



Letter of Attestation

Document: 80311859

Master Contract: N/A

Project: 80311859

Date Issued: September 20, 2026

Issued to: LongShine Technology Group
Co., Ltd.
Langxin Science and Technology
Industrial Park, No. 118 Jinghui
East Road, Xinwu District
Wuxi, Jiangsu 214000
China
Attention: AI YUAN

*CSA Group hereby confirms that it has completed an evaluation of:
LongShine OpenADR VTN Platform*

*CSA Group hereby attests that the products identified above and described
in test report 80311859 dated September 20, 2026
complies with the following standards/tests, to the extent applicable:*

1. *OpenADR 2.0 Profile Specification B Profile V1.1*
2. *OpenADR 2.0 Profile Specification A Profile V1.0*
3. *OpenADR 2.0a Certification Test Specification V1.1.7*
4. *OpenADR 2.0b Certification Test Specification V1.1.7*

Issued by: Anson Du

CSA Group

THIS LETTER OF ATTESTATION DOES NOT AUTHORIZE THE USE OF THE CSA MARK ON THE SUBJECT PRODUCTS.

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Descriptive Report

MASTER CONTRACT: N/A

REPORT: 80311859

PROJECT: 80311859

Edition 1: September 20, 2026; Project 80311859 - Shanghai
Prepared By: Anson Du

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PRODUCTS

LongShine OpenADR VTN Platform

APPLICABLE REQUIREMENTS

1. OpenADR 2.0 Profile Specification B Profile V1.1
2. OpenADR 2.0 Profile Specification A Profile V1.0
3. OpenADR 2.0a Certification Test Specification V1.1.7
4. OpenADR 2.0b Certification Test Specification V1.1.7

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MARKINGS

N/A

ALTERATIONS

N/A

FACTORY TESTS

N/A

DESCRIPTION

OpenADR 2.0 is an application layer message exchange specification used for two-way communication of Demand Response (DR), price, and Distributed Energy Resource (DER) signals between the electricity service provider and its customers. The scope of the test cases will focus on validating the successful exchange of messages between VTNs and VENs, validating that any exceptions are handled gracefully and without service interruptions and that security mechanisms are properly implemented. Validating the functional behavior of the DUT in response to payload content is out of scope for the certification tests.

TEST HISTORY

Project 80311859

1. Test Summary

Device(s) Identification

LongShine OpenADR VTN Platform is an OpenADR 2.0b Virtual Top Node that links grid operators and aggregators to flexible demand-side resources. With Profile A/B, SimpleHTTP pull/push, XMPP push, and TLS RSA/ECC, it provides certified interoperability across the full DR lifecycle—resource registration, event dispatch, opt response, and telemetry reporting. On this foundation it enables virtual power plants (VPP) to aggregate distributed flexibility, industrial and commercial load-control programs for peak shaving and ordered electricity use, grid monitoring and visualization for operators, and EV charging demand management for station and fleet loads—turning customer-side capacity into schedulable, auditable demand response.

Device under test Information:

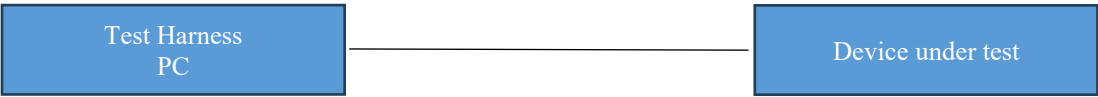
Product Name	LongShine OpenADR VTN Platform
Product Model	N/A
Product Type	VTN
Firmware Version	V1.0
OpenADR Profile	2.0a/2.0b
Security	ECC/RSA
Transport Protocol	Simple HTTP/XMPP
Pull/Push Mode	Push/Pull Mode

Test Tool information:

Tool Company	QualityLogic
Tool Name	OpenADR A and B Test Harness
Tool Version	V1.1.7

2. Test Configuration

Test Setup



Test Procedures

The device under test is software implementation of OpenADR protocol installed on control board. The test had been completed on September 4, 2026.

3. Test Result

Summary Convention

The following “Result” convention is used in this summary.

