**Separate microservices for reward point calculation**

**Context and Problem Statement**

The user should be able to see the reward points collected far and the history and the total reward points.

**Requirements**

* The reward point to be calculated after every connection
* Show history of reward point collection and the total point.
* High availability and fault-tolerance is a must.

**Business Assumptions**

* The reward point will be calculated on some business logic and some connections, or some specific location might have higher points in future.

**Decision drivers**

* The reward point must be calculated based on some business logic and should be updated in database.

**Considered options**

* A single microservice that calculates reward point through request response model.
* The request for reward point addition is received through a Queue/topic and a microservice read this message and calculated the reward point and updated the database.

**Decision**

Create a persistent Queue/topic through which the reward point addition request is received and the microservice process these messages and updated the database

**Reasons:**

* Speed of access.
* Improved reliability at critical areas.
* Asynchronous communication so that the connection services doesn’t have to wait for the response.

**Architectural style**

**Event Driven Microservices**.

**Consequences**

* Having to manage Queue/topic.