

Intelligent Real-time Medicine Inventory Management Solution

CONTEXT

Medicell Pharmaceutical is one of the leading pharmaceutical marketing and distributing company in Asia with well-established networks in Singapore, Malaysia, Indonesia, Thailand, Vietnam, Brunei and Philippines. Founded more than a decade ago by a group of experienced pharmaceutical experts, Medicell has been steadily growing in the field of aesthetics, pharmaceuticals, medical devices and nutritional. It has developed strong ties with medical institutions, private clinics and doctors in Singapore, Malaysia, Indonesia and Thailand. Currently, Medicell is supplying medicine to all the major hospitals in Singapore such as Singapore General Hospital, Tan Tock Seng Hospital and National University Hospital and group practices such as Parkway Shenton, Access Medical Group and Fullerton Medical Group.

In Singapore and regional markets today, the vast majority of drug dispensary comprises individual clinics and pharmacies that carry and administer their own drugs. As a result, 8 in 10 clinics have their own drugs inventory so that they can administer to consumers on-site. These clinics' dispensaries are not able to optimise their inventory management if they are not properly managed, for example, having to over-stock drugs that can go to waste when expired or ran out of the drugs when they have forgotten to place orders for it.

Hence, Medicell is looking to build a centralised inventory ecosystem that can optimise medicine demand and supply and manage wastage intelligently. The drug inventory will be held centrally at Medicell storage facility. Dispensaries do not need to hold any drug inventory on site, giving them the ability to buy medicines at lower prices, reduce drug wastage and cost of healthcare overall.

PROBLEM STATEMENT

How might we develop an centralised inventory solution that provides real-time intelligence to optimise the demand and supply for medicinal drugs and reduce the wastage and cost inefficiencies for dispensaries?

WHAT ARE WE LOOKING FOR

- Prototype solution that could be tested in the Singapore market for functionality, utility and desirability.
- Solution with multiple types of technology to establish the medicine inventory management solution
- Designed to be scalable (can be rolled out to larger healthcare system in Singapore, and potentially in other APAC markets where Medicell is present).

There are no restrictions on the geographic location of the problem solvers who may choose to apply to this challenge, However, the prototype needs to be demonstrated in Singapore.

POSSIBLE USE CASE

Currently, a patient will have to obtain his medication from a doctor. He/She visits a clinic at a convenient location, waits in queue, sees the doctor and is prescribed with the medication which he/she collects from the clinic's dispensary.

If the patient goes to see a specialist at a government hospital, the specialist orders the medication for him/her through an in-house order system and that instruction goes into pharmacy department which prepares the medicine for the patient. He/She will then go to the pharmacy and get the medication.

With an Intelligent Real-time Medicine Inventory Solution, the clinic and hospital pharmacy will not hold any stocks of the medication. Both the doctor at the GP clinic and the specialist at the hospital will see the patient, enter in the prescription and order the medication through the system. The medication will be prepared at Medicell's central storage facility and be sent to patient's home or office on the same day. If the patient requires the same medication in the future, he/she does not need to make a trip to the clinic or hospital. He/She can just simply order it directly through the system with the doctor's prescription.

WHAT'S IN IT FOR YOU

- **SGD 30,000** of prize money for each winner of this challenge (see Award Model)
- Opportunity to test, demonstrate and validate solution in partnership with Medicell in Singapore, with the goal to apply to the broader healthcare landscape in Singapore and in APAC

AWARD MODEL

30% of the prize money will be awarded to each selected finalist at the start of the prototype development process, with the remainder 70% to be awarded during the prototype development process, based on milestones agreed between Medicell and the solver.

Note that a finalist who is selected to undertake the prototype development process will be required to enter into an agreement with Medicell that will include more detailed conditions pertaining to the prototype development.

DEADLINE

All submissions must be made by **28th February 2019, 1700 hours (SGT/GMT +8)**. Medicell and IMDA may extend the deadline of the submission at their discretion. Late submissions will not be considered.