Result Items	Description
PASS	means the performed test was verified and that the tested device is conformant to the test specification.
SKIP	means the PICS test case guidelines allowed test case to be skipped
N/A	means the test cases are optional or not applicable to the tested device

Summary of Test Results

2.0b Simple HTTP Pull Mode

1. EiRegisterParty Service Test

No.	Test Case Name	Test Result
1	N1_0010_TH_VEN	PASS
2	N1_0020_TH_VEN	PASS
3	N1_0015_TH_VEN	PASS
4	N1_0050_TH_VEN	PASS
5	N1_0060_TH_VEN	PASS
6	N1_0065_TH_VEN	PASS
7	N1_0070_TH_VEN	PASS
8	N1_0025_TH_VEN	PASS
9	N1_0030_TH_VEN	PASS
10	N1_0040_TH_VEN	PASS
11	N1_0080_TH_VEN	PASS

2. General Test

No.	Test Case Name	Test Result
1	G1_4005_TH_VEN	PASS
2	G1_4007_TH_VEN	PASS
3	G1_4010_TH_VEN	PASS
4	G1_4011_TH_VEN	PASS
5	G1_4012_TH_VEN	PASS
6	G1_4020_TH_VEN_1	PASS
7	G1_4030_TH_VEN	PASS

3. EiOpt Service Test

No.	Test Case Name	Test Result
1	P1_2010_TH_VEN	PASS
2	P1_2015_TH_VEN	PASS
3	P1_2020_TH_VEN	PASS
4	P1_2030_TH_VEN	PASS
5	P1_2040_TH_VEN	PASS
6	P1_2050_TH_VEN	PASS

4. EiReport Service Test

No.	Test Case Name	Test Result
1	R1_3010_TH_VEN	PASS
2	R1_3020_TH_VEN	PASS
3	R1_3025_TH_VEN	PASS
4	R1_3027_TH_VEN	PASS
5	R1_3030_TH_VEN	PASS
6	R1_3040_TH_VEN	PASS
7	R1_3045_TH_VEN	PASS
8	R1_3050_TH_VEN	PASS
9	R1_3060_TH_VEN	PASS
10	R1_3070_TH_VEN	PASS
11	R1_3080_TH_VEN	PASS
12	R1_3090_TH_VEN	PASS
13	R1_3100_TH_VEN	PASS
14	R1_3120_TH_VEN	PASS
15	R1_3130_TH_VEN	PASS
16	R1_3150_TH_VEN	PASS
17	R1_3160_TH_VEN	PASS
18	R1_3170_TH_VEN	N/A
19	R1_3180_TH_VEN	PASS
20	R1_3190_TH_VEN	PASS

5. EiEvent Service Test

No.	Test Case Name	Test Result
1	E1_1010_TH_VEN	PASS
2	E1_1020_TH_VEN	PASS
3	E1_1025_TH_VEN	PASS
4	E1_1027_TH_VEN	PASS
5	E1_1030_TH_VEN	PASS
6	E1_1040_TH_VEN	PASS
7	E1_1050_TH_VEN	PASS
8	E1_1055_TH_VEN	PASS
9	E1_1060_TH_VEN	PASS
10	E1_1065_TH_VEN	PASS
11	E1_1070_TH_VEN	N/A
12	E1_1080_TH_VEN	PASS
13	E1_1090_TH_VEN	N/A

6. EiEvent Ported A Profile Test

No.	Test Case Name	Test Result
1	A_E3_0420_TH_VEN	PASS
2	A_E3_0430_TH_VEN	PASS
3	A_E3_0432_TH_VEN	PASS
4	A_E3_0435_TH_VEN	PASS
5	A_E3_0440_TH_VEN	PASS
6	A_E3_0450_TH_VEN	PASS
7	A_E3_0452_TH_VEN	PASS
8	A_E3_0454_TH_VEN	PASS
9	A_E3_0468_TH_VEN	PASS

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No.	Test Case Name	Test Result
10	A_E3_0470_TH_VEN	PASS
11	A_E3_0474_TH_VEN	PASS
12	A_E3_0480_TH_VEN	PASS
13	A_E3_0484_TH_VEN	PASS
14	A_E3_0490_TH_VEN	PASS
15	A_E3_0492_TH_VEN	PASS
16	A_E3_0494_TH_VEN	PASS
17	A_E3_0496_TH_VEN	PASS
18	A_E3_0498_TH_VEN	PASS
19	A_E3_0500_TH_VEN	PASS
20	A_E3_0510_TH_VEN	PASS
21	A_E3_0525_TH_VEN	PASS
22	A_E3_0527_TH_VEN	PASS
23	A_E3_0655_TH_VEN	PASS
24	A_E3_0657_TH_VEN	PASS
25	A_E3_0680_TH_VEN	PASS
26	A_E3_0685_TH_VEN	PASS
27	A_E3_0710_TH_VEN	PASS
28	A_E3_0720_TH_VEN	PASS
29	A_E3_0730_TH_VEN	PASS
30	A_E3_0750_TH_VEN	PASS
31	A_E3_0780_TH_VEN	PASS

