

OpenADR 2.0b

Protocol Implementation Conformance Statement (PICS)

Version 1.1.6 Valid for Certification as of March 2, 2019

Manufacturer:	Universal Devices
Product Type:	VEN
Product Name:	Eisy
Firmware Revision:	2.0
Tested OpenADR 2.0b Profile Spec version:	1.1

Disclaimer:

The information provided in this document can be made available to the general public in order to identify the tested versions, features and options.

By signing this document, the manufacturer confirms that all information provided in this document is correct and the applicable features have been tested.

Manufacturer Name: Universal Devices
Representative Name and Title: Michel Kohanim CEO
Signature:

Date: 05/23/2023



Revisions:

Version	Changes	Date/Editor
1.0.0	Released Version	06/28/13
1.0.1	 Added additional optional test case conditions 	07/28/13
1.0.2	 Added test case A_E1_0285 and A_E0_0285 to optional list 	08/15/13
1.0.4	 Added test case A_E3_0680 to optional list 	08/20/13
1.0.5	 Added the following test cases to optional list. A_E2_0435, A_E3_0435, A_E2_0685, A_E3_0685, R1_3070_TH_VTN_1, R0_8070_TH_VTN_1, R1_3080_TH_VTN_1, R0_8080_TH_VTN_1, R1_3090_TH_VTN_1, R0_8090_TH_VTN_1, R1_3100_TH_VTN_1, R0_8100_TH_VTN_1, R1_3120_TH_VTN_1, R0_8120_TH_VTN, R1_3050_TH_VEN, R0_8050_TH_VEN_1, R1_3060_TH_VEN, R0_8060_TH_VEN, R1_3120_TH_VTN_1 and R0_8120_TH_VTN. 	09/09/13
1.0.6	 Corrected typo. Removed test case A_E0_0295. Mentioned G0_9005. 	2/11/2014 EP, BD
1.0.7	Corrections	11/7/2015 JZ
1.1.2	Revision incremented	4/25/17 JZ
1.1.3	 Corrected typo on skipped test cases in item 5 of Optional Test Case Guidelines. R1 was changes to R0 on last 4 test cases Clarified payloads required if VEN or VTN do not implement optional characteristics of reporting. Corrected test specification and profiles specification references 	12/12/18 JZ
1.1.4	Changed version to sync with test harness version	9/12/19
1.1.6	Align document version with current test harness version	2/5/22



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Introduction

The purpose of this PICS document is to provide a mechanism whereby a supplier of an implementation based on the following requirements may provide information about the implementation in a standardized manner.

These requirements are drawn from the OASIS Energy Interoperation standard and related schemas. With the exception of OpenADR Alliance schema extensions, payloads generated by OpenADR 2.0b implementations should validate against the Energy Interop schemas.

Information provided by the supplier will be used to assess the implementation's compliance to the requirements, as well as to configure the certification tests performed on the implementation.

References

- OpenADR 2.0b Profile Specification 1.1
- OpenADR 2.0b Test Spec V1.1.6
- OpenADR 2.0b Schema

Abbreviations and Conventions

The PICS information comprises information in a tabular format as follows:

- Item Column A number which identifies the item in the table
- Capability Column A brief description of the requirement
- Reference Column or Section Header A reference to a specific requirement in the specification
- Status Column Contains notations regarding the requirements
 - M Mandatory
 - **O** Optional
 - **N/A** Not applicable
 - X Prohibited
 - O-i Qualified Optional (mutually exclusive or selectable options from a set identified with the same "I" value)
 - C-i –Conditional (status dependent on support of other optional requirements, identified in footnotes at bottom of table with "i" being a reference integer for the footnote(s))
- **Support Column** Yes or No answer is required. If feature is not applicable, answer No.
- Values Allowed Column Optional column representing set of values allowed.
- **Values Supported Column** Optional column where supplier can indicate a set of values supported by the implementation.

Note that all requirement references in the tables on the following pages are with respect to the OpenADR 2.0b Profile Specification, Version 1.1.



Instructions for Completing the PICS

The first part of the PICS document, System Identification, is to be completed as indicated with the information necessary to fully identify both the supplier and the implementation.

The main part of the PICS document is a fixed format questionnaire. Answers to questionnaire items are to be provided in the rightmost column by simply marking an answer to indicate a choice, typically Yes or No.

If an implementation fails to support a mandatory item, or supports a prohibited item, the supplier should provide supplementary information with the PICS document explaining the rationale for the exception.

Note: The burden of interoperability falls to the VTN implementation. Therefore any certified VTN must support the 2.0A profile and the 2.0B profile including the applicable schemas.

Documents required for final certification

- This PICS document
- Manufacturers Declaration of Conformity
- Completed Test Report from appointed test house
- Product marketing description for website (50 words)
- Product picture or logo if applicable
- Web link to product

If you would like to postpone posting your product on the OpenADR Alliance website for a period of time (maximum 3 months), please fill out the following section.

(Manufacturer) herewith requests the	•
posted on the OpenADR Alliance product web page until submittal).	(date, max 3 months from
Name:	
Signature:	



Implementation and Supplier Information

Date of Statement	05/23/2023
Product Name	eisy
Product Model Number	Next
Version Number(s)	2.0
Non-Default Hardware Configuration	
Non-Default Software Configuration	
Supplier Name, Address, Phone, Email	Universal Devices 5435 Balboa Blvd. Suite 205 Encino, CA 91316 818.631.0333 michel@universal-devices.com
Contact name, email, phone for questions	Michel Kohanim michel@universal-devices.com 818.631.0333



Global Statement of Conformance

Requirement	Support
Are all mandatory capabilities supported for the indicated roles supported by	[X]Yes []No
this implementation?	

