



IRAS API SERVICES INTERFACE SPECIFICATIONS

Submission of GST Transaction Listings

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Version Control

Version History

Revision Date	Version Number	Change Log Summary
21 Oct 2020	1.2	Updated document to sync with latest CorpPass enhancements.

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1 Introduction

The Inland Revenue Authority of Singapore (IRAS) provides application programming interface (API) services to allow application developers to submit and retrieve tax related matters using HTTP requests. Most of the APIs will be in the form of a JSON web service which reduces client/server coupling and thus enabling easier integration between IRAS' services with external developers.

While some services require a simple GET, others may be secured and require credentials that can be passed via HTTP header parameters which are as follows :

X-IBM-Client-Id	String containing the Client ID of the application invoking IRAS API. This value will be provided to the application vendor by IRAS. E.g. a1234b5c-1234-abcd-efgh-a1234b5cdef
X-IBM-Client-Secret	String containing the Client Secret of the application invoking IRAS API. This value will be provided to the application vendor by IRAS. E.g. a12345bC67e8fG9a12345bC67e8fG9a12345bC67e8fG9

This document serves to help developers consume IRAS API services.

2 Registration

Developers are required to test APIs in the Sandbox environment first, before using them in Production. Create a developer account at <https://apisandbox.iras.gov.sg/> to subscribe to IRAS APIs for Sandbox Testing, and a developer account at <https://apiservices.iras.gov.sg/> to subscribe to IRAS APIs for Production use.

A computer-generated email will be sent to the subscriber's email account for account activation of the API Marketplace.

Refer to <https://go.gov.sg/iras-apiuserguide> for more details on how to get started.

3 API Services

The table below shows the name and description of the API service and its endpoints. Use the correct endpoint when consuming the API in the respective environments.

Name of API Service	Description	Endpoint
Submission of GST Transaction Listings	This API can be used to submit GST Transaction Listing (based on IRAS IAF file format).	For Sandbox Testing: https://apisandbox.iras.gov.sg/iras/sb/gst/submitTransactionListingCorpPass
		For Production Usage: https://apiservices.iras.gov.sg/iras/prod/gst/submitTransactionListingCorpPass

3.1 Network Security

The API endpoint has to be triggered from a Server-to-Server connection. Transport Layer Security (TLS) and IP Whitelisting will be used to secure end-to-end communications between the server invoking the API and IRAS API Gateway.

Your server, software or application must be able to:

1. Support the following protocols: HTTP/ 2, TLS 1.2/ 1.3, and
2. Trigger HTTP/ GET and HTTP/ POST requests.

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3.2 Message Security

The following parameters must be populated in the HTTP header:

X-IBM-Client-Id	String containing the client ID of the application invoking IRAS API. This value will be provided to the application vendor by IRAS.
X-IBM-Client-Secret	String containing the client secret of the application invoking IRAS API. This value will be provided to the application vendor by IRAS.
access_token	JWT (JSON Web Token) Authorisation Token <i>Note: Refer to IRAS CorpPass Authentication API Services Interface Specification for more information on obtaining the access token.</i>
Content-Type	application/json