2.0b Simple HTTP Push Mode**1. EiRegisterParty Service Test**

No.	Test Case Name	Test Result
1	N0_5010_TH_VEN	PASS
2	N0_5020_TH_VEN	PASS
3	N0_5015_TH_VEN	PASS
4	N0_5030_TH_VEN	PASS
5	N0_5025_TH_VEN	PASS
6	N0_5040_TH_VEN_1	PASS
7	N0_5050_TH_VEN_1	PASS
8	N0_5060_TH_VEN	PASS
9	N0_5065_TH_VEN	PASS
10	N0_5070_TH_VEN	PASS
11	N0_5080_TH_VEN	PASS

2. General Test

No.	Test Case Name	Test Result
1	G0_9005_TH_VEN_1	PASS
2	G0_9010_TH_VEN_1	PASS
3	G0_9020_TH_VEN_1	PASS
4	G0_9030_TH_VEN_1	PASS

3. EiOpt Service Test

No.	Test Case Name	Test Result
1	P0_7010_TH_VEN	PASS
2	P0_7015_TH_VEN	PASS
3	P0_7020_TH_VEN	PASS
4	P0_7030_TH_VEN	PASS
5	P0_7040_TH_VEN	PASS
6	P0_7050_TH_VEN	PASS

4. EiReport Service Test

No.	Test Case Name	Test Result
1	R0_8010_TH_VEN_1	PASS
2	R0_8020_TH_VEN_1	PASS
3	R0_8025_TH_VEN_1	PASS
4	R0_8027_TH_VEN_1	PASS
5	R0_8030_TH_VEN_1	PASS
6	R0_8040_TH_VEN_1	PASS
7	R0_8045_TH_VEN_1	PASS
8	R0_8050_TH_VEN_1	PASS
9	R0_8060_TH_VEN	PASS
10	R0_8070_TH_VEN	PASS
11	R0_8080_TH_VEN	PASS
12	R0_8090_TH_VEN	PASS
13	R0_8100_TH_VEN	PASS
14	R0_8120_TH_VEN_1	PASS

No.	Test Case Name	Test Result
15	R0_8130_TH_VEN_1	PASS
16	R0_8150_TH_VEN_1	PASS
17	R0_8160_TH_VEN_1	PASS
18	R0_8170_TH_VEN_1	N/A
19	R0_8180_TH_VEN_1	PASS
20	R0_8190_TH_VEN_1	PASS

5. EiEvent Service Test

No.	Test Case Name	Test Result
1	E0_6010_TH_VEN_1	PASS
2	E0_6020_TH_VEN_1	PASS
3	E0_6025_TH_VEN_1	PASS
4	E0_6027_TH_VEN_1	PASS
5	E0_6030_TH_VEN_1	PASS
6	E0_6040_TH_VEN_1	PASS
7	E0_6050_TH_VEN	PASS
8	E0_6055_TH_VEN_1	PASS
9	E0_6060_TH_VEN_1	PASS
10	E0_6065_TH_VEN_1	PASS
11	E0_6070_TH_VEN_1	N/A
12	E0_6080_TH_VEN_1	PASS
13	E0_6090_TH_VEN_1	N/A

6. EiEvent Ported A Profile Test

No.	Test Case Name	Test Result
1	A_E2_0430_TH_VEN_1	PASS
2	A_E2_0432_TH_VEN_1	PASS
3	A_E2_0435_TH_VEN_1	PASS
4	A_E2_0440_TH_VEN_1	PASS
5	A_E2_0450_TH_VEN_1	PASS
6	A_E2_0452_TH_VEN_1	PASS
7	A_E2_0454_TH_VEN_1	PASS
8	A_E2_0468_TH_VEN_1	PASS
9	A_E2_0470_TH_VEN_1	PASS
10	A_E2_0474_TH_VEN_1	PASS
11	A_E2_0480_TH_VEN_1	PASS
12	A_E2_0484_TH_VEN_1	PASS
13	A_E2_0490_TH_VEN_1	PASS
14	A_E2_0492_TH_VEN_1	PASS
15	A_E2_0494_TH_VEN_1	PASS
16	A_E2_0496_TH_VEN_1	PASS
17	A_E2_0498_TH_VEN_1	PASS
18	A_E2_0500_TH_VEN_1	PASS
19	A_E2_0510_TH_VEN_1	PASS
20	A_E2_0525_TH_VEN_1	PASS
21	A_E2_0527_TH_VEN_1	PASS
22	A_E2_0657_TH_VEN_1	PASS
23	A_E2_0680_TH_VEN_1	PASS

