

Web Service: Request-Response

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A web service has a simple interface. One exposed method that takes an XML string and returns an XML string. Calling the web service and asking for data is called the “Request”. Returning an answer to the caller is called the “Response”.

Web Service Request Explained:

1. Is the envelope name for the request, here it is called “**Request_Data_Fetch**”
2. Partner – made up of 3 parts
 - a. Login to identify the caller
 - b. PW or password, to identify that the caller is who they say they are
 - c. Partner_GUID, a unique identifier assigned by the host to the caller. Another identifier.
3. Request
 - a. UserReturnId – a request identifier supplied by the caller and returned to the caller. Allows the calling partner to provide their own unique identifier to the call.
 - b. Action: this is the activity requested by the business partner. Examples may be GetClaims or Add. Any activity provided by the web service.
 - i. New Action Verbs can be added without disturbing the web service interface.
 - c. Arguments: This is the data needed to perform the requested Action or activity.

Example of a request for data from a web service:

```
<?xml version="1.0" encoding="UTF-8" ?>
=< Request_Data_Fetch >
  =<Partner>
    <Login>Company--Logon</Login>
    <PW>CompanyLogon64</PW>
    <Partner_GUID>00000000-0000-0000-0000-000000000000--</Partner_GUID>
  </Partner>
  =<Request>
    <UserReturnId>UserFreeForm_GetClaims_11111</UserReturnId>
    <Action>GetClaims</Action>
    <Arguments>
      <CompanyID>11111112-1111-1111-1111-111111111111</CompanyID>
      <Argument2>As many arguments as contract requires</Argument2>
    </Arguments>
  </Request>
</Request_Data_Fetch>
```

Web Service Response Explained:

1. Login: Return the login so the information can be sent to the proper caller, if needed.
2. UserReturnId: Return the business partner’s calling identifier.
3. Data: package the data as XML and return it to the calling party.

Processing:

1. Verify the partner logon, password and GUID
 - a. If logon fails, return with little information
 - b. If logon successful, continue with Action Verb processing.
2. Get the Action Verb
 - a. Go through a switch statement for proper processing
 - b. Obtain the arguments for the Action Verb
 - c. Process the request
3. Return the requested data along with UserReturnId.