

Livn API V2 Certification Guidelines

Last Updated: 2 Nov 2023

Summary

The Livn certification is a process you need to pass before going into production to ensure that the development of your application complies with all the requirements of our API but most importantly to make sure it is performing in the most efficient way possible. During the certification, we will be looking at the requests and payload (if available) to make sure there are no things such as duplicate/redundant API calls, or malformed data that does not get captured by our server-side validation - in short anything out of the ordinary, that we believe can be optimised.

Certification Steps

- For the certification we will provide some products we would like you to pass through the whole booking process that you plan to use in the production environment. If you are caching any data, please let us know in advance so we are aware, we would like to see the caching requests to the API in the logging too.
- If we can have access to the user interface through a demo account or similar, you do not need to do anything other than provide us with the required credentials and application URL so we can perform the certification process. **(If this is the case, Jump to step 5).**
- If we do not have access to the user interface, then we will require the date and exact time when you are planning to start the certification process because we will need to enable full logging on your API user during that time.
- We will require you to document the booking process as you go, for each step, we will need to get some screen captures of the booking process to make sure you are not missing any valuable information critical to the booking process (things like displaying levies, etc). We also will require you to document and include all the requests made to the Livn API **including their JSON payloads when applicable. Note:** Timestamps are especially important so we can match the actions with our logs.
For example:
 - 10:30 AEDT - started the application.
 - 10:30 AEDT - search for products in Australia (Sydney).
 - 10:31 AEDT - Selected product 'xyz'.
 - Etc.
- After the certification round is completed, a feedback document will be provided. If we find anything out of the ordinary, your team will have to fix it according to the feedback provided and a second certification round will take place.

Livn Wholesale Vs Direct Connect

We offer two different models:

- Livn Wholesale** where Livn manages all supplier relationships and payments for you. This model is ideal for businesses that do not have existing relationships with tour operators and want quick access to a large catalogue of global products.
- Direct Connect** where Livn connects your booking tool directly to your suppliers' reservation systems through the same unified API. It is also possible to operate on a **Hybrid** connection where you have a bit of both models. Get access to Livn's entire wholesale offering and build direct commercial relationships with your best-selling and preferred suppliers, all on the same platform and via the same API.

Why is this important for the certification?

While the API model is effectively the same with all the above connection models, Direct Connect, and thus depending on the concrete product Hybrid, sellers have greater control and responsibility for the correct pricing of products presented to their customers. For products bought from **Livn Wholesale** prices are always supplied as gross amounts together with the applicable retail commission, the difference being the net retail amount you will be billed for by Livn. For products purchased under the Direct Connect model, prices may be supplied as net rates, meaning the final non-commissionable amounts are payable directly to the product's supplier. You as the *seller* are responsible for applying the appropriate markup to prices supplied as net amounts (as indicated by the Boolean value of every `quote.LineItem.salesComputationDetails.resSuppliedPriceIsNetRate`.) In a Hybrid setup, products coming from your Direct Connect and Livn Wholesale channels will appear side by side, so it is important to take note of the `directConnect` flag present on the product's channel or the checkout flow and to handle pricing accordingly by checking whether prices are supplied as gross or net rates which need to be marked up.

Tickets

All the bookings made must have their tickets generated, you are free to design your own tickets, but we have set some guidelines for this. If you are using Livn's generated tickets these guidelines are not applicable.

For detailed information please have a look at [Livn API V2 Tickets Guidelines](#)

Caching

If you are caching any data, it is your responsibility to maintain the cache up to date. Any of the products and suppliers from the Livn API can go out of circulation for certain periods or they can be removed completely. It is also possible that an existing product or supplier can be updated at any time so you must cater for all these scenarios and maintain and update your cache strategy.