Roles

Item	Role	Status	Support
1	VEN - Full Function	0-1	[X]Yes []No
3	3 VEN - Energy Reporting Only		[]Yes [X]No
3 VTN		0-1	[]Yes []No

⁰⁻¹⁾ Must answer Yes to one Role. Note that if an implementation supports both VEN and VTN functionality, two separate PICS documents should be submitted, one for each role.

Profile Support

Requirements Reference: Conformance rule 506

Item	Role	Profile	Status	Support
1	VEN/VTN	"A" Profile	C -1	[X]Yes []No
2	VEN/VTN	"B" Profile	M	[X]Yes []No

C-1) VTNs must support the A and B Profile

Transports / Exchange Pattern Support

Requirements Reference: Figure 1, OpenADR 2.0 Certification Levels and conformance rule 37

Item	Role	Transport	Status	Support	
1	VEN/VTN	SimpleHTTP - Pull	C-1	[X]Yes []No	
2	VEN/VTN	SimpleHTTP - Push	C-1	[X]Yes []No	
3	VEN/VTN	XMPP - Push	C-1	[]Yes [X]No	

C-1) VTNs must support all transports and exchange patterns.

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C-1) VENs may support ONLY the B profile

C-1) VENs must support at least one item from the list. If SimpleHTTP items are selected this must include the "SimpleHTTP-Pull" option from the list.



Service Support

Requirements Reference: Section 7.2.2 and conformance rules 501 and 507

Item	Role	Service	Status	Support
1	VEN/VTN	EiEvent	C-1	[X]Yes []No
2	VEN/VTN	EiOpt	C-1	[X]Yes []No
3	VEN/VTN	EiReport	M	[X]Yes []No
4	VEN/VTN	RiRegisterParty	M	[X]Yes []No
5	VEN/VTN	OadrPoll	C-2	[X]Yes []No

C-1) VTNs and Full Function VENs must support these Services, but are not supported by Report Only VENs.

Security Support

Requirements Reference: Conformance rules 67, 68, and 514

Item	Role	Security	Status	Support
1	VEN	SHA2 Security	М	[X]Yes []No
		-TLS 1.2		
		-Client and server x.509 certs with SHA2		
		-Alliance RSA or ECC SHA2 Ciphers		
		-SASL_EXTERNAL (XMPP Only)		
2	VTN	SHA2 Security	М	[]Yes []No
		-TLS 1.2		
		-Client and server x.509 certs with SHA2		
		-Alliance RSA and ECC SHA2 Ciphers		
		-SASL_EXTERNAL (XMPP Only if supported)		
3	VEN/VTN	XML Signatures	0	[]Yes [X]No

C-2) VTNs must support; VENs must support if simpleHTTP transport is supported.



Payload Schema Conformance

For each payload generated by a VEN or VTN, indicate if it conforms to the OpenADR B Profile schema. Note that the Status is relative to the Role listed.

Item	Role	Payload	Status for Role	Validates Against B Schema
1	VEN-Pull	oadrPoll	C-1	[X]Yes []No
2	VEN	oadrRequestEvent	C-2	[X]Yes []No
3	VEN	oadrCreatedEvent	C-2	[X]Yes []No
4	VEN	oadrCreateOpt	C-2	[X]Yes []No
5	VEN	oadrCancelOpt	C-2	[X]Yes []No
6	VTN	oadrCanceledOpt	C-2	[]Yes []No
7	VEN	oadrQueryRegistration	M	[X]Yes []No
8	VEN	oadrCreatePartyRegistration	M	[X]Yes []No
9	VEN/VTN	oadrResponse	M	[X]Yes []No
10	VEN/VTN	oadrCancelPartyRegistration	M	[X]Yes []No
11	VEN/VTN	oadrCanceledPartyRegistration	M	[X]Yes []No
12	VEN/VTN	oadrRegisterReport	M	[X]Yes []No
13	VEN/VTN	oadrRegisteredReport	M	[X]Yes []No
14	VEN/VTN	oadrCreateReport	C-3	[]Yes [X]No
15	VEN/VTN	oadrCreatedReport	M	[X]Yes []No
16	VEN/VTN	oadrUpdateReport	C-4	[X]Yes []No
17	VEN/VTN	oadrUpdatedReport	C-3	[X]Yes []No
18	VEN/VTN	oadrCancelReport	C-3	[X]Yes []No
19	VEN/VTN	oadrCanceledReport	M	[X]Yes []No
20	VTN	oadrCreatedOpt	C-2	[]Yes []No
21	VTN	oadrDistributeEvent	C-2	[]Yes []No
22	VTN	oadrCreatedPartyRegistration	M	[]Yes []No
23	VTN	oadrRequestReregistration	М	[]Yes []No

C-1) VENs with SimpleHTTP pull support must support oadrPoll, other implementations must not.

C-2) All implementations must support these options except for Report Only VENs.

C-3) VENs are not required to implement requesting reports from VTNs. If the VEN does not implement requesting reports from the VEN, the indicated payloads are not required

C-4) VTNs are not required to offer reports, so delivering reports other that metadata is not mandatory. If the VTN does not offer reports, the indicated payload is optional.



