General Functional Specifications

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1 Nomenclature

1.1 Users
Administrator: main party which administrates the marketplace.
Service offeror: party which offers a mining equipment rental on the marketplace.
Service asker: party which rents a mining equipment on the site.
Lister: party publishing a listing through the platform. In this case, the service offeror is the lister.

1.2 Notions
Listing: platform element in which a lister publishes a bookable service to the service asker.
Unit: can indicate a unit of time (hour), a flat rate for the provision of services, or a unit of a product, according to what is specified below.
2 General operation

2.1 Home page

When a user enters the platform, he or she first accesses to the home page. This is where the user accesses to the following features:

- Registration and connection to the platform
- Listing creation
- Listing search

By browsing the home page, the user has an overview of the platform:

- A description of the site in the form of 3 points of attachment
- A parade of listing categories
- A presentation video
- A parade of a selection of listings
- An overview of the latest news from the platform (RSS feeds from external blogging tools)

2.2 Footer

The footer shows the general settings:

- The choice of the language if the platform is multilingual
- The choice of the currency if the platform uses several currencies

It contains a configurable number of external links to social network profiles, or internal links to institutional pages. These institutional pages can be added, edited and deleted by the administrator.

2.3 Platform administration

At the same time, the platform provides the administrator with several tools to visualize and manage the content and flows taking place on his platform. These tools can be used in a set of pages grouped under the name of SuperBackOffice. Visibility and access to the SuperBackOffice are reserved for the platform owner, on a dedicated web address.
3 Workflows
3.1 Sign up/log in

Non connected user

Click on “Sign up”

User fills in the signup form

Yes

Logged in?

Click on “Log in”

User enters his ID and password

No

The account is immediately activated

Account activation process is finalized
3.2 Search

Click on “Search” after having entered the search criteria

- Error message is displayed
- Location entered?
  - No
  - Yes
    - Search results are displayed
      - User selects a listing

Listing page displayed
3.3 User rating

Booking is finalized (end date is passed) (see specifications)

**Lister**
- Receives a message inviting him to rate the other party
- Accesses the “Rating” area of his user dashboard
- Enters his rating and comment

**Asker**
- Receives a message inviting him to rate the other party
- Accesses the “Rating” area of his user dashboard
- Enters his rating and comment
4 Sign up/log in

4.1 Account moderation

4.1.1 Post-moderation

4.2 Registration

4.3 Identification

4.3.1 Regular & Strong account validation

https://stripe.com/docs/connect/identity-verification
4.4 Profile edition
The "My Profile" area consists of 4 tabs ("Presentation", "Identity", "Bank details", "Parameters"), each allowing the user to enter different information.

4.4.1 Presentation
In this tab, a user can:
- Add and delete profile photos/pdf
- Define the user’s spoken languages
- Define the user’s mother tongue
- Edit the profile introductory text

4.4.2 Identity
Enables the user to edit the following fields:
- Type of person (legal or physical) (for information purposes only, cannot be changed)
- Company name (if applicable)
- Last name*
- First name*
- Date of birth*
- Nationality
- Country of residence*
- Country code (phone)
- Phone number
- Email
- Billing address
  - Street and street number
  - City
  - Post code
  - Country

4.4.3 Bank details
Enables the user to edit the following fields:
- Name appearing on the bank account statement*
- Address*
- IBAN*
- BIC*

4.4.4 Parameters
Enables the user to edit the following information:
- Change the password (process):
  - Old password
  - New password
  - Confirmation of the new password
- Download the personal data
4.5  Viewing a profile

4.5.1  Summary

- Profile photo
- Contact button
- Registration date on the platform
- Verified email address and phone number
- Number of bookings made on his listings
- User geolocation

4.5.2  Media and Presentation

4.5.3  Listings

4.5.4  Ratings and comments
5 Creating and updating a listing

5.1 Listing moderation

5.1.1 Post-moderation

5.2 Listing creation form

The listing registration form contains a selection of information contained in the 7 main listing management tools: Presentation, Pricing & Conditions, Calendar, Images, Attributes, Categories and Location.

When submitting a listing, the lister only enters a part of the information of his listing, before moving on to the second phase, which allows him to provide more exhaustive information about the listing’s availabilities and its address.

The fields that are necessarily present in the first phase of the listing registration form are: listing title, description, listing category, at least one photo, default price and the listing’s address.

5.2.1 Presentation

5.2.1.1 Title

This text is used as title for the listing. The title is limited to 50 characters. If the platform is a multilingual site, the lister can manually enter his text in the other languages offered, or he can launch an automatic translation via the tool provided for this purpose.

5.2.1.2 Introduction

Enables you to enter descriptive text about your listing. If the platform is a multilingual site, the lister can manually enter his text in the other languages offered, or he can launch an automatic translation via the tool provided for this purpose.

5.2.1.3 Rules

Enables you to enter a second text, for example rules or conditions. If the platform is a multilingual site, the lister can manually enter his text in the other languages offered, or he can launch an automatic translation via the tool provided for this purpose.

5.2.2 Categories

A system of multilevel categories allows the lister to select one or more categories corresponding to his listing. This is a two-level system (category and sub-category), knowing that each child category can only have one parent. The number of categories and sub-categories is unlimited. Their display order can be set via the Superadministrator Control Panel.

5.2.3 Attributes

Attributes are additional information that is provided for each listing. They are created by the administrator and are used by the lister to enrich the information of his listing. Attributes are of various types:

- Choice of attribute from a dropdown list
- Choice of a date from a calendar (date picker)
- Choice of an option by a checkbox
5.2.4 Multimedia
Enables the user to add photos, documents and videos to his listing. The maximum number of elements per listing is set at 24. The supported formats are: Png, Jpg, Gif for photos, Pdf for documents and Mp4 for videos. The medias are added via a drag-and-drop operation in an area provided for this purpose, or via an upload field allowing multiple selection. It is possible to reorder the display of the elements by a click and drag operation, where the first element is used as a photo/document/cover video.