The Livn API provides a set of endpoints that can be used to populate and synchronise a local cache of Livn's inventory in bulk:

- The `GET /api/suppliers/productMinDetails` route, as the name suggests, returns only the minimal details of your accessible inventory in a single response: the list of supplier IDs at the root level and within each supplier, the list of product IDs as well as a Boolean flag to indicate if the product is temporarily disabled and cannot be booked.

```
[
  {
    "id": 2,
    "products": [
      {
        "id": 3,
        "disabled": false
      }
    ]
  },
  {
    "id": 3,
    "products": [
      {
        "id": 4,
        "disabled": true
      },
      {
        "id": 5,
        "disabled": true
      },
      {
        "id": 6,
        "disabled": false
      }
    ]
  }
  ...
]
```

- The `GET /api/products/operatingDates` endpoint returns the operating dates for all products in the user's accessible inventory as a single data dump using CSV formatting. If your implementation requires the full calendar of every product's operating date, which would normally be used to perform date range or single date-specific client-side searches, we ask that you make use of this endpoint to populate and synchronize your local cache of all products' operating dates. The product-specific `GET /api/products/:productId/departures` call, which only returns data for a single product and which also includes the calculated date-specific FromPrices, **should not be used** to maintain a cache, but is intended for use at a time when a customer has already made the first decision to take a closer look at a specific product. This is a small snippet of the response indicative of the formatting you can expect. Note that products, in particular those that are currently flagged as disabled, might not have any currently advertised departures/operating dates in the 366-day period Livn keeps track of.

```
productId,disabled,operatingDates
3,f,"{2023-03-05,2023-03-12,2023-03-19,2023-03-26,2023-04-02,2023-04-09,2023-04-16}"
4,t,
5,t,
6,f,"{2023-04-01,2023-04-02,2023-04-03,2023-04-04,2023-04-05,2023-04-06,2023-04-07,2023-04-08,2023-04-09}"
...
```

Products to be tested using your application.

For each of the following products please follow the instructions and complete each booking, the products were chosen to cover a wide range of different possible combinations during the checkout flow to ensure your application can handle such cases. It is your responsibility to handle any errors returned from the API properly. Some of the products will allow you to trigger some errors on demand so you can test your implementation properly.

For each of the products make sure you display the following details if they are applicable:

☐ During Product details: **description, inclusions, location and additional information.**

☐ During fare selection: **name, units available, units min/max, age min/max, price, special notes, and other charges.**

☐ During pickup/drop off selections: **transfer fee if available (product id=2 has transfer fees).**

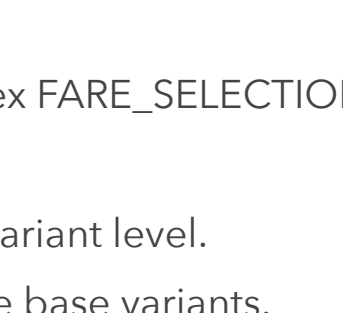
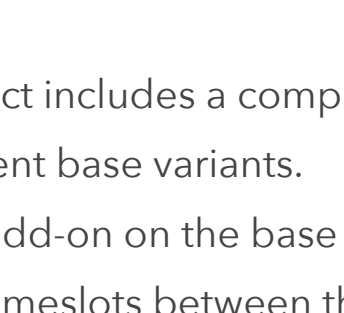
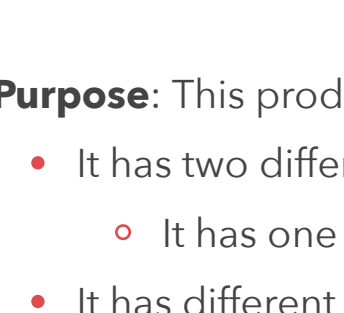
☐ During the final quote: **Display all the final quote line items, supplier TNC's and cancellation policy, and display the expiry time left to complete this step.**

☐ During the Temporary hold: **display the expiry time left to complete this step.**

☐ During the Confirmed Booking: **display all the booking-related information and provide some sort of way for the clients to get access to the tickets.**

Make sure the application can handle group booking tickets and single passenger tickets, product 4 has a question during the passenger details that can help to generate both types of tickets for you to test.

Product 1: Morning Hot Air Balloon Ride including breakfast (id: 1)



Lat: -33.71179, Long: 158.31855

Katoomba NSW 2780

Australia

Street Address Accuracy: false

Purpose: This product includes a complex FARE_SELECTION.

- It has two different base variants.
 - It has one add-on on the base variant level.
- It has different timeslots between the base variants.
 - It has one add-on on the timeslot level.
- It has different fares.
 - It has one add-on at the fare level.
- It has an optional question at the FARE_SELECTION Milestone.
- It can have an optional step just before the CONFIRMED_BOOKING milestone to assign the passengers to the selected add-ons during the fare selection.
- It has other charges to fares (included in the booking price).
- It has other charges to fares (not included in the booking price).

