

Tridium TEST REPORT

SCOPE OF WORK

OPENADR 2.0B VEN – HTTP PULL - TRIDIUM - NIAGARA OPENADR VEN DRIVER V N4.9+ - PASSED

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TEST REPORT

7-October-2021

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Subject: OpenADR 2.0b VEN-HTTP Pull test results of the NIAGARA OPENADR VEN DRIVER V N4.9+

Dear Mr. Mark Reitzel,

This test report for the *NIAGARA OPENADR VEN DRIVER V N4.9+* represents the results of our evaluation of the above referenced product(s) to the requirements contained in the following standards:

METHODS

DESCRIPTION OF TEST METHODS AND STANDARDS

OpenADR 2.0b VEN- HTTP Pull

Test Harness Version 1.1.5

Security Level - Standard

SUBMITTED DEVICE

Product Type	Product Name	Firmware Version	Model Number
VEN	NIAGARA OPENADR VEN DRIVER	N4.9+	Niagara 4

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TEST REPORT

TEST ENVIRONMENT

Lab Setup	Connection	DUT	Environment Used
Test Laptop	Dedicated Network	Real Device	X

TEST EQUIPMENT

Test Tool	Manufacturer	Model Number	Version/Errata
Test Harness	Quality Logic	OpenADR2.0bCertTest	1.1.5

WAIVERS GRANTED BY OPENADR ALLIANCE

Test Case(s)	Failure	OpenADR Response	OpenADR Approver
N1_0065		Per the OpenADR Alliance, this test can be skipped.	Rolf Bienert
G1_4005, G1_4007, G1_4010, G1_4012	We have tested our VEN over a secure TLS 1.2 channel including mutual X.509 certificate exchange with a certified VTN with both VEN and VTN configured with test certificates.	Per the OpenADR Alliance, this test can be skipped.	Rolf Bienert
G1_4005, G1_4007, G1_4010, G1_4012	We have implemented code in our VEN that will reject an expired certificate from the VTN and this function has been tested internally.	Per the OpenADR Alliance, this test can be skipped.	Rolf Bienert

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Interpretation of test results:

Results of the tests carried out by Intertek Testing Services NA, Inc. are described as follows: “**Pass**” indicates the device under test (DUT) was verified against a set of defined prerequisites, test scenarios consisting of a sequence of VEN/VTN message exchanges and has conformed to the expected results set forth by the OpenADR Alliance. “**Fail**” indicates the DUT has not met conformance set forth by the OpenADR Alliance due to a test case scenario failing to run to completion, payload schema validation, conformance rule validation failure or other problems. “**NA**” indicates the test case is not applicable to the DUT, is optional or is marked as NA in the test harness tool. Test cases that are not supported by the DUT will not be listed.

TESTED <4-October-2021 to 6-October-2021>

Test Case Results

Test Case Name	Result	Log
N1_0080_TH_VTN_1	NA	View Log TraceLog_100421_111254_606.txt
N1_0010_TH_VTN_1	PASS	View Log TraceLog_100421_111934_604.txt
N1_0020_TH_VTN_1	PASS	View Log TraceLog_100421_112052_179.txt
N1_0015_TH_VTN_1	PASS	View Log TraceLog_100421_112211_052.txt
N1_0050_TH_VTN_1	PASS	View Log TraceLog_100421_112311_133.txt
N1_0060_TH_VTN_1	PASS	View Log TraceLog_100421_113336_207.txt
N1_0030_TH_VTN_1	PASS	View Log TraceLog_100421_115125_450.txt
N1_0040_TH_VTN_1	PASS	View Log TraceLog_100421_120632_930.txt
N1_0025_TH_VTN_1	PASS	View Log TraceLog_100421_120759_909.txt
N1_0070_TH_VTN_1	PASS	View Log TraceLog_100421_120942_393.txt
R1_3010_TH_VTN_1	PASS	View Log TraceLog_100421_121435_223.txt
R1_3020_TH_VTN_1	PASS	View Log TraceLog_100421_121847_482.txt
R1_3025_TH_VTN_1	PASS	View Log TraceLog_100421_122237_673.txt
R1_3027_TH_VTN_1	PASS	View Log TraceLog_100421_122704_060.txt
R1_3030_TH_VTN_1	PASS	View Log TraceLog_100421_123256_403.txt