In the case of a multilingual platform, pdf documents as well as videos can be dynamically visible depending on the language. Thus, if an Australian visitor browses the ad, he or she will only see the pdf and videos available in English.

5.2.5 Pricing & Conditions
5.2.5.1 Free schedules with pricing per unit of time
The start date/time and the end date/time are set by the asker when making the booking, within the availabilities provided by the lister. Thus, a duration is obtained from the start and end date/time, to which the price per time unit is applied to obtain the total amount to be paid for the booking.

5.2.5.2 Default price
This is where the lister sets his "default price" per unit. The default price is used in several places, including the price displayed in the search results. The price is defined all taxes included and can be precise to the cent. The default price is the reference price of the listing.

5.2.5.3 Displaying taxes
All prices are set and displayed all taxes included.

5.2.5.4 Minimum price per transaction
The minimum amount that can be paid per booking cannot be of less than 1$.

5.2.5.5 Currency management
Due to exchange rate fluctuations, which are exacerbated by the delay between cashin (debit) and cashout (disbursement), all transactions (payments, escrowing and transfers) of the platform are made in a single currency (USD). On the other hand, it is possible to view all prices in the following currencies: euro, dollar, pound sterling, Swiss franc, yen, Canadian dollar, Australian dollar, Russian ruble. The display of prices in currencies other than the USD is only for information purposes. The exchange rate is provided by the European Central Bank. Rates are updated every business day at 17:00 GMT + 1.
5.2.5.6 Minimum and maximum duration

In the case where the unit of the platform is a unit of time, the lister has the possibility of defining a minimum and a maximum duration for the bookings that he is willing to offer. The maximum and minimum duration is fixed by number of time units. By default, the maximum number of time units that the lister can limit his bookings to is 30.

5.2.6 Management of availabilities and unavailabilities (calendar management)

There are four statuses for calendar availability:

- available
- unavailable
- booked
- unknown

The "unknown" and "available" statuses are displayed as availabilities to the public which means that by default the lister is always available if he does not declare an unavailability. The "unavailable" and "booked" statuses are displayed as unavailability to the public.

The unit of time chosen is the hour, the availabilities will be managed per hour.

5.2.6.1 Platform time unit

The time unit of the platform is hour.

5.2.6.2 Minimum time between a request and the booking start date

This value defines the minimum time between a booking request and the start of the requested service. This value is set for the entire application at 24 hours.

5.2.7 Location

This tool allows the lister to enter the address where the service is offered or where the listing is located. The fields that must be filled in are displayed in this order: Country, City, Postal Code, Street name and number. Only the fields “Country”, “City” and “Postal Code” are mandatory.

The lister is shown a map with a marker locating the address that he has filled in. The lister can then move the marker on the map to refine or modify the location. Changing the location of the cursor on the map causes a change of the address in the fields previously filled in. Once the address is set, the user must click on the button "Validate my address" to apply his address.

The platform can publicly display the exact address or an approximate address by means of an area drawn on the map. In the case that the platform is configured to show an approximate address, the lister is informed that the entered address is not publicly visible, and that only an approximate address will be displayed.

5.3 Listing edition
5.3.1 Price & Conditions

5.3.1.1 Discount management

Suppliers can create different discounts with different thresholds. The reduction is set by percentages. The supplier can create as many thresholds as necessary:

- N% reduction as of x time units ordered
- M% reduction as of y time units ordered
- ...

Percentages are set in integers.

5.3.1.2 Yield management

The yield management tool enables the lister to define a different unit price for each month, week, day, or hour (depending on the smallest unit of time of the platform).

If the service start time is encompassed in the price varying time period, the price variation applies (e.g. The varying time period starts at 4pm and ends at 6pm. If my service starts at 5pm, price variation is taken into account. However, if it starts at 3pm, price variation is not taken into account).

5.3.1.2.1 By time range

The definition of a different price by unit for a time range is available for the following durations:

- From date to date: for example from the 1st of January to the 1st of April a different price is applied for this date range.
- Weekly: for example, on Monday, Tuesday, Wednesday, in the previously defined date range, all units can carry a specific price.
- Hourly: for example from 9:00 to 12:00, from 13:00 to 18:00, for the dates and week days previously defined, these units can carry a specific price.

Setting a price for a time range replaces the previously set price on that same time range.

A unit of time that has passed or that has given rise to a booking cannot be changed.

It is possible to set prices per unit of time up to 6 months in advance.

5.3.1.3 Options and extras

The options creation tool allows the lister to set extras either per booked units, or as a fixed fee per booking. If allowed, it is also possible to add several units of each extra.

Extras are added as follows:

1. The lister clicks on "Add option" in the "Pricing & Conditions" page
2. He then sets the following information:
   i. Option title
   ii. Option description
   iii. Price, either:
      i. Per booking unit
      ii. Per booking
5.3.1.4 Management of quantities ordered

Each extra can then be edited or deleted, similarly to the creation process. The options are displayed either directly on the listing’s page, or on the payment details page.

Options and extras are not taken into account for discounts.

5.3.1.5 Temporal availabilities

Temporal (un)availabilities aim to define the moments (hour, day, week ...) where the service is available or unavailable. Different methods of defining availabilities are available.

5.3.1.5.1 By ranges

The definition of availabilities for a time range is available for the following durations:

- From date to date: for example from the 1st of January to the 1st of April a different availability is applied for this date range.
- Weekly: for example, on Monday, Tuesday, Wednesday, in the previously defined date range, all units can carry a specific availability.
- Hourly: for example from 9:00 to 12:00, from 13:00 to 18:00, for the dates and week days previously defined, these units can carry a specific availability.

