

# OpenADR 2.0a

## Protocol Implementation Conformance Statement (PICS)

Version 1.0.5  
Valid for Certification as of February 12, 2014

Manufacturer:	GridPoint, Inc.
Product Type:	OADR 2.0 'A' Profile VEN implementation
Product Name:	GridPoint Energy Management System
Firmware Revision:	OADR 1.2.10.135
<i>Tested OpenADR 2.0a Profile Spec version:</i>	1.0

### 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: GridPoint, Inc.

Representative Name and Title: David Lowman, VP Software Engineering

Signature: \_\_\_\_\_

Date: 10/12/2015

## Table of Contents

Introduction .....	3
References .....	3
Abbreviations and Conventions .....	3
Instructions for Completing the PICS .....	4
Documents required for final certification .....	4
Implementation and Supplier Information .....	5
Global Statement of Conformance .....	6
Role .....	6
Profiles .....	6
Transports .....	6
Message Exchange Patterns .....	6
Core Operation Requirements .....	7
Core Operation Payload Schema Conformance .....	7
Alliance Core Optional Element/Attribute Support .....	8
Alliance “a” Profile Detailed Requirements .....	9
Simple HTTP Transport Implementation Detailed Requirements .....	12
Security Features .....	13
Implementation Capabilities and Configuration .....	14
Optional Test Case Guidelines .....	15

## Introduction

The purpose of this PICS document is to provide a mechanism whereby a supplier of an implementation based on the following requirements provides 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 2.0a implementations should validate against the Energy Interop schemas.

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

## References

- OpenADR 2.0a Profile Specification 1.0
- OpenADR 2.0a Test Specification V1.0.5
- OpenADR 2.0a Schema

## Abbreviations and Conventions

The PICS information is comprised of 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** – 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, or N/A if no answer is required.
- **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

## 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 y or n.

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.

### NOTES:

- OpenADR2.0a does NOT have any optional features. However there are payload elements that can be left out of the messages (payloads) -> Optional Payload Elements.
- If an implementation includes a VTN and a VEN interface, EACH interface must be submitted in a separate PICS document.
- All certified products will be posted on the OpenADR Alliance website. A manufacturer can request to delay the web posting for up to 3 months. (see below)

## 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 that the submitted product shall not be posted on the OpenADR Alliance product web page until \_\_\_\_\_ (date, max 3 months from submittal).

Name: \_\_\_\_\_

Signature: \_\_\_\_\_

## Implementation and Supplier Information

Date of Statement	10/12/2015
Product Name	GridPoint Energy Management System
Product Model Number	Not applicable
Firmware Version	OADR 1.2.10.135
Non-Default Hardware Configuration (if applicable)	Not applicable
Non-Default Software Configuration (if applicable)	Not applicable
Supplier Name, Address, Phone, Email	GridPoint, Inc. 2801 Clarendon Boulevard Suite #100 Arlington, VA 22201 703.667.7000 Gerald.Zingraf@gridpoint.com
Contact name, email, phone for questions	Gerald Zingraf Gerald.Zingraf@gridpoint.com 703.667.7089

## Global Statement of Conformance

Are all mandatory capabilities supported for the indicated roles supported by this implementation? (Must be 'yes' to obtain certification)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
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## Role

Item	Role	Status	Support
1	VEN	O-1	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2	VTN	O-1	<input type="checkbox"/> Yes <input type="checkbox"/> No

O-1) Must answer Yes to one Role. A device may be both a VEN and a VTN, however, in this case two PICS documents must be submitted.

## Profiles

VTN			VEN		
	Status	Support		Status	Support
"A" Profile	M	<input type="checkbox"/> Yes <input type="checkbox"/> No	"A" Profile	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Note: Must answer Yes for Roles supported (VEN and/or VTN)

## Transports

VTN			VEN		
	Status	Support		Status	Support
Simple HTTP	M	<input type="checkbox"/> Yes <input type="checkbox"/> No	Simple HTTP	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Note: Must answer Yes for Roles supported (VEN and/or VTN)

## Message Exchange Patterns

VTN			VEN		
	Status	Support		Status	Support
Push	M	<input type="checkbox"/> Yes <input type="checkbox"/> No	Push	O-1	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Pull	M	<input type="checkbox"/> Yes <input type="checkbox"/> No	Pull	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

O-1) A VEN Implementation must support pull, and can optionally also support push

Note: Must answer Yes for at least one exchange pattern for each Roles supported (VEN and/or VTN)

## Core Operation Requirements

Indicate the operation sequences supported.

Item	Service	App Level Exchange Sequence	Reference	Status	Support
1	EiEvent Push	VTN: oadrDistributeEvent VEN: oadrCreatedEvent (2) VTN: oadrResponse		C-1	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
2	EiEvent Pull	VEN :oadrRequestEvent VTN: oadrDistributeEvent VEN: oadrCreatedEvent (2) VTN:oadrResponse		C-1	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A

1) Push implementations must support items 1. Pull implementations must support item 2.