Sample HTTP Header in a HTTP Post Request

```
POST /iras/prod/gst/submitTransactionListingCorpPass HTTP/1.1
Host: https://apiservices.iras.gov.sg
X-IBM-Client-Id: 40e7be2f-0b4f-4985-bcc9-cdfd38c5b5c8
X-IBM-Client-Secret:
vD0kR8iT3kR1hB8dPlqS3hC4lJ1aA1fV4pQ0uW0hI3uI5bW4rU
access_token:
eyJhdHlwIjogIkpXVCIsICJhbGciOiAiUmlMyNTYiIH0.eyJhc3ViIjogImlM5ODEyMzgxcRC
IsICJhdWRpdFRyYWNraW5nSWQiOiAiZjU0Njc3MGQtOTI4Ni00ODNlLTk0YzktZTllNDZl
MTMwMzFiIiwgImlzcyI6ICJodHRwOi8vc3RnLWF1dGguYXBwcy5lLm5lY3Rlci5nb3Yuc2
c6ODAvY29uc2VudC9vYXV0aDIiLCAidG9rZW50YW1lIjogImFjY2Vzc190b2t1biIsICJ0
b2t1bl90eXB1IjogIkplYXJlciiIsICJhdXRvR3JhbRjZCI6ICI4ZDRkNTEwNC0yMmMxLT
RkZDYtYTA5Mi0yYmU3YzZlNzkzNDMlLCAiYXVkJjogIm15aW5mbyIsICJhbnRjZCI6ICI4ZDRkNTEwNC0yMmMxLT
ODkwNzUxLCAic2NvcGUiOiBbICJlZHVzZXZlbnCIsICJ0b3VzaW5ndHlwZSIsICJyYWNlIi
wgInJlZ2FkZCIsICJzZXgiLCAiaGRidHlwZSIsICJtb2JpbGVubyIsICJjcGZiYWxhbmNl
cyIsICJoYW55dXBbnlplbm5hbWUiLCAibWFycml1ZG5hbWUiLCAiaGFueXVwaW55aW5hbG
lhc25hbWUiLCAiYXNzZXNzYWJsZWluY29tZSIsICJtYXJpdGFsIiwgImFsaWFzbnM3OD
IjogMTUwNTg5MDC1MSwgImV4cGlyZXNfaW4iOiAzNjAwMDAwLCAianRpIjogIjI2MmM3OD
k5LWY4YmQtNDVlOC05Mzc1LWRmYTY5YUwNTA3YSIgfQ.maD5lnrRA84hm2Lz5gdU1M6ZV
SsYxY1WodtMTesleDXJrD3hDeUVbmHGumeH4XogtmYacCWXh3geY5iItK4Wlr_ft5oFzvX
ilWrud7zahFOR5QuOxhALzl8d1erDN4jCQfbT6xq98B7nRCG9JAB1qvEvnSGQLGSWxH3j4
Ix5Jp5iP-3AzshXub-
8JukAqnWZLiQsoJCUu8GBg0RfG85wRKwImpmnPyCoAwqTv2MlqhZQr5oXkkeRrqITkZQME
3sFiqZmnExjHcm18Y__5h3FNvJSFdnnZSDW0471wBpYM9-jK7WdBR9rKS68sxdNa85y-
TQ7YXcb5AHYPro9GGY6w
Content-Type: application/json
Accept: application/json
```

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3.3 General Usage

Each API submission is limited to no more than 8 MB in total data size, which is approximately 10,000 records.

3.4 Sandbox Usage

API services in the Sandbox environment are designed to mimic the Production environment so that developers can perform integration tests on the API before consuming actual data from the Production environment.

You are required to perform Sandbox Testing before you can use the API service in Production. Test scenarios shall be provided to you separately for you to complete. However, completion of the test scenarios does not automatically mean that your application has been validated or approved by IRAS.

3.5 Production Usage

Approval **is required** to use this service in both the Sandbox and Production environments. After approval is granted by IRAS, the client application can successfully consume the API.

Use of IRAS API(s) are governed by the [Additional API Terms of Use](#) found at the API Marketplace.

The use of IRAS API(s) in the Production environment is only intended for the purpose as indicated in the API service description. Any other forms of use, **including all forms of tests**, are strictly prohibited. In the event such activities are found to have occurred in the Production environment, you will be deemed to have breached the API Terms of Use, which may result in the suspension or termination of your account.

