

Schema documentation for OSDSpec.xsd

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Namespace: ""

Schema(s)

Main schema OSDSpec.xsd

Namespace	No namespace	
Properties	attribute form default:	unqualified
	element form default:	qualified

Element(s)

Element OSDSpec

Namespace	No namespace	
Annotations	OpenIoT Service Description Specification	

Diagram	<p>The diagram shows an OSDSpec element (blue rounded rectangle) with a self-referencing arrow. It contains an attributes block (yellow rounded rectangle) with a userID attribute (yellow rounded rectangle) of type xs:anyURI. Below the attributes block is a sequence of OAMO elements (blue rounded rectangles) with a cardinality of 1..∞. A callout box for OAMO indicates it is an OpenIoT Application Model Object.</p>				
Properties	content:	complex			
Model	OAMO+				
Children	OAMO				
Instance	<pre><OSDSpec userID=""> <OAMO id="" name="">{1,unbounded}</OAMO> </OSDSpec></pre>				
Attributes	QName	Type	Fixed	Default	Use
	userID	xs:anyURI			required
Source	<pre><xs:element name="OSDSpec"> <xs:annotation> <xs:documentation>OpenIoT Service Description Specification</xs:documentation> </xs:annotation> <xs:complexType> <xs:sequence> <xs:element maxOccurs="unbounded" ref="OAMO"/> </xs:sequence> <xs:attribute name="userID" use="required" type="xs:anyURI"/> </xs:complexType> </xs:element></pre>				

Element OAMO

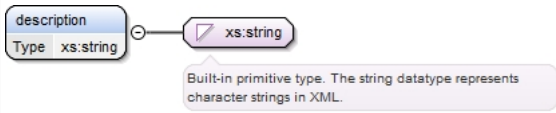
Namespace	No namespace				
Annotations	OpenIoT Application Model Object				
Diagram					
Properties	content:	complex			
Used by	Element	OSDSpec			
Model	description{0,1} , OSMO+				
Children	OSMO, description				
Instance	<pre><OAMO id="" name=""> <description>{0,1}</description> <OSMO id="" name="">{1,unbounded}</OSMO> </OAMO></pre>				
Attributes	QName	Type	Fixed	Default	Use
	id	xs:anyURI			required
	name	xs:NCName			required
Source	<pre><xs:element name="OAMO"> <xs:annotation> <xs:documentation>OpenIoT Application Model Object</xs:documentation> </xs:annotation> <xs:complexType> <xs:sequence></pre>				

```

<xs:element minOccurs="0" maxOccurs="1" ref="description"/>
<xs:element maxOccurs="unbounded" ref="OSMO">
</xs:element>
</xs:sequence>
<xs:attribute name="id" use="required" type="xs:anyURI"/>
<xs:attribute name="name" type="xs:NCName" use="required"/>
</xs:complexType>
</xs:element>

```

Element description

Namespace	No namespace		
Diagram			
Type	xs:string		
Properties	content:	simple	
Used by	Elements	OAMO, OSMO	
Source	<pre><xs:element name="description" type="xs:string"> </xs:element></pre>		

