



## STP API Information

Version 5.10

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## Version Control

<i>Version Number</i>	<i>Release Date</i>	<i>Who</i>	<i>Sections Affected</i>	<i>Changes</i>
1.0	7/09/17	GC	All	First version of the document
1.1	28/9/17	GC	All	Initial deployed version for testing
2.1	1/12/17	MO	All	New version of the API to replace v1.1 all calls changed new authorization method JWT to be used with each call.
2.2	21/12/17	VW	All	Updated errors with request details
2.2	18/01/18	VW	Post Upload Call	Changed Content Type for upload call
2.2	18/01/18	VW	Enumeration Values	Removed Batch/Bulk document types
2.2	30/01/18	VW	Enumeration Values	Add NOTPROCESSED Message Status
3.0	22/02/18	FLS	All	Change ClientUUID to ClientID, removed PARTIAL message status, api login landmark removed.
3.1	29/03/18	MO	Upload, Security	Intermediary added to multi part form; abn parameter in lowercase; TLS 1.2 only (support for old versions removed)
3.2	28/05/18	MO	MessageUUID	messageUUID changed to add @Ozedi if no message ID suffix is given
3.3	01/08/18	VW	All	Added 503 return code for System Maintenance. Added new Error Messages
5.7	09/09/19	MO	Upload	Added WPN support (was only ABN previously). Change to this document version number to be in alignment with software release of the dashboard.
5.8	13/05/20	JFB	All	Updated server 500 response codes, plus added section related to Concurrent connection and limiting to a maximum of 10 concurrent connections per IP.
5.9	23/07/20	JFB	Error Codes	Updated the error code table. Also added a reasonable use section.
5.10	4/12/20	ML	Post Upload Call Enumeration Values	Updated for STP Phase 2 (v4) – additional values for the messageType parameter

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## REST Requests

### Documents

Documents represent a business form of some type; in STP there is a single bulk file which contains the STP PAYEVNT header and PAYEVNTEMP employee records concatenated by record delimiters in the prescribed ATO format.

With the REST API a document has a header with identification, type, timestamps and link information. The links are used to access the available file representations. Therefore to download a file, first you get its header to find the link and then use the link to get the file stream.

### Clients and Companies

A client in this context is a **registered** client of the OZEDI Document Hub. The REST API is only available to these registered clients. Each client has a unique Client ID provided by OZEDI and a client may have multiple companies (ABNs or WPNs). Companies are registered automatically at OZEDI when received through the API uploads.

Messages are identified by:

- the Client Id (mandatory)
- Company ABN/WPN (mandatory)
- a Message UUID (optional) – this is the reference used to transport the file to the ATO and identify responses from the ATO. If the Message UUID is provided with the upload, it will be used by OZEDI. If it is not provided, then OZEDI will supply the Message UUID within the response to the upload.

### Uploading

Uploads usually contain one payrun for one company belonging to the OZEDI client. However, the file being uploaded can contain multiple payruns belonging to the OZEDI Client. If the payruns belong to different companies (ABNs), then the API ABN/WPN will not allow for collection of upload statistics by company; they will be accumulated under the one ABN/WPN.

### Downloading

Get an individual message by Client Id and Message UUID

### Security

All use of the OZEDI STP Rest API is over SSL. Each software client call must include an Authorization Bearer Token using JWT Authentication. The security token will last 24 hours before you need to authenticate again. Please note with the new API we only accept TLS 1.2 connections.

### Connections

OZEDI have restricted the "Concurrent connection" to a maximum of 10 per unique IP address. This restriction has been applied for security and performance management. Concurrent connections means the maximum number of connections our server will service from a unique IP address. A (HTTP) 503 service unavailable server error response is a possible outcome. If you receive this error, you should apply a delay before retrying again as the original upload has not occurred.

## Reasonable Use

This section outlines OZEDI's expectation regarding our production and test environments and how developers consume services on these environments. They aim to ensure high levels of availability and responsiveness for all developers.