Operational Sequence Support

The table below demonstrates the operational sequences and the conditional behavior for each of the services. The push HTTP acknowledgement (empty payload) of oadrDistributeEvent is not shown in the table. Indicate if all of the behavior shown in each section is supported by the implementation. Brackets are used to indicate conditional behavior which must be supported. Requirements reference: All figures in the B profile specification with interaction diagrams

Item	Service	App Level Exchange Sequence	Status	Support
1	EiEvent	{VEN: RequestEvent {Reply Limit}}	C-1	[X]Yes []No
		VTN: oadrDistributeEvent {Response Required, baseline}		
		{VEN: oadrCreatedEvent {Opt State}		
		VTN: oadrResponse }		
2	EiOpt	VEN: oadrCreateOpt {Availability schedule}	C-1	[X]Yes []No
		VTN: oadrCreatedOpt		
		VEN: oadrCancelOpt		
		VTN: oadrCanceledOpt		
		VENT and Constant Out (Franch Out State)		
		VEN: oadrCreateOpt - {Event Opt State}		
	FiD a sist ou Daute.	VTN: oadrCreatedOpt	N //	
3	EiRegisterParty	VEN: oadrQueryRegistration VTN: oadrCreatedPartyRegistration	М	[X]Yes []No
		VIII. dau Cleateur ai tynegisti ation		
		VEN: oadrCreatePartyRegistration		
		VTN: oadrCreatedPartyRegistration		
		VEN/VTN: oadrCancelPartyRegistration		
		VTN/VEN: oadrCanceledPartyRegistration		
		VTN: oadrRequestReregistration		
		VEN: oadrResponse		
		VEN: oadrCreatePartyRegistration		
		VTN: oadrCreatedPartyRegistration		
4	EiReport	VEN/VTN: oadrRegisterReport	C-3	[X]Yes []No
		VTN/VEN: oadrRegisteredReport (Create Report *)		
		VEN/VTN: oadrCreateReport (Once or Periodic)		
		VTN/VEN: oadrCreatedReport		
		VEN/VTN: oadrUpdateReport		
		VTN/VEN: oadrUpdatedReport {Cancel Report *}		
		VEN/VTN: oadrCancelReport		
		VTN/VEN: oadrCanceledReport {Report to Follow}		
5	OadrPoll	VEN: oadrPoll	C-2	[X]Yes []No
3	Cauron	VTN: Any payload sent by VTN	C-2	[7]163 []110
L	1	vite. Any payload Serie by VIIV		

C-1) All implementations must support these options, except for Report Only VENs.

C-2) Required for SimpleHTTP Pull VENs only.

C-3)VENs and VTNs are not required to demonstrate initiating piggyback report requests and report cancellations (*), but must understand them and act upon them if received from the other party. As noted in the prior Payload Schema Conformance section, VENs are not required to demonstrate requesting reports from VTNs and VTNs are not required to deliver reports other than metadata..



Standard Event Signal Support

Indicate which of the following Alliance-defined standard signals are supported by the VEN or VTN .

Requirements Reference: Conformance rule 510

Item	Role	Signal Name	SignalType	Status	Support
1	VEN/VTN	SIMPLE		M	[X]Yes []No
2	VEN/VTN	ELECTRICITY_PRICE	Price	M	[X]Yes []No
3	VEN/VTN	LOAD_DISPATCH	setpoint	М	[X]Yes []No

Standard Report Support

Indicate which of the following Alliance-defined standard reports are offered as part of report registration by the VEN or VTN. Requirements Reference: Conformance rule 510

Item	Role	Report Name	Status	Support
1	VEN	METADATA	M	[X]Yes []No
2	VEN	TELEMETRY_UASGE	М	[X]Yes []No
3	VEN	TELEMETRY_STATUS	М	[X]Yes []No
4	VEN	HISTORY_USAGE	C-1	[]Yes [X]No
5	VTN	METADATA	М	[]Yes []No

C-1) Optional for full function VENs; mandatory for Report Only VENs.



Alliance "B" Profile Detailed Requirements

In addition to the requirements defined by the schema, the OpenADR 2.0b Profile has a detailed set of conformance rules that define the expected behavior of VTN and VEN implementations. As these rules already reflect the testable requirements, there is no need to relist them here. Please refer to the OpenADR 2.0b Profile Specification while indicating which of the following conformance rules are supported by the implementation.

Item	Role	Status	Support
(Rule)	\/ENI/\/TNI	6.4	fyly file-
1	VEN/VTN	C-1	[X]Yes []No
2	VTN	C-1	[]Yes []No
3	VTN	C-1	[]Yes []No
4	VTN	C-1	[]Yes []No
5	VTN	C-1	[]Yes []No
6	VEN	C-1	[X]Yes []No
8	VTN	C-1	[]Yes []No
9	VTN	C-1	[]Yes []No
10	VTN	C-1	[]Yes []No
12	VEN	C-1	[X]Yes []No
13	VTN	C-1	[]Yes []No
14	VTN	C-1	[]Yes []No
15	VTN	C-1	[]Yes []No
16	VTN	C-1	[]Yes []No
17	VTN	C-1	[]Yes []No
18	VEN/VTN	C-1	[X]Yes []No
19	VEN	C-1	[X]Yes []No
20	VTN	C-1	[X]Yes []No
21	VEN/VTN	C-1	[X]Yes []No
22	VEN	C-1	[X]Yes []No
23	VEN/VTN	C-1	[X]Yes []No
25	VTN	C-1	[]Yes []No
27	VTN	C-1	[]Yes []No
29	VTN	C-1	[]Yes []No
30	VEN	C-1	[X]Yes []No
31	VEN	C-1	[X]Yes []No
32	VEN/VTN	C-1	[X] Yes []No
33	VEN/VTN	C-1	[X]Yes []No
35	VEN	C-1	[X]Yes []No
36	VEN	C-1	[X]Yes []No
37	VEN	C-1	[X] Yes []No
38	VTN	C-1	[]Yes []No
40	VTN	C-1	[]Yes []No
41	VTN	C-1	[]Yes []No
42	VEN/VTN	C-1	[X]Yes []No
43	VEN	C-1	[X]Yes []No
45	VEN/VTN	C-1	[X]Yes []No
46	VEN/VTN	C-1	[X]Yes []No
47	VEN/VTN	C-1	[X]Yes []No
48	VEN/VTN	C-1	[X]Yes []No
50	VTN	C-1	[]Yes []No
51	VEN/VTN	C-1	[X]Yes []No
52	VTN	C-1	[]Yes []No



