

# SOAP - TRANSPORT

[http://www.tutorialspoint.com/soap/soap\\_transport.htm](http://www.tutorialspoint.com/soap/soap_transport.htm)

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SOAP is not tied to any transport protocol. SOAP can be transported via SMTP, FTP, IBM's MQSeries, or Microsoft Message Queuing *MSMQ*.

SOAP specification includes details on HTTP only. HTTP remains the most popular SOAP transport protocol.

## SOAP via HTTP

Quite logically, SOAP requests are sent via an HTTP request and SOAP responses are returned within the content of the HTTP response. While SOAP requests can be sent via an HTTP GET, the specification includes details on HTTP POST only.

Additionally, both HTTP requests and responses are required to set their content type to text/xml.

The SOAP specification mandates that the client must provide a *SOAPAction* header, but the actual value of the SOAPAction header is dependent on the SOAP server implementation.

For example, to access the AltaVista BabelFish Translation service, hosted by XMethods, you must specify the following as a SOAPAction header.

```
urn:xmethodsBabelFish#BabelFish
```

Even if the server does not require a full SOAPAction header, the client must specify an empty string "" or a null value. For example –

```
SOAPAction: ""  
SOAPAction:
```

Here is a sample request sent via HTTP to the XMethods BabelFish Translation service –

```
POST /perl/soaplite.cgi HTTP/1.0  
Host: services.xmethods.com  
Content-Type: text/xml; charset=utf-8  
Content-Length: 538  
SOAPAction: "urn:xmethodsBabelFish#BabelFish"  
  
<?xml version='1.0' encoding='UTF-8'?>  
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"  
xmlns:xsi="http://www.w3.org/1999/XMLSchema-instance"  
xmlns:xsd="http://www.w3.org/1999/XMLSchema">  
  
  <SOAP-ENV:Body>  
  
    <ns1:BabelFish xmlns:ns1="urn:xmethodsBabelFish"  
SOAP-ENV:encodingStyle="http://schemas.xmlsoap.org/soap/encoding/">  
      <translationmode xsi:type="xsd:string">en_fr</translationmode>  
      <sourcedata xsi:type="xsd:string">Hello, world!</sourcedata>  
    </ns1:BabelFish>  
  
  </SOAP-ENV:Body>  
  
</SOAP-ENV:Envelope>
```

Note the content type and the SOAPAction header. Also note that the BabelFish method requires two String parameters. The translation mode en\_fr translates from English to French.

Here is the response from XMethods –

```
HTTP/1.1 200 OK  
Date: Sat, 09 Jun 2001 15:01:55 GMT
```

```
Server: Apache/1.3.14 (Unix) tomcat/1.0 PHP/4.0.1p12
SOAPServer: SOAP::Lite/Perl/0.50
Cache-Control: s-maxage=60, proxy-revalidate
Content-Length: 539
Content-Type: text/xml

<?xml version="1.0" encoding="UTF-8"?>
<SOAP-ENV:Envelope xmlns:SOAP-ENC="http://schemas.xmlsoap.org/soap/encoding/"
SOAP-ENV:encodingStyle="http://schemas.xmlsoap.org/soap/encoding/"
xmlns:xsi="http://www.w3.org/1999/XMLSchema-instance"
xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsd="http://www.w3.org/1999/XMLSchema">
  <SOAP-ENV:Body>

    <namesp1:BabelFishResponse xmlns:namesp1="urn:xmethodsBabelFish">
      <return xsi:type="xsd:string">Bonjour, monde!</return>
    </namesp1:BabelFishResponse>

  </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

SOAP responses delivered via HTTP are required to follow the same HTTP status codes. For example, a status code of 200 OK indicates a successful response. A status code of 500 Internal Server Error indicates that there is a server error and that the SOAP response includes a Fault element

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