



Batch Data Specification

Version 1.5

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Overview

This document describes the Boxever Batch Data Specification and details the required approach for implementing against the Boxever Batch API. It also includes a definition of the Boxever Standard Data Model.

Data Validation

At Boxever we don't look to reinvent the wheel when it comes to industry standards and best practice. Where there are standards already defined and adopted, and these standards and best practices are acknowledged as being the best, we look to adhere to these. To this end, we utilise standards such as IATA & ISO Codes to help us enforce data validation. Below are some examples of where we use IATA & ISO Codes.

International Air Transport Association (IATA). These include:

- **IATA Airport Codes**
- **IATA City Codes**
- **IATA Airline Codes**
- **IATA-Indexed Railway Stations**

International Organisation for Standardization (ISO). These include:

- **ISO 8601 Date & Times**, which standardises the representation of Dates and Times,
- **ISO 3166-1 Country**, which standardises the representation of Country Codes,
- **ISO 639 Language Codes**, which standardises the representation of Language Codes
- **ISO 4217 Currency Codes**, which standardises the representation of Currency Codes

Association of Car Rental Industry Systems Standards (ACRIS). These include:

- **ACRIS Car Classification Code**, which standardises the representation of rental vehicles

Below are some examples of IATA & ISO Codes.

IATA & ISO Codes Examples

IATA Codes

City Codes

- **Description:** The city address of the Guest.
- **Data type:** String (Title case)

Examples:

- Dublin = "Dublin"
- London = "London"
- Madrid = "Madrid"
- Paris = "Paris"

Airport Codes

- **Description:** The city address of the Guest.
- **Data type:** Uppercase 3 letter IATA Airport Code

Examples:

- Dublin = "DUB"
- London = "LHR"
- Madrid = "MAD"
- Paris = "CDG"

ISO Codes

Country Codes

- **Description:** The country address of the Guest.
- **Data type:** Uppercase 2 letter ISO 3166-1 Alpha-2 Country Code

Examples:

- Ireland = "IE"
- United Kingdom = "GB"
- Spain = "ES"
- France = "FR"

Language Codes

- **Description:** The language code of the Guest.
- **Data type:** Uppercase 2 letter ISO 639 Language Code

Examples:

- "EN" for English,
- "FR" for French,
- "GE" for German,
- "NL" for Dutch,
- "NO" for Norwegian and
- "ZU" for Zulu

Currency Codes

- **Description:** The currency the order was purchased with.
- **Data type:** Uppercase 3 letter ISO 4217 Currency Code

Examples:

- Euro = "EUR"
- US Dollar = "USD"
- New Zealand Dollar = "NZD"

Batch API

The Batch API allows guests, orders and products to be imported into the platform in batch form. To upload an import, an initial PUT request is made to create a batch import and inform the platform of a pending upload. Within the response is a http endpoint where the import can be uploaded securely. The import must be gzipped and contain the guests, orders and products in the format described below. A PUT request to the defined endpoint in the initial request will upload the file to the platform. A subsequent GET request to the batch endpoint can then be used to determine the status of the import.

File Preparation

Each type of import data must be prepared according to the format defined in the relevant section.

File Compression

Before files are uploaded they must be compressed to a "gzip compressed tar archives". This is commonly done on Unix environments using the following command via a terminal

```
$ tar -cvzf guest.tar.gz Guest.json
```

File Size

File sizes should be up to but not exceed 100MB.

Note on OS X:

On OS X, the AppleDouble format stores additional information about files. When using tar on OS X this results in a new file being created and included in the tarball. For this reason it is necessary to include COPYFILE_DISABLE=1 before running the tar command on OS X.

Create a Batch Import

To upload an import you must obtain a pre-signed URL that allows you to upload the file to Boxever. This URL has an authentication mechanism in place which is based on Amazon AWS S3 authentication. The URL can be obtained by making a PUT request to the batch service. The response contains the signed URL. URLs are valid for 1 hour from the request. The request is as follows:

| | |
|-----------------------|--------------------------------------------|
| Endpoint | https://{apiEndpoint}/v2/batches/{uuid} |
| Http Method | PUT |
| Authentication | Basic Authentication (Username & Password) |
| Encoding | UTF-8 |
| Content-Type | application/json |
| Accept | application/json |
| Request | { "checksum": "<import_checksum>", |

| | |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | <pre>"size": "<import_size>" }</pre> |
| Response | <pre>{ "ref": "<uuid>", "checksum": "<import_checksum>", "size": "<import_size>", "location": { "href": "<http://s3_pre_signed_url>", "expiry": "<expiry_of_presigned_url>", }, "status": { "code": "<status_code>" }, "createdAt": "<created_date>", "modifiedAt": "<updated_date>" }</pre> |

A PUT method is used to ensure the operation is idempotent. The UUID with the request url should be generated by the client. A UUID version 3 or 5 should be used. The checksum is a MD5 hash of the import to be uploaded. The size field indicates the number of bytes in the import.

A successful request will return a HTTP 201 or 200 if the request was successful. The href field in the location object within the response contains the url to which the import file can be uploaded to. The expiry field indicates how long the url will remain valid for. If url expires the client should create another Batch import to complete the import. The status field in the response indicates the success or otherwise of the import. The initial status will be 'uploading' to show that the service is awaiting the upload of the import.

