

# O<sub>2</sub> Litmus

View Device Compatibility API  
Developer Guide

## 1 Document History

### 1.1 Document Detail

<b>Title:</b>	View Device Compatibility API O2 Litmus Developer Guide
<b>Owner:</b>	O2 Litmus Support Team

### 1.2 Intended audience

This document is intended for use by registered O2 Litmus developers to gain an understanding of the O2 Litmus developer environment and guidance on how develop applications using the View Device Compatibility API

### 1.3 Document Revision History

Version	Date	Author	Comments
1.0	May 2009	O2 Litmus Support Team	Initial Version

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## 2 Introduction

The View Device Compatibility API can be used to retrieve information about a customer's device, using an input variable of mobile phone number or brand and model. This information includes, the camera type (if available), supported media types, connectivity methods and memory size.

The O2 Litmus Platform offers well-defined interfaces based on Web services.

Web Service based interfaces ensure that the parameter types used by each of the O2 Litmus API's are common wherever possible. The O2 Litmus Platform will validate Web Services requests to ensure that malformed requests are not passed on to the API. If malformed requests are presented by applications they are rejected and an exception is returned to the application.

Therefore all O2 Litmus applications requiring access to an O2 Litmus API will need to be developed using the Web service interface definitions provided within this document.

### 2.1 Glossary

Within this document the following definitions are used:

Term	Description
API	Application programming interface
Client	The caller of the Device Compatibility API.
Customer	Developers who make use of the Device Compatibility API capabilities (via O2 Litmus) to request information about a concrete handset.
ID	Identity
MSISDN	Mobile Subscriber ISDN. The internationally formatted mobile number, this should start with the country code, and not have a plus (+) i.e. 447712345678.
SOAP	Simple Object Access Protocol
XML	eXtended Mark-up Language

### 3 Interfaces

As it is explained in the developer guide, the invocation of services enabled in Litmus requires using a WS-Security SOAP header in all the requests to the services. This header must contain the developer username, the developer password and the application ID and it is recommended to include a transaction Id header to track the request. You can see an example of a security header in the O2 Litmus Development Guide: "8.4 Sample Request XML (Generated by soapUI)".

This API provides the following method to interface with the platform:

- `getDevice`

#### 3.1 *getDevice*

This method provides detailed information about a device, given the MSISDN or the Brand and Model pair, including its multimedia capabilities, connectivity, etc. Following sections describe the content of a request and a response to it.

