

# Development of Employee Engagement HR System

Student: Kevin Luvian

Supervisor: Assoc Professor Kong Wai Kin Adams

## Introduction

In many first world countries, the term “employee engagement” has gained significant popularity in the past decade. Nowadays, companies are trying to keep their employee engagement high in order to have high employee retention, low turnover rate, and keep their employees motivated, so that their employees can give their best for the company.

However, in many developing countries, such as Indonesia, there is currently no digitalized solution for employee engagement.

This project aims to provide a system that can facilitate a digitalized solution to employee engagement in Indonesian companies. In the end, this project will find a medium-sized Indonesian company to adopt the system in order to measure and verify the effectiveness of the system.

## Proposed Solution

The system will consist of 2 coupled subsystems: HRIS and Employee Engagement System.

The HRIS will have several main features such as employee database to manage employees data, announcement to broadcast company-wide announcement, company policy to help employees to understand the company rules, job information to show employee’s career progression in the company, experience to record employee’s hour in particular station, time off to manage employee’s time off balance and request.

Next, the employee engagement system will enhance the HRIS to have engagement intrinsic to it, the employee engagement system will include features such as idea for employee to give inputs to the company, brainstorming for employee to brainstorm a problem together with others, survey for company to measure employees preference, appraisal for employees to assess their coworker or superior. Also, the system needs to have a user-friendly interface to help low education users, chatbot integration to reduce internet usage, high availability to allow users to access the system anytime, high scalability to support large numbers of users.