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No.	Test Case Name	Test Result
24	A_E2_0685_TH_VEN_1	PASS
25	A_E2_0710_TH_VEN_1	PASS
26	A_E2_0720_TH_VEN_1	PASS
27	A_E2_0730_TH_VEN_1	PASS
28	A_E2_0750_TH_VEN_1	PASS
29	A_E2_0780_TH_VEN_1	PASS

2.0b XMPP Push Mode

1. EiRegisterParty Service Test

No.	Test Case Name	Test Result
1	N0_5010_TH_VEN	PASS
2	N0_5020_TH_VEN	PASS
3	N0_5015_TH_VEN	PASS
4	N0_5030_TH_VEN	PASS
5	N0_5025_TH_VEN	PASS
6	N0_5040_TH_VEN_1	PASS
7	N0_5050_TH_VEN_1	PASS
8	N0_5060_TH_VEN	PASS
9	N0_5065_TH_VEN	PASS
10	N0_5070_TH_VEN	PASS
11	N0_5080_TH_VEN	PASS

2. General Test

No.	Test Case Name	Test Result
1	G0_9005_TH_VEN_1	PASS
2	G0_9010_TH_VEN_1	PASS
3	G0_9020_TH_VEN_1	PASS
4	G0_9030_TH_VEN_1	PASS

3. EiOpt Service Test

No.	Test Case Name	Test Result
1	P0_7010_TH_VEN	PASS
2	P0_7015_TH_VEN	PASS
3	P0_7020_TH_VEN	PASS
4	P0_7030_TH_VEN	PASS
5	P0_7040_TH_VEN	PASS
6	P0_7050_TH_VEN	PASS

4. EiReport Service Test

No.	Test Case Name	Test Result
1	R0_8010_TH_VEN_1	PASS
2	R0_8020_TH_VEN_1	PASS
3	R0_8025_TH_VEN_1	PASS
4	R0_8027_TH_VEN_1	PASS
5	R0_8030_TH_VEN_1	PASS
6	R0_8040_TH_VEN_1	PASS
7	R0_8045_TH_VEN_1	PASS
8	R0_8050_TH_VEN_1	PASS
9	R0_8060_TH_VEN	PASS
10	R0_8070_TH_VEN	PASS
11	R0_8080_TH_VEN	PASS
12	R0_8090_TH_VEN	PASS
13	R0_8100_TH_VEN	PASS
14	R0_8120_TH_VEN_1	PASS
15	R0_8130_TH_VEN_1	PASS
16	R0_8150_TH_VEN_1	PASS

No.	Test Case Name	Test Result
17	R0_8160_TH_VEN_1	PASS
18	R0_8170_TH_VEN_1	N/A
19	R0_8180_TH_VEN_1	PASS
20	R0_8190_TH_VEN_1	PASS

5. EiEvent Service Test

No.	Test Case Name	Test Result
1	E0_6010_TH_VEN_1	PASS
2	E0_6020_TH_VEN_1	PASS
3	E0_6025_TH_VEN_1	PASS
4	E0_6027_TH_VEN_1	PASS
5	E0_6030_TH_VEN_1	PASS
6	E0_6040_TH_VEN_1	PASS
7	E0_6050_TH_VEN	PASS
8	E0_6055_TH_VEN_1	PASS
9	E0_6060_TH_VEN_1	PASS
10	E0_6065_TH_VEN_1	PASS
11	E0_6070_TH_VEN_1	N/A
12	E0_6080_TH_VEN_1	PASS
13	E0_6090_TH_VEN_1	N/A