Item (Rule)	Role	Status	Support
53	VEN/VTN	C-1	[X]Yes []No
56	VEN	C-1	[X]Yes []No
57	VEN/VTN	C-1	[X]Yes []No
58	VEN	C-1	[X]Yes []No
59	VEN	C-1	[X]Yes []No
60	VEN	C-1	[X]Yes []No
61	VEN	C-1	[X]Yes []No
62	VEN	C-1	[X]Yes []No
63	VTN	C-1	[]Yes []No
65	VEN	C-1	[X]Yes []No
66	VEN/VTN	C-1	[X]Yes []No
67	VEN/VTN	C-1	[X]Yes []No
68	VEN/VTN	C-1	[X]Yes []No
70	VTN	C-1	[]Yes []No
100	VTN	C-1	[]Yes []No
101	VTN	C-1	[]Yes []No
102	VTN	C-1	[]Yes []No
103	VTN	C-1	[]Yes []No
104	VTN	C-1	[]Yes []No
105	VTN	C-1	[]Yes []No
106	VTN	C-1	[]Yes []No
107	VTN	C-1	[]Yes []No
108	VTN	C-1	[]Yes []No
109	VEN	C-1	[]Yes []No
110	VTN	C-1	[]Yes []No
111	VEN/VTN	C-1	[X]Yes []No
112	VEN	C-1	[X]Yes []No
113	VTN	C-1	[]Yes []No
114	VEN	C-1	[X]Yes []No
115	VTN	C-1	[]Yes []No
116	VEN/VTN	C-1	[X]Yes []No
200	VEN/VTN	C-1	[X]Yes []No
200	VEN/VTN	C-1	[X]Yes []No
201	VEN	C-1	[X]Yes []No
202	VTN	C-1	[]Yes []No
203	VEN	C-1	[X]Yes []No
205	VTN	C-1	[]Yes []No
206	VEN/VTN	C-1	
207	VEN/VTN	C-1	[X]Yes []No [X]Yes []No
208	VEN	C-1	[X]Yes []No
209	VEN/VTN	C-1	[X]Yes []No
210 211	VEN/VTN	C-1	[X]Yes []No [X]Yes []No
300	VEN/VTN	C-1	
300	VEN/VTN	M	[X]Yes []No
301	VEN/VTN VEN/VTN	M M	[X]Yes []No
302		M	[X]Yes []No [X]Yes []No
303	VEN/VTN	M	
	VEN/VTN	<u> </u>	[X]Yes []No
305	VEN/VTN	M	[X]Yes []No
306	VEN/VTN	M	[X]Yes []No
307	VEN/VTN	M	[X]Yes []No
308	VEN/VTN	M	[X]Yes []No
309	VEN/VTN	M	[X]Yes []No



