Draft for Core Issue-43-7

See: http://open-services.net/bin/view/Main/OslcCoreV2Issues

1. [drafted] When >1 value type is satisfied, original is unclear on whether or not such a value is allowed.

Revised: Core topic Defining OSLC Properties

Source: http://open-services.net/bin/view/Main/OslcCoreSpecification?sortcol=table;up=#OSLC_Defined_Resources

Defining OSLC Properties

OSLC Specifications **MAY** provide a list of properties allowed and/or required for a particular operation on an OSLC Defined Resource. Specifications that do so **SHOULD** provide the following information for each property that they define.

- **Name**: name of the property which **MUST** be valid as the Local Name part of a QName (reference: XML Namespaces).
- **URI**: The URI of the property's type. The URI is formed by appending the Name to the end of the Namespace URI associated with the property. For example, the resource named `oslc:ServiceProviderCatalog` (defined below in the Service Providers Section) defines a property named `domain` with the URI of `http://open-services.net/ns/core#domain`
- **Title**: Title of the property.
- **Description**: Description of the property.
- **Occurs**: value **MUST** be one of:
  - `http://open-service.net/ns/core#Exactly-one`
  - `http://open-service.net/ns/core#Zero-or-one`
  - `http://open-service.net/ns/core#Zero-or-many`
  - `http://open-service.net/ns/core#One-or-many`
- **Value-types**: A property **MAY** allow multiple value-types and a value **MUST** satisfy at least one of them. Each value-type **MUST** be a URI that corresponds to one of the following:
  - Literal value-types:
    - **Boolean**: a boolean type as specified by XSD Boolean (`http://www.w3.org/2001/XMLSchema#boolean`, reference: XSD Datatypes).
    - **DateTime**: a Date and Time type as specified by XSD dateTime (`http://www.w3.org/2001/XMLSchema#dateTime`, reference: XSD Datatypes).
    - **Decimal**: a decimal number type as specified by XSD Decimal (`http://www.w3.org/2001/XMLSchema#decimal`, reference: XSD Datatypes).

        - **Double**: a double floating-point number type as specified by XSD Double (`http://www.w3.org/2001/XMLSchema#double`, reference: XSD Datatypes).
        - **Float**: a floating-point number type as specified by XSD Float (`http://www.w3.org/2001/XMLSchema#float`, reference: XSD Datatypes).
        - **Integer:** an integer number type as specified by XSD Integer (`http://www.w3.org/2001/XMLSchema#integer`, reference: XSD Datatypes).
        - **String**: a string type as specified by XSD String (`http://www.w3.org/2001/XMLSchema#string`, reference: XSD Datatypes).
        - **XMLLiteral**: a Literal XML value (`http://www.w3.org/1999/02/22-rdf-syntax-ns#XMLLiteral`).
    - Resource value-types:
        - **Resource**: value is a resource at a specified URI (i.e. a URI Reference) (`http://open-services.net/ns/core#Resource`).
        - **Local Resource**: value is an resource available only inside the resource being defined (i.e. a Blank Node) (`http://open-services.net/ns/core#LocalResource`).
        - **AnyResource**: value is either a **Resource** or **Local Resource** as defined above (`http://open-services.net/ns/core#AnyResource`).
- **Representation**: for properties with a resource value-type, OSLC specifications should also specify how the resource will be represented. The options are `http://open-service.net/ns/core#Reference` , `http://open-service.net/ns/core#Inline` or `http://open-service.net/ns/core#Either`.
- **Range**: for properties with a resource value-type, OSLC specifications should also specify the range of possible resource classes allowed. This can be specified as `any` or as a list of one or more resource classes specified by Prefixed Name. Best practices for specifying ranges for Resource value-types are covered in the Appendix C Guidance on Links and Relationships document.

In the rest of this document we will define OSLC resources as described above. The below section titled OSLC Defined Resource Representations defines how OSLC resources are to be represented in RDF/XML, JSON and other formats.

OSLC Services that wish to provide the information above in a machine-readable format **MAY** use OSLC Resource Shapes, see Appendix A: Common Properties and Resources for more information.

NOTE: we do not mention Internationalization of strings here because we expect standard HTTP content-negotiation and representation (e.g. `xml:lang`) mechanisms to be used for such.