Solution to redmine #668 for both Ed2 and Ed2.1

Remove the mirrorblocked related addCauses/commandtermination;

focus on the FC=OR attributes, the sequence is less strict

May 21, 2021

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| **sCtl28 DOns** | **Verify the FC=OR attributes opOk, OpRcvd, tOpOk** | Passed  Failed  Inconclusive |
| IEC 61850-7-2 Subclause 20.2 and 20.3  IEC 61850-7-3 Subclause 8 “opRcvd”  IEC 61850-7-4 Annex A  IEC 61850-8-1 Subclause 20  TISSUE #1676 (multiple figures for control) | | |
| Expected result  1), 3), 5) and 7)   * Operate is accepted, DUT sends reports/GOOSE with OpRcvd=T, OpRcvd=F, opOk=T and opOk=F   2), 4), 6) and 8)   * DUT returns Operate response- and sends reports/GOOSE with OpRcvd=T and then OpRcvd=F | | |
| Test description  Configure a dataset with the opOk, OpRcvd, tOpOk with FC=OR and enable a GOOSE control block (when supported) or a report control block with this dataset and trigger data-change. Equipment simulator does not change the position.  Beh = on   1. Client sends correct Operate with test=false 2. Client sends correct Operate with test=true   Change Beh = test when supported   1. Client sends correct Operate with test=true 2. Client sends correct Operate with test=false   Change Beh = test/blocked when supported   1. Client sends correct Operate with test=true 2. Client sends correct Operate with test=false   Change Beh = blocked when supported   1. Client sends correct Operate with test=false 2. Client sends correct Operate with test=true | | |
| Comment | | |

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| **sCtl28 SBOns** | **Verify FC=OR attributes opOk, OpRcvd, tOpOk** | Passed  Failed  Inconclusive |
| IEC 61850-7-2 Subclause 20.2 and 20.3  IEC 61850-7-4 Annex A  IEC 61850-8-1 Subclause 20  TISSUE #1676 (multiple figures for control) | | |
| Expected result  1), 3), 5) and 7)   * Select is accepted * Operate is accepted, DUT sends reports/GOOSE with OpRcvd=T, OpRcvd=F, opOk=T and opOk=F   2), 4), 6) and 8)   * Select is accepted * DUT returns Operate response- and sends reports/GOOSE with OpRcvd=T and then OpRcvd=F | | |
| Test description  Configure a dataset with the opOk, OpRcvd, tOpOk with FC=OR and enable a GOOSE control block (when supported) or a report control block with this dataset and trigger data-change. Equipment simulator does not change the position.  Beh = on   1. Client sends correct Select and Operate with test=false 2. Client sends correct Select and Operate with test=true   Change Beh = test when supported   1. Client sends correct Select and Operate with test=true 2. Client sends correct Select and Operate with test=false   Change Beh = test/blocked when supported   1. Client sends correct Select and Operate with test=true 2. Client sends correct Select and Operate with test=false   Change Beh = blocked when supported   1. Client sends correct Select and Operate with test=false 2. Client sends correct Select and Operate with test=true | | |
| Comment | | |

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| **sCtl28 DOes** | **Verify FC=OR attributes opOk, OpRcvd, tOpOk** | Passed  Failed  Inconclusive |
| IEC 61850-7-2 Subclause 20.2 and 20.3  IEC 61850-7-4 Annex A  IEC 61850-8-1 Subclause 20  TISSUE #1676 (multiple figures for control) | | |
| Expected result  1), 3), 5) and 7)   * Operate is accepted, DUT sends reports/GOOSE with OpRcvd=T , OpRcvd=F, opOk=T and opOk=F   2), 4), 6) and 8)   * DUT returns Operate response- and sends reports/GOOSE with OpRcvd=T and then OpRcvd=F | | |
| Test description  Configure a dataset with the opOk, OpRcvd, tOpOk with FC=OR and enable a GOOSE control block (when supported) or a report control block with this dataset and trigger data-change. Equipment simulator does not change the position.  Beh = on   1. Client sends correct Operate with test=false 2. Client sends correct Operate with test=true   Change Beh = test when supported   1. Client sends correct Operate with test=true 2. Client sends correct Operate with test=false   Change Beh = test/blocked when supported   1. Client sends correct Operate with test=true 2. Client sends correct Operate with test=false   Change Beh = blocked when supported   1. Client sends correct Operate with test=false 2. Client sends correct Operate with test=true | | |
| Comment | | |

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| **sCtl28 SBOes** | **Verify FC=OR attributes opOk, OpRcvd, tOpOk** | Passed  Failed  Inconclusive |
| IEC 61850-7-2 Subclause 20.2 and 20.3  IEC 61850-7-4 Annex A  IEC 61850-8-1 Subclause 20  TISSUE #1676 (multiple figures for control) | | |
| Expected result  1), 3), 5) and 7)   * SelectWithValue is accepted * Operate is accepted, DUT sends reports/GOOSE with OpRcvd=T, OpRcvd=F, opOk=T and opOk=F   2), 4), 6) and 8)   * When the DUT returns SelectWithValue response- it will send no report/GOOSE. * When SelectWithValue is accepted continue * DUT returns Operate response- and sends reports/GOOSE with OpRcvd=T and then OpRcvd=F | | |
| Test description  Configure a dataset with the opOk, OpRcvd, tOpOk with FC=OR and enable a GOOSE control block (when supported) or a report control block with this dataset and trigger data-change. Equipment simulator does not change the position.  Beh = on   1. Client sends correct SelectWithValue and Operate with test=false 2. Client sends correct SelectWithValue and when accepted Operate with test=true   Change Beh = test when supported   1. Client sends correct SelectWithValue and Operate with test=true 2. Client sends correct SelectWithValue and when accepted Operate with test=false   Change Beh = test/blocked when supported   1. Client sends correct SelectWithValue and Operate with test=true 2. Client sends correct SelectWithValue and when accepted Operate with test=false   Change Beh = blocked when supported   1. Client sends correct SelectWithValue and Operate with test=false 2. Client sends correct SelectWithValue and when accepted Operate with test=true | | |
| Comment  For SBOes it’s not mandatory to perform all checks during the SelectWithValue (PIXIT Ct18) | | |

| 12: Control general | sCtl5, sCtl8, sCtl9, sCtl10, sCtl11, sCtl25 | SCL-Writable control model: sCtl2  PICS-TimOper: sCtl3  SCL-stSeld: sCtl4  SCL-multiple SBO: sCtl6  SCL-CILO: sCtl7  SCL-DO object has SBO/SBOw data attributes: sCtl13  SCL-Operate time reasonably large: sCtl14  PIXIT-Sr5 Behaviour=off: sCtl15  SCL-Loc: sCtl16  SCL-LocSta: sCtl17  SCL-CmdBlk: sCtl18  PIXIT-Ct9 AddCause:   * Parameter-change-in-execution: sCtl20 * Step-limit: sCtl21 * Ended-with-overshoot: sCtl23 * Abortion-due-to-deviation: sCtl24 * Command-already-in-execution and operate time: sCtl26   SCL-SBO and SBOw: sCtl27  SCL-FC=OR: sCtl28 |
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No impact on certificate