# Contents

# I. History

| # | Date | Author | Description |
|---|---|---|---|
| 1 | 2024/08/18 | Bach Ha | Init document |

# II. Introduction

A backend system designed to support the frontend web and mobile applications. The application provides the main following functionality:

- Get reachable (online) URL(s).

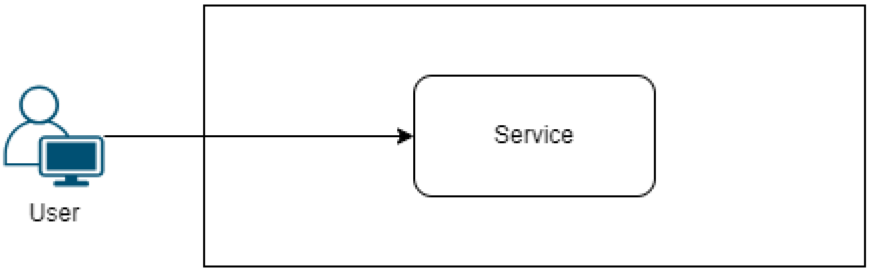
The design needs to consider factors such as:

- Security
- High Availability
- Scalability
- Flexibility & Easy to use

We are not focusing on authentication and authorization as they are out of scope.

# III. High-Level Design

## 1. Component Model

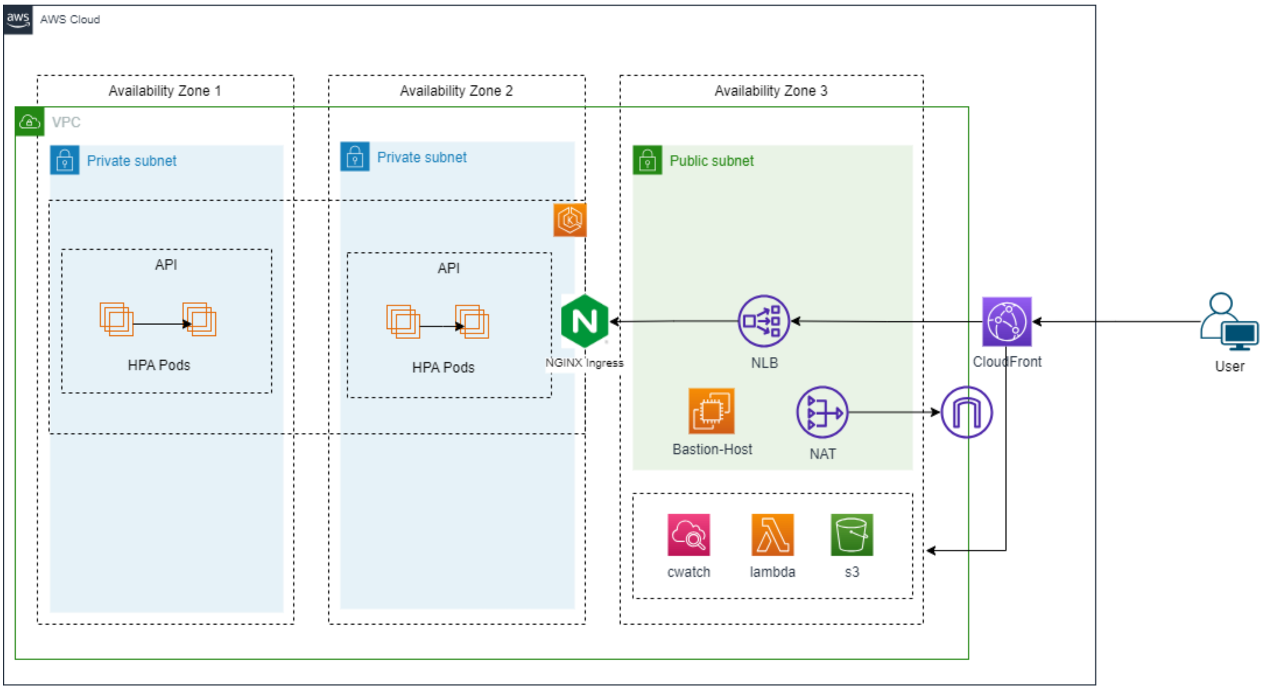


**Service**
This service is responsible for handling user requests.

## 2. Deployment Model

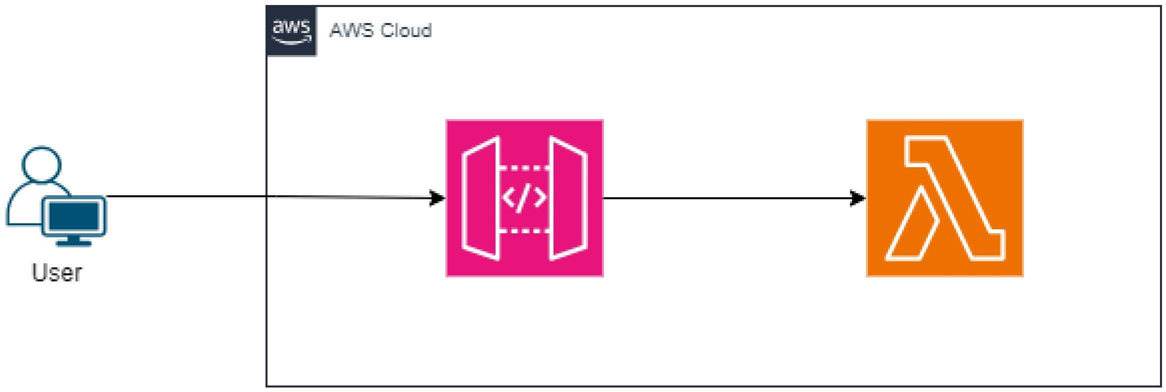
We can chose between Container-based or Serverless