Setting an availability range replaces the availabilities previously set on that same time range. A unit of time that has passed or that has given rise to a booking cannot be changed. It is possible to set availabilities up to 6 months in advance.

5.3.2 Activating / deactivating a listing

By default, listings are disabled. A minimum amount of information must be entered before a listing can be activated. The required information is: Title, description, location, at least 1 image and entry of a default price. The lister will be able to activate his listing only if this information has been entered.

The Lister may deactivate a listing at any time. The deactivation makes the listing invisible to the public (except to the lister), but all current actions concerning the listing are maintained (booking, discussion thread ...).
5.3.3 Archiving a listing

Listings cannot be deleted from the platform, this in order to keep the data related to them (discussion threads, invoices, bookings, statistics...). However, listings can be archived. The result of archiving a listing is that it becomes invisible to the lister (he no longer sees it in his dashboard) and more generally the listing no longer appears on the platform. However, all data relative to the listing remains accessible, such as discussion threads, invoices, payments... Furthermore the super administrator can still view the listing through the administration panel.
6 Search

6.1 Search criteria
The first search criterion is geolocation, which is mandatory. Other search criteria may be displayed, including:

- Geolocation (required)
- Categories
- Attributes
- Date
- Start and end time

The search engine is available on multiple pages of the platform.

6.1.1 Auto-geolocation
Up to 4 geolocation mechanisms can be successively launched in the following order:

1. If the user is logged in and he has entered his address in his profile then his address is pre-entered in the geolocation search field
2. In the case where the user is not logged in or if his address has not been entered in his profile, then an automatic geolocation is launched via the user’s browser (requires approval by the user).
3. In the case where the browser automatic geolocation is rejected by the user or in case of inactivity on the part of the user, geolocation by IP address is initiated (less precise)
4. In any case, the user will be able to modify or enter a location in the search engine, whether it is a city, a postal code, a neighborhood or a street as made possible through the Google Maps API.

6.2 Search results

6.2.1 Display of the map
A GoogleMaps map is displayed listing all the listing addresses around the place searched by the asker. This map is interactive, offering the possibility to update the search results by moving manually the marker on the map.

6.2.2 Display of listings
For each result, the first multimedia element of the listing is displayed along with the location, the title and the rating of the listing.

6.2.3 Display of prices
The price displayed for each result is the default price per unit.

6.2.4 Default Classification of Search Results

...
Platform recommendation seeks to provide the asker with the results that are most likely to lead to a transaction. Platform recommendation is managed by the Cocosearch engine which makes use of machine learning to maximize the transaction rate between the lister and the asker.

Cocosearch builds its results as follows:

1. **Geolocation**
   - Minimum number of desired results
     A global parameter of the application defines the minimum number of desired results to be returned for each search. This setting is set to 10 by default.
   - Selection of results
     In order to achieve the minimum number of desired results, a number of enlargements of the covered geographic area may be launched. The initial geographic area which is covered corresponds to a circle whose radius is equal in kilometers to the diagonal of the viewport which is the delimited zone selected by the Google Maps API for the sought location. If the desired number of results is not reached, this operation is extended to the next zone, the radius of which is equal to twice the previous radius. This operation is repeated until reaching a maximum distance of 2000km from the searched location if the desired number of results has not yet been reached.
   - Grouping of results
     The results obtained by the previous operation are then divided into groups and subgroups by distance. The groups and subgroups are formed as follows:
     - For results within one kilometer of the searched location: no subdivision is performed and no subgroup is formed
     - For results ranging between 1 and 10 kilometers from the searched location, and if the selection of the results has been extended to this distance, the results are divided into 4 equidistant subgroups
     - For results that are between 10 and 50 kilometers from the searched location, and if the selection of the results has been extended to this distance, the results are divided into 6 equidistant subgroups
     - For results that are more than 50 kilometers from the searched location, and if the selection of the results has been extended to this distance, the results are divided into 8 equidistant subgroups

   The search area is expanded until the minimum number of results defined for the platform are reached (for example 10 results).

2. **Temporal availability**
   When searching by date, each of the 1 to 19 search result groups mentioned above are again divided into two subgroups:
   - **Proven availability**
     Listings with confirmed availability dates matching the dates of the search are displayed first.
3. Sorting results within groups by the platform score

A score is assigned to each listing in order to sort the results within a group of results. The scoring is calculated as follows:

- Rating by the platform administrator (weight 5)
  This rating is given by the administrator in a free and subjective manner. The rating given by the administrator ranges from 0 to 10 with 0.5 point increments.

- Listing completion rate (weight 4)
  Listing completion takes into account the amount of information provided by the lister about the listing: is at least one attribute selected? Does the description contain more than 250 characters? Does it have more images than the minimum required?

- Profile completion rate (weight 3)
  Profile completion takes into account the amount of information that the lister has completed about himself: does his presentation text contain more than 250 characters? Has he added more images to his profile than the minimum required?

- Reviews received (weight 5)
  Reviews received by listers are taken into account primarily to remove poorly performing suppliers rather than to promote good suppliers in the search results. The approach is that a good performance is the minimum expected from a lister, whereas a bad performance must be heavily penalized. We take into account the average score of the lister, which is averaged by the total number of ratings received.

- Calendar update (weight 4)
  The fact that the calendar has been updated recently provides greater certainty as to the reliability of the availability of the listing. The more recently the calendar has been updated, the better the score.

- Number of bookings in the last 30 days (weight 4)
  A high rate of provision of services in the last 30 days suggests willingness from the lister to accept booking requests. A positive rating is attributed based on the number of bookings paid and not canceled in the last 30 days.

