



Informatica® Cloud Data Integration

.

Web Service Consumer Connector

April 2020

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Preface

Use *Web Service Consumer Connector* to learn how to read from or write to a web Service that supports SOAP API. Learn to create a connection, develop mappings, and run mapping tasks using Cloud Data Integration.

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CHAPTER 1

Introduction to Web Service Consumer Connector

This chapter includes the following topics:

- [Web Service Consumer Connector, 6](#)
- [Web Service Consumer tasks, 6](#)

Web Service Consumer Connector

Use Web Service Consumer Connector to connect to web service applications that support SOAP API. You can use Web Service Consumer Connector in a Web Services transformation.

You can use Web Service Consumer Connector midstream in a mapping to pass a single or multiple requests to a web service application and process the response data. You can also pass data obtained from multiple transformations in the mapping pipeline and process the data.

When you use Web Service Consumer Connector midstream in a mapping, you first create a business service for the operation that you want to perform in the web service application. You then associate the business service in a Web Services transformation midstream in a mapping to read from or write data to the web service application.

Web Service Consumer tasks

You can use Web Service Consumer Connector to create midstream transformations in a mapping task.

CHAPTER 2

Web Service Consumer Connections

This chapter includes the following topics:

- [Web Service Consumer connection overview, 7](#)
- [Web Service Consumer connection properties, 7](#)
- [Creating a Web Service Consumer connection, 8](#)

Web Service Consumer connection overview

Create a Web Service Consumer connection to make calls to a web service application. Web Service Consumer Connector supports SOAP version 1.1 and 1.2. You can create a Web Service Consumer connection on the **Connections** page. Use the Web Service Consumer connection to read data from or write data to Web Service Consumer.

Web Service Consumer connection properties

When you configure a Web Service Consumer connection, you must configure the connection properties.

The following table describes the Web Service Consumer connection properties:

Property	Description
Connection Name	Enter a unique name for the connection.
Description	Provide a relevant description for the connection.
Type	Select Web Service Consumer from the list.
Runtime Environment	The name of the runtime environment where you want to run the tasks.

Property	Description
Authentication	<p>You can configure the connection to use the following types of authentication:</p> <p>Username Token</p> <p>Use the user name token and the password to authenticate the web services.</p> <p>Other Authentication</p> <p>Use the WSDL URL and endpoint URL to authenticate the web services.</p> <p>NTLM Authentication</p> <p>Use NTLM V2 authentication to authenticate the web services.</p>
WSDL URL	The URL provided by the web service.
Endpoint URL	Endpoint URL for the web service. The WSDL file specifies this URL in the location element.
Username	Applicable if you use Username Token or NTLM authentication. User name to authenticate the web service.
Password	Applicable if you use Username Token or NTLM authentication. Password to authenticate the web service.
DOMAIN NAME	Applicable if you use NTLM authentication. Name of the domain that authenticates the accounts..
Encrypt Password	Applicable if you use Username Token authentication. Enables the PasswordDigest property which combines the password with a nonce and a time stamp. The mapping task applies a SHA hash on the password, encodes it in base64 encoding, and uses the encoded password in the SOAP header.
Must Understand	Applicable if you use Username Token authentication. Specifies whether to process a header entry or not.
HTTP Username	User name to access the web service.
HTTP Password	Password to access the web service.

Creating a Web Service Consumer connection

Connect to a web service using Web Services Description Language (WSDL) and an endpoint URL. You can also enable security for the web service.

1. In Administrator, select **Connection connections**, and click **New Connection**.
2. Enter the connection details. For the **Type**, select **WSConsumer**.
If the WSConsumer connection is not in the list of connections, in Administrator, open the **Add-On Connectors** page to install the connector for your organization.
3. Enter the connection properties:
 - a. Select the runtime environment for the web service connection.

- b. For **Authentication**, select one of the following options:
 - Select **Username Token** to enter the user name and the password to authenticate the web service. You can choose to encrypt the password by sending a digest that is derived from the password in the security token.
 - Select **Other Authentication** to enter the WSDL URL and endpoint URL to access the web service. If the web service is a private web service, enter the HTTP user name and password.
 - Select **NTLM Authentication** to enter the username, password, and domain name to access the web service.
4. Enter the authentication connection properties. The properties that appear depend on the authentication that you selected.
5. Save the connection.