2)The oadrCreatedEvent application layer response is conditional based upon the state of the oadrResponseRequired element in each event contained in the OadrDistributeEvent payload.

## Core Operation Payload Schema Conformance

For each payload generated by an implementation, indicate if it conforms to the indicated schema.

Item	Requirement	Reference	Support
1	oadrDistributeEvent validates against the Alliance "A" profile schema	Alliance Schema	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
2	oadriCreatedEvent validates against the Alliance "A" profile schema	Alliance Schema	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
3	oadrRequestEvent validates against the Alliance "A" profile schema	Alliance Schema	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
4	oadrResponse validates against the Alliance "A" profile schema	Alliance Schema	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A

Note: VTNs generate items 1 and 4, Push VENs item 2, and Pull VENs items 2 and 3.

## Alliance Core Optional Element/Attribute Support

Indicate which of the following optional elements that are part of the Alliance “A” profile schema are included in your payloads.

Item	Element/Attribute	Support
1	oadrDisributeEvent:eiResponse:responseDescription	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2	oadrDisributeEvent:eiEvent:eventDescriptor:priority	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
3	oadrDisributeEvent:eiEvent:eventDescriptor:testEvent	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
4	oadrDisributeEvent:eiEvent:eventDescriptor:vtnComment	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
5	oadrDisributeEvent:eiEvent:eiActivePeriod:properties:tolerance	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
6	oadrDisributeEvent:eiEvent:eiActivePeriod:properties:tolerance:tolerate:startafter	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
7	oadrDisributeEvent:eiEvent:eiActivePeriod:properties:x-eiRampUp	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
8	oadrDisributeEvent:eiEvent:eiActivePeriod:properties:x-eiRecovery	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
9	oadrDisributeEvent:eiEvent:eiTarget:groupID	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
10	oadrDisributeEvent:eiEvent:eiTarget:resourceID	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
11	oadrDisributeEvent:eiEvent:eiTarget:venID	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
12	oadrDisributeEvent:eiEvent:eiTarget:partyID	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
13	oadrCreatedEvent :eiCreatedEvent:eiResponse:responseDescription	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
14	oadrCreatedEvent :eiCreatedEvent:eventResponses:eventResponse:responseDescription	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
15	oadrRequestEvent :eiRequestEvent:replyLimit	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
16	oadrResponse:eiResponse:responseDescription	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

1)Elements that are conditionally optional based upon the operational state where not included in this list.

Note: Items 13, 14, and 15 apply to a device playing the VEN Role, all others apply to a VTN.



## Alliance “a” Profile Detailed Requirements

In addition to the requirements defined by the schema, the OpenADR 2.0a 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 2.0a Profile Specification while reviewing the following conformance rules

Conformance Rule	Roles	Reference	Status	Support
1	VTN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2	VTN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
3	VTN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
4	VTN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
5	VTN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
6	VEN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
7	VTN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
8	VTN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
9	VTN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
10	VTN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
12	VEN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
13	VTN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
14	VTN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
15	VTN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
16	VTN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
17	VTN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
18	VEN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
19	VEN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
20	VTN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
21	VEN VTN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

22	VEN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
23	VEN VTN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
25	VEN VTN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
27	VTN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
29	VTN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
30	VEN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
31	VEN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
32	VEN VTN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
33	VEN VTN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
35	VEN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
36	VEN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
37	VEN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
38	VTN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
40	VTN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
41	VEN VTN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
42	VEN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
43	VEN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
44	VEN VTN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
45	VEN VTN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
46	VEN VTN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
47	VEN VTN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
48	VEN VTN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
49	VEN VTN	OpenADR 2.0a Profile Spec, Section 11.2	O	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
50	VEN VTN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
51	VEN VTN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

52	VTN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
53	VEN VTN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
54	VEN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
55	VEN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
56	VEN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
57	VEN VTN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
58	VEN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
59	VEN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
60	VEN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
61	VEN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
62	VEN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
63	VTN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
64	VEN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
65	VEN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
66	VEN VTN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
67	VEN VTN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
68	VEN VTN	OpenADR 2.0a Profile Spec, Section 11.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Note: Items 54, 55, and 64 apply to a pull VEN only. Item 66 applies to a push VTN Only.

## Simple HTTP Transport Implementation Detailed Requirements

Item	Requirement	Reference	Status	Support
1	Are endpoint names formatted as follows:  <i>https://&lt;hostname&gt;(:port)/(prefix/)OpenADR2/Simple/&lt;service&gt;</i>	OpenADR Profile Spec, Section 9.1	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2	Are all messages sent using the HTTP POST method?	OpenADR Profile Spec, Section 9.1	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
3	When a request fails for any reason (either due to physical or network-level failure or a timeout) does the requestor institute 'back-off' or quiesce logic to avoid flooding the network or receiver with requests?	OpenADR Profile Spec, Section 9.1	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
4	Does the Device under test include the following mandatory http headers in Requests: <ul style="list-style-type: none"> <li>• Host</li> <li>• Content-Length</li> </ul>	OpenADR Profile Spec, Section 9.1	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
5	If the device under test includes an Accept or Content-Type http header, is it "application/XML"?	OpenADR Profile Spec, Section 9.1	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
6	If the device under test includes a Content-Type header with a character encoding, is it "application/XML;charset=utf-8"?	OpenADR Profile Spec, Section 9.1		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
7	Unique base path for VTN and VEN if in the same device	OpenADR Profile Spec, Section 9.1	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
8	In a push scenario, are application level requests acknowledged with a transport layer ack, followed by an async application level response in the form of a http request	OpenADR Profile Spec, Section 9.1	M	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Note that behavior intrinsic to http, such as dealing with content encoding and response to 401 was not included in the PICS statements