Developers should apply the following practices:

1. Polling for a message status should have a minimum wait of 5 seconds applied from when initially uploaded.
2. Subsequent polling for the uploaded message should be 60 seconds or greater. Ideally 300 seconds.
3. Once a message has a status of successful or an error returned no further polling for a status update should be applied to that same message.
4. Bulk message uploads (e.g. end of day) should be batched (i.e. submit all messages synchronously) and after all messages have been submitted, polling of status updates should occur.
5. Concurrent threads should be avoided where possible – if required refer to earlier section.
6. Monitoring of uploads should be done to identify abnormal system behaviour e.g. system is looping and submitting the same payload repeatedly. OZEDI also monitor system usage and will provide notification if we detect abnormal behaviour.

Violation of reasonable use practices may result in one or more of the following actions:

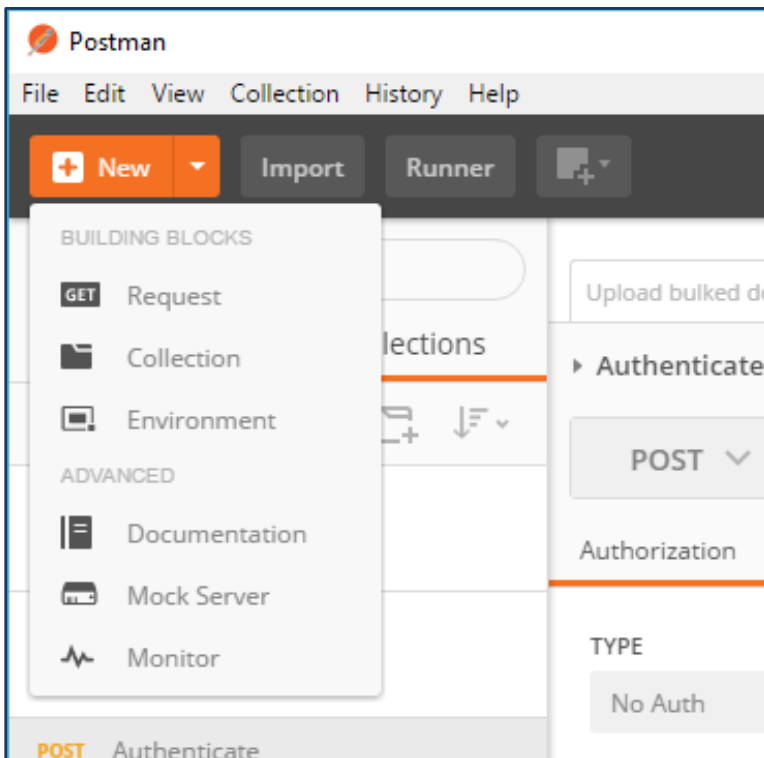
- a direction to modify your system usage
- suspending your access to the service, where issues are not addressed
- terminating your access to the service, where issues are not addressed

## Postman Documentation for API calls

OZEDI recommends that you use Postman to create the REST API calls as this simplifies the process and provides code you can integrate with your payroll solution. If you already familiar with REST API, then you will not require this assistance.

Install Postman from <https://www.getpostman.com/apps>. (No need to signup). If you already have Postman installed, this documentation is based on Postman for Windows version 5.3.2. Postman for Chrome is missing some of the required Authorization features to test the OZEDI STP API.

Once installed you need to click on the “+ New” button to get started.



First start by creating a collection folder to save your API calls.