Element OSMO

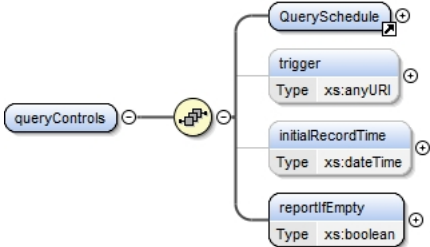
Namespace	No namespace				
Annotations	OpenIoT Sensor Model Object				
Diagram					
Properties	content:	complex			
Used by	Element	OAMO			
Model	description{0,1} , queryControls , requestPresentation , query-request				
Children	description, query-request, queryControls, requestPresentation				
Instance	<pre><OSMO id=" " name=" "> <description>{0,1}</description> <queryControls>{1,1}</queryControls> <requestPresentation>{1,1}</requestPresentation> <query-request>{1,1}</query-request> </OSMO></pre>				
Attributes	QName	Type	Fixed	Default	Use
	id	xs:anyURI			required
	name	xs:NCName			required
Source	<pre><xs:element name="OSMO"> <xs:annotation> <xs:documentation>OpenIoT Sensor Model Object</xs:documentation> </xs:annotation> <xs:complexType> <xs:sequence> <xs:element minOccurs="0" maxOccurs="1" ref="description"/> <xs:element ref="queryControls"/> <xs:element ref="requestPresentation"/> <xs:element ref="query-request"/> </xs:sequence> </xs:complexType> </xs:element></pre>				

```

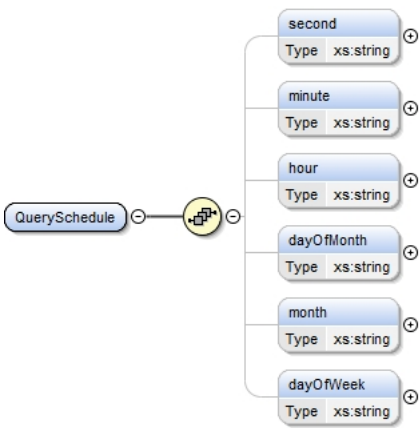
<xs:element ref="requestPresentation" />
<xs:element ref="query-request" />
</xs:sequence>
<xs:attribute name="id" use="required" type="xs:anyURI" />
<xs:attribute name="name" type="xs:NCName" use="required" />
</xs:complexType>
</xs:element>

```

Element queryControls

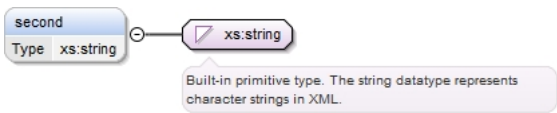
Namespace	No namespace
Diagram	 <pre> graph LR queryControls[queryControls] --- seq(()) seq --- QuerySchedule[QuerySchedule] seq --- trigger[trigger Type xs:anyURI] seq --- initialRecordTime[initialRecordTime Type xs:dateTime] seq --- reportIfEmpty[reportIfEmpty Type xs:boolean] </pre>
Properties	content: complex
Used by	Element OSMO
Model	QuerySchedule , trigger{0,1} , initialRecordTime{0,1} , reportIfEmpty
Children	QuerySchedule, initialRecordTime, reportIfEmpty, trigger
Instance	<pre> <queryControls> <QuerySchedule>{1,1}</QuerySchedule> <trigger>{0,1}</trigger> <initialRecordTime>{0,1}</initialRecordTime> <reportIfEmpty>{1,1}</reportIfEmpty> </queryControls> </pre>
Source	<pre> <xs:element name="queryControls"> <xs:complexType> <xs:sequence> <xs:element ref="QuerySchedule" /> <xs:element name="trigger" type="xs:anyURI" minOccurs="0" /> <xs:element name="initialRecordTime" type="xs:dateTime" minOccurs="0" /> <xs:element name="reportIfEmpty" type="xs:boolean" /> </xs:sequence> </xs:complexType> </xs:element> </pre>

Element QuerySchedule

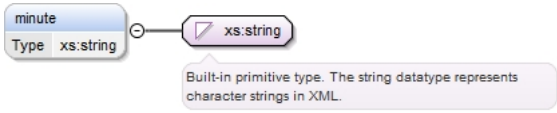
Namespace	No namespace
Diagram	 <pre> graph LR QuerySchedule[QuerySchedule] --- seq(()) seq --- second[second Type xs:string] seq --- minute[minute Type xs:string] seq --- hour[hour Type xs:string] seq --- dayOfMonth[dayOfMonth Type xs:string] seq --- month[month Type xs:string] seq --- dayOfWeek[dayOfWeek Type xs:string] </pre>
Properties	content: complex
Used by	Element queryControls
Model	second{0,1} , minute{0,1} , hour{0,1} , dayOfMonth{0,1} , month{0,1} , dayOfWeek{0,1}
Children	dayOfMonth, dayOfWeek, hour, minute, month, second