CHAPTER 3

Mapping and Mapping Tasks with Web Service Consumer Connector

This chapter includes the following topics:

- [Mappings and mapping tasks overview, 10](#)
- [Web Service Consumer midstream transformation in mappings, 10](#)
- [Rules and guidelines for Web Service Consumer mappings, 15](#)

Mappings and mapping tasks overview

Create a mapping to read or write data to the web service application. When you create a mapping, you can configure midstream transformation to transform data from a web service. The Secure Agent connects to the web service application to access, transform, or deliver data.

Web Service Consumer midstream transformation in mappings

After you have defined the business service, you can configure the Web Services transformation in a mapping to access or transform data from a web service. The requirements and available options depend on whether you are connecting the Web Services transformation to one source object or to more than one source object.

Advance midstream properties

The following table describes the properties available for the Web Services transformation from the Advanced tab:

Property	Description
Cache Size for Web Service Request (KB)	Default is 100 KB. If the request is more than 100 KB, you can increase the cache size.
Cache Size for Web Service Response (KB)	Memory available for the web service response. If the web service response contains many rows or columns, you might want to increase the cache size. Default is 100 KB.
Allow Input Flush	The mapping task creates XML when it has all of the data for a group. When enabled, the mapping task flushes the XML after it receives all of the data for the root value. When not enabled, the mapping task stores the XML in memory and creates the XML after it receives data for all the groups. Note: You cannot select the option to allow input flush if you are connecting to multiple source objects.
Transaction Commit Control	Control to commit or roll back transactions based on the set of rows that pass through the transformation. Enter an IIF function to specify the conditions to determine whether the mapping task commits, rolls back, or makes no transaction changes to the row. Use the transaction commit control if you have a large amount of data and you want to control how it is processed. Note: You cannot configure a transaction commit control if you are connecting to multiple source objects.

Midstream transformation mapping example

The following example demonstrates how to use the Web Service Consumer midstream transformation to interact with NetSuite to get product availability details.

You can review this example to learn how to configure a Web Service Consumer midstream transformation to structure a SOAP request and response using the NetSuite operation, `getItemAvailability`. The midstream transformation passes the item ID in the request. The web service then returns information on the latest item availability in a SOAP response.

First, to connect to the web service, create a WSCConsumer connection. You add a WSDL that describes the request and response web service messages and configures the necessary security.

Second, define a business service using the WSCConsumer connection. Use the connection to define a business service and access the `getItemAvailability` operation:

Third, create a mapping that uses the Web Service transformation. The example mapping includes the following configuration options:

1. The source is a simple .csv file that includes four fields with the login details and an item ID:

The screenshot shows the 'src Properties' dialog box with the 'Source' tab selected. The 'Details' section contains the following configuration:

- Connection: file_temp (dropdown menu)
- Source Type: Single Object (dropdown menu)
- Object: ns_login_item_in.csv (text field)

Buttons for 'View...', 'New Connection...', 'New Parameter...', 'Select...', 'Formatting Options...', and 'Preview Data...' are located to the right of the configuration fields. The 'Query Options' and 'Advanced' sections are collapsed.

2. On the Web Service tab, select the business service and operation previously defined:

The screenshot shows the 'NewWebServices Properties' dialog box with the 'Web Service' tab selected. The configuration is as follows:

- Business Service: netsuite_ws (dropdown menu)
- Operation: getItemAvailability (dropdown menu)

Other tabs visible in the left sidebar include General, Incoming Fields, Request Mapping, Response Mapping, Output Fields, and Advanced.

3. After you add a Web Services transformation, you can connect the source and see four incoming fields. You can filter your view of the incoming fields to show all fields, mapped fields, unmapped fields, or keys:

Map Incoming Fields to elements of Request Structure to form web service request.