- Message response rate: (weight 4)
  To calculate the response rate, we calculate the number of messages sent by the lister divided by the total number of messages in his inbox.

- Acceptance rate (weight 4)
  The acceptance rate of the lister is the percentage of requests that he has accepted, regardless of the outcome of the booking.

- Number of successful transactions (weight 4)
  The number of successful transactions is calculated on the basis of the number of wire transfers that have been authorized in relation to the total number of bookings that have been accepted.

- Response time (weight 4)
  Taking into account response times allows us to favor the most responsive listers.
The response time is calculated on a thread by thread basis based on the time between the last message received and the response given. If no answer has been given, no time is not taken into account. The shorter the response time the higher the attributed score.

- Certification (weight 4)
  Each listing may be "certified" by the administrator. Being certified improves the position of the listing in the search results.

- Newcomer bonus (weight 3)
  In order to identify new high performing suppliers, and in order to give them a chance, a newcomer bonus is awarded to listings submitted in the last 30 days.

- Random bonus (weight 2)
  In order to prevent search results crystallization, and in order to give a second chance to unsuccessful listers, a random bonus is awarded to 5% of the platform’s listings. This bonus is reallocated every day. The bonus is awarded at random. A listing with a random bonus is randomly assigned a rating of 1 to 5.

In the case where two results have the same score, their order is determined by distance to the searched location.

Rendering of the default classification is done once a day.
7 Favorite listings

7.1 Add to “Favorites”
A user can add a listing to his/her “favorites” directly from the search results. To do so, the user clicks on a dedicated CTA button available in each listing bloc. A user can delete a listing from the “favorites” list by clicking on the dedicated CTA button.

Favorites are stored in a client-side cookie, making it possible to use the favorites tool as an unlogged user. The disadvantage of this approach is that it is therefore possible to “lose” your favorites for example when you delete your cookies.

7.2 Display “Favorites”
Users’ “favorite listings” are available through a link at the top all the pages. This link allows users to view the listings that they have previously added to their favorites.

Favorites are displayed similarly to the search results.
8 Public display of listing
A listing’s public display is accessible by entering the detailed listing:

- Newest listings displayed on the homepage
- Search results
- “My listings” tab available in the lister dashboard
- “My bookings” tab available in the user dashboard
- “My messages” tab available in the user dashboard
- “Rating and comments” tab available in the user dashboard

The public display of a listing is built as described below.

8.1 General presentation
The listing title is displayed as well as various social media “Share” links, such as Facebook, Twitter or Pinterest. The rating also appears as well as the possibility to add the listing to the favorites list.

8.2 Media
A media gallery (images, videos and documents) allows users to view the listing’s multimedia elements.

8.3 Booking panel

8.4 Description
Displays the "Introduction" text.

8.5 Attributes
Allows you to view the listing’s attributes. The attributes are organized in groups as defined by the administrator via the Superadministrator’s Control Panel.

8.6 Categories
Allows you to view the listing’s categories (and sub-levels). The categories are organized as defined by the administrator via the Superadministrator’s Control Panel.

8.7 Options & extras
Allows you to view the options and extras offered in the listing as well as the terms and conditions. The options and extras are managed by the lister.
8.8 Cancelation policy
A block displays the cancellation policy made available by the lister for this listing.

8.9 Rules
Displays the "Rules" text.

8.10 Lister block
The lister block displays:

- His first name (containing a link to his profile)
- His rating
- His address (geographical area)
- "Contact" button
- Seniority on the platform
- If his phone number has been verified
- If his email has been verified
- If his ID has been verified
- Number of services performed

8.10.1 Contact button
The contact button is used to send a message to the lister. It is available only for logged-in users. In the event that a user is not logged in when he clicks on the button, he is redirected to the login / account creation page after which he returns to the original listing. When the user is connected and clicks on the "Contact" button, a field appears allowing him to enter his message.

8.11 Location (map)
Depending on the selected settings of the platform, the displayed location can correspond to an approximate area indicated by a circle on the map or to a specific point. The default map zoom scale is set to the “district” level.

8.12 Availabilities (calendar)
A calendar allows users to know the availability of the service. Availabilities may be displayed monthly, weekly or daily. A color code indicates the availability for each date. Additionally the price is displayed for each individual date.

8.13 Ratings and Comments
The ratings and comments allow askers to get an idea of the quality of the service offered. The ratings are displayed in chronological order with the most recent rating at the top of the list. Are displayed:

- The first name of the asker who left his rating
- The date and time (GMT) of the rating
- The comment added by the asker
- The number of stars given by the applicant
8.14 Similar listings

This area of the page shows 9 similar listings to the one which is being viewed. The listings correspond to the first 9 other search results in the previous search results page.
9 Booking process

9.1 Making a booking request

9.1.1 Booking request page

On the listing page, the asker enters all the information required to complete a booking request (date, start time, options…) before being redirected to the booking page. If he has not already done so, he creates an account or identifies himself.

The booking request page displays the booking request summary:

- Requested service date
- Requested service start and end time
- Time zone
- Total duration
- Listing location
- Total price excluding asker commissions
- Asker commission

The asker can also send a message (optional) to the lister. To move on to the payment phase, the asker must first accept the platform’s GTC and click on “Continue”. The asker can also modify his booking request at this step by clicking on “Edit”.

9.1.2 Payment page

Once the GTC accepted on the booking request page, the asker is redirected to the payment page. The asker then enters his payment card information without any money being debited. In order to reduce fraud, a “3D Secure” operation is launched following each payment (usually consisting of sending SMS to validate the cardholder identity).

9.1.2.1 Payment

The payment, refund, and transfer processes described in this document are conditional upon the use of the Stripe payment service provider. Any other compatible payment system can be set up at the request of the customer. The use of another payment provider will require that other processes be implemented on the site, which may incur additional costs.