Instance	<pre> <QuerySchedule> <second>{0,1}</second> <minute>{0,1}</minute> <hour>{0,1}</hour> <dayOfMonth>{0,1}</dayOfMonth> <month>{0,1}</month> <dayOfWeek>{0,1}</dayOfWeek> </QuerySchedule> </pre>
Source	<pre> <xs:element name="QuerySchedule"> <xs:complexType> <xs:sequence> <xs:element name="second" type="xs:string" minOccurs="0"/> <xs:element name="minute" type="xs:string" minOccurs="0"/> <xs:element name="hour" type="xs:string" minOccurs="0"/> <xs:element name="dayOfMonth" type="xs:string" minOccurs="0"/> <xs:element name="month" type="xs:string" minOccurs="0"/> <xs:element name="dayOfWeek" type="xs:string" minOccurs="0"/> </xs:sequence> </xs:complexType> </xs:element> </pre>

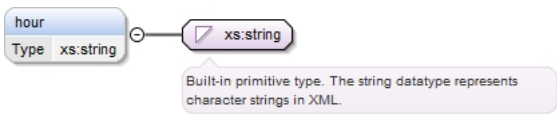
Element QuerySchedule / second

Namespace	No namespace				
Diagram					
Type	xs:string				
Properties	<table> <tr> <td>content:</td><td>simple</td></tr> <tr> <td>minOccurs:</td><td>0</td></tr> </table>	content:	simple	minOccurs:	0
content:	simple				
minOccurs:	0				
Source	<code><xs:element name="second" type="xs:string" minOccurs="0"/></code>				

Element QuerySchedule / minute

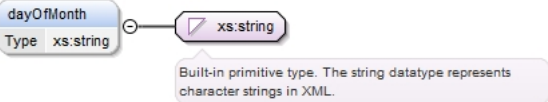
Namespace	No namespace				
Diagram					
Type	xs:string				
Properties	<table> <tr> <td>content:</td><td>simple</td></tr> <tr> <td>minOccurs:</td><td>0</td></tr> </table>	content:	simple	minOccurs:	0
content:	simple				
minOccurs:	0				
Source	<code><xs:element name="minute" type="xs:string" minOccurs="0"/></code>				

Element QuerySchedule / hour

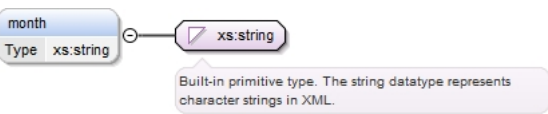
Namespace	No namespace				
Diagram					
Type	xs:string				
Properties	<table> <tr> <td>content:</td><td>simple</td></tr> <tr> <td>minOccurs:</td><td>0</td></tr> </table>	content:	simple	minOccurs:	0
content:	simple				
minOccurs:	0				
Source	<code><xs:element name="hour" type="xs:string" minOccurs="0"/></code>				

Element QuerySchedule / dayOfMonth

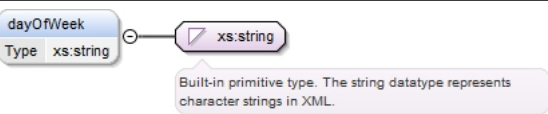
Namespace	No namespace
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Diagram					
Type	xs:string				
Properties	<table> <tr> <td>content:</td><td>simple</td></tr> <tr> <td>minOccurs:</td><td>0</td></tr> </table>	content:	simple	minOccurs:	0
content:	simple				
minOccurs:	0				
Source	<code><xs:element name="dayOfMonth" type="xs:string" minOccurs="0"/></code>				

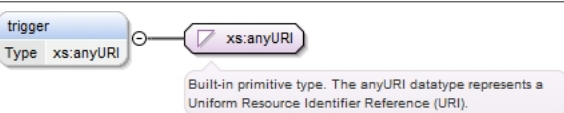
Element QuerySchedule / month

Namespace	No namespace				
Diagram					
Type	xs:string				
Properties	<table> <tr> <td>content:</td><td>simple</td></tr> <tr> <td>minOccurs:</td><td>0</td></tr> </table>	content:	simple	minOccurs:	0
content:	simple				
minOccurs:	0				
Source	<code><xs:element name="month" type="xs:string" minOccurs="0"/></code>				