3.6 Common Interface Information

- JSON is case sensitive by specifications.
- All date strings are to be represented in compliance to the [ISO-8601](#) standard.
- All string fields are subject to validation of the following acceptable characters that is allowed (in red):
 - [a-zA-Z0-9'@#()\-./&+ _] (**Note:** whitespace is included)
- All properties follow the camel-case convention.
- Unless stated as optional, all JSON object properties must be specified.
- Unless otherwise specified, all JSON services are invoked using HTTP verb POST.
- All input data format are as specified like the following:

Data Type and Size	Description	Example
String(12)	A string containing maximum 12 characters.	“180084010K”
Number(4)	A numeric value containing maximum 4 whole numbers.	1990
Number(4,2)	A numeric value containing maximum 4 whole numbers and two decimal places	1234.56
Boolean	Indicator for bool value: true or false	true

3.7 Common Response Payload

All response payloads share the following common fields:

Parameter Name	Data Type	Description
data	Object	The data property will be populated differently based on the API that is being invoked.
returnCode	Integer	10 : Success - The request was successfully processed. 30 : Failure - The request was not processed. Refer to “info” object for error information.
Info	Object	This complex object holds any diagnostic information that will allow developers to debug their failed requests.
info.message	String	Diagnostic message in the event of error.
Info.messageCode	Integer	Integer code signifying the type of error or warning. 850300 : Request object is null – The incoming JSON request is null. 850301 : Arguments error – There is an error with one of the arguments provided. 850302 : Generic error – There is an exception within the service. 850303 : Service is inactive. 850304 : Service is not authorized for usage based on the provided credentials. 850305 : Invalid test user – The input fields provided are not valid for sandbox testing.
info.fieldInfoList	Array	An array for FieldInfo objects. <i>Note: Refer to section 4.4 for the list of diagnostic messages.</i>
info.fieldInfoList.field	String	Name of the field that resulted in the error.
Info.fieldInfoList.message	String	Diagnostic message provided to aid consumer’s developers.

4 Submission of GST Transaction Listings API Service

4.1 API Endpoint

Method	Endpoint
POST	/gst/submitTransactionListingCorpPass

4.2 Request Payload

Parameter Name	Data Type	Description
filingInfo	Object	
taxRefNo	String(16)	Tax Reference Number of Company/Business
gstRegNo	String(16)	GST Registration Number of Company/Business
dtPeriodStart	String(10)	Start Period of the transaction listing (yyyy-MM-dd)
dtPeriodEnd	String(10)	End Period of the transaction listing (yyyy-MM-dd)
data	Object	
identifier	String(50)	A unique identifier given by the external parties to reconcile the chunked requests. For best practise, use a globally unique identifiers (GUID). <i>Note: Refer to Appendix for more information on how to use identifier appropriately.</i>
currentChunk	Number(4)	The current chunk number for this request. If the current chunk is the 7 th chunk out of a total of 10 chunks, the value specified should be "7".
totalChunks	Number(4)	The total number of chunks required to submit the full transaction listing. If there are a total of 10 chunks, the value specified should be "10". If there are no multiple chunks, the value specified should be "1".
message	String	The data information relating to Purchases and Supplies. Data elements have to be separated by " " (pipe). The information has to be Base64 encoded. Please follow the format stipulated in the Guide for Accounting Software (for Software Developers). <i>Note: Do not send information relating to General Ledgers (GLData section). Refer to the Guide for Accounting Software (for Software Developers) – Appendix 3 – IRAS Audit File ("IAF") in PipeDelimited Text File Format for more information.</i>
dtIAFCreation	String(10)	Date of IAF creation (yyyy-MM-dd)
iafVersion	String(10)	IAF version number