It is the customer’s responsibility to validate with the payment service provider that the provided services and the contractual conditions correspond to his needs.

Card numbers are never stored by the platform.

9.1.3 Payment confirmation page

Following the payment, a payment confirmation page is displayed indicating the booking request has been successfully processed. The user is then redirected to the booking details available in the “My bookings” tab.

9.2 Answering to a booking request

The lister has a limited time to answer to a booking request.
9.2.1 Booking approval

If the request is accepted, the payment card is submitted to the payment service provider to be debited. Once the payment is approved by the PSP, the booking information are displayed on the "Booking" page to both parties.

When accepting a reservation, a pop-up window appears with two checkboxes. The first indicates that in the event of selection, the lister chooses to leave this availability open for reservation. Thus, the lister will continue to receive reservation requests for this schedule as long as it is not made unavailable. The second indicates that in the event of selection, the lister makes this schedule unavailable. Only one checkbox can be selected from the two proposed.

9.2.2 Booking refusal

9.2.2.1 Lister

When a lister declines a booking request, the card isn't debited and the asker is informed by email.

9.2.2.2 Bank (payment error)

When the bank refuses the transaction, the lister and the asker are informed by email and the request is rejected for cause of a payment error. In this case, the request is considered as a refusal, and the asker must make a new booking request to be able to pay again.

9.2.3 Booking expiration

The expiration time for a booking request is $X$ units of time. If the lister does not accept or refuse the booking request within this period, the booking status automatically changes to "expired".

The expiration time is related to the lister's acceptance period. The lister's acceptance period is set at $Y$ units of time.

If a booking request is made more than $X + Y$ time units before the start of the requested booking, the expiration time will be $X$ units of time.

If the booking request is made less than $X + Y$ units of time before the start of the requested booking, the expiration is triggered $Y$ units of time before the booking start.

9.2.4 Booking cancellation

When submitting a listing, the lister can choose between two cancellation modes: "strict" cancellations or "relax" cancellations. Only askers can cancel bookings.

9.2.4.1 "Strict" cancellations

In the case of a strict cancellation procedure and depending on the notice period of the cancellation, either a "partial refund" or "no refund" will be applied. The notice period is set in time units of the platform and is common to all the listings. Specifically, if the notice is long enough, the asker will be partially refunded, otherwise no amount will be refunded. The cancellation rule is as follows:

- If cancellation $< X$ days, then 0% is refunded
- If cancellation $> X$ days, then $Y$% are refunded

9.2.4.2 "Relax" cancellations

In the event of a cancellation, the asker may be refunded in full or in part. The notice period is set in time units of the platform and is common to all listings. As a result, if the notice period is long...
9.2.4.3 Refund rules for asker cancellations

9.2.4.3.1 Partial refund to the asker

9.2.4.3.2 Total refund to the asker

9.2.4.3.3 No refund to the asker

9.2.4.3.4 Refund mechanisms

9.3 Booking ended

9.4 Wire transfers (rules)

9.4.1 Asker

9.4.1.1 Cancellation
9.4.2 Listers

9.4.2.1 Booking

Transfers to suppliers are initiated X days after the start of the service, in order to allow askers to make a claim about the provided service. Transfers to listers are initiated manually by the platform administrator.

9.4.2.2 Cancellation

The lister can receive a transfer in the event of a cancellation, in this case the asker does not receive a full refund.

9.5 Ratings and comments (process)

Three elements carry a rating: the asker, the lister and the listing. Each time a service is completed, the asker and the lister are invited to rate each other. They choose an integer value between 0 and 5 to signify the rating they give in addition to leaving a written comment. The asker issues a rating regarding the lister’s listing, while the lister issues a rating directly regarding the asker. Thus, the lister is not directly rated by the asker, the rating he is assigned is the average rating of his listings. This average is rounded to the nearest integer when shown.

9.5.1 Listing rating

Obtained through the average rating made by askers having made a booking of the listing.

9.5.2 Lister rating

Obtained through the average rating of the lister’s listings.

9.5.3 Asker rating

Obtained through the average rating made by listers that were booked by this asker.

9.5.4 Process

Each user receives an email inviting him to rate the other user at the end of the booking. This email contains a direct link to the page allowing to leave his rating. Independently, when a user opens the "Ratings and comments" tab, a reminder with a link invites him to add his rating if he hasn’t already done so with a "Add your rating" link.

By clicking on this link the user is presented with a page containing the following elements:

- Profile photo of the user
- Listing title
- First name of the user being rated
- Star rating tool (user clicks on a star from the 1st to the 5th to set a rating)
- A field to add a comment to the rating
- A "Save" button and a "Cancel" button
10 User dashboard
The user dashboard gathers the management and monitoring tools available to the user, giving him an overview of his actions as a lister and as an asker. It is divided into 7 items:

- General
- Messages
- Bookings
- Listings
- Payments
- Ratings
- Profile

10.1 Inbox (discussion thread)
Each written exchange between an asker and a lister creates a discussion thread. A thread allows both parties to view current and previous messages that were exchanged in a single page. There are 2 types of threads, a thread linked to a booking and a thread independent of a booking (generated through the “Contact” button of the listing page).

10.1.1 Threads linked to a booking
A discussion thread is created for each booking request. The lister can directly accept a request without any discussion or discuss with the asker to decide whether to accept or reject the request.

10.1.2 Independent threads
An independent thread is created when a message is sent through the contact form of a listing. It does not lead directly to a booking because the asker has not yet entered the required information (start date, duration...). A “Make a booking request” is displayed at the top of the thread, redirecting the user to the listing page.

