

OSLC API

Teamwork Cloud adds OSLC support and now exposes model element data following OSLC Architecture Management (AM) (<http://open-services.net/ns/am#>) vocabulary. Along with core OSLC services provided in Teamwork Cloud, this enables smooth integration with other OSLC-compatible tools by linking resources in Linked Data fashion. Here are the key points behind current Teamwork Cloud OSLC provider implementation:

- OSLC root services document URI can be found using the following pattern - `http(s)://TWC_IP:PORT/oslc/rootservices`.
- Each of the model elements is exposed using the following URI pattern - `http(s)://TWC_IP:PORT/oslc/am/{projectID}/{elementID}`.
*Note: the *elementID* here is an Element Server ID.
- We expose the following model element properties:
 - `rdf:type` (<http://www.w3.org/1999/02/22-rdf-syntax-ns#type>) - represents architecture resource type, which according to OSLC AM vocabulary is always a Resource (<http://open-services.net/ns/am#Resource>).
 - `dcterms:modified` (<http://purl.org/dc/terms/modified>) - stands for the last element modification date.
 - `dcterms:identifier` (<http://purl.org/dc/terms/identifier>) - the Element Server ID as used in element's URI pattern.
 - `dcterms:title` (<http://purl.org/dc/terms/title>) - the name of the element

Sample RDF/XML representation of element data

```
<?xml version="1.0" encoding="UTF-8"?>
<rdf:RDF
  xmlns:oslc="http://open-services.net/ns/core#"
  xmlns:oslc_am="http://open-services.net/ns/am#"
  xmlns:dc="http://purl.org/dc/terms/"
  xmlns:dcterms="http://purl.org/dc/terms/"
  xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#"
  xmlns:rdfs="http://www.w3.org/2000/01/rdf-schema#">
  <rdf:Description rdf:about="https://localhost:8111/oslc/am/blacff2d-4396-4314-9dba-477d573ede16/50775427-bce2-4de4-b747-8ab82d294237">
    <rdf:type rdf:resource="http://open-services.net/ns/am#Resource"/>
    <oslc:serviceProvider rdf:resource="https://localhost:8111/oslc/am/blacff2d-4396-4314-9dba-477d573ede16/services"/>
    <dcterms:modified rdf:datatype="http://www.w3.org/2001/XMLSchema#dateTime">May 16, 2018 2:08:52 PM</dcterms:modified>
    <dcterms:identifier rdf:datatype="http://www.w3.org/2001/XMLSchema#string">50775427-bce2-4de4-b747-8ab82d294237</dcterms:identifier>
    <dcterms:title rdf:parseType="Literal">Engine</dcterms:title>
  </rdf:Description>
</rdf:RDF>
```

- Currently, querying services are not supported. Model data can only be read through OSLC services and editing capabilities are not supported.
- We offer OSLC UI previews through integration with [Cameo Collaborator for Teamwork Cloud](#). For more information, check [Publishing an OSLC resource](#).
- We provide OSLC delegated dialog support via Selection Dialog service for navigating the model tree and linking to AM resources from external tools.

OAuth 1.0a authentication

To ensure secure access to server resources via OSLC, OAuth 1.0a authentication protocol is used.

OAuth 1.0a requires consumer key and secret to be known before starting the authentication process flow. These can be created through Teamwork Cloud Admin as described in [Managing OAuth consumer keys](#).

Alternatively, a pair of consumer key and secret can be generated manually via a service exposed in the root services document. The following HTTP POST request should be made to a consumer key generation service (`jfs:oauthRequestConsumerKeyUrl`):

HTTP request body

```
{
  "name": "consumerNameGoesHere",
  "secret": "OAuthSecretGoesHere"
}
```

HTTP response body

```
{  
  "key": "generatedConsumerKeyShouldBeHere"  
}
```

Note, that keys generated following this approach will still need to be approved by an administrator through Teamwork Cloud Admin console.