Sample JSON request payload

```
{  
  "filingInfo": {  
    "taxRefNo": "199000000A",  
    "gstRegNo": "MX0199000G",  
    "dtPeriodStart": "2017-01-01",  
    "dtPeriodEnd": "2017-12-31"  
  },  
  "data": {  
    "identifier": "390b25fa-4427-4b10-9ae2-34d6e0cd91a1",  
    "currentChunk": 7,  
    "totalChunks": 10,  
    "message":  
    "dG9rZW50YW1lIjogImFjY2Vzcl90b2t1biIsICJ0b2t1bl90eXB1IjogIkJlYXJlciIsI  
    CjhdXROR3JhbnRjZCIsICJob3VzaW5ndHlI4ZDRkNTEwNC0yMDYtYTA5Mi0yYmU3YzZlNz  
    kzNDMiLCAiYXVkJjogIm15aW5mbyIxNTA1ODkwNzUxLCAic2NvcGUiOiBbICJlZHVzZXZl  
    bCIsICJob3VzaW5ndHlwZSIsICJyYWNlIiwgInJlZ2FkZCIsICJzZXgiLCAiaGRiddG9rZ  
    W50YW1lIjogImFjY2Vzcl90b2t1biIsICJ0b2t1bl90eXB1IjogIkJlYXJlciIsICJhdXR  
    oR3JhbnRjZCI6ICI4ZDRkNTEwNC0yMmMxLTRkZ5ndHl2Vzcl90b2t1biIsICJ0b2t1bl90  
    eXB1IjogIkJlYXJlciIsICJhdXROR3JhbnRjZCIsICJ0b2t1bl90eXB1IjogIkJlYXJlci  
    IsICJhdXROR3JhbnRjZCIsICJ0b2t1bl90eXB1IjogIkJlYXJlciIsICJhdXROR3JhbnR  
    jZCI6ICI4ZDRkNTEwNC0yMmMxLTRkZDYtYTA5Mi0yYmU3YzZlNzgzNDMiLCAiYXVkJjogIm15aW5mbyIsICJyYWNlIiwgInJl  
    zUxLCAic2NvcGUiOiBbICJlZHVzZXZlbiIsICJob3VzaW5ndHlwZSIsICJyYWNlIiwgInJl  
    Z2FkZCIsICJzZXgiLCAiaGRiddG9rZW50YW1lIjogImFjY2Vzcl90b2t1biIsICJ0b2t1bl  
    190eXB1IjogIkJlYXJlciIsICJhdXROR3JhbnRjZCIsICJ0b2t1bl90eXB1IjogIkJlYXJlci  
    IsICJhdXROR3JhbnRjZCIsICJ0b2t1bl90eXB1IjogIkJlYXJlciIsICJhdXROR3JhbnRjZC  
    IsICJhdXROR3JhbnRjZCIsICJhdXROR3JhbnRjZCIsICJhdXROR3JhbnRjZCIsICJhdXROR3JhbnRjZCIsICJhdXROR3JhbnRjZC",  
    "dtIAFCreation": "2018-01-31",  
    "iafVersion": "IAFv1.0.0"  
  }  
}
```

4.3 Response Payload

Parameter Name	Data Type	Description
data	Object	The object payload containing the reference code of successful submission
identifier	String(50)	The unique identifier that was provided in the request payload
currentChunk	Number(4)	The current chunk number that was provided in the request payload
totalChunks	Number(4)	The total chunk number that was provided in the request payload
taxRefNo	String(16)	Tax Reference Number of Company/Business that was provided in the request payload
gstRegNo	String(16)	GST Registration Number of Company/Business that was provided in the request payload
companyName	String(100)	Name of Company/Business
dtPeriodStart	String(10)	Start Period of the transaction listing that was provided in the request payload
dtPeriodEnd	String(10)	End Period of the transaction listing that was provided in the request payload
declarantID	String(30)	Declarant ID (Masked)
dtSubmission	String	Date and Time of Submission (yyyy-MM-dd'T'HH:mm:ss)
returnCode	As per section 3.7	
Info		
info.message		
info.messageCode		
info.fieldInfoList		
info.fieldInfoList.recordID		
info.fieldInfoList.field		
info.fieldInfoList.message		

Sample success JSON response payload

```
{
  "returnCode": 10,
  "data": {
    "identifier": "390b25fa-4427-4b10-9ae2-34d6e0cd91a1",
    "currentChunk": 7,
    "totalChunks": 10,
    "taxRefNo": "190000000A",
    "gstRegNo": "MX0199000G",
    "companyName": "ABC PTE LTD",
    "dtPeriodStart": "2017-01-01",
    "dtPeriodEnd": "2017-12-31",
    "declarantID": "SXXXX567Z",
    "dtSubmission": "2018-01-02T20:18:25"
  },
  "info": {
    "fieldInfoList": []
  }
}
```