	Item	Role	Status	Support
312	(Rule)			further files
313				
314				
315				
316		,		
317 VEN/VTN M X Yes No		,		
318				
319				
321 VEN/VTN M K Yes []No 322 VEN/VTN M K Yes []No 324 VEN/VTN M K Yes []No 325 VEN/VTN M K Yes []No 325 VEN/VTN M K Yes []No 327 VEN/VTN M K Yes []No 328 VEN/VTN M K Yes []No 329 VEN/VTN M K Yes []No 330 VEN/VTN M K Yes []No 331 VEN/VTN M K Yes []No 331 VEN/VTN M K Yes []No 333 VEN/VTN M K Yes []No 334 VEN/VTN M K Yes []No 335 VEN/VTN M K Yes []No 336 VEN/VTN M K Yes []No 337 VEN/VTN M K Yes []No 338 VEN/VTN M K Yes []No 339 VEN/VTN M K Yes []No 339 VEN/VTN M K Yes []No 330 VEN/VTN M K Yes []No 340 VEN/VTN M K Yes []No 341 VEN/VTN M K Yes []No 342 VEN/VTN M K Yes []No 343 VEN/VTN M K Yes []No 344 VEN/VTN M K Yes []No 345 VEN/VTN M K Yes []No 346 VEN/VTN M K Yes []No 347 VEN/VTN M K Yes []No 348 VEN/VTN M K Yes []No 349 VEN/VTN M K Yes []No 340 VEN/VTN M K Yes []No 341 VEN/VTN M K Yes []No 342 VEN/VTN M K Yes []No 343 VEN/VTN M K Yes []No 344 VEN/VTN M K Yes []No 345 VEN/VTN M K Yes []No 346 VEN/VTN M K Yes []No 400 VEN/VTN M K Yes []No 401 VEN/VTN M K Yes []No 402 VEN/VTN M K Yes []No 403 VEN/VTN M K Yes []No 404 VEN/VTN M K Yes []No 405 VEN/VTN M K Yes []No 506 VEN/VTN M K Yes []No 507 VEN/VTN M K Yes []No 508 VEN M K Yes []No 509 VEN/VTN M K Yes []No 510 VEN/VTN M K Yes []No 511 VEN/VTN M K Yes []No 512 VEN/VTN M K Yes []No 514 VEN/VTN M K Yes []No 515 VEN/VTN M K Yes []No 516 VEN/VTN M K Yes []No 517 VEN/VTN M K Yes []No 518 VEN/VTN M K Yes []No 519 VEN/VTN M K Yes []No 511 VEN/VTN M K Yes []No 512 VEN/VTN M K Yes []No 514 VEN/VTN O		•		
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325				
327				
328				
329		VEN/VTN	M	
330		VEN/VTN	M	[X]Yes []No
331	329	VEN/VTN	M	[X]Yes []No
333	330	VEN/VTN	M	[X]Yes []No
334	331	'	M	[X]Yes []No
335	333	VEN/VTN	M	[X]Yes []No
336	334	VEN/VTN	M	[X]Yes []No
337 VEN/VTN M K Yes No	335	VEN/VTN	M	[X]Yes []No
338	336	VEN/VTN	M	[X]Yes []No
339	337	VEN/VTN	М	[X]Yes []No
340 VEN/VTN M [X]Yes []No 341 VEN/VTN M [X]Yes []No 342 VEN/VTN M [X]Yes []No 343 VEN/VTN M [X]Yes []No 344 VEN/VTN O []Yes [X]No 345 VEN/VTN M [X]Yes []No 346 VEN/VTN M [X]Yes []No 400 VEN/VTN M [X]Yes []No 401 VEN/VTN M [X]Yes []No 402 VEN/VTN M [X]Yes []No 403 VEN/VTN M [X]Yes []No 404 VEN/VTN M [X]Yes []No 405 VEN/VTN M [X]Yes []No 406 VEN/VTN M [X]Yes []No 500 VEN/VTN C-2 [X]Yes []No 501 VEN/VTN C-2 [X]Yes []No 502 VEN/VTN M [X]Yes []No 503 VEN/VTN M [X]Yes []No <t< td=""><td>338</td><td>VEN/VTN</td><td>M</td><td>[X]Yes []No</td></t<>	338	VEN/VTN	M	[X]Yes []No
341 VEN/VTN M [X]Yes []No 342 VEN/VTN M [X]Yes []No 343 VEN/VTN M [X]Yes []No 344 VEN/VTN M [X]Yes []No 345 VEN/VTN M [X]Yes []No 346 VEN/VTN M [X]Yes []No 400 VEN/VTN M [X]Yes []No 401 VEN/VTN M [X]Yes []No 402 VEN/VTN M [X]Yes []No 403 VEN/VTN M [X]Yes []No 404 VEN/VTN M [X]Yes []No 405 VEN/VTN M [X]Yes []No 406 VEN/VTN M [X]Yes []No 500 VEN/VTN C-2 [X]Yes []No 501 VEN/VTN C-2 [X]Yes []No 502 VEN/VTN M [X]Yes []No 507 VEN/VTN M [X]Yes []No 509 VEN/VTN M [X]Yes []No <t< td=""><td>339</td><td>VEN/VTN</td><td>M</td><td>[X]Yes []No</td></t<>	339	VEN/VTN	M	[X]Yes []No
342 VEN/VTN M [X]Yes []No 343 VEN/VTN M [X]Yes []No 344 VEN/VTN O []Yes [X]No 345 VEN/VTN M [X]Yes []No 346 VEN/VTN M [X]Yes []No 400 VEN/VTN M [X]Yes []No 401 VEN/VTN M [X]Yes []No 402 VEN/VTN M [X]Yes []No 403 VEN/VTN M [X]Yes []No 404 VEN/VTN M [X]Yes []No 405 VEN/VTN M [X]Yes []No 406 VEN/VTN M [X]Yes []No 500 VEN/VTN C-2 [X]Yes []No 501 VEN/VTN C-2 [X]Yes []No 502 VEN/VTN M [X]Yes []No 504 VEN/VTN M [X]Yes []No 507 VEN/VTN M [X]Yes []No 509 VEN/VTN M [X]Yes []No <t< td=""><td>340</td><td>VEN/VTN</td><td>M</td><td>[X]Yes []No</td></t<>	340	VEN/VTN	M	[X]Yes []No
