



IEC 61850 Certificate Level A¹

Issued to:

STC GOSAN Ltd. (OOO HTLL «FOCAH») Stroitel'nyi dvor Biorki poselok Kolomenskii r-n Moscow Region 140452 Russian Federation For the server product: BIM 2235.89 16/16 ADP01 (БИМ 2235.89 16/16 АДР01)

Software version: B0.66 Firmware version: 03.23.0004

S/N: 118278

Bay Controller

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 2.0.4 with product's protocol, model and technical issue implementation conformance statements: "Protocol Implementation Conformance Statement For the IEC Edition 2 61850 Server interface in "BIM 2235.89.16/16 ADP01", date 20.04.2021", "Model Implementation Conformance Statement (MICS) For the IEC Edition 2 61850 Server interface in "BIM 2235.89.16/16 ADP01", date 20.04.2021" and "TISSUEs Implementation Conformance Statement (TICS) For the IEC Edition 2 61850 Server interface in "BIM 2235.89.16/16 ADP01" Version ,date 20.04.2021" and the extra information for testing: "Protocol Implementation eXtra Information for Testing (PIXIT) For the IEC Edition 2 61850 Server interface in "BIM 2235.89.16/16 ADP01", date 20.04.2021".

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):

- Basic Exchange (18/26)
- 2 Data Sets (4/7)
- 4 Setting Group Selection (4/4)
- 4+ Setting Group Definition (12/13)
- 5 Unbuffered Reporting (18/23)
- 6 Buffered Reporting (26/33)

- 9a GOOSE Publish (11/13)
- 9b GOOSE Subscribe (18/20)
- 12a Direct Control (7/18)
- 12d Enhanced SBO Control (15/28)
- 13 Time Synchronization (4/7)
- 14 File Transfer (5/8)

This certificate includes a summary of the test results as carried out at NTC FSK UES in Russia with UniGrid SA Simulator 1.8.1 with test suite 20211006.1 and UniCA 61850 Analyzer 6.41. This document has been issued for information purposes only, and the archived DNV verification report No. 10320627-INC 21-3482 rev 2 will prevail.

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

Arnhem, November 12, 2021

Issued by:

N.A. Heijker Business Leader

Interoperability of Smart Power Systems

DNV

R. Schimmel
Verification Manage

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 $^{^{\}rm 1}\,\text{Level}\,\text{A}$ - 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 2.0.4

Conformance Block		Mandatory	Conditional
1:	Basic Exchange	sAss1, sAss2, sAss3, sAss4, sAssN2, sAssN3, sAssN4, sAssN5, sSrv1, sSrv2, sSrv3, sSrv4, sSrv5, sSrv8, sSrvN1abcdf, sSrvN4	sAssN6, sSrv12
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	sSg9
5:	Unbuffered Reporting	sRp1, sRp2, sRp3, sRp4, sRp5, sRp9, sRp14, sRp16, sRpN1, sRpN2, sRpN3, sRpN4, sRpN8	sRp6, sRp7, sRp10, 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, sBr10, sBr15
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, sGos12, sGosN1, sGosN2, sGosN3, sGosN4, sGosN5, sGosN6	sGos13
12a:	Direct control	sCtl5, sCtl10, sDOns1, sDOns2	sCtl15, sCtl16, sCtl17
12d:	Enhanced SBO Control	sCtl5, sCtl8, sCtl9, sCtl10, sCtl11, sCtl25, sSBOes1, sSBOes2, sSBOes6, sSBOes8	sCtl6, sCtl15, sCtl16, sCtl17, sCtl26
13:	Time sync	sTm1, sTm2, sTmN1	sTm3
14:	File transfer	sFt1, sFt2ab, sFt4, sFt5, sFtN1ab	