2 server simulator refuses the reservation |
| CommentExtract from part 6 clause 9.3.8According 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 9.3.8IEC 61850-7-2 clause 17.2, TISSUE #1276IEC 61850-8-1 clause 17.1, 17.2*PIXIT Rp24, Rp25* |
| Expected result4. 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 description1. 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 64) The DUT configures the pre-assigned BRCB instanceb) When PIXIT Rp25=Y skip step 4 and continue with step 5 and 65) The DUT first reserves and then configures the pre-assigned BRCB instance. An Ed2Amd1 server simulator accepts the reservation6) The DUT may reserve and then configures the pre-assigned BRCB instance. An Ed2 server simulator refuses the reservation |
| CommentNote: 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, cRpN1PICS-SetURCBValues(trgops, optflds): cRp2PICS-Buffer time: cRp6PICS-General interrogation: cRp7PIXIT-Rp2 Dataset=Y and PIXIT-Ds11 dataset creation supported: cRp12, cRp13bPIXIT-Non test equipment: cRp16aPIXIT-Reserve pre-assigned: cRp16bPIXIT-Owner: cRp17SCL-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, cBrN1PICS-SetBRCBValues(trgops, optflds): cBr2PICS-Buffer time: cBr6PICS-General interrogation: cBr7PIXIT-Rp2 Dataset=Y and PIXIT-Ds11 dataset creation supported: cBr12, cBr13bPIXIT-Non test equipment: cBr16aPIXIT-Reserve pre-assigned: cBr16bPIXIT-Owner: cBr17SCL-supportsLdName: cBr18PIXIT-Purge buffer: cBr32PIXIT-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 ApplicableFixed / 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 |