



1WorldSync Web Services
Item Management Inbound API Guide

Version 1.0.3

REVISION HISTORY

Date	Ver #	Description of Change	Author
June 12, 2018	1.0	Initial Version	T. Dickinson
October 17, 2018	1.0.1	Updates based on initial feedback from users	T. Dickinson
March 29, 2019	1.0.2	Added CIC functionality	K. Tratt
July 30, 2021	1.0.3	Fix HMAC link	P. Odle

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1 Overview

1WorldSync's Item Management Product API allows you to upload your product information and manage its distribution through a trusted repository of Brand Owner provided product information. This document describes how to use the APIs to manage your content to 1WorldSync's platform. It details the various parameters required to access and use the service, such as web service URLs, and request and response formats.

The intended audience of this document is anyone who will use Web services to upload and manage their product information on the 1WorldSync Platform. (Note that a separate API document exists for those subscribers that will provide digital asset content.)

These web services will help you to:

- Add, update, and remove product data from the 1WorldSync Platform
- Build packaging hierarchies by linking existing items together
- Publish items to 1WorldSync recipients
- Check the status of actions that you've performed

2 If you are new to 1WorldSync's Item Management Inbound API

To get started with using the 1WorldSync APIs, please register using the "Sign Up" link at <https://developer.1worldsync.com>, or contact us at technicalsupport@1worldsync.com.

Upon registration, you'll receive the following credentials:

- Your app_id: a 8-character, alphanumeric identifier
- Your Secret Key, a 32-character identifier

The app_id must be included in all 1WorldSync Content1 web service requests to identify the sender of the request. The X-3SCALE-AUTH-SECRET code allows you to create the digital signature that provides proof that you truly are the sender of the request. For all requests you must calculate this signature (hash_code) using your X-3SCALE-AUTH-SECRET code to authenticate your signature.

For additional details on HMAC routines, please refer to our [HMAC Guide](#), which contains examples using our ContentOne API.

Note: One minor difference between the Product API and our Outbound APIs is that the hash should not contain the version number as it does with our outbound APIs. Using the sample URL for the Catalogue Request below, the string used for the hash would be as follows.

/feed/catrequest?app_id=9af172d4&TIMESTAMP=2012-11-14T10:00:00Z&hash_code=yLZOnDCprYuZ57Vy7fKIBUibExg=

If you would like to test our API's in a non-production environment, you can use our Pre-Production environment: <https://product-api.preprod.1worldsync.com/V1/feed>. You will need a separate client id and secret key from your production account; contact us at customersupport@1worldsync.com if you need this additional access established.

3 Using 1WorldSync web services

You can use the Web Services to add, update, and delete data from the 1WorldSync platform, as well as create packaging hierarchies and publish data to recipients. Recipients can also use the API to send Catalog Item Confirmations (CIC) to request changes to the items to meet specific requirements they may have.

The API is a REST interface which allows a POST request to add or update item and packaging hierarchy data and a GET request to see the status of your actions.

You can use the Web Services to perform the following actions.

Action	Action Details	Sample URI	Description
POST	Catalog Request	https://product-api.1worldsync.com/V1/feed/catrequest?app_id=9af172d4&TIMESTAMP=2012-11-14T10:00:00Z&hash_code=yLZOnDCprYuZ57Vy7fKIBUibExg=	This API call allows you to pass a 1WorldSync Catalogue Request to the 1WorldSync Platform. A Catalogue Request is a machine to machine method of adding items & linking items to the 1WorldSync Item Management application. This may be followed by publishing items to data recipient(s). The 1WorldSync Catalogue Request contains a Message Header, a Catalogue Request Header and one or more Documents.
GET	Catalog Response	https://product-api.1worldsync.com/V1/feed/catresponse?app_id=9af172d4&TIMESTAMP=2012-11-14T10:00:00Z&TrackingId=127&hash_code=yLZOnDCprYuZ57Vy7fKIBUibExg=	This API call allows you to check the status of a request in the form of a Response message. Response messages are used to indicate the status of a Catalogue Request. They inform you when a transaction has completed successfully or has failed. In case of failure, an error code and message is used to provide specific error information. For more details on the specific errors that can be received, please reference the IM Validations Document on the Item Management Solution Center.