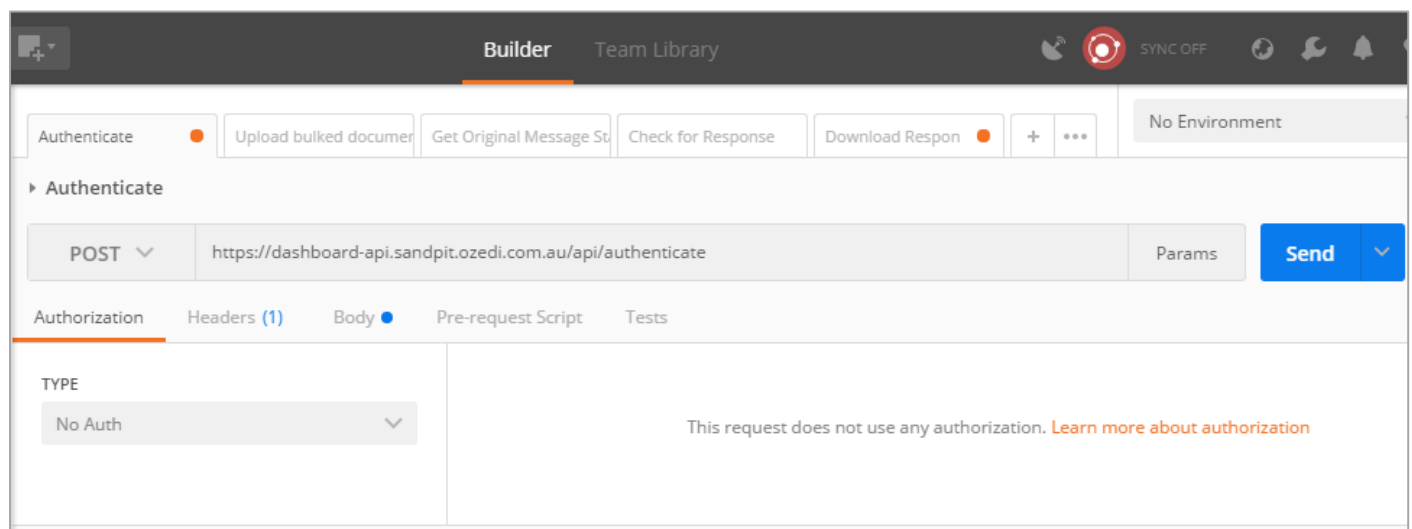
The folder name isn't important it just saves the API calls in a convenient place.

The menu item “Collection” is where you begin.

Once the folder is created you can start adding the API calls into the **URL** and also determine the type of call you want to perform “**POST**”, “**GET**”, etc.. Each call can also be labelled so that you can replay certain calls.

In the following example we entered the authenticate REST Call:

<https://dashboard-api.sandpit.ozedi.com.au/api/authenticate> and we want to use the HTTP **POST** method with the credentials being passed in via the body



The **header** contains the content type we will provide, Content-Type: application/json

To add this **header** value , select Headers and enter the following values:

Key: Content-Type

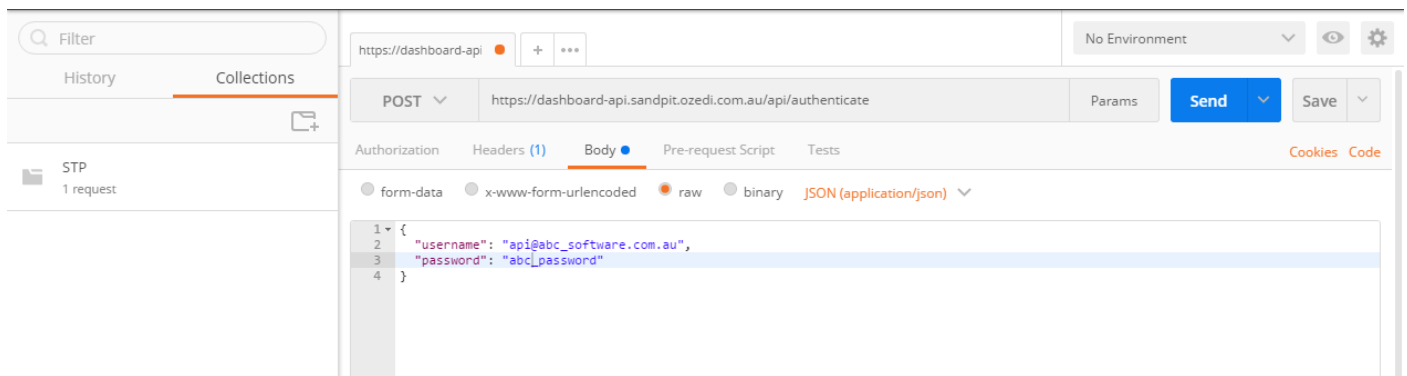
Value: application/json

The **body** contains the JSON Object with the credentials:

```
{
  "username": "api@abc_software.com.au",
  "password": "abc_password"
}
```

This returns an id\_token.

