

## Vaisala Beacon Cloud XML API

Vaisala offers third parties access to the measurement database through an XML interface. With a simple XML interface it is possible to retrieve the measurements of a single station during a given time frame. From the website <https://beacon.vaisala.com/api/> it is easy to access the database using the serial number from the device, an API key, and a specific time frame.

### XML Interface

SSL-protected URL: <https://beacon.vaisala.com/api/>

Table 1 HTTP Parameters for GET and POST Methods

Name	Value	Description
d	Serial number	Serial number of the device, for example AA00000
k	API key	Secret key, for example 619c4d690f34ed529b2863956977c357
t0	Start timestamp	Timestamp in ISO8601 format, for example 2014-07-01T00:00:00
t1	Stop timestamp	Timestamp in ISO8601 format, for example 2014-07-01T00:00:00
c	Max count	Optional parameter for maximum measurement count, for example 100

### Example Query and Response

#### Query

```
https://beacon.vaisala.com/api/?
d=AA000000&k=619c4d690f34ed529b2863956977c357&t0=2014-07-01T00:00:00&t1=2014-0
7-01T00:05:01
```



## Response

```
<?xml version="1.0" encoding="UTF-8"?>
<envitemsdata>
  <device>
    <name>Kuninkaankatu 22</name>
    <serial>AA00000</serial>
    <type>1</type>
    <description></description>
    <location>Tampere</location>
    <lat>0</lat>
    <lon>0</lon>
    <alt>0</alt>
  </device>
  <measurements>
    <meas id="0">
      <timestamp>2014-07-01 00:05:00</timestamp>
      <type>N02</type>
      <value>0.009</value>
    </meas>
    <meas id="1">
      <timestamp>2014-07-01 00:05:00</timestamp>
      <type>S02</type>
      <value>0.003</value>
    </meas>
  </measurements>
</envitemsdata>
```

## XML Schema

The XML API uses the following XML schema. It is also available at address <https://beacon.vaisala.com/api/api-envitems.xsd>.

```
<xs:schema attributeFormDefault="unqualified" elementFormDefault="qualified"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:element name="envitemsdata">
    <xs:complexType>
      <xs:sequence>
        <xs:element name="device">
          <xs:complexType>
            <xs:choice maxOccurs="unbounded" minOccurs="0">
              <xs:element type="xs:string" name="name"/>
              <xs:element type="xs:string" name="serial"/>
              <xs:element type="xs:byte" name="type"/>
              <xs:element type="xs:string" name="description"/>
              <xs:element type="xs:string" name="location"/>
              <xs:element type="xs:string" name="lat"/>
              <xs:element type="xs:string" name="lon"/>
              <xs:element type="xs:string" name="alt"/>
            </xs:choice>
          </xs:complexType>
        </xs:element>
        <xs:element name="measurements">
          <xs:complexType>
            <xs:sequence>
              <xs:element name="meas" maxOccurs="unbounded" minOccurs="0">
                <xs:complexType>
                  <xs:sequence>
                    <xs:element type="xs:string" name="timestamp"/>
                    <xs:element type="xs:string" name="type"/>
                    <xs:element type="xs:float" name="value"/>
                  </xs:sequence>
                  <xs:attribute type="xs:byte" name="id" use="optional"/>
                </xs:complexType>
              </xs:element>
            </xs:sequence>
          </xs:complexType>
        </xs:element>
      </xs:sequence>
    </xs:complexType>
  </xs:element>
</xs:schema>
```