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Test Case Name	Result	Log
R1_3040_TH_VTN_1	PASS	View Log TraceLog_100421_123845_160.txt
R1_3045_TH_VTN_1	PASS	View Log TraceLog_100421_124054_030.txt
R1_3050_TH_VTN_1	PASS	View Log TraceLog_100421_124338_661.txt
R1_3060_TH_VTN_1	PASS	View Log TraceLog_100421_124552_075.txt
R1_3150_TH_VTN_1	PASS	View Log TraceLog_100421_125641_099.txt
R1_3160_TH_VTN_1	PASS	View Log TraceLog_100421_131018_355.txt
R1_3180_TH_VTN_1	PASS	View Log TraceLog_100421_132645_142.txt
R1_3190_TH_VTN_1	PASS	View Log TraceLog_100421_132901_125.txt
P1_2010_TH_VTN_1	PASS	View Log TraceLog_100421_143740_984.txt
P1_2015_TH_VTN_1	PASS	View Log TraceLog_100421_143851_968.txt
P1_2020_TH_VTN_1	PASS	View Log TraceLog_100421_144100_882.txt
P1_2030_TH_VTN_1	PASS	View Log TraceLog_100421_144239_660.txt
P1_2040_TH_VTN_1	PASS	View Log TraceLog_100421_144527_074.txt
P1_2050_TH_VTN_1	NA	View Log TraceLog_100421_144741_339.txt
G1_4015_TH_VTN_1	PASS	View Log TraceLog_100421_145034_116.txt
G1_4030_TH_VTN_1	PASS	View Log TraceLog_100421_145227_006.txt
A_E1_0020_TH_VTN_1	PASS	View Log TraceLog_100421_145507_980.txt
A_E1_0040_TH_VTN_1	PASS	View Log TraceLog_100421_145609_703.txt
A_E1_0060_TH_VTN_1	PASS	View Log TraceLog_100421_145713_483.txt
A_E1_0070_TH_VTN_1	PASS	View Log TraceLog_100421_145804_516.txt
A_E1_0082_TH_VTN_1	PASS	View Log TraceLog_100421_145859_379.txt
A_E1_0086_TH_VTN_1	PASS	View Log TraceLog_100421_145947_686.txt
A_E1_0090_TH_VTN_1	PASS	View Log TraceLog_100421_150039_820.txt
A_E1_0092_TH_VTN_1	PASS	View Log TraceLog_100421_150237_093.txt
A_E1_0094_TH_VTN_1	PASS	View Log TraceLog_100421_150354_857.txt

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Test Case Name	Result	Log
A_E1_0096_TH_VTN_1	PASS	View Log TraceLog_100421_150455_351.txt
A_E1_0098_TH_VTN_1	PASS	View Log TraceLog_100421_150602_932.txt
A_E1_0100_TH_VTN_1	PASS	View Log TraceLog_100421_150657_108.txt
A_E1_0102_TH_VTN_1	PASS	View Log TraceLog_100421_150821_490.txt
A_E1_0104_TH_VTN_1	PASS	View Log TraceLog_100421_150910_610.txt
A_E1_0110_TH_VTN_1	PASS	View Log TraceLog_100421_151119_165.txt
A_E1_0130_TH_VTN_1	PASS	View Log TraceLog_100421_151214_693.txt
A_E1_0180_TH_VTN_1	PASS	View Log TraceLog_100421_151258_070.txt
A_E1_0190_TH_VTN_1	PASS	View Log TraceLog_100421_151404_578.txt
A_E1_0200_TH_VTN_1	PASS	View Log TraceLog_100421_151615_750.txt
A_E1_0285_TH_VTN_1	PASS	View Log TraceLog_100421_151758_455.txt
A_E1_0300_TH_VTN_1	PASS	View Log TraceLog_100421_151847_957.txt
A_E1_0310_TH_VTN_1	PASS	View Log TraceLog_100421_151929_431.txt
A_E1_0340_TH_VTN_1	PASS	View Log TraceLog_100421_152048_185.txt
A_E1_0345_TH_VTN_1	PASS	View Log TraceLog_100421_152140_363.txt
A_E1_0360_TH_VTN_1	PASS	View Log TraceLog_100421_152233_731.txt
A_E1_0370_TH_VTN_1	PASS	View Log TraceLog_100421_152327_115.txt
A_E1_0390_TH_VTN_1	PASS	View Log TraceLog_100421_152435_616.txt
A_E1_0392_TH_VTN_1	PASS	View Log TraceLog_100421_152539_328.txt
E1_1010_TH_VTN_1	PASS	View Log TraceLog_100421_152840_727.txt
E1_1020_TH_VTN_1	PASS	View Log TraceLog_100421_152920_470.txt
E1_1025_TH_VTN_1	PASS	View Log TraceLog_100421_153007_631.txt
E1_1027_TH_VTN_1	PASS	View Log TraceLog_100421_153051_607.txt
E1_1030_TH_VTN_1	PASS	View Log TraceLog_100421_153142_315.txt
E1_1040_TH_VTN_1	PASS	View Log TraceLog_100421_153848_357.txt