6. EiEvent Ported A Profile Test

No.	Test Case Name	Test Result
1	A_E2_0430_TH_VEN_1	PASS
2	A_E2_0432_TH_VEN_1	PASS
3	A_E2_0435_TH_VEN_1	PASS
4	A_E2_0440_TH_VEN_1	PASS
5	A_E2_0450_TH_VEN_1	PASS
6	A_E2_0452_TH_VEN_1	PASS
7	A_E2_0454_TH_VEN_1	PASS
8	A_E2_0468_TH_VEN_1	PASS
9	A_E2_0470_TH_VEN_1	PASS
10	A_E2_0474_TH_VEN_1	PASS
11	A_E2_0480_TH_VEN_1	PASS
12	A_E2_0484_TH_VEN_1	PASS
13	A_E2_0490_TH_VEN_1	PASS
14	A_E2_0492_TH_VEN_1	PASS
15	A_E2_0494_TH_VEN_1	PASS
16	A_E2_0496_TH_VEN_1	PASS
17	A_E2_0498_TH_VEN_1	PASS
18	A_E2_0500_TH_VEN_1	PASS
19	A_E2_0510_TH_VEN_1	PASS
20	A_E2_0525_TH_VEN_1	PASS
21	A_E2_0527_TH_VEN_1	PASS
22	A_E2_0657_TH_VEN_1	PASS
23	A_E2_0680_TH_VEN_1	PASS
24	A_E2_0685_TH_VEN_1	PASS
25	A_E2_0710_TH_VEN_1	PASS
26	A_E2_0720_TH_VEN_1	PASS

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No.	Test Case Name	Test Result
27	A_E2_0730_TH_VEN_1	PASS
28	A_E2_0750_TH_VEN_1	PASS
29	A_E2_0780_TH_VEN_1	PASS

2.0a Pull Mode

No.	Test Case Name	Test Result
1	E3_0420_TH_VEN	PASS
2	E3_0430_TH_VEN	PASS
3	E3_0432_TH_VEN	PASS
4	E3_0435_TH_VEN	PASS
5	E3_0440_TH_VEN	PASS
6	E3_0450_TH_VEN	PASS
7	E3_0452_TH_VEN	PASS
8	E3_0454_TH_VEN	PASS
9	E3_0468_TH_VEN	PASS
10	E3_0470_TH_VEN	PASS
11	E3_0474_TH_VEN	PASS
12	E3_0480_TH_VEN	PASS
13	E3_0484_TH_VEN	PASS
14	E3_0490_TH_VEN	PASS
15	E3_0492_TH_VEN	PASS
16	E3_0494_TH_VEN	PASS
17	E3_0496_TH_VEN	PASS
18	E3_0498_TH_VEN	PASS
19	E3_0500_TH_VEN	PASS
20	E3_0510_TH_VEN	PASS
21	E3_0525_TH_VEN	PASS
22	E3_0527_TH_VEN	PASS
23	E3_0655_TH_VEN	PASS
24	E3_0657_TH_VEN	PASS
25	E3_0660_TH_VEN	PASS
26	E3_0680_TH_VEN	PASS
27	E3_0685_TH_VEN	PASS
28	E3_0710_TH_VEN	PASS
29	E3_0720_TH_VEN	PASS
30	E3_0730_TH_VEN	PASS
31	E3_0750_TH_VEN	PASS
32	E3_0780_TH_VEN	PASS
33	S3_1600_TH_VEN	PASS
34	S3_1605_TH_VEN	PASS

2.0a Push Mode

No.	Test Case Name	Test Result
1	E2_0430_TH_VEN	PASS
2	E2_0432_TH_VEN	PASS
3	E2_0435_TH_VEN	PASS
4	E2_0440_TH_VEN	PASS
5	E2_0450_TH_VEN	PASS
6	E2_0452_TH_VEN	PASS
7	E2_0454_TH_VEN	PASS
8	E2_0468_TH_VEN	PASS
9	E2_0470_TH_VEN	PASS
10	E2_0474_TH_VEN	PASS
11	E2_0480_TH_VEN	PASS
12	E2_0484_TH_VEN	PASS
13	E2_0490_TH_VEN	PASS
14	E2_0492_TH_VEN	PASS
15	E2_0494_TH_VEN	PASS
16	E2_0496_TH_VEN	PASS
17	E2_0498_TH_VEN	PASS
18	E2_0500_TH_VEN	PASS
19	E2_0510_TH_VEN	PASS
20	E2_0525_TH_VEN	PASS
21	E2_0527_TH_VEN	PASS
22	E2_0657_TH_VEN	PASS
23	E2_0670_TH_VEN	PASS
24	E2_0680_TH_VEN	PASS
25	E2_0685_TH_VEN	PASS
26	E2_0710_TH_VEN	PASS
27	E2_0720_TH_VEN	PASS
28	E2_0730_TH_VEN	PASS
29	E2_0750_TH_VEN	PASS
30	E2_0780_TH_VEN	PASS
31	S2_1500_TH_VEN	PASS
32	T9_1200	PASS
33	T9_1210	PASS

---End of Report---