**SERIS**

Solar Energy Research Institute Singapore



Cloud Based Real-time Analytical Monitoring of Photovoltaic Systems and Weather Parameters Project

High Level Design (HLD)

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1. Introduction

This document depicts how the modules interact each other in a high level view. It also clearly states the detail necessary design model and architecture prior to the coding. The architecture proposed in this document is designed to address demand for performance as well as scalability and high availability.

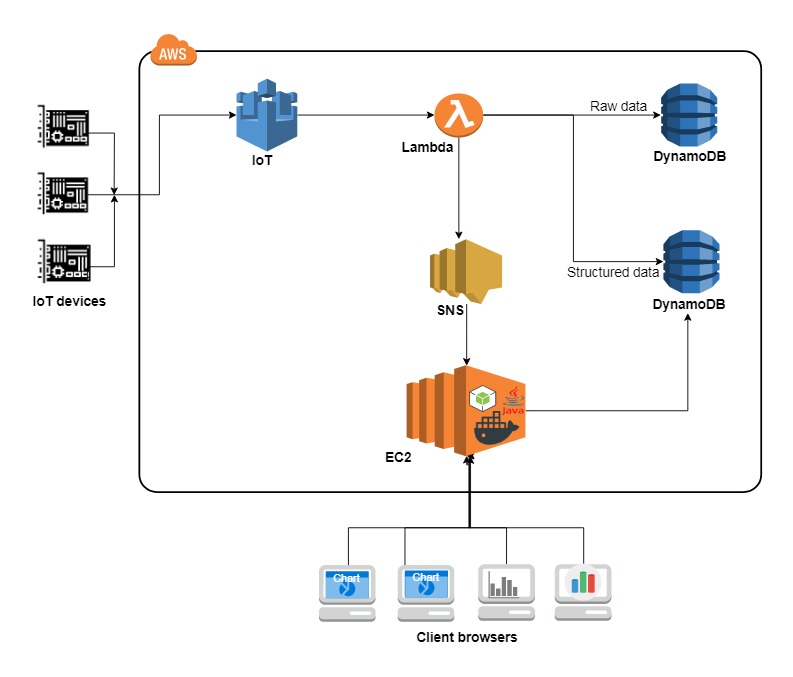
### 1.1 Overview

As the project is a real-time cloud based analytical monitoring system, the system is required to be designed with the vision of handling a very high range of real-time data transaction per second. The AWS cloud services are thus to be chosen as the pivot integrator of the components included within the project which would come with the option to support the system to be highly scalable and available.

On the other hands, the web-based system will require to be developed which will allow multiple concurrent different type of users to access the system in order to see live analytical data.

1. System Architecture

## End to End architecture



## 2.2 Database design

## 2.3 Technologies

## 2.4 Application architecture

## 2.5 System Interactions (Sequence Diagrams)