Flow checkout instructions:

Please make a booking for any of the available dates, for the variant **Hot Air Balloon Standard Tour with Transfer**, the booking should be completed for 3 passengers in total (2 adults and 1 child for the 06:00 base variant). This product has two extra fees, one local and another one payable during the checkout, make sure to display all the information available under the Fares, and also pay attention to the different requirements for each of the fares.

Fares:

For the base variant please select the following add-ons:

- 1 x Exclusive package

For the timeslot please select the following add-ons:

- 1 x Photo + Video package

For the adult fare please select the following add-ons:

- 1 x Upgrade to champagne breakfast **(Only one add-on unit is selected so you can check the extra step after the FINAL_QUOTE milestone)**

Pickup & Drop-off:

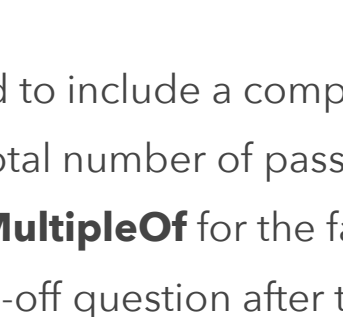
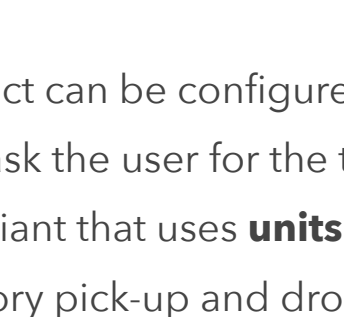
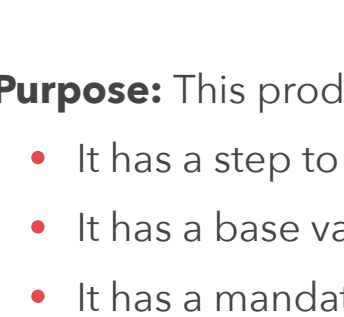
Do not provide any answer for this step.

Passenger Details:

Please fill in all the required fields.

Once the booking is completed, you'll receive the booking confirmation which will contain the details of the booking including the tickets for each of the passengers.

Product 2: 2-Day Salzburg Explorer Tour (id: 2)



Lat: 47.88865, Long: 13.84337

Salzburg Salzburg 5020

Austria

Street Address Accuracy: false

Purpose: This product can be configured to include a complex roadmap:

- It has a step to ask the user for the total number of passengers before the FARE_SELECTION.
- It has a base variant that uses **unitsMultipleOf** for the fares.
- It has a mandatory pick-up and drop-off question after the FARE_SELECTION and a follow-up question asking if they want to provide their frequent flyer number during the PASSENGER_DETAILS.
- It has priced pickups that will show up as a transfer fee in the FINAL_QUOTE.
- It has a TEMPORARY_HOLD milestone after the FINAL_QUOTE and this step can have some questions.
- Each step excluding the first one has an expiry time.
- The product pricing is using net rates.**
- It allows the selection of three different currencies for the booking (AUD, EUR or USD)

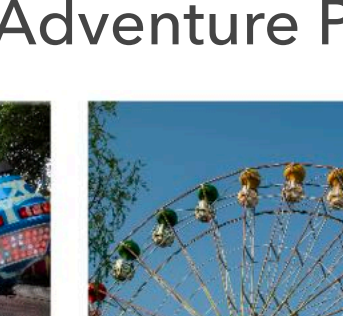


Flow checkout instructions:

Please make a booking for any of the available dates and answer two passengers for the first question related to the passenger count. For the base variant **2-Day Salzburg City Tour + Mozart Dinner Concert + Hotel Accommodation**, the booking should be completed for the **twin** fare. *This base variant fares all have a requirement called unitsMultipleOf so you will need to make sure the validation required on your end is in place otherwise the booking will fail if you send an invalid number of units.*

During the booking flow please fill in the required information, you can select any pick-up and drop-off from the list and **pay attention to the pickups because they incur a transfer fee that should be displayed to the user**. For the frequent flyer number question answer **YES**, it should generate a follow-up question that needs to be answered before proceeding with the booking, this question has a regex expression that should match the entered value. **After reaching the FINAL_QUOTE please select ask questions in the temporary hold step (YES)**, once you complete the FINAL_QUOTE milestone you'll be presented with a TEMPORARY_HOLD milestone where you'll need to answer the question and after completing this step the booking will be completed.

