

IEC 61850 Certificate Level A¹

No. 10157892-INC 19-2545Rev1

Issued to: Prosoft-Systems Ltd. 194a Volgogradskaya St. 620102 Ekaterinburg Russian Federation

For the server product:

RES-3-61850 (P9C-3-61850) Fault Recorder Software version: 2.0 Hardware version: 1.0 S/N: 06180002

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 1.0 with TPCL² 1.2.6 with product's protocol, model and technical issue implementation conformance statements: "Protocol Implementation Conformance Statement for the IEC 61850 interface in RES-3-61850, version 2.0", "Model Implementation Conformance Statement for the IEC 61850 interface in RES-3-61850, version 2.0" and "TISSUES Implementation Conformance Statement for the IEC 61850 Ed2 interface in RES-3-61850, version 2.0" and the extra information for testing: "Protocol Implementation eXtra Information for Testing (PIXIT) for the IEC 61850 interface in RES-3-61850, version 2.0".

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

| 1 | Basic Exchange (21/26) | | GOOSE Publish (11/13) |
|---|------------------------------|----|----------------------------|
| 2 | Data Sets (4/7) | 9b | GOOSE Subscribe (14/14) |
| 5 | Unbuffered Reporting (21/21) | 13 | Time Synchronization (5/7) |
| 6 | Buffered Reporting (30/30) | 14 | File Transfer (8/8) |

This certificate includes a summary of the test results as carried out at NTC FSK UES in Russian Federation with UniGrid SA Simulator 1.4.461 with test suite 1.0.51 and UniCA 61850 Analyzer 5.34.02. This document has been issued for information purposes only, and the archived DNV GL verification report No. 10157892-INC 19-2544 will prevail.

The test has been carried out on one single specimen of the product as referred above and submitted to DNV GL by Prosoft-Systems. The manufacturer's production process has not been assessed. This certificate does not imply that DNV GL has approved any product other than the specimen tested.

Arnhem, May 17, 2019

US E. Henriquez

Business Leader Interoperability of Smart Power Systems

Issued by:



DNV KEMA is now DNV GL

erification Manager

 $^1\,{\rm Level}\,{\rm A}$ - Independent test lab with certified ISO 9001 Quality System $^2\,{\rm TPCL}$ - Test procedures change list

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Applicable Test Procedures from the UCA International Users Group Edition 2 Server Test Procedures version 1.0 with TPCL 1.2.6

| Conformance Block | | Mandatory | Conditional |
|-------------------|-------------------------|--|---|
| 1: | Basic Exchange | sAss1, sAss2, sAss3, sAssN2, sAssN3, sAssN4, sAssN5, sSrv1, sSrv2, sSrv3, sSrv4, sSrv5, sSrvN1abcd, sSrvN4 | sAssN6, sSrv6, sSrv8, sSrv12, sSrvN1e, sSrvN1f, sSrvN3 |
| 2: | Data Sets | sDs1, sDs10a, sDsN1ae | sDs15 |
| 5: | Unbuffered Reporting | sRp1, sRp2, sRp3, sRp4, sRp5, sRp9, sRp14, sRp15, sRpN1, sRpN2, sRpN3, sRpN4, sRpN8 | sRp6, sRp7, sRp8, sRp10, sRp11, sRp12, sRp13, sRpN5 |
| 6: | Buffered Reporting | sBr1, sBr2, sBr3, sBr4, sBr5, sBr9, sBr14, sBr15, sBr20, sBr21, sBr22, sBr25, sBr26, sBr27, sBr28, sBrN1, sBrN2, sBrN3, sBrN4, sBrN5, sBrN8 | sBr6, sBr7, sBr8, sBr10, sBr11, sBr12, sBr13, sBr23, sBr24 |
| 9a: | GOOSE publish | sGop2a, sGop3, sGop4, sGop9, sGop10, sGop11 | sGop1, sGop6, sGop7, sGopN1, sGopN2 |
| 9b: | GOOSE subscribe | sGos1, sGos2, sGos3, sGos5, sGos6a, sGos7, sGosN1, sGosN2, sGosN3, sGosN4, sGosN5, sGosN6 | sGos4, sGos6b |
| 13: | Time sync | sTm1, sTm2, sTmN1 | sTm3, sTmN2 |
| 14: | File transfer | sFt1, sFt2ab, sFt4, sFt5, sFtN1ab | sFt2c, sFt3, sFtN1c |

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