Sample error JSON response payload

```
{
  "returnCode": 30,
  "data": {
    "identifier": "390b25fa-4427-4b10-9ae2-34d6e0cd91a1",
    "currentChunk": 8,
    "totalChunks": 10
  },
  "info": {
    "messageCode": 850301,
    "message": "Arguments Error",
    "fieldInfoList": [
      {
        "recordID": 2457,
        "field": "Purchase.PurchaseValueSGD",
        "message": "Value must not be 0"
      },
      {
        "recordID": 7855,
        "field": "Supply.SupplyValueSGD",
        "message": "Value must not be 0"
      }
    ]
  }
}
```

4.4 List of Diagnostic Messages

The table below contains the list of diagnostic messages that would be returned as a response in case of failure during the processing of the GST Transaction Listing Submission. As per [section 3.7](#), these diagnostic messages will be part of the information within the **info.fieldInfoList** array.

Field	Message
filingInfo	<ul style="list-style-type: none"> • API: You are not authorised to use the API service • API: We are unable to process this submission as the transaction listings were submitted previously • API: Identifier already exists. Please resubmit using a new identifier
taxRefNo	<ul style="list-style-type: none"> • API: Value cannot be null, empty, or white space and must not exceed maximum length • API: Invalid character(s) found • API: No match data found
gstRegNo	<ul style="list-style-type: none"> • API: Value cannot be null, empty, or white space and must not exceed maximum length • API: Invalid character(s) found • API: No match data found
dtPeriodStart	<ul style="list-style-type: none"> • API: Value cannot be null, empty, or white space and must not exceed maximum length • API: Date must be in yyyy-MM-dd format • API: Date should not be earlier than the Accounting Period
dtPeriodEnd	<ul style="list-style-type: none"> • API: Value cannot be null, empty, or white space and must not exceed maximum length • API: Date must be in yyyy-MM-dd format • API: Date should not be earlier than the Accounting Period
data	
identifier	<ul style="list-style-type: none"> • API: Value cannot be null, empty, or white space and must not exceed maximum length • API: Invalid character(s) found
currentChunk	<ul style="list-style-type: none"> • API: Value cannot be null, empty, or white space and must not exceed maximum length • API: Invalid character(s) found • API: Incorrect data format
totalChunks	<ul style="list-style-type: none"> • API: Value cannot be null, empty, or white space and must not exceed maximum length • API: Invalid character(s) found • API: Incorrect data format

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	<ul style="list-style-type: none"> • API: Total chunks do not tally with the rest of the request
message	<ul style="list-style-type: none"> • API: Value cannot be null, empty, or white space <p><i>Note: Refer to section 3.2.3.1 for list of diagnostic messages available if the message is decoded successfully by IRAS.</i></p>
dtIAFCreation	<ul style="list-style-type: none"> • API: Value cannot be null, empty, or white space and must not exceed maximum length • API: Date must be in yyyy-MM-dd format • API: Date should not be earlier than the Accounting Period • API: Date should not be future-dated
iafVersion	<ul style="list-style-type: none"> • API: Value cannot be null, empty, or white space and must not exceed maximum length
access_token	<ul style="list-style-type: none"> • API: Value cannot be null, empty, or white space

4.5 List of Diagnostic Messages for data.Message

The table below contains the list of diagnostic messages that would be returned as a response in case of failure during the processing of data.Message element. As per [section 3.7](#), these diagnostic messages will be part of the information within the info.fieldInfoList array.