The initial creation of the import may fail for the following reasons:

- The size of the import doesn't match the size specified in the <size> attribute of the request, then the service will return a HTTP 400 response with an appropriate message. If this is the case the import file should be split into separate Batch imports.
- If an attempt is made to alter checksum or size fields after their initial creation a HTTP 409 will be returned.

Note: Batch imports may be processed in parallel. If there are interdependencies between imports it is advised to wait until the initial import is completed before starting any subsequent dependant imports.

A sample curl request is:

```
curl -X PUT -H "Authorization: Basic <redacted>" -H "Accept: application/json" \
-H "Content-Type: application/json" \
"https://{apiEndpoint}/v2/batches/3C70FBFB-E5B8-4403-9632-0F8DCF6B4028" \
-d '{"checksum":"8d31abf98466f5eba6ba178bf0d14715", "size":123412341}'
```

Uploading import

Files can be uploaded using standard PUT requests using standard http libraries (readily available for most languages such as Java, .NET, python etc.) or using command line utilities such as *curl*.

```
curl -H 'x-amz-server-side-encryption: AES256' -H 'Content-Md5: <base64 encoded md5 of import>' -XPUT -T filename "<signed url>"
```

Retrieve the status of import

To retrieve the status of an import a GET request to the Batch service is made.

| | |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Endpoint | https://{apiEndpoint}/v2/batches/{uuid} |
| Http Method | GET |
| Authentication | Basic Authentication (Username & Password) |
| Encoding | UTF-8 |
| Accept | application/json |
| Response | <pre>{ "ref" : "<uuid>", "checksum" : "<import_checksum>", "size" : "<import_size>", "location" : { "href" : "<http://s3_pre_signed_url>", "expiry" : "<expiry_of_presigned_url>", }, "status" : { "code" : "<status_code>", "log" : "<http://s3_pre_signed_url>" }, "createdAt" : "<created_date>", "modifiedAt" : "<updated_date>" }</pre> |

The status block includes two fields, a code field to show the state of the import and a log field that provides a url to the location of the log file. The log field may or may not be present depending on the code. Possible codes are as follows:

- **uploading**: awaiting for the client to upload import to url.
- **processing**: the import has been uploaded and processing has started.
- **success**: the import has been successfully processed.
- **corrupted**: the import did not match the checksum.
- **error**: the import has failed, see log.

Note: The upload can timeout for a number of reasons, network latency being one an example. The timeout interval is currently set to 60 minutes.

A sample curl is as follows:

```
curl -X GET -H "Authorization: Basic <redacted>" -H "Accept: application/json"
"https://{apiEndpoint}/v2/batches/3C70FBFB-E5B8-4403-9632-0F8DCF6B4028"
```

JSON import file format

The import is contained in a file. The file is compressed using standard gzip. Records in the file are encoded using standard JSON as defined in RFC 4627 and are delimited by a carriage return ('\n').

Escaping of characters such as newlines are covered in the RFC 4627 specification ('\\n' essentially). The specification supports three types of records:

- Guests (includes subscriptions, identifiers and data extensions).
- Orders (include order items, order contact, order consumers)
- Products

Each of the above records types maps to the entity types in V2 of the API and as such the JSON format is the same. Each of these entities are wrapped in a JSON Object call a Batch Record. An example record is as follows:

```
{
  "ref" : "<uuid>"
  "schema" : "<schema>",
  "mode" : "<mode>",
  "value" : { ... }
}
```

The fields within the object are described in the following table.

| Field name | Description |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ref | A version 3 or 5 UUID that is unique to this record. |
| schema | Identifies the type of entity contained within the record. Possible values include guest, order, product |
| mode | Indicates how or what mechanism that should be used to import the record into the system. Current values include upsert, insert and merge. <ul style="list-style-type: none">• insert - overwrite if exists, create if doesn't• upsert - update if exists, create if doesn't• merge - applies specific merge rules to how the fields are updated |
| value | This field contains an entity to be imported into the system. The entity uses the same format and attributes as used in API v2. Depending on the mode partial entities can be uploaded. |

The current supported modes for entities are as follows:

| Entity | insert | upsert | merge |
|---------|--------|--------|-------|
| guest | N | Y | Y |
| product | Y | N | N |
| order | Y | N | N |

Data Models

The tables below define the Boxever Standard Data Models for the following:

- Guest
 - Guest Subscriptions
 - Guest Identifiers
 - Guest Data Extensions
- Products
- Orders
 - Order Items
 - Order Contact
 - Order Consumers

Each data point below contains the following:

- A description
- The required format (string, number, etc.) and
- An example (where necessary)