##### 3.1.1 `getDevice` Request

The following table shows an example request for this service with the soap header.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:view="http://soa.o2.co.uk/device/viewdevicecompatibilitydata_1"
xmlns:cor="http://soa.o2.co.uk/coredata_1">
  <soapenv:Header>
    <wsse:Security soapenv:mustUnderstand="1" xmlns:wsse="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
      <wsse:UsernameToken wsu:Id="UsernameToken-12666361" xmlns:wsu="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd">
        <wsse:Username>USERNAME@APPLICATION_ID</wsse:Username>
        <wsse:Password Type="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-username-
token-profile-1.0#PasswordText">PASSWORD</wsse:Password>
        <wsse:Nonce>LxEsFc8yW8TkR056S/OFsA==</wsse:Nonce>
        <wsu:Created>2009-04-20T11:27:29.789Z</wsu:Created>
      </wsse:UsernameToken>
    </wsse:Security>
    <cor:SOAConsumerTransactionID>56576679823</cor:SOAConsumerTransactionID>
  </soapenv:Header>
  <soapenv:Body>
    <view:getDevice>
      <brandModel>
        <brand>Nokia</brand>
        <model>N95</model>
      </brandModel>
    </view:getDevice>
  </soapenv:Body>
</soapenv:Envelope>
```

The following table explains the View Device Compatibility API request parameters to invoke the `getDevice` service

Parameter	Data Type	Required	Comments	Format
MSISDN	Text	NO*	The Mobile Phone Number of the subscriber whose device's info is requested.	The internationally formatted mobile number, this should start with the country code, and not have other characters like (+) i.e. 447712345678
BRANDMODEL	Structure	NO*	A structure containing two fields, one for the brand (vendor) and another one for the specific model. See next two rows.	
BRAND	Text	NO*	The name of the vendor of the handset	i.e. Nokia
MODEL	Text	NO*	The name of the specific handset model	i.e. N95

NOTE: The request for this API is somewhat unique, since it does not require a concrete parameter. *Msisdn*, and *BrandModel* are all optional choices. This means one and only one of them must be provided. If the parameter chosen is *BrandModel*, both *brand* and *model* parts must be provided in order to form a valid request.

### 3.1.2 getDevice Response

The following table explains the View Device Compatibility API response parameters of a *getDevice* request.

Parameter	Data Type	Comments	Format
BRAND	Text	The name of the handset vendor	Same as received in the request, if provided, or string with the name retrieved. i.e. Nokia
MODEL	Text	Handset specific name	Same as received in the request, if provided, or string with the name retrieved. i.e. N95
EADC-BRAND	Text	The value of the handset vendor	Same as received in the request, if provided, or string with the name retrieved
EADC-MODEL	Text	Handset specific name	Same as received in the request, if provided, or string with the name retrieved. i.e. N95
DEVICE-IMG-URL	URL	Url pointing to an image of the specific handset	Url. i.e. <a href="http://devicetoolkit.uk.pri.o2.com/uploads/images/nokia_n95_front_closed.gif">http://devicetoolkit.uk.pri.o2.com/uploads/images/nokia_n95_front_closed.gif</a>
PORTFOLIO-DEVICE	Text	yes/no, indicating if there is a portfolio for that device	yes/no
USER-	URL	Url pointing to the user manual for that	Url. i.e.

Parameter	Data Type	Comments	Format
MANUAL-URL		specific handset	<a href="http://www.o2.co.uk/deviceinfo/device-pdfs/nokian95eng.pdf">http://www.o2.co.uk/deviceinfo/device-pdfs/nokian95eng.pdf</a>
WEBSITE	URL	Url pointing to the handset homepage, if provided by vendor	Url.
CATEGORIES	List of items	List of CATEGORY composed items	
CATEGORY	Composed item	Set of name and attributes, where the name is the name of the category, and the attributes are pairs in the form name-value, specifying the handset's technical details	i.e. Following table.

The following table contains all the possible categories and attributes available:

CATEGORY NAME	ATTRIBUTES
CAMERA	Camera Type
MEDIA	Audio Player
	Video Player
	Video Capture
	FM Radio
	Voice Recorder
CONNECTIVITY	Bluetooth
	Bluetooth Version
	Bluetooth Compatibility
	Wi-Fi
	GPS
	USB
	USB Version
MEMORY	Internal Memory (up to)
	Memory Card Type
	Memory Card Max. Size
MESSAGING	SMS
	Long SMS
	MMS
NETWORK CONNECTIONS	GPRS
	EDGE
	HSPA
	HSDPA
	3G
	Band
DIMENSIONS / BATTERY LIFE	Dimensions (H/W/D)
	Weight
	Talk Time (up to)
	Standby Time (up to)
SCREEN	Screen Size
	Number of colours
PRODUCTS AND SERVICES	BBC iPlayer Mobile

CATEGORY NAME	ATTRIBUTES
	Video TV Service
	Shazam
	Track ID
	Java Games
	SonyBMG
	EyeVibe
	Napster
	Mobile Internet
	Yahoo Search
	SMS Alert
	MMS Alert
	Truetones
	Video Stream
	Video DL
	WAP Push
	SMS w/ URL Link
	Bluebook
EMAIL	POP3
	POP3 (SSL)
	IMAP
	WEBmail
DRM	OMA 1.0
	OMA 2.0
	Forward Lock
CODECS SUPPORTED	MPEG-4
	MP3
	H.263
	H.264
	AAC
	AAC+
	AAC++
	AMR-NB
	WMA
	MIDI 1
	MIDI 2
	MIDI 3
	WAV
	Others
DEVICE PLATFORM	Platform
TESTING	Handset Fully Tested

The following table contains an example of a part of a getDevice response, with all the elements explained above:

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/">
  <soapenv:Header xmlns:view="http://soa.o2.co.uk/device/viewdevicecompatibilitydata_1">
    <cor:SOATransactionID xmlns:cor="http://soa.o2.co.uk/coredata_1">6c5e1c6f-6a6e-480e-8308-
b13bd3b68c06</cor:SOATransactionID>
  </soapenv:Header>
```

```

<soapenv:Body xmlns:view="http://soa.o2.co.uk/device/viewdevicecompatibilitydata_1">
  <view:getDeviceResponse>
    <device id="18">
      <brand>Panasonic</brand>
      <model>GD87</model>
      <eadc-brand>Panasonic</eadc-brand>
      <eadc-model>GD87</eadc-model>
      <device-img-url/>
      <portfolio-device>no</portfolio-device>
      <user-manual-url>http://www.o2.co.uk/deviceinfo/device-pdfs/panasonicgd87eng.pdf</user-
manual-url>
      <website/>
      <categories>
        <category>
          <name>Camera</name>
          <attributes>
            <attribute>
              <name>Camera Type</name>
              <value/>
            </attribute>
          </attributes>
        </category>
        <category>
          <name>Media</name>
          <attributes>
            <attribute>
              <name>Audio Player</name>
              <value>No</value>
            </attribute>
            <attribute>
              <name>Video Player</name>
              <value>No</value>
            </attribute>
            <attribute>
              <name>Video Capture</name>
              <value>No</value>
            </attribute>
            <attribute>
              <name>FM Radio</name>
              <value>No</value>
            </attribute>
            <attribute>
              <name>Voice Recorder</name>
              <value/>
            </attribute>
          </attributes>
        </category>
        <category>
          <name>Connectivity</name>
          <attributes>
            <attribute>
              <name>Bluetooth</name>
              <value>No</value>
            </attribute>
          </attributes>
        </category>
        ... More categories and attributes in between ...
      </attributes>
      <category>
        <name>Testing</name>
        <attributes>
          <attribute>
            <name>Handset Fully Tested</name>
            <value/>
          </attribute>
        </attributes>
      </category>
    </device>
  </view:getDeviceResponse>
</soapenv:Body>