10.2 My bookings
Allows users to view and manage upcoming and past bookings. It is also from here that a lister and an asker can accept, refuse or cancel a booking according to the choices offered to them. The possible statuses for bookings are:

- Accepted
  Indicates that the lister has accepted the request and that the booking has been paid. A voucher is generated in the form of an html page, providing a summary of the booking: booking number, family name and first name of the asker, address, telephone, date, duration, title of the listing and description.
- Refused
  Indicates that the lister has refused the request.
- Expired
  Indicates that the lister has not responded on time and that the request has expired.
- New
  Indicates that the request is new and has not yet been processed (nor accepted, nor declined, nor expired). No payment has yet been made.
- Cancelled
10.3 My listings
This section enables users to view each listing and access its update. The update of listings is described in the chapter "Creating and updating a listing".

10.4 My payments

- Indicates that the booking has been canceled.
- Ongoing dispute indicates that the booking is under mediation following a dispute.
- Payment error indicates that there has been an error with the payment.

This section enables users to view payments made, wire transfers received and to retrieve invoices.

- For the asker:
  - Payments made:
    - Transaction number
    - Booking number
    - Payment date
    - Payment type (booking or refund)
    - Amount paid
    - Commission charged by the platform
    - Bill (link to download the invoice)
- For the lister:
  - Transaction number
  - Booking number
  - Date of wire transfer (empty if the transfer has not yet been made)
  - Payment type (booking or refund)
  - Amount transferred
  - Status
  - Bill (only if the transfer is complete)

The platform issues an invoice only for the part of the commissions it receives. The amount escrowed and paid on to the lister is not invoiced by the platform, it belongs to the lister to issue an invoice directly to the asker for the sums he has collected. Therefore, if the lister or asker commission is set at 0%, then the platform does not issue an invoice to the users that have paid no commission.

The invoice is issued in the form of an html page containing the following information:

- Invoice number
- User first and last name
- User address
- Wire transfer date (if applicable)
- Booking date
- Booking duration
- Commissions received by the platform (Price excluding VAT, VAT, VAT included)
- Booking summary
10.5 Ratings and comments

10.5.1 List view
The Ratings and Comments area allows you to view the comments received, the comments made and the comments that remain to be sent.

Comments are organized through two tabs, one showing ratings received and the other ratings made.

Each rating displays the following information:

- Booking number
- User who rated or was rated
- Date of the rating
- Rating (shown as a number of stars)
- Comment (text)
- Profile photo of the concerned user

10.5.1.1 Add a comment
A user can leave a rating and a comment from here (see chapter “Ratings and comments (process)”).

10.5.2 My profile
The "My Profile" area consists of 4 tabs ("Presentation", "Identity", "Payment information", "Parameters", see chapter “Profiles edition”).
11 Superadministrator Control Panel

11.1 Platform KPIs

- Business Volume
  Total amount collected through the platform (including commissions)
- Listings published
  Number of published listings
- Listings average price
  Average default price of listings on the platform
- Users
  Total number of users (both listers and askers)
- Bookings average duration
  Average number of time units ordered for each booking
- Bookings
  Total amount of booking requests made through the platform (irrespective of their outcome)
- Bookings approved
  Total number of bookings approved by listers
- Bookings declined
  Total number of bookings declined by listers
- Bookings expired
  Total number of bookings expired as a result of inaction by listers
- Bookings cancelled
  Total number of bookings cancelled by askers
- Bookings new
  Total number of bookings that have yet to be accepted, declined or expire
- Percentage of listers
  Percentage of users who have published at least one listing
- Top listers with expired bookings
  Lists the 10 listers that have had the most expired bookings
- Top listers with declined bookings
  Lists the 10 listers that have declined the most bookings
- Top listers with approved bookings
  Lists the 10 listers that have approved the most bookings
- Top 10 most searched places
  List of the 10 places that have been most searched on the platform
- Top 10 most searched categories
  List of the 10 categories that have been most searched on the platform

11.2 Platform configuration

11.2.1 Header links management

Allows you to add, delete, modify links in the platform’s header.
11.2.1.1  
Link display
Links are displayed in a list. The available information is:
- Link title
- Action (edit, delete)

11.2.1.2  
Link creation / edition
Header links are managed through the following fields:
- Link title
- URL type:
  - Internal page
    - List of the pages to which redirect
  - External page
    - Field to enter the external URL to which redirect

11.2.2  
Footer links management
Allows you to add, delete, modify links in the platform’s footer.

11.2.2.1  
Link display
Links are displayed in a list. The available information is:
- Link group title
- Link title
- Action (edit, delete)

11.2.2.2  
Link creation / edition
Footer links are managed through the following fields:
- Link group (under which to be displayed) choice
- Link title
- URL type:
  - Internal page
    - List of the pages to which redirect
  - External page
    - Field to enter the external URL to which redirect

11.2.3  
Page Content Management
The platform can host multiple institutional content pages such as a FAQ, Who are we, Legal terms... This section enables the Superadministrator to add, edit and delete these content pages.

Content edition is done through an HTML WYSIWYG editor (Tiny MCE).

11.2.3.1  
Interface
Pages are displayed as a list in a table. The presented columns are:
- Page ID
- Title
- Description
- Published (yes / no)
11.2.3.2  Creating and editing a page
Pages are managed through the following fields:

- Page title
- Page content edition through an HTML WYSIWYG editor (Tiny MCE)
- Meta Title
- Meta Description
- Slug (page URL)
- Publication status (published / not published)

11.2.3.3  Page search engine
Allows the administrator to perform searches for pages using the following fields:

- Page title
- Description
- Publication status (published or not)
- Creation date

11.2.4  Language Management
The platform can be offered in several languages. The encoding used is UTF-8, making the site compatible with multiple types of characters sets (Arabic, Chinese, Thai ...). This proposal includes setting up the platform in 2 languages in Latin characters. The features and technologies to add and manage additional languages are natively embedded in the platform for future use.