Guest Data Model

The definition of Guest is:

| Guest | | | | |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------|----------|
| Field name | Description | Presence | | |
| | | Insert | Upsert | Merge |
| ref | A unique ID of the record within the boxever platform Format: UUID Example: 17AC5C03-F7A1-461F-A3B1-C96F43143522 | Not Supported | Optional | Optional |
| firstSeen | Date and time guest first seen Format: ISO 8601 Date/Time UTC Example : "2016-08-23T16:17:16.000Z" | Not Supported | Optional | Optional |
| lastSeen | Date and time guest last seen Format: ISO 8601 Date/Time UTC Example : "2016-08-23T16:17:16.000Z" | Not Supported | Optional | Optional |
| guestType | A Boxever system attribute required for understanding what type of guest this record is. Format: String (lowercase) Available Options: <ul style="list-style-type: none">• "visitor" – An anonymous guest for whom we only have behavioral data with very little identity data.• "customer" – A paying customer (in a lot of cases the <i>lead-traveller</i>), for | Not Supported | Optional | Optional |

| | | | | |
|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------|----------|
| | <p>whom we have lot's of identity data as well as transactional data.</p> <ul style="list-style-type: none"> • "traveller" – An accompanying passenger / traveller on a trip. • "retired" – A status which indicates this record has been retired from active evaluation by the Boxever system. | | | |
| title | <p>The title for this guest</p> <p>Format: String (Title case) Available Options:</p> <ul style="list-style-type: none"> • "Mr" • "Mrs" • "Miss" • "Dr" • "Ms" • "Prof" • "Rev" • "Lady" • "Sir" • "Mstr" • "Master" • "Capt" • "Dame" • "Hon" • "Judge" • "Lord" • "Sister" | Not Supported | Optional | Optional |
| firstName | <p>The first name for this guest</p> <p>Format: String (Title case)</p> | Not Supported | Optional | Optional |
| lastName | <p>The last name for this guest</p> <p>Format: String (Title case)</p> | Not Supported | Optional | Optional |
| gender | <p>The gender for this guest</p> <p>Format: String (lowercase) Available Options:</p> <ul style="list-style-type: none"> • "male" • "female" • "unknown" | Not Supported | Optional | Optional |
| dateOfBirth | <p>The date of birth for this guest</p> <p>Format: ISO 8601 Date/Time UTC Example: "1980-12-24T00:00Z"</p> | Not Supported | Optional | Optional |
| email | <p>The email address for this guest</p> <p>Format: String (lowercase)</p> | Not Supported | Optional | Optional |
| phoneNumbers | <p>The phone number of the Guest</p> <p>Format: JSON Array of Strings</p> | Not Supported | Optional | Optional |
| language | <p>The language of this guest</p> | Not Supported | Optional | Optional |

| | | | | |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------|---------------|
| | Format: 2 letter ISO 639 Language Code (Uppercase) Example(s): <ul style="list-style-type: none"> • "EN" • "FR", • "GE" | | | |
| nationality | The nationality for this guest Format: String (Title case) Example(s): <ul style="list-style-type: none"> • "Irish" • "British" • "Spanish" • "French" | Not Supported | Optional | Optional |
| passportNumber | The passport number for this guest Format: String (Uppercase) | Not Supported | Optional | Optional |
| passportExpiry | The expiry date for this guest's passport Format: ISO 8601 Date/Time UTC Example: "1980-12-24T00:00Z" | Not Supported | Optional | Not Supported |
| street | The street where the guest is from Format: JSON Array of String (Title case) Example: ["Ashford House", "Tara Street", "Dublin 2"] | Not Supported | Optional | Optional |
| city | The city where the guest is from Format: String (Title case) Examples: <ul style="list-style-type: none"> • "Dublin" • "London" • "Madrid" • "Paris" | Not Supported | Optional | Optional |
| country | The country where the guest is from Format: 2 letter ISO 3166-1 Alpha-2 Country Code (Uppercase) Example(s): <ul style="list-style-type: none"> • "EI" • "GB" • "ES" • "FR" | Not Supported | Optional | Optional |
| postCode | The Postcode where the guest is from Format: String (Uppercase) | Not Supported | Optional | Optional |
| state | The state where the guest is from Format: String (Title case) | Not Supported | Optional | Optional |
| subscriptions | A list of subjections associated with a guest | Not Supported | Optional | Optional |

| | | | | |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-----------------|-----------------|
| | Format: JSON Array of JSON objects (See Subscriptions table for definition). | | | |
| identifiers | A list of identifiers associated with a guest Format: JSON Array of JSON Objects (See Identifier table for definition). | Not Supported | Optional | Optional |
| extensions | A list of Extensions associated with a guest Format: JSON Array of JSON Objects (See Extensions table for definition). | Not Supported | Optional | Optional |

In upsert mode all the fields in the guest are optional. However, there needs to be sufficient information within the object to identify the guest within the platform for it to be updated. Alternatively if the required fields are present and no matching guests exists in the platform, a new guest will be created.