The following sub-sections describe in more detail the Catalogue Request and Response options of the Item Management Product API.

3.1.1 Catalogue Request

This API call allows you to submit requests to 1WorldSync’s platform. The payload can contain the following kinds of messages:

- Item – allows you to add, delete, modify, and update items in 1WorldSync’s database.
- Link – allows the creation of hierarchies by linking items in the database together.
- Publish – allows you to create and remove publications of items and hierarchies to a recipient.
- CIC – Allows a recipient to send a CIC message to a supplier to request a correction.

Type:

POST

Format:

The format of an API request is as follows:

https://product-api.1worldsync.com/V1/feed/catrequest?app_id=:**yourAppId**&TIMESTAMP=:**currentUTCtime**&hash_code=:**yourHashCode**

Request Parameters:

The following table provides details of the search request parameters.

Name	Valid Values	Mandatory	Description
app_id	{app_id}	✓	A unique ID, generated by 1WorldSync to access the Web Services. This was sent to you upon registering and being approved at developer.1worldsync.com
TIMESTAMP	Timestamp for calling the search service	✓	Security Checks for web service will retrieve the value and will compare with the (current time – 5 minutes). If the supplied time stamp is within the criteria, then it will allow the user to access the WS. TIMESTAMP should be provided as Coordinated Universal Time format, such as "2015-03-03T18:12:22Z" or and offset to UTC such as "2015-03-03T23:12:22+05:00" or "2015-03-03T13:12:22-05:00"

Request Body:

The request body must contain a valid XML or JSON request. The request contains some user specific data that you must provide, including:

- *Message ID* - This is a value that you provide that is assigned to the request in our system. You can either provide a unique message ID or one will be assigned to you automatically. This can be used to provide an internal reference to your transaction. If you provide your own, it must be unique within the 1WorldSync platform.

- *Document ID* – This is a value that you assign to each document. It can be used to map any internal identifiers you might use to the request, and should be something that can help you identify the individual item or operation.
- *User ID* – This is a valid 1WorldSync User ID. It can be either a Batch User ID assigned to you by 1WorldSync or the User ID you use to log in to 1WorldSync's Item Management User Interface.

A successful call to this API also returns a Tracking ID which can be used to see the status of your request.

Samples of valid requests and the schema used to validate them can be found on the [1WorldSync Solution Center](#) under Machine to Machine (M2M) Messaging & Connectivity on the Implementation tab. These files will change over time as new builds are introduced, so please make sure you are using the latest versions of the files.

Request Headers:

The following fields must be passed in the request headers

- *userId* - The *userId* must be the same one that is provided in the XML or JSON payload and should be the batch user id assigned to you by 1WorldSync that is used to access your account in IM.
- *userGln* - The GLN (Global Location Number) associated with your account in IM.
- *content-type* - You should set the *content-type* header to either 'application/json' or 'application/xml' depending on which you are passing.

Sample Request:

```
https://product-api.1worldsync.com/V1/feed/catrequest?app_id=9af172d4&TIMESTAMP=2012-11-14T10:00:00Z&hash_code=yLZOnDCprYuZ57Vy7fKIBUibExg=
```

Response Body:

A successful response contains a Tracking ID in addition to the response message. This tracking ID is used to subsequently call the Catalog Response which will provide information on the status of the request. The status and response message provide further details on the issue in the event that the request was not successful.