343 VEN/VTN M [X]Yes []No 344 VEN/VTN O []Yes [X]No 345 VEN/VTN M [X]Yes []No 346 VEN/VTN M [X]Yes []No 400 VEN/VTN M [X]Yes []No 401 VEN/VTN M [X]Yes []No 402 VEN/VTN M [X]Yes []No 403 VEN/VTN M [X]Yes []No 404 VEN/VTN M [X]Yes []No 405 VEN/VTN M [X]Yes []No 406 VEN/VTN M [X]Yes []No 500 VEN/VTN C-2 [X]Yes []No 501 VEN/VTN C-2 [X]Yes []No 502 VEN/VTN C-2 [X]Yes []No 504 VEN/VTN M [X]Yes []No 507 VEN/VTN M [X]Yes []No 509 VEN/VTN M [X]Yes []No 510 VEN/VTN M [X]Yes []No	341	VEN/VTN	M	[X]Yes []No
344 VEN/VTN O []Yes [X]No 345 VEN/VTN M [X]Yes []No 346 VEN/VTN M [X]Yes []No 400 VEN/VTN M [X]Yes []No 401 VEN/VTN M [X]Yes []No 402 VEN/VTN M [X]Yes []No 403 VEN/VTN M [X]Yes []No 404 VEN/VTN M [X]Yes []No 405 VEN/VTN M [X]Yes []No 406 VEN/VTN M [X]Yes []No 500 VEN/VTN C-2 [X]Yes []No 501 VEN/VTN C-2 [X]Yes []No 502 VEN/VTN C-2 [X]Yes []No 504 VEN/VTN M [X]Yes []No 507 VEN/VTN M [X]Yes []No 508 VEN M [X]Yes []No 509 VEN/VTN M [X]Yes []No 510 VEN/VTN M [X]Yes []No	342	VEN/VTN	М	[X]Yes []No
345 VEN/VTN M [X]Yes []No 346 VEN/VTN M [X]Yes []No 400 VEN/VTN M [X]Yes []No 401 VEN/VTN M [X]Yes []No 402 VEN/VTN M [X]Yes []No 403 VEN/VTN M [X]Yes []No 404 VEN/VTN M [X]Yes []No 405 VEN/VTN M [X]Yes []No 406 VEN/VTN M [X]Yes []No 500 VEN/VTN C-2 [X]Yes []No 501 VEN/VTN C-2 [X]Yes []No 502 VEN/VTN C-2 [X]Yes []No 506 VEN/VTN M [X]Yes []No 507 VEN/VTN M [X]Yes []No 508 VEN M [X]Yes []No 509 VEN/VTN M [X]Yes []No 510 VEN/VTN M [X]Yes []No 511 VEN/VTN M [X]Yes []No	343	VEN/VTN	М	[X]Yes []No
346 VEN/VTN M [X]Yes []No 400 VEN/VTN M [X]Yes []No 401 VEN/VTN M [X]Yes []No 402 VEN/VTN M [X]Yes []No 403 VEN/VTN M [X]Yes []No 404 VEN/VTN M [X]Yes []No 405 VEN/VTN M [X]Yes []No 406 VEN/VTN M [X]Yes []No 500 VEN/VTN C-2 [X]Yes []No 501 VEN/VTN C-2 [X]Yes []No 502 VEN/VTN C-2 [X]Yes []No 506 VEN/VTN M [X]Yes []No 507 VEN/VTN M [X]Yes []No 508 VEN M [X]Yes []No 509 VEN/VTN M [X]Yes []No 510 VEN/VTN M [X]Yes []No 511 VEN/VTN M [X]Yes []No 512 VEN/VTN O []Yes [X]No	344	VEN/VTN	0	[]Yes [X]No
400 VEN/VTN M [X]Yes []No 401 VEN/VTN M [X]Yes []No 402 VEN/VTN M [X]Yes []No 403 VEN/VTN M [X]Yes []No 404 VEN/VTN M [X]Yes []No 405 VEN/VTN M [X]Yes []No 406 VEN/VTN M [X]Yes []No 500 VEN/VTN M [X]Yes []No 501 VEN/VTN C-2 [X]Yes []No 502 VEN/VTN C-2 [X]Yes []No 506 VEN/VTN M [X]Yes []No 507 VEN/VTN M [X]Yes []No 508 VEN M [X]Yes []No 509 VEN/VTN M [X]Yes []No 510 VEN/VTN M [X]Yes []No 511 VEN/VTN M [X]Yes []No 512 VEN/VTN O []Yes [X]No	345	VEN/VTN	М	[X]Yes []No
401 VEN/VTN M [X]Yes []No 402 VEN/VTN M [X]Yes []No 403 VEN/VTN M [X]Yes []No 404 VEN/VTN M [X]Yes []No 405 VEN/VTN M [X]Yes []No 406 VEN/VTN M [X]Yes []No 500 VEN/VTN C-2 [X]Yes []No 501 VEN/VTN C-2 [X]Yes []No 502 VEN/VTN C-2 [X]Yes []No 506 VEN/VTN M [X]Yes []No 507 VEN/VTN M [X]Yes []No 508 VEN M [X]Yes []No 509 VEN/VTN M [X]Yes []No 510 VEN/VTN M [X]Yes []No 511 VEN/VTN M [X]Yes []No 512 VEN/VTN O []Yes [X]No	346	VEN/VTN	M	[X]Yes []No
402 VEN/VTN M [X]YeS []No 403 VEN/VTN M [X]YeS []No 404 VEN/VTN M [X]YeS []No 405 VEN/VTN M [X]YeS []No 406 VEN/VTN M [X]YeS []No 407 VEN/VTN M [X]YeS []No 500 VEN/VTN C-2 [X]YeS []No 501 VEN/VTN C-2 [X]YeS []No 502 VEN/VTN M [X]YeS []No 506 VEN/VTN M [X]YeS []No 507 VEN/VTN M [X]YeS []No 508 VEN M [X]YeS []No 509 VEN/VTN M [X]YeS []No 510 VEN/VTN M [X]YeS []No 511 VEN/VTN M [X]YeS []No 512 VEN/VTN O []YeS [X]No	400	VEN/VTN	M	[X]Yes []No
403 VEN/VTN M [X]Yes []No 404 VEN/VTN M [X]Yes []No 405 VEN/VTN M [X]Yes []No 406 VEN/VTN M [X]Yes []No 407 VEN/VTN M [X]Yes []No 500 VEN/VTN C-2 [X]Yes []No 501 VEN/VTN C-2 [X]Yes []No 502 VEN/VTN M [X]Yes []No 506 VEN/VTN M [X]Yes []No 507 VEN/VTN M [X]Yes []No 508 VEN M [X]Yes []No 509 VEN/VTN M [X]Yes []No 510 VEN/VTN M [X]Yes []No 511 VEN/VTN M [X]Yes []No 512 VEN/VTN O []Yes [X]No	401	VEN/VTN	М	[X]Yes []No