Guest Subscription Data Model

The definition for Guest Subscriptions is:

| Guest.subscriptions | | | | |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-----------------|-----------------|
| Field name | Description | Presence | | |
| | | Insert | Upsert | Merge |
| name | The name of the subscription Format: String Example: "Boxever Weekly Newsletter" | Not Supported | Required | Required |
| pointOfSale | The store front the subscription is associated with Format: String, predefined values captured from the customer during onboarding (Lowercase) Example(s): <ul style="list-style-type: none"> "boxever.com" "spinair.com" | Not Supported | Required | Required |
| channel | This is the stated preference for the delivery of communications related to this subscription Format: String (Uppercase) Available Options: <ul style="list-style-type: none"> "EMAIL" "SMS" - currently not available "PUSH_NOTIFICATION" - currently not available | Not Supported | Required | Required |
| status | The status of the subscription. Format: String (Uppercase) Available Options: <ul style="list-style-type: none"> "PENDING" - the subscription requires guest verification | Not Supported | Required | Required |

| | | | | |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-----------------|-----------------|
| | <ul style="list-style-type: none"> • "SUBSCRIBED" - an active subscription • "UNSUBSCRIBED" - a deactivated subscription • "UNKNOWN" - the state of the subscription cannot be determined | | | |
| effectiveDate | The local date and time the Guest subscribed Format: ISO 8601 Date/Time UTC Example : "2016-08-23T16:17:16.000Z" | Not Supported | Optional | Optional |

Guest Identifiers Data Model

The definition for Guest Identifiers is:

| Guest.identifiers | | | | |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-----------------|-----------------|
| Field name | Description | Presence | | |
| | | Insert | Upsert | Merge |
| provider | The provider of the identifier Format: String (Title case) Example: "BOXEVER_IDENTITY_SYSTEM" | Not Supported | Required | Required |
| id | The id of the identifier Format: String (Uppercase) Example: "BX_201504" | Not Supported | Required | Required |
| expiryDate | The local date and time after which the identifier is no longer valid Format: ISO 8601 Date/Time UTC Example : "2016-08-23T16:17:16.000Z" | Not Supported | Optional | Optional |

Guest Data Extensions Data Model

The definition for Guest Data Extensions is:

| Guests.dataExtensions | | | | |
|-----------------------|-----------------------------------------------------------------------------------------------|----------------------|-------------------------------------------------|-----------------|
| Field name | Description | Presence | | |
| | | Insert | Upsert | Merge |
| name | The name of the data extension Format: String (Uppercase) Example: "BX12346" | Not Supported | Required | Required |
| key | Key that uniquely identifies the data extension Format: String (Title case) | Not Supported | Required | Required |
| field1 | Data Extensions data Format: String (Title case) | Not Supported | Required/Optional depending on extension | Optional |
| fieldN | Data Extensions data | Not Supported | Optional | Optional |

| | | | | |
|--|-----------------------|--|--|--|
| | Format: String | | | |
|--|-----------------------|--|--|--|

Note that the data extension fields may be required or optional depending on the requirements of a particular extension. Below is a sample of the guest record with all fields present.

```
{
  "ref": "9d94ee11-7043-4b71-980c-a777d00a7b46",
  "firstSeen": "2010-03-07T16:15:11.000Z",
  "lastSeen": "2012-08-23T16:17:16.000Z",
  "guestType": "customer",
  "title": "Mr",
  "firstName": "John",
  "lastName": "Does",
  "gender": "male",
  "dateOfBirth": "1980-12-24T00:00Z",
  "email": "john.does@boxever.com",
  "nationality": "Irish",
  "passportNumber": "PZ4A9565",
  "passportExpiry": "2012-08-23T00:00Z",
  "street": [
    "Apartment 15",
    "West Drive Avenue"
  ],
  "city": "Dublin",
  "country": "IE",
  "postCode": "D2",
  "state": "Dublin",
  "subscriptions": [
    {
      "name": "default",
      "channel": "EMAIL",
      "pointOfSale": "default",
      "status": "SUBSCRIBED",
      "effectiveDate": "2012-08-23T16:17:16.000Z"
    }
  ],
  "identifiers": [
    {
      "provider": "BOXEVER_IDENTITY_SYSTEM",
      "id": "B7524AE6-CF1C-440F-B1A2-0C9D42F5CB41",
      "expiryDate": "2016-08-23T16:17:16.000Z"
    }
  ],
  "extensions": [
    {
      "key": "BX998123",
      "name": "PropensityValues",
      "High Propensity Value": "0.7",
      "Medium Propensity Value": "0.4",
      "Low Propensity Value": "0.2"
    }
  ]
}
```

Products Data Model

The definition for Products is:

| Products | | | | |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------------|---------------|
| Field name | Description | Presence | | |
| | | Insert | Upsert | Merge |
| ref | A unique ID of the record within the boxever platform Format: UUID Example: 17AC5C03-F7A1-461F-A3B1-C96F43143522 | Optional | Not Supported | Not Supported |
| productId | The ID of the Product Format: String | Required | Not Supported | Not Supported |
| name | Name of the Product Format: String (Title case) | Required | Not Supported | Not Supported |
| description | Description of the Product Format: String (Title case) | Optional | Not Supported | Not Supported |
| type | Product Type Format: String (Uppercase) Available Options: <ul style="list-style-type: none"> • "FLIGHT" • "HOTEL" • "CAR" • "BAG" • "INSURANCE" • "CAR_SEAT" • "MEAL" • "FEES" • "LOUNGE_ACCESS" • "HOTEL_WIFI" • "HOTEL_BREAKFAST" • "SEAT_UPGRADES" • "TAXI" • "PARKING" • "SEAT" • "UPGRADE" • "TRANSPORT" • "OTHER" | Required | Not Supported | Not Supported |
| category | Category type for this product Format: String (Uppercase) Available Options: <ul style="list-style-type: none"> • "CORE", • "DEPENDANT" | Required | Not Supported | Not Supported |
| labels | A list of labels associated with a product Format: A mapped JSON object of key/values (String/String) | Optional | Not Supported | Not Supported |

| | | | | |
|------------------|---------------------------------------------------------------------------|-----------------------------------|----------------------|----------------------|
| dependents | A list of dependent products Format: JSON Array of JSON Objects | Optional | Not Supported | Not Supported |
| dependents[*].id | The product code of the dependent product Format: String | Required if object present | Not Supported | Not Supported |