Field	Message
Purchase.PurcDataStart	<ul style="list-style-type: none"> API: Value cannot be null, empty, or white space
Purchase.PurcDataHeader	<ul style="list-style-type: none"> API: The column headers found in the purchase listings table is different from the prescribed format
Purchase.PurcDataEnd	<ul style="list-style-type: none"> API: Value cannot be null, empty, or white space
Purchase.PurcDataDetails	<ul style="list-style-type: none"> API: The values found in the purchase listings table is different from the prescribed format
Purchase.SupplierName	<ul style="list-style-type: none"> API: Value cannot be null, empty, or white space and must not exceed maximum length
Purchase.SupplierUEN	<ul style="list-style-type: none"> API: Value cannot be null, empty, or white space and must not exceed maximum length API: Invalid character(s) found
Purchase.InvoiceDate	<ul style="list-style-type: none"> API: Value cannot be null, empty, or white space and must not exceed maximum length API: Invalid character(s) found API: Date must be in yyyy-MM-dd format API: Date falls outside of the Accounting Period
Purchase.InvoiceNo	<ul style="list-style-type: none"> API: Value cannot be null, empty, or white space and must not exceed maximum length API: Invalid character(s) found
Purchase.PermitNo	<ul style="list-style-type: none"> API: Value cannot be null, empty, or white space and must not exceed maximum length API: Invalid character(s) found
Purchase.LineNo	<ul style="list-style-type: none"> API: Value cannot be null, empty, or white space API: Invalid character(s) found API: Incorrect data format
Purchase.ProductDescription	<ul style="list-style-type: none"> API: Value cannot be null, empty, or white space and must not exceed maximum length
Purchase.PurchaseValueSGD	<ul style="list-style-type: none"> API: Value cannot be null, empty, or white space and must not exceed maximum length API: Invalid character(s) found API: Incorrect data format API: Value must not be 0
Purchase.GSTValueSGD	<ul style="list-style-type: none"> API: Value cannot be null, empty, or white space and must not exceed maximum length

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	<ul style="list-style-type: none"> • API: Invalid character(s) found • API: Incorrect data format
Purchase.TaxCode	<ul style="list-style-type: none"> • API: Value cannot be null, empty, or white space and must not exceed maximum length • API: Invalid character(s) found
Purchase.FCYCode	<ul style="list-style-type: none"> • API: Value cannot be null, empty, or white space and must not exceed maximum length • API: Invalid character(s) found
Purchase.PurchaseFCY	<ul style="list-style-type: none"> • API: Value cannot be null, empty, or white space and must not exceed maximum length • API: Invalid character(s) found • API: Incorrect data format • API: Value must not be 0 for foreign currency transaction • API: Value must be 0 for SGD transaction
Purchase.GSTFCY	<ul style="list-style-type: none"> • API: Value cannot be null, empty, or white space and must not exceed maximum length • API: Invalid character(s) found • API: Incorrect data format
Supply.SuppDataStart	<ul style="list-style-type: none"> • API: Value cannot be null, empty, or white space
Supply.SuppDataHeader	<ul style="list-style-type: none"> • API: The column headers found in the supply listings table is different from the prescribed format
Supply.SuppDataEnd	<ul style="list-style-type: none"> • API: Value cannot be null, empty, or white space
Supply.SuppDataDetails	<ul style="list-style-type: none"> • API: The values found in the supply listings table is different from the prescribed format
Supply.CustomerName	<ul style="list-style-type: none"> • API: Value must not exceed maximum length
Supply.CustomerUEN	<ul style="list-style-type: none"> • API: Value must not exceed maximum length • API: Invalid character(s) found
Supply.InvoiceDate	<ul style="list-style-type: none"> • API: Value cannot be null, empty, or white space and must not exceed maximum length • API: Invalid character(s) found • API: Date must be in yyyy-MM-dd format • API: Date falls outside of the Accounting Period
Supply.InvoiceNo	<ul style="list-style-type: none"> • API: Value cannot be null, empty, or white space and must not exceed maximum length • API: Invalid character(s) found
Supply.LineNo	<ul style="list-style-type: none"> • API: Value cannot be null, empty, or white space • API: Invalid character(s) found • API: Incorrect data format
Supply.ProductDescription	<ul style="list-style-type: none"> • API: Value cannot be null, empty, or white space and must not exceed maximum length