Sample response:

Success:

```
{
  "data": {
    "responseMessage": "Request Accepted for processing. Please check the status of the
request using the Response API with TrackingId",
    " ": 227
  },
  "serviceError": null,
  "status": 200
}
```

Failure – Schema Invalid:

```
{
  "data": {
    "responseMessage": "XML Schema is invalid for the Input Message Details of the schema
violation below.\n cvc-complex-type.2.4.a: Invalid content was found starting with
element 'gtin'. One of '{operation}' is expected."
  },
  "serviceError": null,
  "status": 400
}
```

Failure – Message ID not unique:

```
{
  "data": {
    "messageId": "MESSAGEID_001",
    "responseMessage": "The Message with ID MESSAGEID_001 already exists in our system.
Please change the Message ID and post the message"
  },
  "serviceError": null,
  "status": 400
}
```


Response Code:

Following are the response messages:

Response Type	Http Status Code	Response Message	Tracking ID returned?
Success	200 OK	Request Accepted for processing. Please check the status of the request using the Response API with message ID={Message ID}	Yes
Schema Invalid	400 Bad Request	XML Schema is invalid for the Input Message Details of the schema violation below. {SchemaViolationMessage}	No
Message ID not unique	400 Bad Request	The MessageID "{Message ID}" already exists in our system. Please resend the request by updating different messageId in the Request XML.	No
Internal Server Error	500 Internal Server Error	Error Occurred while processing your request.	No

Note: {SchemaViolationMessage} and {Message ID} are variables which will contain the appropriate values based.

3.1.2 Catalogue Response

This API call allows you to check the status of any Catalogue Request by passing the Message ID returned from that request.

Type:

GET

Format:

The format of the API request is as follows:

https://product-api.1worldsync.com/V1/feed/catresponse?app_id=**yourAppId**&TIMESTAMP=**currentUTCTime**&TrackingId=**TrackingId**&hash_code=**yourHashCode**

Request Parameters:

The following table provides details of the search request parameters. Please note that the Catalogue Response also requires a **Message ID** to be embedded in the URL. The Message ID is returned from a successful Catalogue Request.

Name	Valid Values	Mandatory	Description
app_id	{app_id}	✓	A unique ID, generated by 1WorldSync to access the Web Services. This was sent to you upon registering and being approved at developer.1worldsync.com
TIMESTAMP	Timestamp for calling the search service	✓	Security Checks for web service will retrieve the value and will compare with the (current time – 5 minutes). If the supplied time stamp is within the criteria, then it will allow the user to access the WS. TIMESTAMP should be provided as Coordinated Universal Time format, such as "2015-03-03T18:12:22Z" or and offset to UTC such as "2015-03-03T23:12:22+05:00" or "2015-03-03T13:12:22-05:00"
TrackingId	Valid Tracking ID from successful Catalogue Request	✓	

Sample Request:

```
https://product-api.1worldsync.com/V1/feed/catresponse?app_id=9af172d4&TIMESTAMP=2012-11-14T10:00:00Z&TrackingId=127&hash_code=yLZOnDCprYuZ57Vy7fKIBUibExg=
```

Request Headers:

The following fields must be passed in the request headers

- *userId* - The userId must be the same one that is provided in the XML or JSON payload and should be the batch user id assigned to you by 1WorldSync that is used to access your account in IM.
- *userGln* - The GLN (Global Location Number) associated with your account in IM.

Response Body:

The Catalogue Response API call returns a message that indicates the status of the message as a whole, as well as the status of each of the individual items, publications, and links submitted.

This call returns a header and one or more of the following responses:

- *Document Acknowledgement* – Indicates that an individual item, link, publication or CIC was processed successfully and provides the associated detail.

- *Document Exception* – Indicates that an individual item, link, publication or CIC failed and provides the appropriate error message.
- *Message Exception* – Indicates that this submission could not be processed along with the error message indicating the reason.

If the submission contains a message exception, no Document Acknowledgements or Document Exceptions will be returned.

If the message was processed successfully, there will be either a Document Acknowledgement or a Document Exception for every item, publication, link or CIC submitted.

For more information on the responses returned, please see samples [Samples of valid responses and documentation](#) at the [1WorldSync Solution Center](#) under Machine to Machine (M2M) Messaging & Connectivity on the Implementation tab.