404 VEN/VTN M [X]Yes []No 405 VEN/VTN M [X]Yes []No 406 VEN/VTN M [X]Yes []No 407 VEN/VTN M [X]Yes []No 500 VEN/VTN C-2 [X]Yes []No 501 VEN/VTN C-2 [X]Yes []No 502 VEN/VTN M [X]Yes []No 506 VEN/VTN M [X]Yes []No 507 VEN/VTN M [X]Yes []No 508 VEN M [X]Yes []No 509 VEN/VTN M [X]Yes []No 510 VEN/VTN M [X]Yes []No 511 VEN/VTN M [X]Yes []No 512 VEN/VTN M [Y]Yes []No 514 VEN/VTN O []Yes [X]No	402	VEN/VTN	M	[X]Yes []No
405 VEN/VTN M [X]Yes []No 406 VEN/VTN M [X]Yes []No 407 VEN/VTN M [X]Yes []No 500 VEN/VTN C-2 [X]Yes []No 501 VEN/VTN C-2 [X]Yes []No 502 VEN/VTN M [X]Yes []No 506 VEN/VTN M [X]Yes []No 507 VEN/VTN M [X]Yes []No 508 VEN M [X]Yes []No 509 VEN/VTN M [X]Yes []No 510 VEN/VTN M [X]Yes []No 511 VEN/VTN M [X]Yes []No 512 VEN/VTN O []Yes [X]No	403	VEN/VTN	М	[X]Yes []No
406 VEN/VTN M [X]Yes []No 407 VEN/VTN M [X]Yes []No 500 VEN/VTN C-2 [X]Yes []No 501 VEN/VTN C-2 [X]Yes []No 502 VEN/VTN M [X]Yes []No 506 VEN/VTN M [X]Yes []No 507 VEN/VTN M [X]Yes []No 508 VEN M [X]Yes []No 509 VEN/VTN M [X]Yes []No 510 VEN/VTN M [X]Yes []No 511 VEN/VTN M [X]Yes []No 512 VEN/VTN M [Y]Yes [X]No	404	VEN/VTN	M	[X]Yes []No
407 VEN/VTN M [X]Yes []No 500 VEN/VTN C-2 [X]Yes []No 501 VEN/VTN C-2 [X]Yes []No 502 VEN/VTN C-2 [X]Yes []No 506 VEN/VTN M [X]Yes []No 507 VEN/VTN M [X]Yes []No 508 VEN M [X]Yes []No 509 VEN/VTN M [X]Yes []No 510 VEN/VTN M [X]Yes []No 511 VEN/VTN M [X]Yes []No 512 VEN/VTN M [Y]Yes [X]No	405	VEN/VTN	M	[X]Yes []No
500 VEN/VTN C-2 [X]Yes []No 501 VEN/VTN C-2 [X]Yes []No 502 VEN/VTN C-2 [X]Yes []No 506 VEN/VTN M [X]Yes []No 507 VEN/VTN M [X]Yes []No 508 VEN M [X]Yes []No 509 VEN/VTN M [X]Yes []No 510 VEN/VTN M [X]Yes []No 511 VEN/VTN M [X]Yes []No 512 VEN/VTN M [X]Yes []No 514 VEN/VTN O []Yes [X]No	406	VEN/VTN	M	[X]Yes []No
501 VEN/VTN C-2 [X]Yes []No 502 VEN/VTN C-2 [X]Yes []No 506 VEN/VTN M [X]Yes []No 507 VEN/VTN M [X]Yes []No 508 VEN M [X]Yes []No 509 VEN/VTN M [X]Yes []No 510 VEN/VTN M [X]Yes []No 511 VEN/VTN M [X]Yes []No 512 VEN/VTN M [X]Yes []No 514 VEN/VTN O []Yes [X]No	407	VEN/VTN	M	[X]Yes []No
502 VEN/VTN C-2 [X]Yes []No 506 VEN/VTN M [X]Yes []No 507 VEN/VTN M [X]Yes []No 508 VEN M [X]Yes []No 509 VEN/VTN M [X]Yes []No 510 VEN/VTN M [X]Yes []No 511 VEN/VTN M [X]Yes []No 512 VEN/VTN M [X]Yes []No 514 VEN/VTN O []Yes [X]No	500	VEN/VTN	C-2	[X]Yes []No
506 VEN/VTN M [X]Yes []No 507 VEN/VTN M [X]Yes []No 508 VEN M [X]Yes []No 509 VEN/VTN M [X]Yes []No 510 VEN/VTN M [X]Yes []No 511 VEN/VTN M [X]Yes []No 512 VEN/VTN M [X]Yes []No 514 VEN/VTN O []Yes [X]No	501	VEN/VTN	C-2	[X]Yes []No
507 VEN/VTN M [X]Yes []No 508 VEN M [X]Yes []No 509 VEN/VTN M [X]Yes []No 510 VEN/VTN M [X]Yes []No 511 VEN/VTN M [X]Yes []No 512 VEN/VTN M [X]Yes []No 514 VEN/VTN O []Yes [X]No	502	VEN/VTN	C-2	[X]Yes []No
507 VEN/VTN M [X]Yes []No 508 VEN M [X]Yes []No 509 VEN/VTN M [X]Yes []No 510 VEN/VTN M [X]Yes []No 511 VEN/VTN M [X]Yes []No 512 VEN/VTN M [X]Yes []No 514 VEN/VTN O []Yes [X]No	506		М	
508 VEN M [X]Yes []No 509 VEN/VTN M [X]Yes []No 510 VEN/VTN M [X]Yes []No 511 VEN/VTN M [X]Yes []No 512 VEN/VTN M [X]Yes []No 514 VEN/VTN O []Yes [X]No	507		М	
509 VEN/VTN M [X]Yes []No 510 VEN/VTN M [X]Yes []No 511 VEN/VTN M [X]Yes []No 512 VEN/VTN M [X]Yes []No 514 VEN/VTN O []Yes [X]No			М	
510 VEN/VTN M [X]Yes []No 511 VEN/VTN M [X]Yes []No 512 VEN/VTN M [X]Yes []No 514 VEN/VTN O []Yes [X]No			М	
511 VEN/VTN M [X]Yes []No 512 VEN/VTN M [X]Yes []No 514 VEN/VTN O []Yes [X]No	510		М	
512 VEN/VTN M [X]Yes []No 514 VEN/VTN O []Yes [X]No	511			
514 VEN/VTN O []Yes [X]No			М	
	514		0	
	515		М	