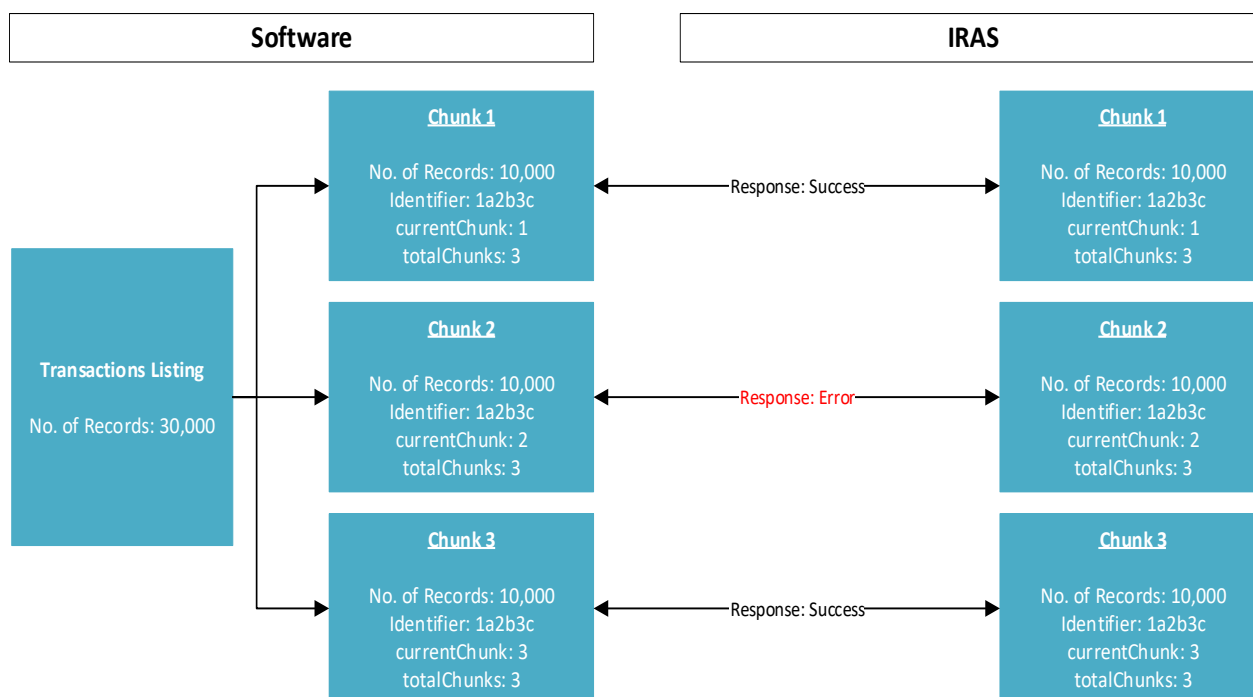
Supply.SupplyValueSGD	<ul style="list-style-type: none"> • API: Value cannot be null, empty, or white space and must not exceed maximum length • API: Invalid character(s) found • API: Incorrect data format • API: Value must not be 0
Supply.GSTValueSGD	<ul style="list-style-type: none"> • API: Value cannot be null, empty, or white space and must not exceed maximum length • API: Invalid character(s) found • API: Incorrect data format
Supply.TaxCode	<ul style="list-style-type: none"> • API: Value cannot be null, empty, or white space and must not exceed maximum length • API: Invalid character(s) found
Supply.Country	<ul style="list-style-type: none"> • API: Value cannot be null, empty, or white space and must not exceed maximum length • API: Invalid character(s) found
Supply.FCYCode	<ul style="list-style-type: none"> • API: Value cannot be null, empty, or white space and must not exceed maximum length • API: Invalid character(s) found
Supply.SupplyFCY	<ul style="list-style-type: none"> • API: Value cannot be null, empty, or white space and must not exceed maximum length • API: Invalid character(s) found • API: Incorrect data format • API: Value must not be 0 for foreign currency transaction • API: Value must be 0 for SGD transaction
Supply.GSTFCY	<ul style="list-style-type: none"> • API: Value cannot be null, empty, or white space and must not exceed maximum length • API: Invalid character(s) found • API: Incorrect data format

5 Appendix

5.1 Chunking and the usage of identifiers

When a transaction listing for the specified accounting period is too large for transmission, it is necessary to chunk it into smaller sizes. For this API, 3 fields (identifier, currentChunk and totalChunks) are required for this purpose. This will help IRAS to reconcile all the requests for your transmission to ensure that the transaction listing is received in order.

