

IEC 61850 Certificate Level A¹

No. 10270573-INC 20-3212

Issued to:

Prosoft-Systems Ltd. Volgogradskaya Str., 194a 620102, Yekaterinburg Russian Federation

For the server product:

 $\ensuremath{\mathsf{TPA-01}}\xspace$ (TPA-01) Protection, Automation, Measurement and Control System

Software version: 3.0 S/N: 01200161

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_rev5 with product's protocol, model and technical issue implementation conformance statements: "Protocol Implementation Conformance Statement for the IEC 61850 interface in TPA-01, version 1.0", "Model Implementation Conformance Statement for the IEC 61850 interface in TPA-01, version 1.0" and "TISSUES Implementation Conformance Statement for the IEC 61850 Ed2 interface in TPA-01, version 1.0" and the extra information for testing: "Protocol Implementation eXtra Information for Testing (PIXIT) for the IEC 61850 interface in TPA-01, version 1.0".

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 (24/28)
- 2 Data Sets (4/7)
- 4 Setting Group Selection (4/4)
- 4+ Setting Group Definition (13/13)
- 5 Unbuffered Reporting (22/22)
- 6 Buffered Reporting (32/32)

- 9a GOOSE Publish (11/13)
- 9b GOOSE Subscribe (18/18)
- 12a Direct Control (5/17)
- 12d Enhanced SBO Control (14/27)
- 13 Time Synchronization (5/7)
- 14 File Transfer (8/8)

This certificate includes a summary of the test results as carried out at NTC FSK UES in Moscow, Russia with UniGrid SA Simulator 1.7.0 with test suite 1.1.0 and UniCA 61850 Analyzer 5.31.01. This document has been issued for information purposes only, and the archived DNV GL verification report No. 10270573-INC 20-3211 rev 1 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, December 18, 2020

Issued by:

N.A. Heijker
Business Leader
Interoperability of Smart Power Systems

DNV-GL

DNV KEMA is now DNV GL

R. Schimmel
Verification Manager

¹ Level A - Independent test lab with certified ISO 9001 Quality System

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Applicable Test Procedures from the UCA International Users Group Edition 2 Server Test Procedures version 2.0_rev5

Conformance Block		Mandatory	Conditional
1:	Basic Exchange	sAss1, sAss2, sAss3, sAss4, sAssN2, sAssN3, sAssN4, sAssN5, sSrv1, sSrv2, sSrv3, sSrv4, sSrv5, sSrvN1abcd, sSrvN4	sAssN6, sSrv6, sSrv8, sSrv9, sSrv10, sSrv12, sSrvN1e, sSrvN1f, sSrvN3
2:	Data Sets	sDs1, sDs10a, sDsN1ae	sDs15
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, 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, sBr23, sBr24
9a:	GOOSE publish	sGop2a, sGop3, sGop4, sGop9, sGop10, sGop11, sGop12	sGop1, sGop6, sGopN1, sGopN2
9b:	GOOSE subscribe	sGos1, sGos2, sGos3, sGos5, sGos6a, sGos7, sGos8, sGos9, sGos10, sGos11, sGosN1, sGosN2, sGosN3, sGosN4, sGosN5, sGosN6	sGos4, sGos6b
12a:	Direct control	sCtl5, sCtl10, sDOns1, sDOns2	sCtl15
12d:	Enhanced SBO Control	sCtl5, sCtl8, sCtl9, sCtl10, sCtl11, sCtl25, sSBOes1, sSBOes2, sSBOes6, sSBOes8	sCtl4, sCtl7, sCtl15, sCtl16
13:	Time sync	sTm1, sTm2, sTmN1	sTm3, sTmN2
14:	File transfer	sFt1, sFt2ab, sFt4, sFt5, sFtN1ab	sFt2c, sFt3, sFtN1c