Go to the Push call, Authorization tab, change the type to Bearer Token, cut and paste the token into the Token field.



## API Authenticate Call

### Request

Be sure you have refreshed your token and entered it on the Authorization tab, change the type to Bearer Token, cut and paste the token into the Token field.

Method	URL
<b>POST</b>	<a href="https://dashboard-api.sandpit.ozedi.com.au/api/authenticate">https://dashboard-api.sandpit.ozedi.com.au/api/authenticate</a>

BODY	JSON	<pre>{   "username": "api@abc_software.com.au",   "password": "abc_password" }</pre>
------	------	--

Type	Params	Values Description
HEAD	Content-Type	application/json
BODY	username	API user name
BODY	password	API password

### Response

Status	Response
<b>200</b>	<pre>{   "id_token": "eyJhbGciOiJIUzUxMiJ9.eyJzdWIiOiJsYW5kbWVya19hcGlAbG9jYWxob3N0LmNvbSIsImF1dGgiOiJST0xFOX0QSSlsmV4cCI6MTUxMjQ0NDUzMX0.WU_KwYPZNZftjvgOiSqP7oGRghV5Spdx69zBH98rIOuRYSJMSGtTrYzLZQAqrkdfFbO7LXoP2dmnlAWmCRXaQ" }</pre>
<b>401</b>	Unauthorized
<b>403</b>	Forbidden
<b>500</b>	System error
<b>502</b>	Bad gateway
<b>503</b>	Service unavailable. Possibly due to OZEDI maintenance or also Concurrent connection limits being applied – refer to Connections paragraph. Apply a short delay and retry.
<b>504</b>	Gateway Timeout error. Possibly due server not receiving a timely response while attempting to fill a request by the browser. Please notify support@ozedi.com.au if you receive these errors – your upload has been interrupted and retrying may cause duplicate submissions.



## Post Upload Call


### Request




Be sure you have refreshed your token and entered it on the Authorization tab, change the type to Bearer Token, cut and paste the token into the Token field. (OUT direction)

Method	URL
<b>POST</b>	<a href="https://dashboard-api.sandpit.ozedi.com.au/api/message">https://dashboard-api.sandpit.ozedi.com.au/api/message</a>

Type	Params	Values Description
HEAD	Authorization	Bearer <authorization-token>
HEAD	Content-Type	multipart/form-data
FORM	abn/wpn	Mandatory Pay-run Company's ABN/WPN (it will be the intermediary ABN if using the intermediary or tax agent role below)
FORM	clientId	Client Id (numeric number that was issued at client creation process.) <i>For testing purposes you must create a new client ID under your account</i>
FORM	messageUUID	Optional messageUUID (system will generate messageUUID if parameter not present) messageUUID will have @Ozedi appended if no @ set on user messageUUID. If user sets the messageUUID with an @ suffix themselves then no @Ozedi suffix will be appended.
FORM	messageType	<p>Mandatory.</p> <p>The message type is either a pay event (Submit) or an update event (Update).</p> <ul style="list-style-type: none"> <li>A pay event (Submit) is employee YTD data submitted at the time of a remuneration payment.</li> <li>An Update event allows an employer to report year-to-date (YTD) amounts at any time, without a pay event.</li> </ul> <p>The messageType field is comprised of the message type, either Submit or Update, and the version separated by a fullstop. Version 003.00 indicates original STP Phase 1 reporting. Version 004.00 indicates updated STP Phase 2 reporting.</p> <p>Examples:</p> <p>Submit.003.00 Submit.004.00 Update.003.00 Update.004.00</p>
FORM	payloadFile	<file to upload>
FORM	intermediary	Optional flag set to <i>true</i> or <i>false</i> to submit as an agent or intermediary role to SBR

► Upload bulked document message

POST  <https://dashboard-api.sandpit.ozedi.com.au/api/message>

Authorization  Headers (2)  Body  Pre-request Script Tests

☒ form-data ☐ x-www-form-urlencoded ☐ raw ☐ binary

	Key	Value
<input checked="" type="checkbox"/>	abn	78330347529
<input checked="" type="checkbox"/>	clientId	64103694
<input checked="" type="checkbox"/>	messageType	Submit.003.00
<input checked="" type="checkbox"/>	payloadFile	<input type="button" value="Choose Files"/> bulk_20171030_143810.xml
	New key	Value