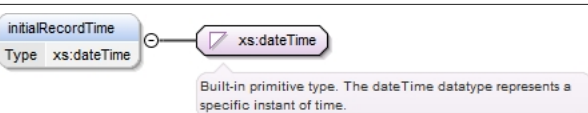
Element QuerySchedule / dayOfWeek

Namespace	No namespace				
Diagram					
Type	xs:string				
Properties	<table> <tr> <td>content:</td><td>simple</td></tr> <tr> <td>minOccurs:</td><td>0</td></tr> </table>	content:	simple	minOccurs:	0
content:	simple				
minOccurs:	0				
Source	<code><xs:element name="dayOfWeek" type="xs:string" minOccurs="0"/></code>				

Element queryControls / trigger

Namespace	No namespace				
Diagram					
Type	xs:anyURI				
Properties	<table> <tr> <td>content:</td><td>simple</td></tr> <tr> <td>minOccurs:</td><td>0</td></tr> </table>	content:	simple	minOccurs:	0
content:	simple				
minOccurs:	0				
Source	<code><xs:element name="trigger" type="xs:anyURI" minOccurs="0"/></code>				

Element queryControls / initialRecordTime

Namespace	No namespace				
Diagram					
Type	xs:dateTime				
Properties	<table> <tr> <td>content:</td><td>simple</td></tr> <tr> <td>minOccurs:</td><td>0</td></tr> </table>	content:	simple	minOccurs:	0
content:	simple				
minOccurs:	0				

Source	<code><xs:element name="initialRecordTime" type="xs:dateTime" minOccurs="0"/></code>
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Element queryControls / reportIfEmpty

Namespace	No namespace
Diagram	
Type	xs:boolean
Properties	content: simple
Source	<code><xs:element name="reportIfEmpty" type="xs:boolean" /></code>

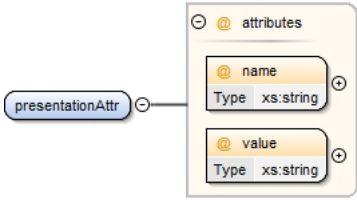
Element requestPresentation

Namespace	No namespace
Diagram	
Properties	content: complex
Used by	Element OSMO
Model	widget+
Children	widget
Instance	<pre><requestPresentation> <widget widgetID="">{1,unbounded}</widget> </requestPresentation></pre>
Source	<pre><xs:element name="requestPresentation"> <xs:complexType> <xs:sequence> <xs:element maxOccurs="unbounded" ref="widget"/> </xs:sequence> </xs:complexType> </xs:element></pre>

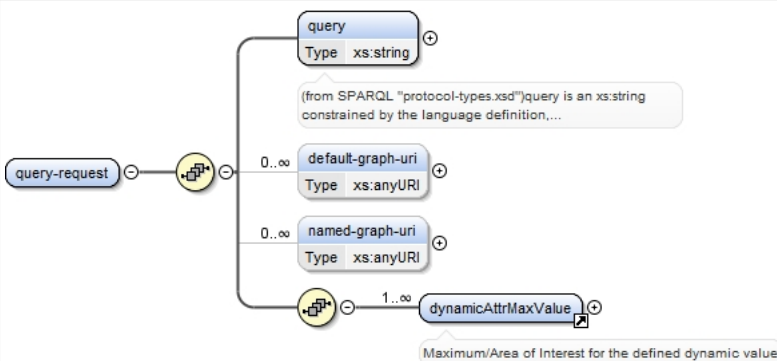
Element widget

Namespace	No namespace				
Diagram					
Properties	content:	complex			
Used by	Element	requestPresentation			
Model	presentationAttr+				
Children	presentationAttr				
Instance	<pre><widget widgetID=""> <presentationAttr name="" value="">{1,unbounded}</presentationAttr> </widget></pre>				
Attributes	QName	Type	Fixed	Default	Use
	widgetID	xs:anyURI			required
Source	<pre><xs:element name="widget"> <xs:complexType> <xs:sequence> <xs:element maxOccurs="unbounded" ref="presentationAttr"/> </xs:sequence> <xs:attribute name="widgetID" use="required" type="xs:anyURI"/> </xs:complexType> </xs:element></pre>				

