**Use case ASP-UC2: Orders Dispatching**

**Primary actor:** Dispatcher

**Supporting actor:** Email Services, Printing System, Drone Services, Itinerary File Uploading System.

**Description:**

Dispatcher will be using the Air Supply-Pilot (AS-P) Dispatching System to dispatch the orders that have been packed by the warehouse personnel. After the orders are loaded to the drone, the system’s route planning service will generate a route for the drone to deliver the orders. Right after the dispatch session has finished, the system will notify the clinic managers with their order’s shipping label. In addition, all information regarding the dispatched orders will be recorded by the system.

**Stakeholders and Interests:**

* *Dispatchers*: Wants an easy to use and smart dispatching system. The more effective the system, the faster the dispatching process would be.
* *Clinic Managers (orderer)*: Wants the order to be delivered according to the priority of order they specified. Wants to view the current status of order. Wants to be notified regarding the orders detail. A faster delivery process is always preferable.
* *Health Authority*: Wants an accurate detailed information of the dispatched orders.
* *Supplying Hospital*: Wants the order to be dispatched safely and accurately to the clinic managers (orderer).

**Preconditions:**

* Dispatcher’s identity has been authorized.
* At least 1 order exists in the dispatch queue.
* There is at least one drone that is available to be deployed.

**Success Guarantee (Postconditions):**

* Orders’ status that have been dispatched changed to *Dispatched.*
* Dispatched orders are removed from dispatch queue.
* Clinic managers related to the dispatched orders receives a shipping confirmation.
* All the dispatched orders’ detailed information are recorded in the system.

**Main Success Scenario:**

1. System provides a list of orders to be dispatched on the available drone from the dispatch queue.
2. Dispatcher starts a new dispatching session by opening that list of orders.
3. The system’s route planning service will prepare the itinerary file of these orders.
4. Dispatcher loads one order from the list of orders to the drone and tick the *Loaded* status.

*Dispatcher repeats steps 4 until all orders in the list are loaded to the drone*

1. Dispatcher downloads the itinerary file from the system.
2. The dispatcher uploads the itinerary file to the drone and the drone starts the delivery run.
3. Dispatcher closes the dispatching session successfully.
4. The system updates the order(s) status to be *Dispatched* and remove them from the dispatch queue.
5. The system will send each order’s shipping confirmation to the Clinic Managers’ email to inform their orders have been dispatched.
6. The system will log all the dispatched orders information.

**Extensions:**

**4a.** Dispatcher stops the dispatching session

1. System will record the orders that have been previously loaded
2. Dispatcher can resume the dispatching session by opening the same list of orders provided by the system.

*Rejoin normal flow at step 4*

**Frequency of Occurrence:** As frequent as every time there is a drone available and there exists order(s) in the dispatch queue. So, it depends on the frequency of incoming orders and the number of operating drones.

**Business Rules:**

**Special Requirements:**

* Mass email sent to the clinic managers should not go to the spam folder.
* The drone should begin delivery run as soon as the dispatcher has loaded all the orders and uploaded the itinerary file.

**Technology and Data Variations List:**

3a. The itinerary file must be in CSV format.

7a. The itinerary file will be uploaded to the drone manually by the dispatcher.

**Assumptions:**

1. There is no race condition in the dispatching process.
2. All orders are in good condition and neatly packed inside a light-weight container.

**Notes and Open Issues:**

* Most effective way for the dispatcher uploads the itinerary file to the drone?
* How much flexibility in modifying the dispatching queue should be given to the dispatcher?