Below is a sample of the a product record with all fields present.

```
{
  "ref": "17AC5C03-F7A1-461F-A3B1-C96F43143522",
  "productId": "LON-AKL:ECONOMY:DSB",
  "name": "LON-AKL",
  "description": "London-Auckland. Economy Class, Seat + Bag",
  "type": "FLIGHT",
  "category": "CORE",
  "labels": {
    "Category1": "International",
    "Category2": "International",
    "Origin": "LON",
    "Destination": "AKL",
    "Fare Class": "ECONOMY"
  },
  "dependents": [
    {
      "id": "LON-AKL:ECONOMY:DFG",
    },
    {
      "id": "LON-AKL:ECONOMY:ZXD",
    }
  ]
}
```

Orders Data Model

The definition for Orders is:

| Orders | | | | |
|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------------|---------------|
| Field name | Description | Presence | | |
| | | Insert | Upsert | Merge |
| ref | A unique ID of the record within the boxever platform Format: UUID Example: 17AC5C03-F7A1-461F-A3B1-C96F43143522 | Optional | Not Supported | Not Supported |
| referenceId | An ID generated by the customer to reference the order Format: String | Required | Not Supported | Not Supported |
| status | The status of the order. Format: String (Uppercase) Available Options: <ul style="list-style-type: none"> • "RESERVED" • "PAYMENT_PENDING" • "DECLINED" • "PURCHASED" • "PENDING" • "CONFIRMED" • "PARTIALY_CONFIRMED" • "CANCELLED" • "REFUNDED" • "PARTIALY_REFUNDED" • "UNKNOWN" | Required | Not Supported | Not Supported |
| orderedAt | The local date and time the order was made Format: ISO 8601 Date/Time UTC Example : "2016-08-23T16:17:16.000Z" | Required | Not Supported | Not Supported |
| currencyCode | The currency used to complete a purchase Format: 3 letter ISO 4217 (Uppercase) Example(s): <ul style="list-style-type: none"> • Euro = "EUR" • US Dollars = "USD" • New Zealand Dollars = "NZD" | Required | Not Supported | Not Supported |
| price | The amount paid for the order Format: Number (Currency) Example: 50, 30.6 | Required | Not Supported | Not Supported |
| paymentType | The method of payment for the Order Format: String (Title case) Example(s): <ul style="list-style-type: none"> • "Card" • "Paypal" • "Voucher" • "ATM" | Required | Not Supported | Not Supported |

| | | | | |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|----------------------|----------------------|
| | <ul style="list-style-type: none"> • "Cash" • "Other" | | | |
| cardType | <p>The Card type used to pay for the Order</p> <p>Format: String (Title case)</p> <p>Example(s):</p> <ul style="list-style-type: none"> • "Mastercard" • "Visa" • "Diners" • "American Express" | Required if Payment Type is Card | Not Supported | Not Supported |
| contact | <p>The contact associated with the order</p> <p>Format: A JSON Object (See Contacts table for definition).</p> | Required | Not Supported | Not Supported |
| consumers | <p>A list of consumers associated with the order</p> <p>Format: JSON Array of JSON Objects (See Consumers table for definition).</p> | Required | Not Supported | Not Supported |
| orderItems | <p>A list of items in the order</p> <p>Format: JSON Array of JSON Objects (See OrderItems table for definition).</p> | Required | Not Supported | Not Supported |

Orders Contact Data Model

The definition for Order Contacts is:

| Orders.contact | | | | |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------------|---------------|
| Field name | Description | Presence | | |
| | | Insert | Upsert | Merge |
| title | <p>The title for this the Contact</p> <p>Format: String (Title case) Available Options:</p> <ul style="list-style-type: none"> • "Mr" • "Mrs" • "Miss" • "Dr" • "Ms" • "Prof" • "Rev" • "Lady" • "Sir" • "Mstr" • "Master" • "Capt" • "Dame" • "Hon" • "Judge" • "Lord" • "Sister" | Optional | Not Supported | Not Supported |
| firstName | <p>The first name of the Contact</p> <p>Format: String (Title case)</p> | Required | Not Supported | Not Supported |
| lastName | <p>The last name of the Contact</p> <p>Format: String (Title case)</p> | Required | Not Supported | Not Supported |
| gender | <p>The gender for this Contact</p> <p>Format: String (Title case) Available Options:</p> <ul style="list-style-type: none"> • "male" • "female" • "unknown" | Optional | Not Supported | Optional |
| dateOfBirth | <p>The date of birth for this Contact</p> <p>Format: ISO 8601 Date/Time UTC Example: "1980-12-24T00:00Z"</p> | Optional | Not Supported | Optional |
| nationality | <p>The nationality of this Contact</p> <p>Format: String (Title case) Example(s):</p> <ul style="list-style-type: none"> • "Irish" • "American" • "Spanish" | Optional | Not Supported | Not Supported |
| street | <p>The street where the Contact is from</p> <p>Format: JSON Array of Strings</p> | Optional | Not Supported | Not Supported |