Once the booking is completed, you'll receive the booking confirmation which will contain the details of the booking including the tickets for each of the passengers.

Product 3: Wally's World Adventure Park (id: 3)



Lat: 43.64869, Long: -79.38544

Toronto ON M5H

Canada

Street Address Accuracy: false

Purpose: This product is configured with an Adult dynamic fare:

- The adult fare rates are different depending on the number of units booked.
- Once the booking is completed, you'll receive a different booking for each of the fare types selected.
- This product will generate a barcode for the tickets.
- The product has a question that allows you to simulate an error on the API in two different steps of the booking flow for you to test if you are handling the errors correctly.

Flow checkout instructions:

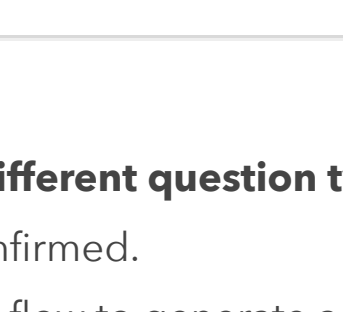
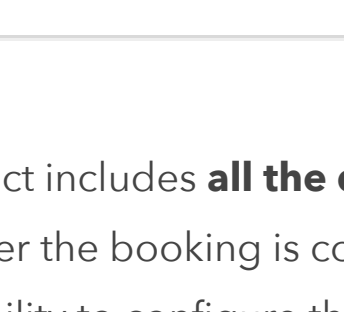
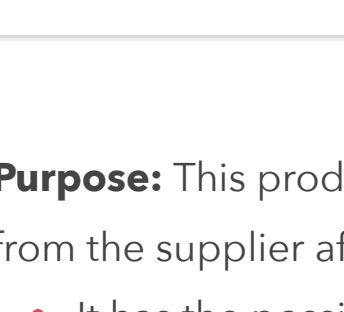
Please make a booking for any of the available dates, for the unique variant **Standard fare**, the booking should be completed for 6 passengers in total for the 09:00 timeslot: 2 adults and one family package (2 adults + 2 children). This product has a question during the fare selection to simulate an error on the API, please make sure to use it in your testing so you can display errors correctly. **The option to terminate the flow in the booking confirmation step is very important because it will allow you to test what happens if there's an error during the last step of the booking** (At this point you should have secured the payment from the customer).

Passenger Details:

Please fill in all the required fields.

Once the booking is completed, you'll receive **multiple bookings**, one for each of the fare types selected during the FARE_SELECTION milestone and each ticket will have a **barcode detail** on it.

Product 4: Snorkelling and Dolphin Adventure on the Moby Dick (id: 4)



Lat: -20.34619, Long: 148.95245

Whitsundays QLD 4802

Australia

Street Address Accuracy: false

Purpose: This product includes **all the different question types our API can handle** and will simulate **external resources like PDF tickets or URLs** from the supplier after the booking is confirmed.

- It has the possibility to configure the flow to generate a group ticket or individual tickets for the passengers.
- It has a fare with local fees payable on the day of the tour.
- It has a transfer fee for the pickups and this fee is included in the final quote.
- It has external Resources as one of the booking confirmation.
- It covers all the different question types: select multiple, select single, text, date, email, phone, Regex, Boolean, and binary (upload images, documents).

Flow checkout instructions:

Please make a booking for any of the available dates, for the unique variant **1-Day Snorkelling and Dolphin Adventure**, the booking should be completed for 3 passengers in total (1 adult, 1 child and 1 infant). The fares include some other charges (local and included in checkout) both need to be displayed to the user. You can select any pick-up and drop-off from the list and **pay attention to the pickups because they incur a transfer fee that should be displayed to the user**.

Passenger Details:

The first question is regarding the generation of the tickets, some reservation systems generate a group ticket and others an individual ticket per passenger, **please make sure you test both cases and that your application can handle both types of response**. For the questions please **fill in all** the fields even if they are not required, this will ensure you are handling all the field types we can have.

Once the booking is completed, you'll receive the booking confirmation which will contain the details of the booking including the tickets for each of the passengers.

Important: For the tickets, if you are creating your tickets, please refer to Alice and test the same product to see how the tickets are generated for both cases.