# Annex H Server Certificate Template

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| --- | --- | --- |
| No. << certificate number>>  **IEC 61850 Certificate Level A/B1** | |  |
| Issued to: | For the server product: | |
| <<TEST INITIATOR>>  <<FULL ADDRESS>> | <<PRODUCT ID and NAME>>  <<SOFTWARE VERSION>> <<Hardware version and/or S/N>> | |

Issued by: <<test lab>>

**The server product has not been shown to be non-conforming to:**

IEC 61850 Edition 2 Parts 6, 7-1, 7-2, 7-3, 7-4 and 8-1

**Communication networks and systems for power utility automation**

The conformance test has been performed according to IEC 61850-10 Edition 2, the UCA International Users Group Edition 2 Server Test Procedures version 2.0.6 with name space definition 7-4:2007A3 [and 7-420:2019A4] and product’s protocol, model and technical issue implementation conformance statements: “<<PICS>>”, “<<MICS>>”, “<<TICS>>” and product’s extra information for testing: “<<PIXIT>>”.

The following IEC 61850 conformance blocks have been tested with a positive result (number of relevant and executed test cases / total number of test):

|  |  |
| --- | --- |
| 1 Basic Exchange (../26)  2 Data Sets (../7)  2+ Data Set Definition (../24)  3 Substitution (../3)  4 Setting Group Selection (../4)  4+ Setting Group Definition (../13)  5 Unbuffered Reporting (../23)  6 Buffered Reporting (../33)  7 Logging (../14) | 9a GOOSE Publish (../13)  9b GOOSE Subscribe (../21)  12a Direct Control (../18)  12b SBO Control (../27)  12c Enhanced Direct Control (../20)  12d Enhanced SBO Control (../28)  13 Time Synchronization (../7)  14 File Transfer (../8)  15 Service Tracking (../17) |

This certificate includes a summary of the test results as carried out at <<CITY>> in <<COUNTRY>> with <<CLIENT SIMULATOR> <<VERSION>> with test suite <<VERSION>> and <<ANALYZER>> <<VERSION>>. This document has been issued for information purposes only, and the original paper copy of the <<TESTLAB>> report: No. <<TESTREPORT NUMBER>> will prevail.

The test has been carried out on one single specimen of the product as referred above and submitted to <<TESTLAB>> by <<TEST INITIATOR>>. The manufacturer’s production process has not been assessed. This certificate does not imply that <<TESTLAB>> has certified or approved any product other than the specimen tested.

<<CITY>>, <<DATE>>

<<Manager NAME>> <<Tester NAME>>

<<JOB TITLE>> <<JOB TITLE>>

1 Level A - Independent Test lab with certified [ISO 9001] [ISO/IEC 17025] Quality System

Level B - Test lab at least following ISO 9001

UCA International Users Group, P.O. Box 315, Shell Knob, MO 65747, USA

Applicable Test Procedures from the UCA International Users Group Edition 2 Server Test Procedures version 2.0.6