```

```
        </categories>
      </device>
    </view:getDeviceResponse>
  </soapenv:Body>
</soapenv:Envelope>
```

## 4 Return Codes.

The following table defines command status values returned by the View Device Location API to the customer:

Status Code	Type	Internal Description
<b>viewdevicecompatibility-10400-3000-E</b>	Error	Data not found for the given request
<b>viewdevicecompatibility-10400-3001-E</b>	Error	Backend implementation error
<b>viewdevicecompatibility-10400-3002-E</b>	Error	No Device(s) found in the toolkit
<b>viewdevicecompatibility-10400-3003-E</b>	Error	No Attribute(s) found for the given category
<b>viewdevicecompatibility-10400-3005-E</b>	Error	An unknown error has occurred
<b>viewdevicecompatibility-10400-3000-E</b>	Error	Data not found for the given request
<b>viewdevicecompatibility-10400-2000-F</b>	Fault	Network down or not reachable
<b>viewdevicecompatibility-10400-2001-F</b>	Fault	Internal System Error

## 5 Connectivity

### View Device Compatibility API

Reference environment:

<https://be.o2litmus.co.uk/devProxyFake/litmusapis/ViewDeviceCompatibility?wsdl>

Live environment:

<https://be.o2litmus.co.uk/devProxy/litmusapis/ViewDeviceCompatibility?wsdl>

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