Sample response:

Success – Document Acknowledgement:

```
{
  "data": {
    "sender": "8380160030201",
    "receiver": "0838016005005",
    "messageId": "catr.LJ65F1020000102",
    "creationDateTime": "2018-06-05T15:10:20",
    "userGln": "0838016005005",
    "originatingMessageId": "SHRAVAN_API_JSON_005",
    "documentAcknowledgement": [
      {
        "originatingDocumentId": "RNK_1005_002_AddEA",
        "itemResponse": {
          "operation": "MODIFY",
          "gtin": "00202018010495",
          "informationProviderGln": "0838016005203",
          "targetMarket": "US"
        }
      }
    ]
  },
  "serviceError": null,
  "status": 200
}
```

Partial Failure – Document Acknowledgement and Document Exception:

```
{
  "data": {
    "sender": "8380160030201",
    "receiver": "0838016005005",
    "messageId": "catr.LJ65F1911000102",
    "creationDateTime": "2018-06-05T15:19:11",
    "userGln": "0838016005005",
    "originatingMessageId": "MESSAGEID_006",
    "documentException": [
      {
        "originatingDocumentId": "RNK_1005_002_AddEA_1",

```

```

    "itemResponse": {
      "operation": "ADD",
      "gtin": "00202018010495",
      "informationProviderGln": "0838016005203",
      "targetMarket": "US",
      "description": [
        {
          "code": "103",
          "content": "1006 : GTIN (00202018010495), InformationProvider
(0838016005203) and TargetMarket (US) combination already exist"
        }
      ]
    }
  ],
  "documentAcknowledgement": [
    {
      "originatingDocumentId": "RNK_1005_002_AddEA",
      "itemResponse": {
        "operation": "MODIFY",
        "gtin": "00202018010495",
        "informationProviderGln": "0838016005203",
        "targetMarket": "US"
      }
    }
  ],
},
"serviceError": null,
"status": 200
}

```

Failure – Message Exception:

```

{
  "data": {
    "sender": "8380160030201",
    "receiver": "0838016005005",
    "messageId": "catr.LJ65F2333000102",
    "creationDateTime": "2018-06-05T15:23:33",
    "userGln": "0838016005005",
    "originatingMessageId": "MESSAGEID_008",
    "messageException": {
      "description": [
        {
          "code": "102",
          "content": "A valid User ID should be supplied in the message header. ~ The user
does not belong to the organization specified in the header. ~ Principal header doesn't have
permission for the requested operation"
        }
      ]
    }
  },
  "serviceError": null,
  "status": 200
}

```

Response Data:

Name	Description	Notes
receiver	Data Recipient GLN	
sender	1WorldSync Data Pool GLN	
messageId	Unique ID generated by 1WorldSync	
version	Generated by 1WS	
creationDateTime	Creation Timestamp	Format of CCYY-MM-DDTHH:MM:SS
originatingMessageId	Unique ID supplied by Retailer or RDP on the original message being responded to.	
Document Acknowledgement	Contains details about an individual item or operation that has been processed successfully	Response will contain a Document Acknowledgement or Document Exception for each item submitted if the submission was successful
Document Exception	Contains details about an individual item or operation that has failed	Response will contain a Document Acknowledgement or Document Exception for each item submitted if the submission was successful
Message Exception	Contains information about a request that was not able to be processed successfully	Only provided if the submission was unsuccessful

Response Code:

Following are the response messages:

Response Type	Http Status Code	Response Message
Success	200 OK	JSON containing information about the all of the operations passed in the request.
Internal Server Error	500 Internal Server Error	Error occurred while processing your request

4 Contact Us

In case you face any problem, please reach our Customer Support at technicalsupport@1worldsync.com, or, call any one of the following phone numbers.

Phone	From within USA	From outside USA
Global Customer Support	+1 866.280.4013	+1 312 463 4467