| **Conformance Block** | **Mandatory** | **Conditional** |
| --- | --- | --- |
| 1: Basic Exchange | sAss1, sAss2, sAss3, sAss4, sAssN2, sAssN3, sAssN4, sAssN5, sSrv1, sSrv2, sSrv3, sSrv4, sSrv5, sSrv8, sSrvN1abcdf, sSrvN4 | sAssN6, sSrv6, sSrv9, sSrv10, sSrv11, sSrv12, sSrv13, sSrvN1e, sSrvN2, sSrvN3 |
| 2: Data Sets | sDs1, sDs10a, sDsN1ae | sDs10b, sDs15, sDsN1b, sDsN13 |
| 2+: Data Set Definition | sDs2, sDs3, sDs4, sDs5, sDs6, sDs7, sDs8, sDs9, sDs13, sDs14, sDsN1cd, sDsN2, sDsN3, sDsN4, sDsN5, sDsN6, sDsN7, sDsN8, sDsN9, sDsN10 | sDs11, sDs12, sDsN11, sDsN12 |
| 3: Substitution | sSub1, sSub2, sSub3 |  |
| 4: Setting Group Selection | sSg1, sSg3, sSgN1 | sSg11 |
| 4+: Setting Group Definition | sSg2, sSg4, sSg6, sSg7, sSg8, sSg10, sSg12, sSgN2, sSgN3, sSgN4, sSgN5 | sSg5, sSg9 |
| 5: Unbuffered Reporting | sRp1, sRp2, sRp3, sRp4, sRp5, sRp9, sRp14, sRp16, sRpN1, sRpN2, sRpN3, sRpN4, sRpN8 | sRp6, sRp7, sRp8, sRp10, sRp11, sRp12, sRp13, sRp15, sRp17, sRpN5 |
| 6: Buffered Reporting | sBr1, sBr2, sBr3, sBr4, sBr5, sBr9, sBr14, sBr16, sBr20, sBr21, sBr22, sBr25, sBr26, sBr27, sBr28, sBr29, sBrN1, sBrN2, sBrN3, sBrN4, sBrN5, sBrN8 | sBr6, sBr7, sBr8, sBr10, sBr11, sBr12, sBr13, sBr15, sBr17, sBr23, sBr24 |
| 7: Logging | sLog2, sLog3, sLog4, sLog5, sLog6, sLog7, sLog8, sLog9, sLog11, sLog12, sLog13, sLogN1, sLogN2 | sLog10 |
| 9a: GOOSE publish | sGop2a, sGop3, sGop4, sGop9, sGop10, sGop11, sGop12 | sGop1, sGop2b, sGop5, sGop6, sGopN1, sGopN2 |
| 9b: GOOSE subscribe | sGos1, sGos2, sGos3, sGos5, sGos6a, sGos7, sGos8, sGos9, sGos10, sGos11, sGos12, sGos23, sGosN1, sGosN2, sGosN3, sGosN4, sGosN5, sGosN6 | sGos4, sGos6b, sGos13 |
| 9c: GOOSE mngt | sGom1, sGom2, sGomN1 |  |
| 12a Direct control | sCtl5, sCtl10, sDOns1, sDOns2 | sCtl2, sCtl3, sCtl7, sCtl13, sCtl15, sCtl16, sCtl17, sCtl18, sCtl21, sCtl28, sCtl23, sCtl24, sDOns4, sDOns5 |
| 12b SBO control | sCtl5, sCtl8, sCtl9, sCtl10, sCtl11, sCtl25, sSBOns1, sSBOns2, sSBOns6 | sCtl2, sCtl3, sCtl4, sCtl6, sCtl7, sCtl15, sCtl16, sCtl17, sCtl18, sCtl20, sCtl21, sCtl23, sCtl24, sCtl27, sCtl28, sSBOns4, SBOns5, sSBOns7 |
| 12c Enhanced Direct Control | sCtl5, sCtl10, sDOes1, sDOes2 | sCtl2, sCtl3, sCtl7, sCtl13, sCtl14, sCtl15, sCtl16, sCtl17, sCtl18, sCtl21, sCtl23, sCtl24, sCtl26, sCtl28, sDOes4, sDOes5 |
| 12d Enhanced SBO control | sCtl5, sCtl8, sCtl9, sCtl10, sCtl11, sCtl25, sSBOes1, sSBOes2, sSBOes6, sSBOes8 | sCtl2, sCtl3, sCtl4, sCtl6, sCtl7, sCtl15, sCtl16, sCtl17, sCtl18, sCtl20, sCtl21, sCtl23, sCtl24, sCtl26, sCtl28, sSBOes4, sSBOes5, sSBOes7 |
| 13 Time sync | sTm1, sTm2, sTmN1 | sTm3, sTm4, sTm5, sTmN2 |
| 14 File transfer | sFt1, sFt2ab, sFt4, sFt5, sFtN1ab | sFt2c, sFt3, sFtN1c |
| 15 Service tracking |  | sTrk1, sTrk2, sTrk3, sTrk4, sTrk5, sTrk6, sTrk7, sTrk8, sTrk9, sTrk10, sTrk11, sTrk12, sTrk13, sTrk14, sTrk15, sTrk16, sTrk17 |

[ All configuration file and data model tests have been successfully performed for the product variants using the same communication hardware and software version: <<Variant2>>, <<Variant3>> ]

Instruction how to use the template

* The product ID shall be the name of an unique product, it may not be a generic name
* The software version is the version if the IEC 61850 implementation or communication interface
* When the device datamodel has at least one LN from 7-420 the test lab may add 7-420
* When the device datamodek has no LN from 7-420 the tdt lab shall remove the 7-420 text
* Remove this instruction page in the actual certificate
* Select level A or B
* Update the tables with the applicable conformance blocks and test cases
* Update the number of applicable test cases on page 1
* Remove the line with product variants when thee are none