^{515 |} VEN/VTN | M

C-1) Required for all but Report Only VENs.

C-2) All VTNs and Simple HTTP VENs must support this requirement.



Implementation Capabilities and Configuration

For each of the questions below, indicate if the implementation has the necessary functionality, configurability, and documentation to successfully complete the certification testing process.

Item	Description	Support
1	Does the implementation being submitted for certification support the capabilities outlined in the DUT Implementation Limits section of the OpenADR 2.0b Test Specification documentation? Note that these limits do not imply minimum market needs for a "b" profile implementation.	[X]Yes []No
2	Does the implementation being submitted for certification support methodologies necessary to trigger specific actions during test execution as outlined in the DUT Configuration Requirements section of the OpenADR 2.0b Test Specification documentation?	[X]Yes []No
3	Have you attached documentation to this PICS statement regarding how to configure the implementation as outlined in Appendix A of the OpenADR Certification Test Harness User Guide?	[]Yes [X]No
4	Does the implementation being submitted for certification have pre-installed x.509 certificates from the OpenADR/NetworkFX portal?	[X]Yes []No
5	Does the VEN's being submitted for certification must have host authentication of the X.509 client certificate CN field disabled in order to avoid complex reconfiguration of the test harness and Openfire server? Answer No if not testing a VEN	[X]Yes []No
6	Does the VTN being submitted for certification have the XMPP Server per-configured for the user name of 11111111111 which the test harness uses to connect to the implementation's VTN XMPP server. Answer No if not testing a VTN or XMPP is not supported	[]Yes []No
7)	Does the VTN being offer reports as part of its metadata report. If so, periodic reporting will be tested. Answer No if not testing a VTN or no reports are supported	[]Yes []No



Optional Test Case Guidelines
Following test cases may be skipped if the criterion noted is met.

	Criteria
Item	Criteria Implementations will support either a push and /or pull eyebange model. YMPR
1	Implementations will support either a push and/or pull exchange model. XMPP is always push, whereas HTTP may be either push or pull. Test cases are listed
	within Eclipse in a tree with branches labels Push or Pull. Only test cases
	appropriate to the exchange models supported should be run on the
	implementation.
	inpichentation.
2	If the implementation supports multiple transport and exchange model
	combinations, the full test suite shall be run across at least one push and one
	pull configuration. If there is more than one push configuration, then at least 4
	non-negative randomly selected test cases shall be run across each service, with
	execution of the G0_9005_TH_xxx/G0_9010_TH_xxx security test being
	mandatory as part of the test cases run.
3	The following test cases may be skipped if HISTORY_USAGE reporting is not
	supported by a full function VEN. However, Report Only VENs must pass these
	test cases.
	_R1_3130_TH_VTN
	RO_8130_TH_VTN
	_R1_3140_TH_VTN
	_RO_8140_TH_VTN
4	If the implementation is a Report Only VEN, then all of the tests under the
	EiEvent and EiOpt service headings may be skipped as these services are not
	required.
5	If the answer to question 7 in the Implementation Capabilities and
	Configuration section is No and the implementation is a VTN, the following test
	cases may be skipped:
	D1 2000 TH VEN
	R1_3080_TH_VEN
	R1_3090_TH_VEN R1_3100_TH_VEN
	R1 3120 TH VEN
	R0_8080_TH_VEN
	R0_8090_TH_VEN
	RO 8100 TH VEN
	R0_8120_TH_VEN
6	If the VTN cannot send an Empty oadrDisributeEvent skip test case
	E0_6010_TH_VEN
7	If the VTN cannot be configured to set oadrResponseRequired to never skip test
	cases A_E2_0468, A_E2_0480, A_E2_0498, A_E3_0468, A_E3_0480, and
	A_E3_0498



8	If VEN cannot be configure with multiple Market Context, skip test case
	A_E1_0285 and A_E0_0285

9	If the VTN cannot set a ramp up period skip test cases A_E2_0527 and A_E3_0527
10	If the VTN cannot configure multiple intervals in an event skip test case A_E2_0432 and A_E3_0432
11	If a VTN cannot set an event's priority skip test case A_E2_0510, A_E3_0510, A_E2_ 0520, and A_E3_0520
12	If the VTN does not support configuration of eiTarget subelements, skip test case A_E3_0435 and A_E2_0435.
13	If the VTN does not support configuration of randomization with a startafter element skip test cases A_E2_0685 and A_E3_0685.
14	If the VEN cannot be configured to request reports from VTN skip test case R1_3070_TH_VTN_1, R0_8070_TH_VTN_1, R1_3080_TH_VTN_1, R0_8080_TH_VTN_1, R1_3090_TH_VTN_1, R0_8090_TH_VTN_1, R1_3100_TH_VTN_1, R1_3120_TH_VTN_1 and R0_8120_TH_VTN.
15	If the VTN or VEN cannot be configured to send piggy back report requests and report cancellation payloads skip test cases R1_3050_TH_VEN, R0_8050_TH_VEN_1, R1_3060_TH_VEN, R0_8060_TH_VEN, R1_3120_TH_VTN_1 and R0_8120_TH_VTN.
16	Test cases E1_1050_TH_VTN and E1_6050_TH_VTN may be skipped the VEN cannot configured to send an async oadrRequestEvent as required by this test case.