2.1. Container-based



**Service** is designed to be highly scalable and available to ensure it can handle a large number of concurrent users. To achieve this, we have chosen to deploy the service on Amazon Elastic Kubernetes Service (EKS)

2.2. Serverless (AWS lambda)



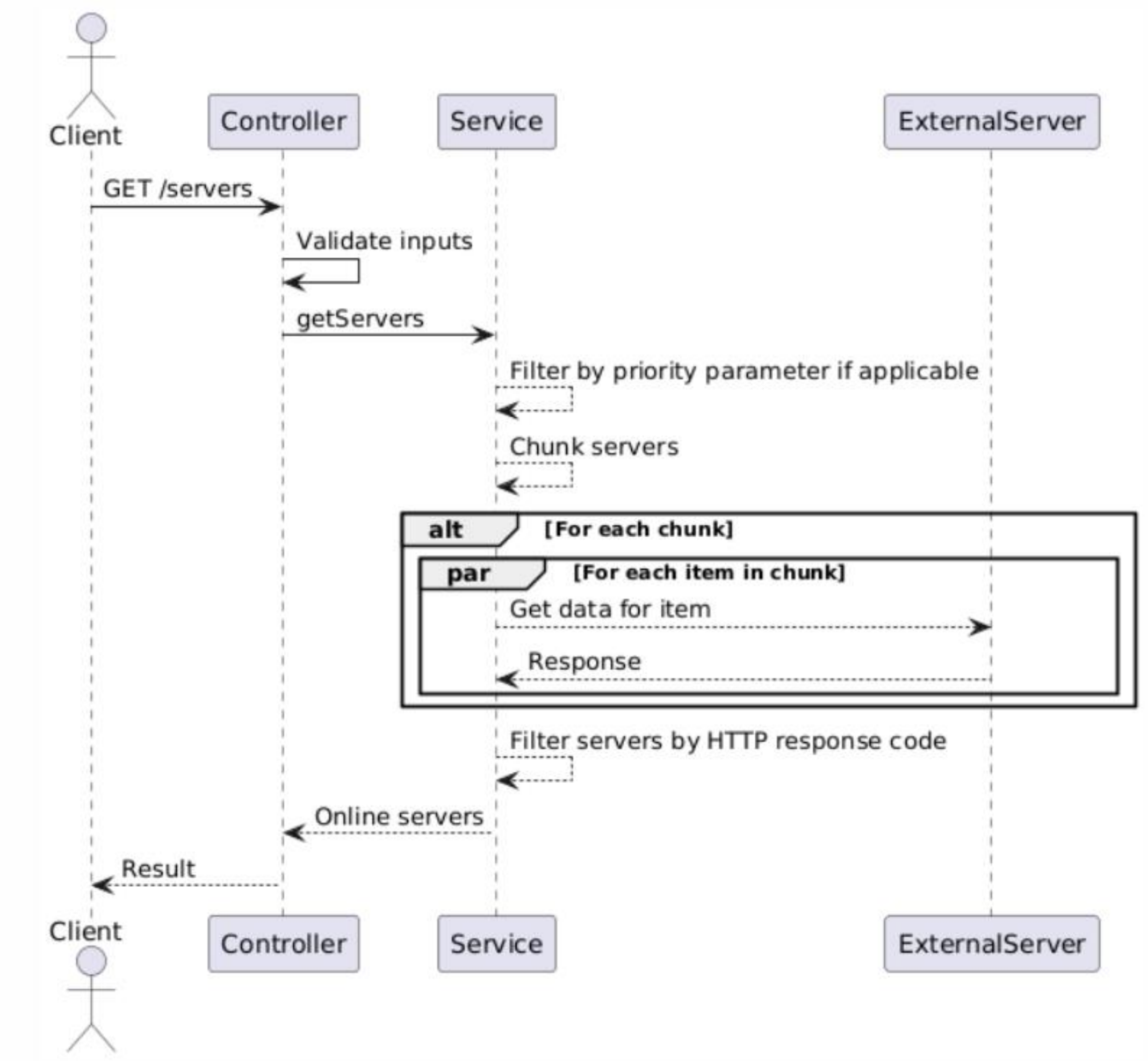
# IV. Detailed Design

## 1. Search Servers

This API allows users to retrieve online servers. Users can specify priority parameters to filter servers by their priority. The API returns a list of servers that match the search criteria, including details such as URL and priority.

***Out of scope: The API does not currently support pagination.***

### Sequence diagram



# API

**Endpoints**: GET /servers

**Query-string**

| Name | Type | Required | Description |
|---|---|---|---|
| priority | string | Optional | The priority of the servers for search. |

**Response**

| Name | Type | Required | Description |
|---|---|---|---|
| url | string | Yes | The server’s url |
| priority | number | Yes | The priority of the |

| | | | |
|---|---|---|---|
| | | | server |