

OCCI Sla Extension

SPIRALS

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1 OCCI sla extension

Name	sla
Scheme	http://schemas.ogf.org/occi/sla#
Specification	https://www.ogf.org/documents/GFD.228.pdf

1.1 Description

OCCI Service Level Agreements API allows for the creation and management of resources related with the realization of agreements between an OCCI-enabled cloud service provider and potential consumers of the provider's resources.

1.2 Imported OCCI extensions

Name	core
Scheme	http://schemas.ogf.org/occi/core#

1.3 Specification

The specification of OCCI Sla extension is available here: <https://www.ogf.org/documents/GFD.228.pdf>.

1.4 Types

1.4.1 DateTime type

Data type for ISO8601 date time

- **Basic type:** String
- **pattern:**

`^(\d{4}((-)?(0[1-9]|1[0-2]))((-)?(0[1-9]|1[1-2][0-9]|3[0-1]))(T(24:00(:00(\.[0-9]+)?)?|((([0-1][0-9]|2[0-3])`

1.4.2 AgreementStatus type

Enumeration of Agreement status **Literals**

- Pending
- Accepted
- Rejected
- Suspended
- Terminated

1.4.3 AgreementTermType type

Enumeration of AgreementTerm types **Literals**

- SERVICE
- SLO

1.4.4 AgreementTermStatus type

Enumeration of AgreementTerm status **Literals**

- Undefined
- Fulfilled
- Violated

1.5 Kinds

1.5.1 agreement kind

Name	agreement
Scheme	http://schemas.ogf.org/occi/sla#
Title	A Service Level Agreement
Parent	Resource (http://schemas.ogf.org/occi/core#)

- agreement attributes

Attribute	Type	Required	Mutable	Default	Description
occi.agreement.state	AgreementStatus	true	false		Current state of the instance
occi.agreement.agreedAt	DateTime	false	false		The point in time when the agreement was made
occi.agreement.effectiveFrom	DateTime	false	true		The point in time when the agreements effectiveness begins
occi.agreement.effectiveUntil	DateTime	false	true		The point in time when the agreements effectiveness ends

- agreement actions

- **Scheme:** <http://schemas.ogf.org/occi/sla/agreement/action#>

Term	Attributes	Title
accept		Accept an agreement.
reject		Reject an agreement.
suspend		Suspend an agreement.
resume		Resume an agreement.
terminate		Terminate an agreement.

- agreement Behavior

- **Attribute:** `occi.agreement.state`
- **Initial state:** Pending
- **Final states:** Rejected , Accepted , Suspended
- **Transitions:**

Source State	Target State	Action
Pending	Rejected	Reject
Pending	Accepted	Accept
Accepted	Suspended	Suspend
Suspended	Accepted	Resume

1.5.2 agreement_link kind

Name	agreement_link
Scheme	http://schemas.ogf.org/occi/sla#
Title	Link between a SLA and its associated resource
Parent	Link (http://schemas.ogf.org/occi/core#)

1.6 Mixins

1.6.1 agreement_tpl mixin

Name	agreement_tpl
Scheme	http://schemas.ogf.org/occi/sla#
Title	Mixin defining a SLA template collection

- **Applies to:**

- agreement (<http://schemas.ogf.org/occi/sla#>)

1.6.2 agreement_term mixin

Name	agreement_term
Scheme	http://schemas.ogf.org/occi/sla#
Title	Mixin defining a Term collection for an agreement

- **Applies to:**

- agreement (<http://schemas.ogf.org/occi/sla#>)

- **agreement_term attributes**

Attribute	Type	Required	Mutable	Default	Description
occi.agreement.term.type	AgreementTermType	true	false		The type of the term that is being defined.
occi.agreement.term.state	AgreementTermStatus	true	false		The state of fulfillment of the specific term.
occi.agreement.term.desc	String	false	false		The description of the agreement term defined with this mixin.
occi.agreement.term.remedy	String	false	false		The remedy value (e.g., price penalty) or action e.g., command) when an SLO term is being violated.

- **agreement_term Behavior**

- **Attribute:** `occi.agreement.term.state`
- **Initial state:** Undefined
- **Final states:** Undefined , Fulfilled , Violated
- **Transitions:**

Source State	Target State	Action
Undefined	Fulfilled	
Undefined	Violated	
Fulfilled	Violated	
Violated	Fulfilled	