Element presentationAttr

Namespace	No namespace				
Diagram					
Properties	content:	complex			
Used by	Element	widget			
Attributes	QName	Type	Fixed	Default	Use
	name	xs:string			required
	value	xs:string			required
Source	<pre> <xs:element name="presentationAttr"> <xs:complexType> <xs:attribute name="name" use="required" type="xs:string" /> <xs:attribute name="value" use="required" type="xs:string" /> </xs:complexType> </xs:element> </pre>				

Element query-request

Namespace	No namespace	
Diagram		
Properties	content:	complex
Used by	Element	OSMO
Model	query , default-graph-uri* , named-graph-uri* , dynamicAttrMaxValue+	
Children	default-graph-uri, dynamicAttrMaxValue, named-graph-uri, query	
Instance	<pre><query-request> <query>{1,1}</query> <default-graph-uri>{0,unbounded}</default-graph-uri> <named-graph-uri>{0,unbounded}</named-graph-uri> <dynamicAttrMaxValue name="" value="">{1,unbounded}</dynamicAttrMaxValue> </query-request></pre>	
Source	<pre><xs:element name="query-request"> <xs:complexType> <xs:sequence> <xs:element minOccurs="1" maxOccurs="1" name="query" type="xs:string"> <xs:annotation> <xs:documentation>(from SPARQL "protocol-types.xsd")query is an xs:string constrained by the language definition, http://www.w3.org/TR/rdf-sparql-query/#grammar, as "a sequence of characters in the language defined by the [SPARQL] grammar, starting with the Query production"</ xs:documentation> </xs:annotation> </xs:element> <xs:element minOccurs="0" maxOccurs="unbounded" name="default-graph-uri" type="xs:anyURI"/> <xs:element minOccurs="0" maxOccurs="unbounded" name="named-graph-uri" type="xs:anyURI"/> <xs:sequence> <xs:element maxOccurs="unbounded" ref="dynamicAttrMaxValue"/> </xs:sequence> </xs:sequence> </xs:complexType> </xs:element></pre>	


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</xs:sequence>
</xs:complexType>
</xs:element>

```

Element query-request / query

Namespace	No namespace						
Annotations	(from SPARQL "protocol-types.xsd")query is an xs:string constrained by the language definition, http://www.w3.org/TR/rdf-sparql-query/#grammar , as "a sequence of characters in the language defined by the [SPARQL] grammar, starting with the Query production"						
Diagram							
Type	xs:string						
Properties	<table> <tr> <td>content:</td><td>simple</td></tr> <tr> <td>minOccurs:</td><td>1</td></tr> <tr> <td>maxOccurs:</td><td>1</td></tr> </table>	content:	simple	minOccurs:	1	maxOccurs:	1
content:	simple						
minOccurs:	1						
maxOccurs:	1						
Source	<pre> <xs:element minOccurs="1" maxOccurs="1" name="query" type="xs:string"> <xs:annotation> <xs:documentation>(from SPARQL "protocol-types.xsd")query is an xs:string constrained by the language definition, http://www.w3.org/TR/rdf-sparql-query/#grammar, as "a sequence of characters in the language defined by the [SPARQL] grammar, starting with the Query production"</ xs:documentation> </xs:annotation> </xs:element> </pre>						

Element query-request / default-graph-uri

Namespace	No namespace						
Diagram							
Type	xs:anyURI						
Properties	<table> <tr> <td>content:</td><td>simple</td></tr> <tr> <td>minOccurs:</td><td>0</td></tr> <tr> <td>maxOccurs:</td><td>unbounded</td></tr> </table>	content:	simple	minOccurs:	0	maxOccurs:	unbounded
content:	simple						
minOccurs:	0						
maxOccurs:	unbounded						
Source	<pre> <xs:element minOccurs="0" maxOccurs="unbounded" name="default-graph-uri" type="xs:anyURI"/> </pre>						

Element query-request / named-graph-uri

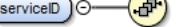
Namespace	No namespace						
Diagram							
Type	xs:anyURI						
Properties	<table> <tr> <td>content:</td><td>simple</td></tr> <tr> <td>minOccurs:</td><td>0</td></tr> <tr> <td>maxOccurs:</td><td>unbounded</td></tr> </table>	content:	simple	minOccurs:	0	maxOccurs:	unbounded
content:	simple						
minOccurs:	0						
maxOccurs:	unbounded						
Source	<pre> <xs:element minOccurs="0" maxOccurs="unbounded" name="named-graph-uri" type="xs:anyURI"/> </pre>						

Element dynamicAttrMaxValue

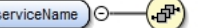
Namespace	No namespace
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Annotations	Maximum/Area of Interest for the defined dynamic value				
Diagram					
Properties	content:	complex			
Used by	Element	query-request			
Attributes	QName	Type	Fixed	Default	Use
	name	xs:string			required
	value	xs:string			required
Source	<pre> <xs:element name="dynamicAttrMaxValue"> <xs:annotation> <xs:documentation>Maximum/Area of Interest for the defined dynamic value</xs:documentation> </xs:annotation> <xs:complexType> <xs:attribute name="name" use="required" type="xs:string"/> <xs:attribute name="value" use="required" type="xs:string"/> </xs:complexType> </xs:element> </pre>				

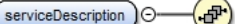
Element serviceID

Namespace	No namespace		
Diagram			
Properties	content:	complex	
Model			
Source	<pre><xs:element name="serviceID"> <xs:complexType> <xs:sequence> </xs:sequence> </xs:complexType> </xs:element></pre>		

Element serviceName

Namespace	No namespace		
Diagram			
Properties	content:	complex	
Model			
Source	<pre><xs:element name="serviceName"> <xs:complexType> <xs:sequence> </xs:sequence> </xs:complexType> </xs:element></pre>		

Element serviceDescription

Namespace	No namespace
Diagram	
Properties	content: complex
Model	
Source	<pre><xs:element name="serviceDescription"> <xs:complexType> <xs:sequence></pre>

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</xs:sequence>
</xs:complexType>
</xs:element>