## Response

Status	Response
<b>201</b>	<p>Upload successful and document created on server. The document header is returned which contains information about the document created on the server.</p> <p>Note: Subsequent polling for a status update should occur only after a pause of at least 60 seconds after a successful upload.</p> <pre>{   "id": 170,   "messageCreated": "2018-02-23T11:39:29.319+11:00",   "messageAbn": "78330347529",   "messageType": "Submit.003.00",   "messageUUID": "f3e3bddf-2696-49fd-bf2e-cb163f54f65d@Ozedi",   "pollCount": null,   "lastTimePolled": null,   "messageStatus": "QUEUED" }</pre>
<b>401</b>	Unauthorized
<b>403</b>	Forbidden
<b>500</b>	System error
<b>502</b>	Bad gateway
<b>503</b>	Service unavailable. Possibly due to OZEDI maintenance or also Concurrent connection limits being applied – refer to Connections paragraph. Apply a short delay and retry.
<b>504</b>	Gateway Timeout error. Possibly due server not receiving a timely response while attempting to fill a request by the browser. Please notify support@ozedi.com.au if you receive these errors – your upload has been interrupted and retrying may cause duplicate submissions.

## Get Original Message Status Call

Get gives the status of the original outgoing message. It will tell whether the status is: QUEUED, PUSHED, RESPONDED, NORESPONSEAVAILABLE (OUT direction)

Polling for a status update should occur only after a pause of at least 60 seconds after a successful upload. Subsequent status update should have a minimum of at least 5 minutes delay between each new request.


Replace the **f3e3bddf-2696-49fd-bf2e-cb163f54f65d@Ozedi** with the message UUID returned from the Post Call to return the message headers. Add the Client ID to the path after message and replace **64103694**



URL: <https://dashboard-api.sandpit.ozedi.com.au/api/message/status/64103694/f3e3bddf-2696-49fd-bf2e-cb163f54f65d@Ozedi>

Method	URL
GET	<a href="https://dashboard-api.sandpit.ozedi.com.au/api/message/status/{clientId}/{messageUUID}">https://dashboard-api.sandpit.ozedi.com.au/api/message/status/{clientId}/{messageUUID}</a>



Type	Params	Values Description
HEAD	Authorization	Bearer <authorization-token>
HEAD	Content-Type	application/json
PARAM	clientId	Client Id ( <b>64103694</b> )
PARAM	messageUUID	Message UUID ( <b>f3e3bddf-2696-49fd-bf2e-cb163f54f65d@Ozedi</b> )

► Get Original Message Status

GET  <https://dashboard-api.sandpit.ozedi.com.au/api/message/status/64103694/f3e3bddf-2696-49fd-bf2e-cb163f5...>

Authorization 
 Headers  (2)
 Body
 Pre-request Script
 Tests

	Key	Value
	Authorization	Bearer eyJhbGciOiJIUzUxMiJ9.eyJzdWliOiJyZWNRb25fYX
<input checked="" type="checkbox"/>	Content-Type	application/json
	New key	Value

Body
 Cookies  (1)
 Headers  (10)
 Test Results

## Response

Status	Response
201	<pre>{   "id": 170,   "messageCreated": "2018-02-23T11:39:29.319+11:00",   "messageAbn": "78330347529",   "messageType": "Submit.003.00",   "messageUUID": "f3e3bddf-2696-49fd-bf2e-cb163f54f65d@Ozedi",   "pollCount": null,   "lastTimePolled": null,   "messageStatus": "QUEUED" }</pre>
204	No more files
401	Unauthorized
403	Forbidden
500	System error
502	Bad gateway
503	Service unavailable. Possibly due to OZEDI maintenance or also Concurrent connection limits being applied – refer to Connections paragraph. Apply a short delay and retry.
504	Gateway Timeout error. Possibly due server not receiving a timely response while attempting to fill a request by the browser. Please notify support@ozedi.com.au if you receive these errors – your upload has been interrupted and retrying may cause duplicate submissions.