| | | | | |
|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------------|---------------|
| | Example: ["Ashford House", "Tara Street", "Dublin 2"] | | | |
| city | The city where the Contact is from Format: String (Title case) Examples: <ul style="list-style-type: none"> • "Dublin" • "London" • "Madrid" • "Paris" | Optional | Not Supported | Not Supported |
| country | The country where the Contact is currently living Format: 2 letter ISO 3166-1 Alpha-2 Country Code (Uppercase) Example(s): <ul style="list-style-type: none"> • "IE" • "GB" • "ES" • "FR" | Optional | Not Supported | Not Supported |
| postCode | The Postcode of the Contact address Format: String (Uppercase) | Optional | Not Supported | Not Supported |
| state | The state where the Contact is from Format: String (Title case) | Optional | Not Supported | Not Supported |
| email | The email address of the Contact. Format: String (lowercase) Example: "john.does@boxever.com" | Optional | Not Supported | Not Supported |
| phoneNumbers | The phone number of the Contact Format: JSON Array of Strings | Optional | Not Supported | Not Supported |
| identifiers | A list of identifiers associated with a guest Format: JSON Array of JSON Objects (See Identifier table for definition). | Optional | Optional | Optional |

Order Consumers Data Model

The definition for Order Consumers is:

| Orders.consumers | | | | |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------------|---------------|
| Field name | Description | Presence | | |
| | | Insert | Upsert | Merge |
| title | <p>The title for this Order Consumer</p> <p>Format: String (Title case)</p> <p>Available Options:</p> <ul style="list-style-type: none"> • "Mr" • "Mrs" • "Miss" • "Dr" • "Ms" • "Prof" • "Rev" • "Lady" • "Sir" • "Mstr" • "Master" • "Capt" • "Dame" • "Hon" • "Judge" • "Lord" • "Sister" | Optional | Not Supported | Not Supported |
| firstName | <p>The first name of this Order Consumer</p> <p>Format: String (Title case)</p> | Required | Not Supported | Not Supported |
| lastName | <p>The last name of this Order Consumer.</p> <p>Format: String (Title case)</p> | Required | Not Supported | Not Supported |
| identifiers | <p>A list of identifiers associated with a guest</p> <p>Format: JSON Array of JSON Objects (See Identifier table for definition).</p> | Optional | Optional | Optional |
| gender | <p>The gender of this Order Consumer</p> <p>Format: String (lowercase)</p> <p>Available Options:</p> <ul style="list-style-type: none"> • "male" • "female" • "unknown" | Optional | Not Supported | Not Supported |
| dateOfBirth | <p>The date of birth of this Order Consumer</p> <p>Format: ISO 8601 Date/Time UTC</p> <p>Example: "1980-12-24T00:00Z"</p> | Optional | Not Supported | Not Supported |
| email | <p>The email address of this Order Consumer</p> <p>Format: String (lowercase)</p> | Optional | Not Supported | Not Supported |

| | | | | |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------------|---------------|
| phoneNumbers | The phone number of this Order Consumer Format: JSON Array of Strings | Optional | Not Supported | Not Supported |
| nationality | The nationality of this Order Consumer Format: String (Title case) Example(s): <ul style="list-style-type: none">• "Irish"• "British"• "Spanish"• "French" | Optional | Not Supported | Not Supported |
| country | The country where the Contact is currently living Format: 2 letter ISO 3166-1 Alpha-2 Country Code (Uppercase) Example(s): <ul style="list-style-type: none">• "IE"• "GB"• "ES"• "FR" | Optional | Not Supported | Not Supported |
| passportNumber | The passport number of this Order Consumer Format: String (Uppercase) | Optional | Not Supported | Not Supported |
| passportExpiry | The expiry date for this Order Consumers passport Format: ISO 8601 Date/Time UTC Example: "1980-12-24T00:00Z" | Optional | Not Supported | Not Supported |
| orderItems | A list order items that are associated with this Order Consumer Format: JSON Array of JSON objects | Required | Not Supported | Not Supported |
| orderItems[*].referenceId | The reference Id for the order item Format: String Example: "B94TXY-1" | Required | Not Supported | Not Supported |

