



**Step by step information on creating an API using a  
SOAP service and invoking it from API Console**

**Version:** 2.0

**Date:** 12-August-2015

## Revision History

Version	Date	Desc	Author
1.0	12-August-2015	Initial document explaining steps on how to invoke a SOAP service	Evanthika Amarasiri
2.0	13-October-2015	Added fine details on deploying the SOAP service in API Manager and invoking it with clear details on requests/responses	Evanthika Amarasiri

## **Table of Contents**

[Deploying the SOAP service in API Manager](#)

[Creating the API](#)

[Subscribe to an Application](#)

[Generate keys](#)

[Invoke through API Console](#)

## 1. Deploying the SOAP service in API Manager

Since we just need a valid endpoint to verify the API invoke functionality we can deploy the Axis2Service in API Manager itself. Refer below steps for instructions.

- Drop the [Axis2Service.aar](#) file to  
wso2am-1.9.1/repository/deployment/server/axis2services.
- Once successfully deployed, it would print the below message

```
[2015-10-13 10:32:09,338] INFO - DeploymentInterceptor Deploying Axis2 service:
Axis2Service {super-tenant}
[2015-10-13 10:32:09,392] INFO - DeploymentEngine Deploying Web service:
Axis2Service.aar -
file:/WSO2/TestCases/Virtusa-Tool/RC4/wso2am-1.9.1/repository/deployment/serv
er/axis2services/Axis2Service.aar
```

- Now, assuming that your API Manager is running with port offset 0, access the ?wsdl of the service as below. If the service is successfully deployed, you should be able to successfully access the ?wsdl.

```
HTTPS - https://localhost:9443/services/Axis2Service?wsdl
HTTP - http://localhost:9763/services/Axis2Service?wsdl
```

## 2. Creating the API

### Step 1

- Login to the API Publisher
- Click on **Add** and then select the radio button **I have a SOAP Endpoint**
- Provide a valid WSDL URL (follow the steps explained under [Deploying the Axis2Service in API Manager](#) above to retrieve the ?wsdl URL) and click on the button **Start Creating** and you will be taken to the **Design API** page

## Step 2

- Create an API with the following details

### Design section

- Name : SOAP\_API1
- Context : {version}/soap/api1
- Version : 1.0.0
- WSDL : The wsdl you specified in the previous step will load automatically in the WSDL field under *API Definition* section.

**NOTE: Make sure to use the HTTP WSDL URL here.**

### General Details

Name:\*

Context:\*

Version:\*  
E.g.,: v1.0.0 ,v1.0 , 1.0.0, 1.0

Visibility:

Thumbnail Image:

Browse...

No file selected.

Clear

• Dimensions (max): 100 x 100 pixels

Description:

SOAP\_API1

Tags:

SOAP\_API1 x

Add tags

Type a tag and Enter

### API Definition

WSDL:

Test URI

E.g.,:http://appserver/services/echo?wsdl

Save

Next: Implement >

### Implement section

- Endpoint Type : HTTP Endpoint
- Production Endpoint : [http://\[hostname\]:\[port\]/services/Axis2Service](http://[hostname]:[port]/services/Axis2Service)  
(Assuming that you have deployed it in API Manager, the URL would be something like <http://localhost:9763/services/Axis2Service>)

### Manage section

- Tier Availability : Unlimited
- Transports : Tick HTTP & HTTPS
- Leave the rest of the values as they are for the rest of the fields and click 'Save & Publish'

## 3. Subscribe to an Application

Go to API Store, login and subscribe the API that you created to an application  
(Can be either an application which you created or the Default application)

## 4. Generate keys

- Go to My Subscriptions from the API Store
- Select the application which you subscribed your API to
- Click on **Generate Keys** button

## 5. Invoke through API Console

As shown in the screenshot below, provide the following values

The screenshot shows the API console for 'SOAP\_API1'. The 'POST' method is selected. Under 'Parameters', there are two entries:

Parameter	Value	Description	Parameter Type	Data Type
SOAP Request	<pre>&lt;ser:echoString&gt; &lt;ser:s&gt;Hi Evanthika!!!&lt;/ser:s&gt; &lt;/ser:echoString&gt; &lt;/soapenv:Body&gt; &lt;/soapenv:Envelope&gt;</pre>	SOAP request.	body	string
SOAPAction	urn:echoString	SOAPAction header for soap 1.1	header	string

Under 'Response Messages', there is one entry:

HTTP Status Code	Reason	Response Model	Headers
200	OK		

A 'Try it out!' button is visible at the bottom left of the console area.

To invoke the SOAP11 endpoint give the values as follows.

- Specify the SOAPAction and Content-Type values
  - **SOAPAction** : echoString
  - **Content-Type** : **text/xml**
- Specify the SOAP body as below

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:ser="http://service.carbon.wso2.org">
  <soapenv:Header/>
    <soapenv:Body>
      <ser:echoString>
        <ser:s>Hi Evanthika!!!</ser:s>
      </ser:echoString>
    </soapenv:Body>
  </soapenv:Envelope>
```

To invoke the SOAP12 endpoint give the values as follows.

- Specify the SOAPAction and Content-Type values
  - SOAPAction : echoString
  - Content-Type : [application/soap+xml](#)
- Specify the SOAP body as below

```
<soap:Envelope xmlns:soap="http://www.w3.org/2003/05/soap-envelope"
xmlns:ser="http://service.carbon.wso2.org">
  <soap:Header/>
    <soap:Body>
      <ser:echoString>
        <ser:s>Hi Evanthika!!!</ser:s>
      </ser:echoString>
    </soap:Body>
</soap:Envelope>
```

- Click on TryIt and a responses should be returned as below  
**For SOAP11**

```
<?xml version="1.0" encoding="UTF-8"?>
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/">
  <soapenv:Body>
    <ns:echoStringResponse xmlns:ns="http://service.carbon.wso2.org">
      <ns:return>Hi Evanthika!!!</ns:return>
    </ns:echoStringResponse>
  </soapenv:Body>
</soapenv:Envelope>
```



## For SOAP12

```
<?xml version="1.0" encoding="UTF-8"?>
<soapenv:Envelope xmlns:soapenv="http://www.w3.org/2003/05/soap-envelope">
  <soapenv:Body>
    <ns:echoStringResponse xmlns:ns="http://service.carbon.wso2.org">
      <ns:return>Hi Evanthika!!!</ns:return>
    </ns:echoStringResponse>
  </soapenv:Body>
</soapenv:Envelope>
```