

No. 74108592-OPE/INC 15-2795

Issued to:

CG Automation Solutions
60 Fadem Road
Springfield, NJ 07081
USA

For the server product:

ePAQ-9425 Multifunction Gateway
Software version: Link 80-01000-001P
Hardware version: SR CPLD 0.15

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

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

Communication networks and systems in substations

The conformance test has been performed according to IEC 61850-10, the UCA International Users Group Server Device Test Procedures version 2.3 with TPCL² version 1.8, the product's protocol, model and technical issue implementation conformance statements: "Protocol Implementation Conformance Statement for the IEC 61850 interface in ePac94xx, March 28, 2013 Rev A", "Model Implementation Conformance Statement for the IEC 61850 interface in ePac94xx, Oct 23 2015 Rev A" and "TISSUES Implementation Conformance Statement for the IEC 61850 interface in ePAQ 94xx, April 15, 2015, Rev A" and the extra information for testing: "Protocol Implementation eXtra Information for Testing (PIXIT) for the IEC 61850 interface in ePac94xx, April 9, 2013, Rev A".

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 (21/24)	12a Direct Control (4/12)
2 Data Sets (3/6)	12b SBO Control (6/14)
2+ Data Set Definition (23/23)	13 Time Synchronization (3/5)
5 Unbuffered Reporting (19/19)	

This certificate includes a summary of the test results as carried out at CG Automation Solutions in the USA with UniCA 61850 Client Simulator 4.29.03 with test suite 3.29.00 and UniCA 61850 Analyzer 5.29.02. This document has been issued for information purposes only, and the original paper copy of the DNV GL report No. 74108592-OPE/INC 15-2796 will prevail.

The test has been carried out on one single specimen of the product as referred above and submitted to DNV GL by CG Automation Solutions. 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, November 2, 2015



B/A

M. Adriaensen
Head of Department
Operational Excellence

Issued by:



DNV KEMA is now DNV GL



R. Schimmel
Verification Manager

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

² TPCL - Test procedures change list

Applicable Test Procedures from the UCA International Users Group Server Device Test Procedures version 2.3 with TPCL 1.8

Conformance Block	Mandatory	Conditional
1: Basic Exchange	Ass1, Ass2, Ass3, AssN2, AssN4, AssN5 Srv1, Srv2, Srv3, Srv4, Srv5, SrvN1abcd, SrvN4	AssN3, Srv6, Srv7, Srv8, SrvN1e, SrvN1f, SrvN2, SrvN3
2: Data Sets	Dset1, Dset10a, DsetN1ae	
2+: Data Set Definition	Dset2, Dset3, Dset4, Dset5, Dset6, Dset7, Dset8, Dset9 DsetN1cd, DsetN2, DsetN3, DsetN4, DsetN5, DsetN6, DsetN7, DsetN8, DsetN9, DsetN10, DsetN11, DsetN12, DsetN13, DsetN14, DsetN15	
5: Unbuffered Reporting	Rp1, Rp2, Rp3, Rp4, Rp9, Rp15, RpN1, RpN2, RpN3, RpN4, RpN8	Rp5, Rp6, Rp7, Rp8, Rp10, Rp11, Rp12, RpN5
12a: Direct Control	CtIN3, CtIN8, DOns1	DOns3
12b: SBO Control	CtI3, CtIN1, CtIN2, CtIN3, CtIN4, SBOs2	
13: Time Sync	Tm1, Tm2	TmN1

All configuration file and data model tests have been successfully performed for the product variants using the same communication hardware and software version: ePAQ-9410 (gateway with basic IO) and ePAQ-9420 (gateway with extended IO)