## Security Features

Item	Requirement	Reference	Status	Support
1	Does the implementation support both client and server X.509v3 certificates with key lengths as follows: <ul style="list-style-type: none"> <li>• <i>ECC 256 bits or longer</i></li> <li>• <i>RSA 2048 Bits or longer</i></li> </ul>	OpenADR Profile Spec, Section 10.2	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2	Does the implementation support TLS version 1.0	OpenADR Profile Spec, Section 10.5	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
3	Does the implementation support TLS 1.2?	OpenADR Profile Spec, Section 10.5	O	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
4	Does the implementation support an ECC certificate and ECC ciphers for TLS 1.0 and TLS 1.2 (if supported)	OpenADR Profile Spec, Section 10.2 and 10.5	C-1	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
5	Does the implementation support an RSA certificate and RSA ciphers for TLS 1.0 and TLS 1.2 (if supported)	OpenADR Profile Spec, Section 10.2 and 10.5	C-1	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

C-1 VEN implementations must support either RSA or ECC, and may support both. VTN must support both ECC and RSA.

## Implementation Capabilities and Configuration

<p>Does the implementation being submitted for certification support the following minimum capabilities necessary for successful execution of the certification test suite. Note that these limits do not imply minimum market needs for an “a” profile implementations.</p> <p>-responseDescription, vtnComment – 250 characters          -venID, vtnID, requestID, uid, groupID, partyID, resourceID, eventID – 50 characters          -SignalName, MarketContext – 100 characters          - Maximum size of oadrDistributeEvent: A payload with 4 events each with 3 intervals and a payload with 1 event containing 24 intervals          -Number of instances of groupID, resourceID, partyID in eiTarget – 4          -Number of eventResponses in oadrResponse - 4</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<p>Does the implementation, if a VEN, provide some visual means for a test engineer to determine that an event is currently active? Attached documentation to this PICS statement regarding how this is accomplished.</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
<p>Does the implementation, if a VTN, include the VTN Test Interface described in the OpenADR Test Specification?</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
<p>Have you attached documentation to this PICS statement regarding how to configure the implementation regarding the items noted below?</p> <p><b><u>VTN and VENs</u></b></p> <ul style="list-style-type: none"> <li>• How to configure the marketContext URI so that the so that the implementation and test harness can interact with respect to the same marketContext.</li> <li>• How to initialize the implementation such that all events are cleared from the data store.</li> <li>• How to configure or determine the assigned VEN or VTN ID.</li> <li>• If supported, how to configure additional identification values used by the VEN including groupID, resourceID, or partyID.</li> <li>• How to install x.509 certificates in the implemantions trust store.</li> </ul> <p><b><u>VENs</u></b></p> <ul style="list-style-type: none"> <li>• How to trigger oadrRequestEvent requests</li> <li>• How to opt out of an event.</li> <li>• How to set the polling frequency.</li> </ul>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

## Optional Test Case Guidelines

Can the push VTN send an empty oadrDisributeEvent? If no, skip test case E0_0020	<input checked="" type="checkbox"/> Yes [ ]No
Can the push VEN be configured to do concurrent push and pull? If no, skip test case E0_0290	[ ]Yes <input checked="" type="checkbox"/> No
Can the VTN implementation set oadrResponseRequired to never? If no, skip test cases E2_0468, E2_0480, E2_0498, E3_0468, E3_0480, and E3_0498	<input checked="" type="checkbox"/> Yes [ ]No
Can the VTN set a ramp up period? If no, skip test cases E2_0527 and E3_0527	<input checked="" type="checkbox"/> Yes [ ]No
Can the VTN send an event with multiple intervals in an event? If no, skip test case E2_0432 and E3_0432	<input checked="" type="checkbox"/> Yes [ ]No
Can the VTN set an event's priority? If no, skip test case E2_0510, E3_0510, E2_0520, and E3_0520	<input checked="" type="checkbox"/> Yes [ ]No
Can the VTN be configured to set at least one eiTarget sub elements including partyID, resourceID, venID, or groupID? If no, skip test cases E2_0435 and E3_0435	<input checked="" type="checkbox"/> Yes [ ]No
Does the device support configuration of the VTN to randomize events using the startafter element? If no, skip test cases E2_0685, E3_0685	<input checked="" type="checkbox"/> Yes [ ]No

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