11.2.5  Text and Translations management
Allows the administrator to modify all the texts and their translations which are not editable / translatable elsewhere on Administration Control Panel. Through this tool, all the texts of the platform (including emails) are editable and translatable (if applicable).

The texts of the platform are presented as groups of text (grouped by coding concepts) and displayed under 3 columns:

- Text ID
- Editable text (field containing the content you can edit)
- Path in the source code where the text is called

A language selector lets you choose the language in which you want to make changes.

11.2.5.1  Translation of user generated content (if multilanguage)
User generated content (Listing title, description, user presentation) can be automatically translated to the other languages of the platform by the use of the automatic translation service offered by Microsoft Bing. Users can either manually enter a translation in several languages or can click on the button "translate automatically" for the translation to be handled by the translation service. Without action on the user’s behalf automatic translation is automatically applied.
11.2.5.2 Geolocation (if multilanguage)
When a listing is registered, structured information about its geolocation is stored in order to be used for searching purposes and in order to display the breadcrumbs. This information is automatically translated into the different languages of the platform, however, in case a language is added at a later stage, a translation must be manually launched for the pre-existing content.

11.3 “Contact” form messages management
Allows the administrator to find all the messages sent via the general contact form on the publicly accessible “Contact” page. These messages are also cc’d to the administrator’s e-mail address.

11.3.1 Interface
Users are displayed as a list in a table. The presented columns are:
- Message ID
- Status
- First name
- Last name
- Email
- Phone
- Subject
- Creation date
- Link to view the full message

11.3.2 Message search engine
Allows the administrator to perform message searches using the following fields:
- Status
- First name
- Last name
- Email
- Phone
- Subject
- Creation date

11.4 Data moderation and management
11.4.1 Listing management
11.4.1.1 Interface
11.4.1.2 Export

Exports of the following fields are possible as Json, XML, CSV and XLS:

- Listing ID
- Status of each listing (New, Published, Invalidated, Hidden, Deleted, Needs approval)
- Lister first and last name
- Lister email address
- Lister phone number
- Listing title
- Default price
- Listing average user rating
- Last update date

11.4.1.3 Listing search engine

Allows the administrator to perform listing searches using the following fields:

- Lister first and last name
- Lister email address
- Lister phone number
- Listing category
- Listing status
- Creation date
- Update date
- Min price
- Max price
- City
- Country

11.4.1.4 Updating a listing

The following information of a listing is editable through the Administration Control Panel:

- Status of each listing (New, Published, Invalidated, Hidden, Deleted, Needs approval)
- Listing title
- Listing description
- Rules
- Images
- Listing certification

Here the administrator can also give a subjective rating for the listing that will be used for its classification in the search results.

11.4.2 Managing categories

Allows the administrator to create, edit, or delete categories and subcategories.

A category is made up of the following information:

- Name
- Parent category
11.4.3 Managing attributes

11.4.3.1 Attributes

Allows you to add, modify or delete attributes of type yes / no. A attribute is composed of the following information:

- Name
- Description
- Position (Position in the list of attributes of the same group, defined by entering a numerical value)
- Attributes group (Allows to define to which group of attributes this attribute belongs)

In the case where the platform is multilingual, it belongs to the administrator to enter the translation for each attribute.

11.4.3.2 Attribute groups

Allows you to add, modify or delete attribute groups. The attributes groups are used to group the attributes into themes. A group consists of a name and a position.

A group of attributes consists of the following information:

- Name
- Position (position of the group of attributes relative to the other groups, defined by entering a numerical value)

11.4.4 Booking management

11.4.4.1 Interface

Booking are displayed as a list in a table. The columns presented are:

- Booking ID
- Listing ID
- Booking status
- Validation state of the booking
- Asker first and last name
- Lister first and last name
- Listing title
- Amount to pay / paid by the asker
- Booking start date
- Booking end date
- Booking start time
- Booking end time
- Booking expiration date

11.4.4.2 Export

Exports of the following fields are possible as Json, XML, CSV and XLS:

- Booking ID
11.4.3 Bookings search engine

11.4.5 Transaction & bank transfer management

11.4.5.1 Interface

11.4.5.2 Export
11.4.5.3 Bank transfer search engine

11.4.6 Ratings management

11.4.6.1 Interface

11.4.6.2 Export

11.4.6.3 Ratings search engine
11.4.7 User management

11.4.7.1 Interface

Users are displayed as a list in a table. The presented columns are:
- User ID
- PSP User ID
- First and last name
- Activation status (yes/no)
- Locked (yes/no)
- Commission rate as an asker (editable)
- Commission rate as a lister (editable)
- Listings (shows the first 5 listings of this user)
- Account creation date
- Link to the complete list of this user's listings

11.4.7.2 Export

Exports of the following fields are possible as Json, XML, CSV and XLS:
- User ID
- First name
- Last name
- Email
- Activation status
- Locked
- Account creation date
- PSP User ID

11.4.7.3 User search engine

Allows the administrator to perform user searches using the following fields:
- User ID
- First and last name
- Locked (oui/non)
- Email

11.4.7.4 Personification

This tool allows the administrator to log into the account of any user without using the user's password, as if he had logged in via his account. The operation to do this is as follows:
- In the front office, log in with the administrator credentials.
- From the Control Panel, on the "Users" page, click on the "Personification" icon of the user account to which you want to connect to.
11.4.8 Messages management

11.4.8.1 Interface

- Message ID
- Message type
- Booking ID
- Listing title
- From
- To
- Date
- Thread (gives access to the entire thread)
- View (enables admin to view the full message)

11.4.8.2 Export

Exports of the following fields are possible as Json, XML, CSV and XLS:

- Message ID
- Booking ID
- Listing title
- From
- To
- Date

11.4.8.3 Messages search engine

Allows the administrator to perform message searches using the following fields:

- Message type
- From
- To
- Date
- Keyword search
12 Listing, booking and user unique identifiers (UID)

Sequential numbering of UIDs of users, bookings and listings makes it possible to reverse engineer critical and strategic information about a platform. In order to prevent unwanted analysis of the platform data, the UIDs of these elements are generated randomly in a numeric range from 10,000 to 2,147,483,640.
13 Transactional emails

Transactional emails are sent to users at different moments of their usage of the marketplace. We provide a canvas of pre-existing mails. You can modify the texts and translate them via your back office. The emails consist of texts and variables.