Order Items Data Model

The definition for Order Items is:

| Orders.orderItems | | | | |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------------|---------------|
| Field name | Description | Presence | | |
| | | Insert | Upsert | Merge |
| type | <p>The type of Order Item.</p> <p>Format: String (Uppercase with underscore if more than one word)</p> <p>Available Options:</p> <ul style="list-style-type: none"> • "FLIGHT" • "HOTEL" • "CAR" • "BAG" • "INSURANCE" • "CAR_SEAT" • "MEAL" • "FEES" • "LOUNGE_ACCESS" • "HOTEL_WIFI" • "HOTEL_BREAKFAST" • "SEAT_UPGRADES" • "TAXI" • "PARKING" • "SEAT" • "UPGRADE" • "TRANSPORT" • "OTHER" | Required | Not Supported | Not Supported |
| productId | <p>The ID of the product code</p> <p>Format: String</p> | Required | Not Supported | Not Supported |
| quantity | <p>The number or quantity of this order item</p> <p>Format: Number</p> | Optional | Not Supported | Not Supported |
| price | <p>The amount paid for the order item</p> <p>Format: Number</p> <p>Example: 50, 20.6</p> | Required | Not Supported | Not Supported |
| currencyCode | <p>The currency the order item was made in</p> <p>Format: 3 letter ISO 4217 (Uppercase)</p> <p>Examples:</p> <ul style="list-style-type: none"> • "EUR" • "USD" • "NZD" | Required | Not Supported | Not Supported |
| originalPrice | <p>The original price quoted for the order in the original currency</p> <p>Format: Number</p> <p>Example: 50</p> | Optional | Not Supported | Not Supported |

| | | | | |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|----------------------|----------------------|
| originalCurrencyCode | <p>The original currency associated with the order item</p> <p>Format: 3 letter ISO 4217 (Uppercase)</p> <p>Examples:</p> <ul style="list-style-type: none"> • "EUR" • "USD" • "NZD" | Required if original price specified | Not Supported | Not Supported |
| referenceId | <p>An ID generated by the client to reference the order item</p> <p>Format: String</p> | Required | Not Supported | Not Supported |
| vendor | <p>The organisation that is selling the order item</p> <p>Format: String (Title case)</p> | Optional | Not Supported | Not Supported |
| status | <p>The status of the order item.</p> <p>Format: String (Uppercase)</p> <p>Available Options:</p> <ul style="list-style-type: none"> • "RESERVED" • "PENDING" • "CONFIRMED" • "CANCELLED" • "REFUNDED" • "PURCHASED" • "UNKNOWN" | Required | Not Supported | Not Supported |
| language | <p>The language used to make the order in</p> <p>Format: 2 letter ISO 639 Language Code (Uppercase)</p> <p>Example(s):</p> <ul style="list-style-type: none"> • "EN" • "FR" • "GE" | Optional | Not Supported | Not Supported |
| name | <p>The name of the order item. A free text value for the name of the order item.</p> <p>Format: String (Title case)</p> | Optional | Not Supported | Not Supported |
| description | <p>A description of the order items</p> <p>Format: String (Title case)</p> | Optional | Not Supported | Not Supported |
| consumerTypeCode | <p>The code used to represent the type of passenger. Only applicable when the Product Category is CORE</p> <p>Format: String (Uppercase)</p> <p>Example(s):</p> <ul style="list-style-type: none"> • "ADT" • "CHD" • "INF" | Optional/Required depending on product category | Not Supported | Not Supported |
| tripType | <p>The type of trip the Guest is taking</p> <p>Format: String (Uppercase)</p> <ul style="list-style-type: none"> • "OW" • "RT" | Optional | Not Supported | Not Supported |

| | | | | |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|----------------------|----------------------|
| | <ul style="list-style-type: none"> “MC” | | | |
| flightSegments | <p>A list of flight segments associated with the order item. Only applicable when the Product Category is CORE</p> <p>Format: JSON Array of JSON objects (See FlightSegment table for definition)</p> | Optional | Not Supported | Not Supported |

Flight Segments Data Model

The definition for Flight Segments is:

| Orders.orderItems.flightSegments | | | | |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|----------------------|----------------------|
| Field name | Description | Presence | | |
| | | Insert | Upsert | |
| id | <p>An ID to identify the Flight Segment</p> <p>Format: String</p> | Required | Not Supported | Not Supported |
| origin | <p>The IATA Airport or City origin code of the Flight Segment</p> <p>Format: IATA Airport or City Code (Uppercase) Example(s):</p> <ul style="list-style-type: none"> "DUB" "LHR" "BCN" | Required | Not Supported | Not Supported |
| destination | <p>The IATA Airport or City destination code of the Flight Segment</p> <p>Format: IATA Airport or City Code (Uppercase) Example(s):</p> <ul style="list-style-type: none"> "DUB" "LHR" "BCN" | Required | Not Supported | Not Supported |
| departureDateTime | <p>The local departure date and time of the Flight Segment</p> <p>Format: ISO 8601 Date/Time UTC Example : "2016-08-23T16:17Z"</p> | Required | Not Supported | Not Supported |
| arrivalDateTime | <p>The local arrival date and time of the Flight Segment</p> <p>Format: ISO 8601 Date/Time UTC Example : "2016-08-23T16:17Z"</p> | Required | Not Supported | Not Supported |
| flightNumber | <p>The Marketing flight number for the Flight Segment</p> <p>Format: Number Example: "12345"</p> | Required | Not Supported | Not Supported |