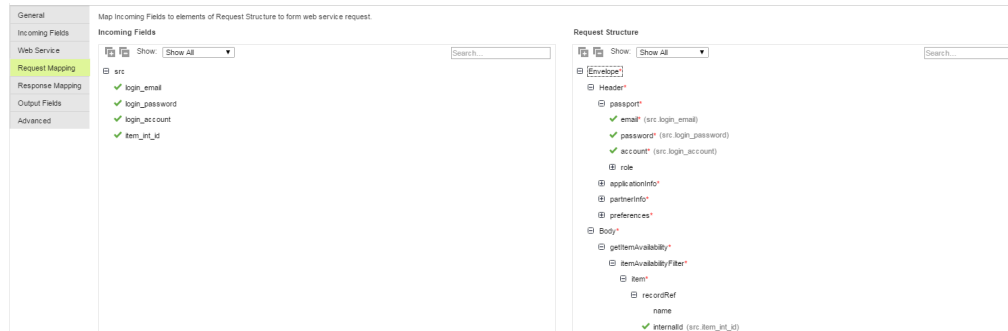
Incoming Fields

The screenshot shows the 'Incoming Fields' panel. At the top, there is a 'Show:' dropdown menu with the following options: 'Show All', 'Show Mapped', 'Show Unmapped', and 'Show Keys'. Below this, the 'src' section lists four fields, each with a green checkmark:

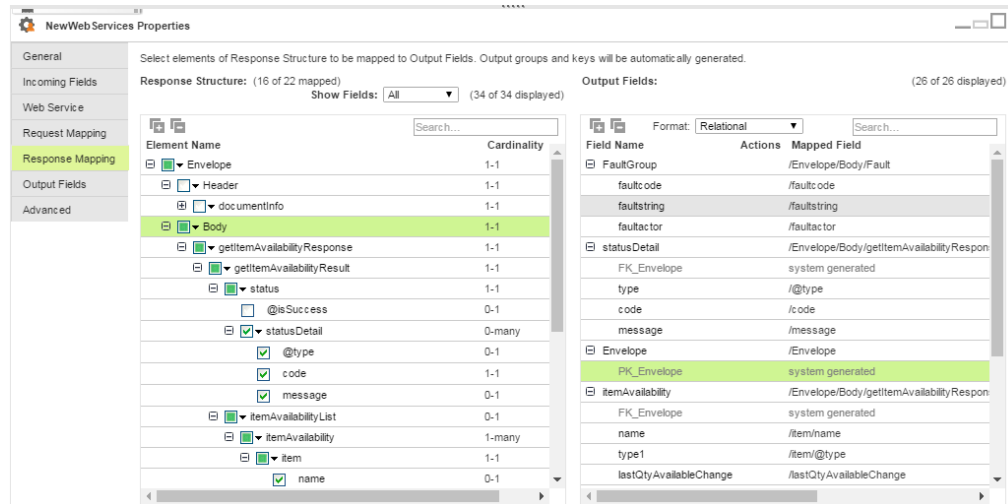
- login_email
- login_password
- login_account
- item_int_id

A search bar is located at the top right of the panel.

4. In the Request Mapping, the incoming fields are mapped to the SOAP message. The Envelope contains the credentials and the Body contains the item ID, as shown in the following image. You drag incoming fields onto items in the request structure to create the mapping:



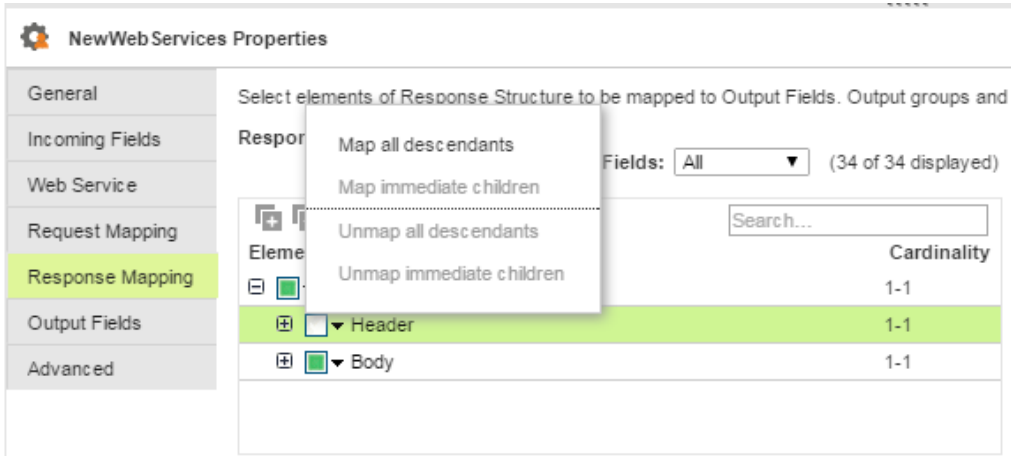
5. On the Response Mapping tab, you map the SOAP message to the output fields you want to use. You can choose Relational or Denormalized format for output fields. This example uses Relational format:



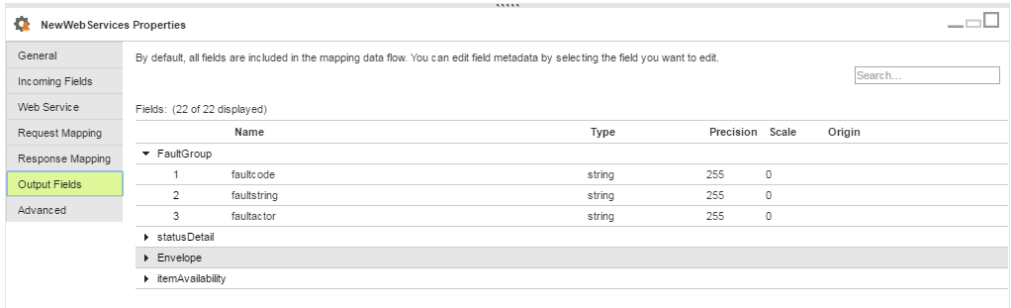
The system generates these output field groups automatically:

- FaultGroup, if it is supported by the connection type you are using.
- Envelope, which contains the documentinfo, if you select elements of response to be mapped to output fields.
- One group for each element you have mapped where the cardinality is greater than one.

The example above has three groups. In the response, you can choose to map or unmap objects and fields by selecting a node in the hierarchy and choosing an option to map (or unmap), as shown in this image. Click the down arrow to display the mapping options for a specific node:



6. On the Output Fields tab, you can see each group. If needed, you can edit the type, precision, and scale of the fields:



7. The mapping includes three targets: one for the status, one for the availability, and one for the FaultGroup data:

The following tables represent the 'Included' fields from the three screenshots:

Field Name	Type	Precision	Scale	Origin
faultactor	string	255	0	NewWebServices
faultcode	string	255	0	NewWebServices
faultstring	string	255	0	NewWebServices
item_int_id	string	255	0	ns_login_item_i...
login_account	string	255	0	ns_login_item_i...
login_email	string	255	0	ns_login_item_i...

Field Name	Type	Precision	Scale	Origin
FK_Envelope	bigint	19	0	NewWebServices
item_int_id	string	255	0	ns_login_item_i...
lastQtyAvailableChange	dateTime	29	9	NewWebServices
login_account	string	255	0	ns_login_item_i...
login_email	string	255	0	ns_login_item_i...
login_password	string	255	0	ns_login_item_i...

Field Name	Type	Precision	Scale	Origin
code	string	255	0	NewWebServices
FK_Envelope	bigint	19	0	NewWebServices
item_int_id	string	255	0	ns_login_item_i...
login_account	string	255	0	ns_login_item_i...
login_email	string	255	0	ns_login_item_i...
login_password	string	255	0	ns_login_item_i...

When the mapping runs, it returns the item availability and status code. If it cannot successfully run, it creates a record in the default target that contains the fault information.

Rules and guidelines for Web Service Consumer mappings

Consider the following rules and guidelines for Web Service Consumer mappings:

- Web Service Consumer Connector does not support i18N characters in a field name.
- You cannot extract header details from a response message.
- You cannot extract value from a fault response for the following fields:
 - Detail
 - Role

- When you use the Username Token authentication in a Web Service Consumer connection, the header entry must be empty.
- When you extract subcode values in a fault response for multiple levels in an existing mapping , you must re-select the operation of web service consumer in the mapping.

Note: You can extract only five level of subcode values.

CHAPTER 4

Troubleshooting

This chapter includes the following topic:

- [Troubleshooting Web Service Consumer Connector, 17](#)

Troubleshooting Web Service Consumer Connector

When the performance of a mapping task is slow, it might be due to the following reasons:

- The Internet connection is slow.
- Endpoint server request is in wait state and the server is processing the request slow.
- After testing the connection, the value of "Auto CSV File Creation" = "Auto Creation of Body/Header Files".

An error occurs while testing the connection.

- Folder or File creation permission is not available for the user running secure agent service.
- WSDL is not available in the provided path.
- Proper endpoint URL is not provided.
- The endpoint is down, because of which there can be a problem in loading the WSDL. Please try accessing the WSDL using an internet explorer.

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