

OpenADR 2.0b

Protocol Implementation

Conformance Statement (PICS)

Version 1.1.2

Valid for Certification as of February 22, 2016

Manufacturer:	Fujitsu
Product Type:	VTN
Product Name:	FUJITSU Network OpenADR VTN Module V01
Firmware Revision:	1.0
<i>Tested OpenADR 2.0b Profile Spec version:</i>	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: FUJITSU LIMITED

Representative Name and Title: Kazuyuki Honda / Director

Signature: Kazuyuki Honda

Date: March,6,2018

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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 V1.0.7
- 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 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	3/6/2018
Product Name	FUJITSU Network OpenADR VTN Module V01
Product Model Number	N/A
Version Number(s)	1.0
Non-Default Hardware Configuration	N/A
Non-Default Software Configuration	N/A
Supplier Name, Address, Phone, Email	Fujitsu, Address: 1-1, Shin-ogura, Saiwai-ku, Kawasaki, Kanagawa, 212-9853, Japan Email: fj-9627-OpenADR@dl.jp.fujitsu.com Phone: + 81-44-280-9853
Contact name, email, phone for questions	Tetsuro Imamura Email: imamura.tetsuro@jp.fujitsu.com Phone: + 81-44-280-9853 Etsuko Katou Email: fj-9627-OpenADR@dl.jp.fujitsu.com Phone: + 81-44-280-9853

Global Statement of Conformance

Requirement	Support
Are all mandatory capabilities supported for the indicated roles supported by this implementation?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Roles

Item	Role	Status	Support
1	VEN - Full Function	O-1	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
3	VEN - Energy Reporting Only	O-1	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
3	VTN	O-1	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

O-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	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2	VEN/VTN	"B" Profile	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

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

C-1) VENs may support ONLY the 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	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2	VEN/VTN	SimpleHTTP - Push	C-1	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
3	VEN/VTN	XMPP - Push	C-1	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

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

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.

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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	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2	VEN/VTN	EiOpt	C-1	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
3	VEN/VTN	EiReport	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
4	VEN/VTN	RiRegisterParty	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
5	VEN/VTN	OadrPoll	C-2	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

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

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

Security Support

Requirements Reference: Conformance rules 67, 68, and 514

Item	Role	Security	Status	Support
1	VEN	SHA2 Security -TLS 1.2 -Client and server x.509 certs with SHA2 -Alliance RSA or ECC SHA2 Ciphers -SASL_EXTERNAL (XMPP Only)	M	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2	VTN	SHA2 Security -TLS 1.2 -Client and server x.509 certs with SHA2 -Alliance RSA and ECC SHA2 Ciphers -SASL_EXTERNAL (XMPP Only if supported)	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
3	VEN/VTN	XML Signatures	O	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

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	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2	VEN	oadrRequestEvent	C-2	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
3	VEN	oadrCreatedEvent	C-2	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
4	VEN	oadrCreateOpt	C-2	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
5	VEN	oadrCancelOpt	C-2	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
6	VTN	oadrCanceledOpt	C-2	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
7	VEN	oadrQueryRegistration	M	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
8	VEN	oadrCreatePartyRegistration	M	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
9	VEN/VTN	oadrResponse	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
10	VEN/VTN	oadrCancelPartyRegistration	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
11	VEN/VTN	oadrCanceledPartyRegistration	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
12	VEN/VTN	oadrRegisterReport	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
13	VEN/VTN	oadrRegisteredReport	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
14	VEN/VTN	oadrCreateReport	C-3	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
15	VEN/VTN	oadrCreatedReport	C-3	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
16	VEN/VTN	oadrUpdateReport	C-4	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
17	VEN/VTN	oadrUpdatedReport	C-4	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
18	VEN/VTN	oadrCancelReport	C-3	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
19	VEN/VTN	oadrCanceledReport	C-3	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
20	VTN	oadrCreatedOpt	C-2	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
21	VTN	oadrDistributeEvent	C-2	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
22	VTN	oadrCreatedPartyRegistration	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
23	VTN	oadrRequestReregistration	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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, so these payloads are not mandatory

C-4) VTNs are not required to offer reports, so delivering reports other than metadata is not mandatory

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}} VTN: oadrDistributeEvent {Response Required, baseline} {VEN: oadrCreatedEvent {Opt State} VTN: oadrResponse }	C-1	[X]Yes []No
2	EiOpt	VEN: oadrCreateOpt {Availability schedule} VTN: oadrCreatedOpt ---- VEN: oadrCancelOpt VTN: oadrCanceledOpt --- VEN: oadrCreateOpt - {Event Opt State} VTN: oadrCreatedOpt	C-1	[X]Yes []No
3	EiRegisterParty	VEN: oadrQueryRegistration VTN: oadrCreatedPartyRegistration ---- VEN: oadrCreatePartyRegistration VTN: oadrCreatedPartyRegistration ---- VEN/VTN: oadrCancelPartyRegistration VTN/VEN: oadrCanceledPartyRegistration --- VTN: oadrRequestReregistration VEN: oadrResponse VEN: oadrCreatePartyRegistration VTN: oadrCreatedPartyRegistration	M	[X]Yes []No
4	EiReport	VEN/VTN: oadrRegisterReport 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}	C-3	[X]Yes []No
5	OadrPoll	VEN: oadrPoll VTN: Any payload sent by VTN	C-2	[X]Yes []No

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	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2	VEN/VTN	ELECTRICITY_PRICE	Price	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
3	VEN/VTN	LOAD_DISPATCH	setpoint	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2	VEN	TELEMETRY_UASGE	M	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
3	VEN	TELEMETRY_STATUS	M	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
4	VEN	HISTORY_USAGE	C-1	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
5	VTN	METADATA	M	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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 (Rule)	Role	Status	Support
1	VEN/VTN	C-1	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2	VTN	C-1	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
3	VTN	C-1	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
4	VTN	C-1	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
5	VTN	C-1	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
6	VEN	C-1	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
8	VTN	C-1	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
9	VTN	C-1	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
10	VTN	C-1	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
12	VEN	C-1	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
13	VTN	C-1	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
14	VTN	C-1	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
15	VTN	C-1	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
16	VTN	C-1	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
17	VTN	C-1	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
18	VEN/VTN	C-1	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
19	VEN	C-1	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
20	VTN	C-1	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
21	VEN/VTN	C-1	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
22	VEN	C-1	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
23	VEN/VTN	C-1	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
25	VTN	C-1	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
27	VTN	C-1	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
29	VTN	C-1	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
30	VEN	C-1	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
31	VEN	C-1	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
32	VEN/VTN	C-1	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
33	VEN/VTN	C-1	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
35	VEN	C-1	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
36	VEN	C-1	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
37	VEN	C-1	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
38	VTN	C-1	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
40	VTN	C-1	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
41	VTN	C-1	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
42	VEN/VTN	C-1	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
43	VEN	C-1	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
45	VEN/VTN	C-1	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
46	VEN/VTN	C-1	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
47	VEN/VTN	C-1	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
48	VEN/VTN	C-1	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
50	VTN	C-1	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

51	VEN/VTN	C-1	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
52	VTN	C-1	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