## Get Response Header Call

Replace the **f3e3bddf-2696-49fd-bf2e-cb163f54f65d@Ozedi** with the message UUID returned from the Post Call to return the message headers. Add the Client ID to the path after message and replace **64103694**. (IN direction)

Polling for a status update should occur only after a pause of at least 60 seconds after a successful upload. Subsequent status update should have a minimum of at least 5 minutes delay between each new request.

URL: <https://dashboard-api.sandpit.ozedi.com.au/api/message/64103694/f3e3bddf-2696-49fd-bf2e-cb163f54f65d@Ozedi>

Method	URL
GET	<a href="https://dashboard-api.sandpit.ozedi.com.au/api/message/{clientId}/{messageUUID}">https://dashboard-api.sandpit.ozedi.com.au/api/message/{clientId}/{messageUUID}</a>

Type	Params	Values Description
HEAD	Authorization	Bearer <authorization-token>
HEAD	Content-Type	application/json
PARAM	clientId	Client Id ( <b>64103694</b> )
PARAM	messageUUID	Message UUID ( <b>f3e3bddf-2696-49fd-bf2e-cb163f54f65d@Ozedi</b> )

► Check for Response

GET ▼ <https://dashboard-api.sandpit.ozedi.com.au/api/message/64103694/f3e3bddf-2696-49fd-bf2e-cb163f54f65d>

Authorization ● Headers (2) Body Pre-request Script Tests

	Key	Value
	Authorization	Bearer eyJhbGciOiJIUzUxMiJ9.eyJzdWIiOiJyZWNRb25fYXEB
<input checked="" type="checkbox"/>	Content-Type	application/json
	New key	Value

Body Cookies (1) Headers (11) Test Results

## Response

Response is available

Status	Response
200	<pre>{   "id": 182,   "messageCreated": "2018-02-23T12:45:19+11:00",   "messageAbn": "51824753556",   "messageType": "Response",   "messageUUID": "f3e3bddf-2696-49fd-bf2e-cb163f54f65d@Ozedi",   "pollCount": 1,   "lastTimePolled": "2018-02-23T12:45:19+11:00",   "messageStatus": "RESPONDED" }</pre>
204	No more files
401	Unauthorized
403	Forbidden
500	System error
502	Bad gateway
503	Service unavailable. Possibly due to OZEDI maintenance or also Concurrent connection limits being applied – refer to Connections paragraph. Apply a short delay and retry.
504	Gateway Timeout error. Possibly due server not receiving a timely response while attempting to fill a request by the browser. Please notify support@ozedi.com.au if you receive these errors – your upload has been interrupted and retrying may cause duplicate submissions.

Response Message **Not Ready** or Message UUID is **unknown**.

Status	Response
400	<pre>{   "type": "https://dashboard-api.sandpit.ozedi.com.au/problem/message-error",   "title": "Hub Message Error",   "status": 400,   "detail": "Message is unknown, you appear to be requesting a message that does not exist.",   "message": "error.http.msg.err.003" }</pre>

## Get Response Payload Call

Replace the **f3e3bddf-2696-49fd-bf2e-cb163f54f65d@Ozedi** with the messageUUID returned from the Post Call to return the response xml file. Add the Client Id to the path after message/payload and replace **64103694** (IN direction)

URL: <https://dashboard-api.sandpit.ozedi.com.au/api/message/payload/64103694/f3e3bddf-2696-49fd-bf2e-cb163f54f65d@Ozedi>

Method	URL
GET	<a href="https://dashboard-api.sandpit.ozedi.com.au/api/message/payload/{clientId}/{messageUUID}">https://dashboard-api.sandpit.ozedi.com.au/api/message/payload/{clientId}/{messageUUID}</a>

Type	Params	Values
HEAD	Authorization	Bearer <authorization-token>
PARAM	clientId	Client Id ( <b>64103694</b> )
PARAM	messageUUID	Message UUID ( <b>f3e3bddf-2696-49fd-bf2e-cb163f54f65d@Ozedi</b> )

Download Response

GET ▼ <https://dashboard-api.sandpit.ozedi.com.au/api/message/payload/64103694/f3e3bddf-2696-49fd-bf2e-cb163f...>