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Test Case Name	Result	Log
E1_1050_TH_VTN_1	PASS	View Log TraceLog_100421_154048_949.txt
E1_1055_TH_VTN_1	PASS	View Log TraceLog_100421_154145_905.txt
E1_1065_TH_VTN_1	NA	View Log TraceLog_100421_160927_672.txt
E1_1070_TH_VTN_1	PASS	View Log TraceLog_100421_161003_395.txt
E1_1080_TH_VTN_1	PASS	View Log TraceLog_100421_161053_953.txt
E1_1090_TH_VTN_1	PASS	View Log TraceLog_100421_161324_415.txt
A_E1_0210_TH_VTN_1	PASS	View Log TraceLog_100421_161512_615.txt
A_E1_0220_TH_VTN_1	PASS	View Log TraceLog_100421_162140_531.txt
A_E1_0230_TH_VTN_1	PASS	View Log TraceLog_100421_162438_738.txt
A_E1_0240_TH_VTN_1	PASS	View Log TraceLog_100421_162708_137.txt
A_E1_0260_TH_VTN_1	PASS	View Log TraceLog_100421_163409_709.txt
A_E1_0260_TH_VTN_1	PASS	View Log TraceLog_100421_163657_329.txt
A_E1_0260_TH_VTN_1	PASS	View Log TraceLog_100421_163916_023.txt
A_E1_0262_TH_VTN_1	PASS	View Log TraceLog_100421_164151_369.txt
A_E1_0262_TH_VTN_1	PASS	View Log TraceLog_100521_085715_733.txt
A_E1_0262_TH_VTN_1	PASS	View Log TraceLog_100521_090324_567.txt
A_E1_0267_TH_VTN_1	PASS	View Log TraceLog_100521_094541_692.txt
A_E1_0267_TH_VTN_1	PASS	View Log TraceLog_100521_094950_600.txt
A_E1_0267_TH_VTN_1	PASS	View Log TraceLog_100521_095358_687.txt
A_E1_0270_TH_VTN_1	PASS	View Log TraceLog_100521_101230_361.txt
R1_3170_TH_VTN_1	PASS	View Log TraceLog_100621_145838_708.txt
A_E1_0250_TH_VTN_1	PASS	View Log TraceLog_100621_150529_307.txt
A_E1_0268_TH_VTN_1	PASS	View Log TraceLog_100621_151555_497.txt
A_E1_0268_TH_VTN_1	PASS	View Log TraceLog_100621_152007_138.txt
A_E1_0268_TH_VTN_1	PASS	View Log TraceLog_100621_152433_157.txt

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Test Case Name	Result	Log
E1_1060_TH_VTN_1	PASS	View Log TraceLog_100621_153631_417.txt
A_E1_0280_TH_VTN_1	PASS	View Log TraceLog_100621_163906_956.txt

REPORT AUTHORIZED



Florencio Ponce

Engineer



Vincent Brooks

Reviewer