**Notifications Sender to handle several notifications channels**

**Context and Problem Statement**

The "Hey Blue" system should allow sending notifications to Registered users after a user tries to connect to them, after receiving the reward Points, after they have redeemed the points.

The system should support ability to send messages via various communications channels, e.g. SMS, push notifications, emails, recorded messages, etc.

**Requirements**

* Support for push message, email, and/or SMS notifications to registered users, some immediate and some deferred and future possible channels and integrations

**Business Assumptions**

Several communication channels to communicate with users should be supported.

**Decision drivers**

* Several communication channels should be supported by the notifications service as plugins.
* New media channels addition should be supported as simply as possible by developing new model and implementation of certain interfaces.

**Considered options**

* Have the Notifications Sender engine be a microservice that communicates with other microservices dedicated to sending messages down specific channels.
* Make notifications Sender a microkernel service that supports communication capability plugins.

**Decision**

Make notifications Sender a microkernel service that supports communication capability plugins.

**Reasons:**

* Easy to react to change in plugin models while minimizing changes to the core system.
* Easy to deploy specific models rather than the whole system.
* Easy to test specific model as a component in isolation.

**Architectural style**

**Microkernel**.

**Consequences**

* Simple to maintain, deploy and add plugins.
* Easy to add new communication channels
* Should consider switching to microservices if core system starts changing frequently.