Authorization ● Headers (1) Body Pre-request Script Tests

Key	Value
Authorization	Bearer eyJhbGciOiJIUzUxMiJ9.eyJzdWIiOiJyZWNRb25fYXE
New key	Value

Body Cookies (1) Headers (12) Test Results



## Response

Status	Response
200	File Stream
204	No more files
401	Unauthorized
403	Forbidden
500	System error
502	Bad gateway
503	Service unavailable. Possibly due to OZEDI maintenance or also Concurrent connection limits being applied – refer to Connections paragraph. Apply a short delay and retry.
504	Gateway Timeout error. Possibly due server not receiving a timely response while attempting to fill a request by the browser. Please notify support@ozedi.com.au if you receive these errors – your upload has been interrupted and retrying may cause duplicate submissions.

[illegible]

## Message Error table

The following error status' are returned in the API response:

Error code	Error Description
MSG_ERR_001	Client is unknown, you appear to have invalid credentials.
MSG_ERR_002	No data available, you appear to have depleted you data allowance. Please buy more data.
MSG_ERR_003	Message is unknown, you appear to be requesting a message that does not exist.
MSG_ERR_004	Client on hold, you are placed on hold until your situation is resolved. Check you data balance.
MSG_ERR_005	Invalid message type SUBMIT.<service-version>
MSG_ERR_006	Invalid or missing payload file
MSG_ERR_007	Invalid or missing clientId or messageUUID
MSG_ERR_008	Account is unknown, you appear to have used invalid credentials.
MSG_ERR_009	Service is unknown, you appear to be using a service that is not known.
MSG_ERR_010	A new message cannot use an existing messageUUID
MSG_ERR_011	ABN provided does not match Client associated ABN(s)/WPN
MSG_ERR_012	Your account is out of data, please purchase data to top up your balance
MSG_ERR_013	ABN/WPN is a required field. Must be a valid ABN/WPN
MSG_ERR_014	Invalid character(s) found in messageUUID
MSG_ERR_015	Not Authorized to view
MSG_ERR_016	Payload not available
MSG_ERR_017	Balance exists and has been used
MSG_ERR_018	Client cannot send
MSG_ERR_019	Payment Override creation failed
MSG_ERR_020	Add Service to Account failed
MSG_ERR_021	Remove Account failed
MSG_ERR_022	Add Service to Account failed - Unrecognised 'nevercheck' flag
MSG_ERR_023	Remove Service from Account failed
MSG_ERR_024	Delete Client failed - Client may have been used to send messages

<b>MSG_ERR_025</b>	Service action acronym not found or Service is not enabled for SSPs.
<b>MSG_ERR_026</b>	You must provide action and acronym or messageType as described in the API documentation.
<b>MSG_ERR_027</b>	Client is unknown
<b>MSG_ERR_028</b>	Abn/Wpn is a required field must be valid and cannot be empty
<b>MSG_ERR_029</b>	File doesn't appear to be UTF-8 text xml
<b>MSG_ERR_030</b>	Image file exceeds 2MB file size
<b>MSG_ERR_031</b>	User does not exist
<b>MSG_ERR_032</b>	Submitted file is not a valid XML format as required by ATO. Contact your payroll provider for further details
<b>MSG_ERR_033</b>	Login credentials are empty
<b>MSG_ERR_034</b>	Large payload is not allowed
<b>MSG_ERR_035</b>	Payload is not valid
<b>MSG_ERR_036</b>	Failed to process Validation

## Enumeration Values

Error code	Values
messageType	Submit.003.00
	Submit.004.00
	Update.003.00
	Update.004.00
	Response
messageStatus	PARTIAL
	QUEUED
	PUSHED
	RESPONDED
	PUSHEDFAILED
	RESPONDED_SUCCESS
	RESPONDED_ERROR
	PROCESSING
	<p>NORESPONSEAVAILABLE</p> <ul style="list-style-type: none"><li>- Test environment - response tried to pull 10 times with no response available so has been removed from processing.</li><li>- Production environment - response has reached ATO SLA limits with no response available so has been removed from processing.</li></ul>