13.1 Variables available in the transactional emails

[Time_unit]: time unit, eg "time" or "day"

[Sitename]: Corresponds to the site name (and not necessarily to the domain name)

[Company_name]: Official name of the Company as it appears in the Commercial Register

[Company_phone]: company telephone number

[Full_company_address]: Company postal address

[Firstname]: first name of user

[Asker_firstname]: name of the asker

[Asker_lastname_1stletter]: 1st letter of asker's name

[Asker_lastname]: last name of the asker

[Lister_firstname]: first name of the lister

[Lister_lastname_1stletter]: 1st letter of the lister's last name

[Lister_lastname]: last name of the lister

[Listing_calendar_edit_url]: link to the calendar management page

[Listing_title]: title of the listing as defined by the lister

[Listing_public_url]: Public URL of the listing

[Default_booking_expiry_length]: default duration before expiration of booking

[Booking_start_date]: booking start date

[Booking_end_date]: booking end date

[Booking_duration]: duration of the booking

[Booking_minus_fees]: booking amount minus the platform fees (commission)

[Booking_total_amount]: total amount paid for the booking

[Booking_uid]: unique identifier of the booking

[Booking_url]: link to the booking page that contains the discussion thread

[Lister_wiretransfer_date]: date at which the wire transfer will be executed

[Profile_payment_info_url]: link to the page where the user enters his bank details
[Booking_request_expiry_date]: day / time at which the booking request expires
[Lister_to_asker_review_url]: link to the page to rate the asker
[Asker_to_lister_review_url]: link to the page to rate the lister
[My_listings_url]: link to the page "My Listings"
[Thread_url]: link to the discussion thread
[Lister_payments_list]: link to the "My Payments" page in the lister dashboard
[Lister_booking_acceptation_message]: displays the message written by the lister when accepting or refusing a booking request
[Asker_booking_acceptation_message]: displays the message written by the asker when making a booking request
[Similar_booking_listings_url]: link to search results for same city as the listing being discussed
[Cancellation_policy_title]: title of the refund rule
[Cancellation_policy_description]: description of the refund rule
[Asker_cancellation_amount]: amount to be paid to the asker following a cancellation
[Lister_cancellation_amount]: amount to be paid to the lister following a cancellation
[Bo_my_payments]: link to the “My Payments” page

13.2 Transactional emails list
All mails contain a signature at the end of the message.

13.2.1 Emails sent to all users
The following emails are sent to all users:
- Account creation
- Password recovery
- New message

13.3 Emails sent to the lister
The following emails are sent to listers:
- Listing activated
- Booking request
- Booking request approved and payment successful
- Payment error
- Booking request declined
- Expiration alert
- Booking request expired
- Lister rates asker
- Asker cancellation
- Imminent booking start
- Wire transfer
- Calendar update

13.4 Emails sent to the asker

The following emails are sent to askers:

- Booking request
- Booking request approved and payment successful
- Payment error
- Booking request declined
- Booking request expired
- Asker rates lister
- Asker cancellation
14 Technologies and techniques

14.1 PHP7 with Symfony
The platform is built in PHP7 using Symfony.

14.2 Cocorico
The technology for the platform is Cocorico. You can view the open source version of this technology here: https://github.com/Cocolabs-SAS/cocorico

A demo of Cocorico is available here: http://demo.cocorico.io

14.3 Translations API
The API used for the translations is MS Azure. The customer must directly subscribe to this service and provide Cocolabs with the necessary credentials.

14.4 Geolocation and Mapping APIs
The geolocation and mapping APIs that are used are:
- Maps JavaScript API
- Geocoding API
- Distance Matrix API
- Places API

The customer must directly subscribe to these services and provide Cocolabs with the necessary credentials.

14.4.1 Reverse geocoding
The purpose of reverse geocoding is to determine and then store address information of each listing in a structured manner. For example, the address "3 Canaan Drive Linwood North Carolina" returns the following location structure:
- Street: Canaan Drive
- Post code: 27299
- City: Linwood
- First-level subdivision: Davidson County
- Second-level subdivision: North Carolina
- Country: United States

The information obtained through the reverse geolocation is namely used to create a breadcrumb trail which is shown in the search results page and on the listing pages. This information is created for each language of the platform at the moment when a listing is registered (“United States” in French becomes “Etats-Unis”).

14.5 Other APIs
In the case where a payment gateway is used, the corresponding API will be used. Additionally, the following APIs may be required to operate the platform:
- Youtube API
- Ipinfodb API
The customer must directly subscribe to these services and provide Cocolabs with the necessary credentials.

14.6 Browser compatibility
The platform will be compatible with the desktop versions of the following browsers for versions released over the previous 24 months:

- Chrome
- Firefox
- Microsoft Edge
- Safari

However, SuperAdministration compatibility is only ensured for the Chrome browser for versions released 2 years prior to the contract date.

14.7 Technical requirements
The technical requirements of the application can be found here:

- Server requirements:
- Installation requirements:
  https://github.com/Cocolabs-SAS/cocorico/blob/master/doc/installation-application.md