## Technology used



## System Architecture Diagram

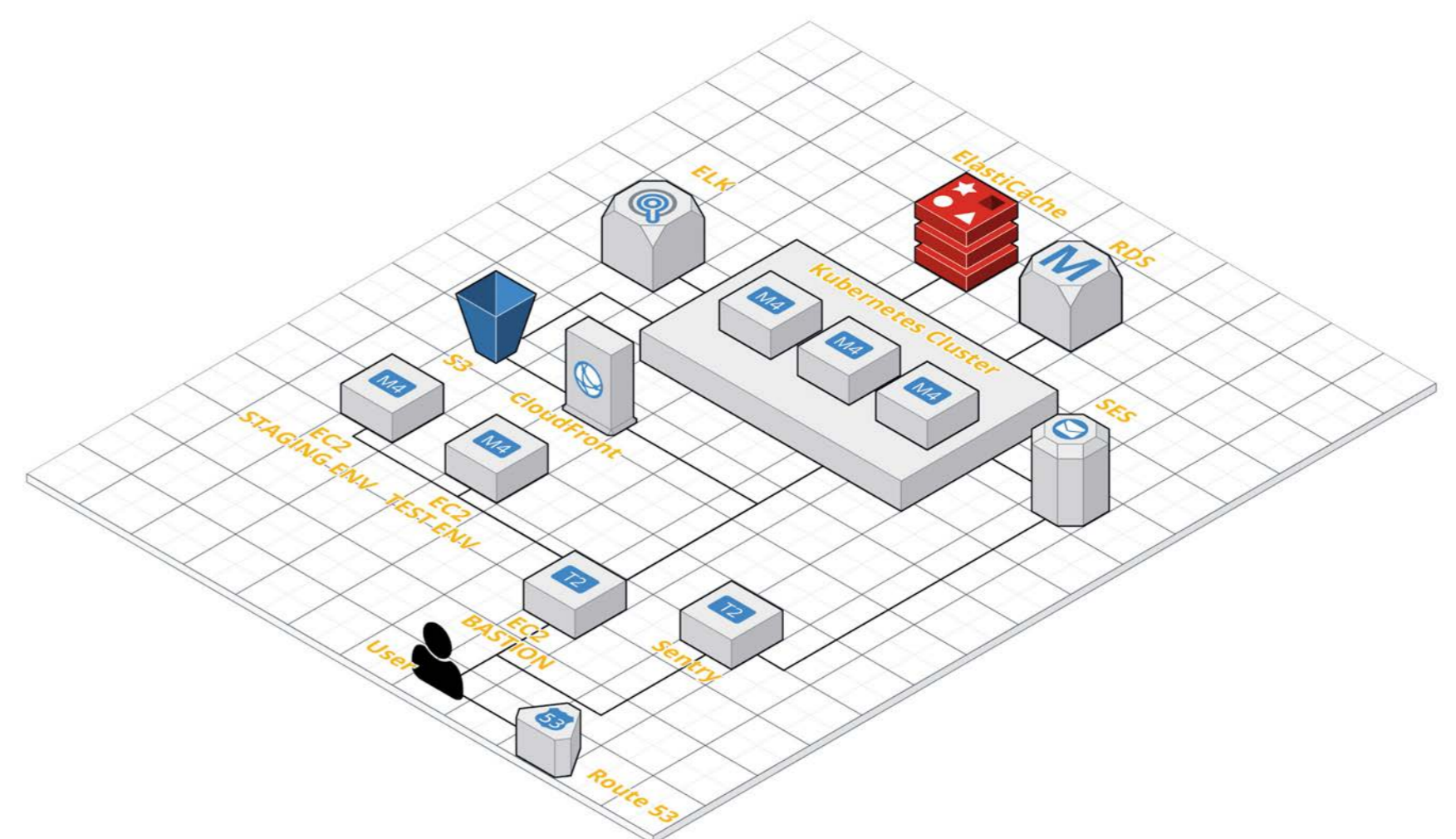


Figure 1. Overall architecture diagram

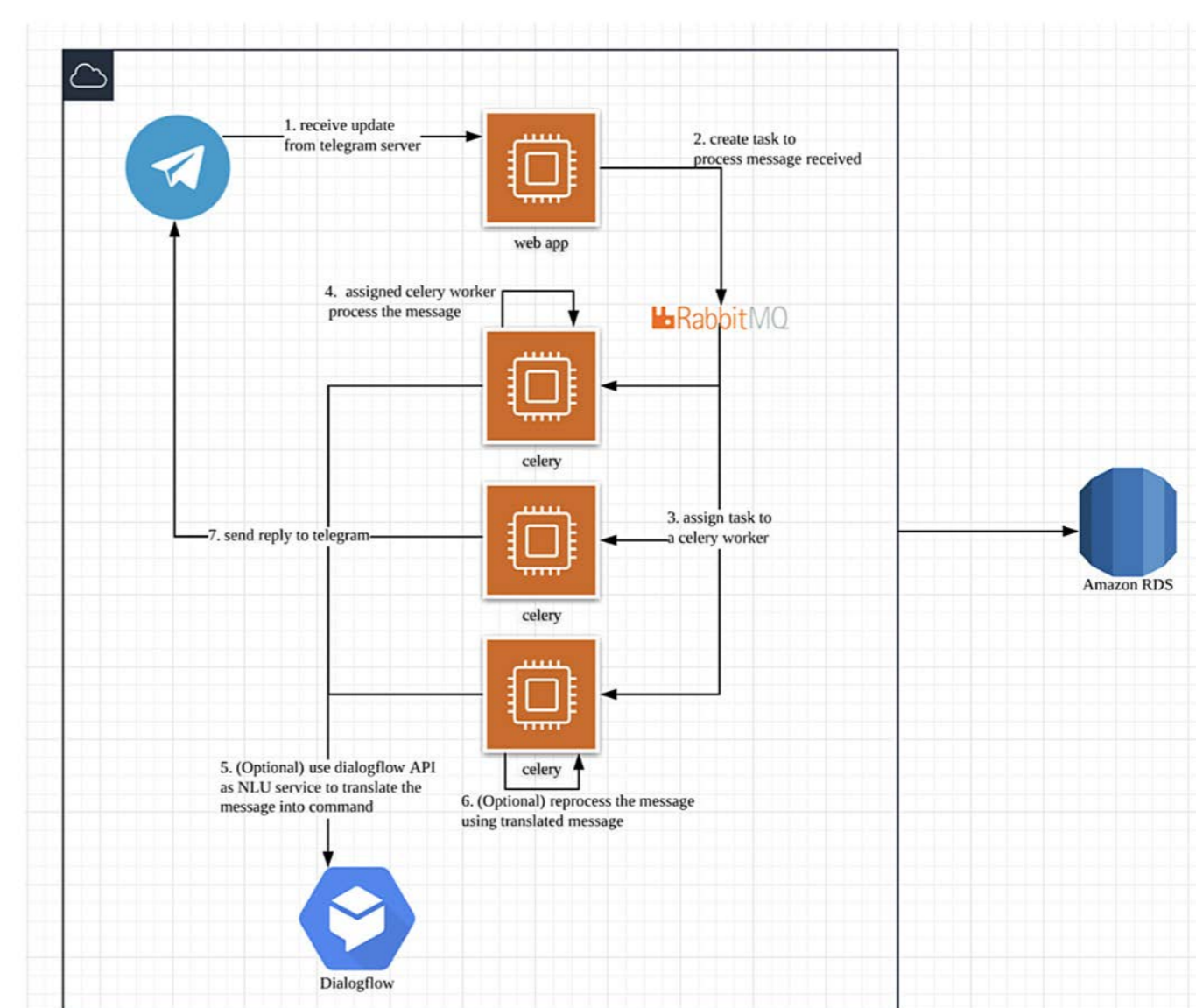


Figure 2. Chatbot dataflow diagram

## Result

- ~ 800k lines of code (excluding libraries)
- > 1000 paid users (5 companies).
- > 300k chatbot message processed in production environment.