| | | | | |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|----------------------|----------------------|
| fareClass | The fare class of the Flight Segment Format: String (Title case) Examples: <ul style="list-style-type: none">• "Economy"• "Business"• "First Class" | Required | Not Supported | Not Supported |
| fareFamily | The fare family of the Flight Segment Format: String (Title case) Example: "Economy Plus" | Optional | Not Supported | Not Supported |
| bookingClass | The booking class of the flight segment Format: String (Uppercase) Examples: <ul style="list-style-type: none">• "Y7 K5 M4 T6 E3" | Optional | Not Supported | Not Supported |
| carrier | The Marketing Carrier Code for the Flight Segment Format: IATA Airline Code Example(s): <ul style="list-style-type: none">• "EI"• "FR"• "BA" | Required | Not Supported | Not Supported |
| originDestination | The origin and destination of the Flight Segment Format: String (Uppercase) Example: "DUB-JFK" | Optional | Not Supported | Not Supported |
| operatingCarrier | The Operating Carrier code for the Flight Segment Format: IATA Airline Code (Uppercase) Example(s): <ul style="list-style-type: none">• "EI"• "FR"• "BA" | Optional | Not Supported | Not Supported |
| operatingCarrierFlightNumber | The Operating Carrier flight number for the Flight Segment Format: Number Example: "5678" | Optional | Not Supported | Not Supported |

Below is a sample of the a order record.

```
{
  "ref": "056621C2-C955-492D-B7EE-C77C6BDDFDEE",
  "price": 299.00,
  "currencyCode": "EUR",
  "referenceId": "B94TXY",
  "nationality": "Irish",
  "passportNumber": "PZ4A9565",
  "paymentType": "card",
  "cardType": "visa",
  "orderedAt": "2016-08-23T16:17:16.000Z",
}
```

```

"status":"PURCHASED",
"contact":
{
  "title":"Mr",
  "firstName":"John",
  "lastName":"Does",
  "gender":"male",
  "dateOfBirth":"1976-10-28T00:00Z",
  "email": "john.does@boxever.com",
  "phoneNumbers":[
    "+353161123345",
    "+353861123311"
  ],
  "identifiers": [
    {
      "provider": "BOXEVER_IDENTITY_SYSTEM",
      "id": "B7524AE6-CF1C-440F-B1A2-0C9D42F5CB41",
      "expiryDate": "2016-08-23T16:17:16.000Z"
    },
    {
      "provider": "Boxever Loyalty Program",
      "id": "123456789t"
    }
  ]
},
"consumers":[
{
  "title":"Mr",
  "firstName":"John",
  "lastName":"Does",
  "identifiers": [
    {
      "provider": "BOXEVER_IDENTITY_SYSTEM",
      "id": "B7524AE6-CF1C-440F-B1A2-0C9D42F5CB41",
      "expiryDate": "2016-08-23T16:17:16.000Z"
    }
  ],
  "orderItems":[
    {
      "referenceId":"B94TX-1"
    }
  ]
}
],
"orderItems":[
{
  "type":"FLIGHT",
  "productId":"DUB-LHR",
  "price":100.00,
  "currencyCode":"EUR",
  "originalPrice":100.00,
  "originalCurrencyCode":"EUR",
  "referenceId":"B94TX-1",
  "status":"PURCHASED",
  "consumerTypeCode":"ADT",
  "flightSegments":[
    {

```

```

      "id": "1234",
      "origin": "DUB",
      "destination": "LHR",
      "departureDateTime": "2016-08-15T16:00Z",
      "arrivalDateTime": "2016-08-15T19:30Z",
      "flightNumber": "459",
      "fareClass": "Economy",
      "fareFamily": "Plus",
      "carrier": "FR",
      "originDestination": "DUB-LAS"
    },
    {
      "id": "1235",
      "origin": "LHR",
      "destination": "LAS",
      "departureDateTime": "2016-08-15T16:00Z",
      "arrivalDateTime": "2016-08-15T19:30Z",
      "flightNumber": "460",
      "fareClass": "Economy",
      "fareFamily": "Plus",
      "carrier": "FR",
      "originDestination": "DUB-LAS"
    }
  ]
}
]
}}

```

While all the possible fields are shown in the above examples it is not always necessary for all the fields to be present in the import. For example when doing an upsert for Guest it is only necessary to include enough data to identify the guest within the system and the fields to be updated. However, when doing an insert all the necessary fields to deem the entity valid must be included. Merge is similar to upsert in that it is only necessary to include enough data to identify the entity within the system and the fields to be merged. In both cases the resulting update via the upsert or merge operations must result in a valid entity.

Log File Format

Records in the file are encoded using standard JSON as defined in RFC 4627 and are delimited by a carriage return ('\n'). An example log record is as follows:

```
{
  "ref": "<uuid>"
  "code": "<code>",
  "message": "<message>"
}
```

| Field name | Description |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ref | A version 3,5 UUID that is unique to this record and which matches the ref in the import file defined above. |
| code | A number representing the success or otherwise of the import. <ul style="list-style-type: none">• 2xx range indicate the import has been successfully applied.• 4xx range indicates that the requested import was invalid.• 5xx range of errors represent a server side error in importing the data. |
| message | A human readable description of the error. |