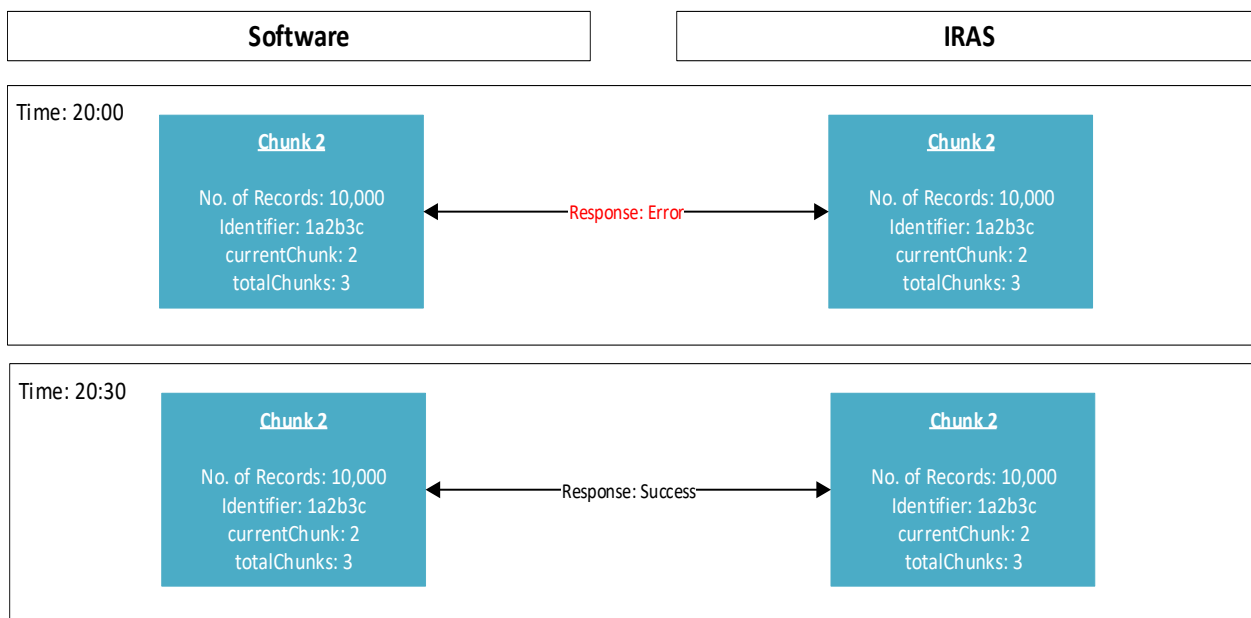
In the example below, a transaction listing is chunked to 3 separate requests with the **same identifier**. This is necessary for IRAS to know that all the 3 chunks are related to each other in the specified order. In the event of any transmission or validation errors, as shown in Chunk 2, a response with the specific error message will be returned to the software.



The design of the request payload allows for two possible ways of re-transmission after a failed attempt. Software can choose to re-transmit only the chunks in error (Scenario 1) or re-transmit the full transaction listing (Scenario 2). It is recommended that software developers build their product to cater for re-transmission of only the chunks in error (Scenario 1) to reduce effort in transmission. Both scenarios are explained further below:

Scenario 1: Correct the error and re-send the failed chunk

In a scenario where user of the software is able to resolve the records with errors, software developers should design their product in a manner that allows the re-transmission of the affected chunk after correction. For such re-transmission of the failed chunk, please use the **same identifier** as the original transmission (i.e. the identifier for the successful chunks)



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Scenario 2: Re-transmit the full transaction listing

In a scenario where re-sending of the affected chunks is not possible, software developers should re-transmit the full transaction listing. For the transmission of the full transaction listing, please use a **new identifier**, i.e. not the original identifier for the previous submission. If the original identifier is re-used to re-submit the full transaction listing, an error will be returned to the software.



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