```

Attribute(s)

Attribute presentationAttr / @name

Namespace	No namespace
Type	xs:string
Properties	use: required
Used by	Element presentationAttr
Source	<code><xs:attribute name="name" use="required" type="xs:string"/></code>

Attribute presentationAttr / @value

Namespace	No namespace
Type	xs:string
Properties	use: required
Used by	Element presentationAttr
Source	<code><xs:attribute name="value" use="required" type="xs:string"/></code>

Attribute widget / @widgetID

Namespace	No namespace
Type	xs:anyURI
Properties	use: required
Used by	Element widget
Source	<code><xs:attribute name="widgetID" use="required" type="xs:anyURI"/></code>

Attribute dynamicAttrMaxValue / @name

Namespace	No namespace
Type	xs:string
Properties	use: required
Used by	Element dynamicAttrMaxValue
Source	<code><xs:attribute name="name" use="required" type="xs:string"/></code>

Attribute dynamicAttrMaxValue / @value

Namespace	No namespace
Type	xs:string
Properties	use: required
Used by	Element dynamicAttrMaxValue
Source	<code><xs:attribute name="value" use="required" type="xs:string"/></code>

Attribute OSMO / @id

Namespace	No namespace
Type	xs:anyURI
Properties	use: required
Used by	Element OSMO
Source	<code><xs:attribute name="id" use="required" type="xs:anyURI"/></code>

Attribute OSMO / @name

Namespace	No namespace
Type	xs:NCName
Properties	use: required
Used by	Element OSMO
Source	<code><xs:attribute name="name" type="xs:NCName" use="required" /></code>

Attribute OAMO / @id

Namespace	No namespace
Type	xs:anyURI
Properties	use: required
Used by	Element OAMO
Source	<code><xs:attribute name="id" use="required" type="xs:anyURI" /></code>

Attribute OAMO / @name

Namespace	No namespace
Type	xs:NCName
Properties	use: required
Used by	Element OAMO
Source	<code><xs:attribute name="name" type="xs:NCName" use="required" /></code>

Attribute OSDSpec / @userID

Namespace	No namespace
Type	xs:anyURI
Properties	use: required
Used by	Element OSDSpec
Source	<code><xs:attribute name="userID" use="required" type="xs:anyURI" /></code>