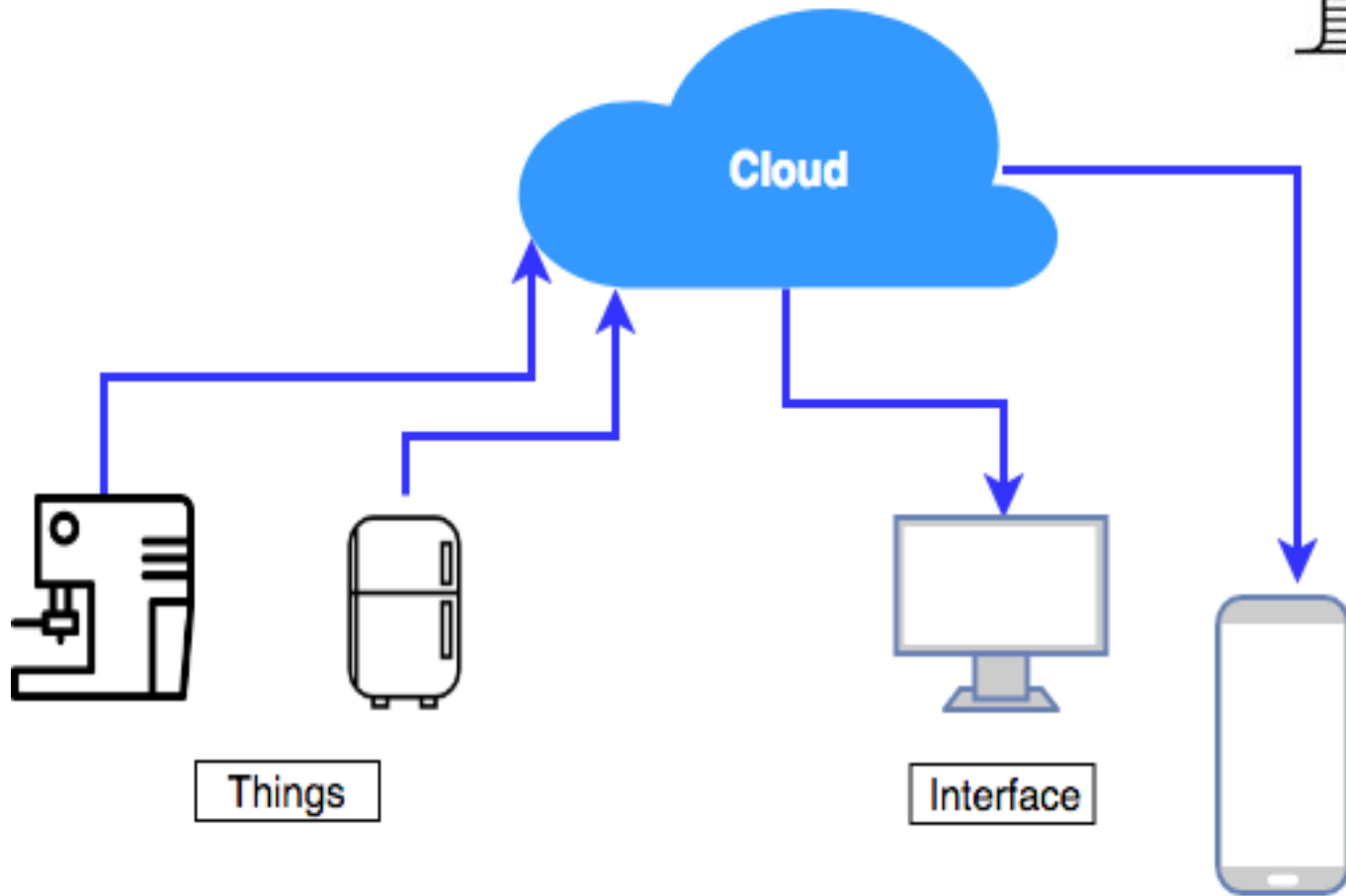


# *Smart* KITCHEN



Group 4

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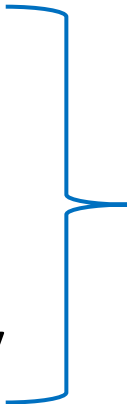


# Outline of the Presentation

- Project Description
- Requirements
- Used services
- System Architecture
- Cost analysis
- Demonstration



# Project Description

- Tracking daily grocery consumption
  - Generating weekly grocery shopping list
  - Providing best price information for grocery shopping
  - Email notification to shop urgently if any item finished instantly
  - Email notification if any leakage found in the gas stove or gas cylinder and if the kitchen temperature is high.  **Safety**
  - Tracking the daily resources (water, gas) consumption  **Sustainability**
- Comfort**
- 

# Used AWS Services



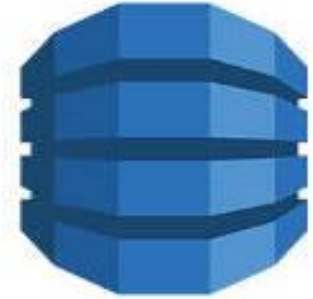
Amazon S3



API Gateway



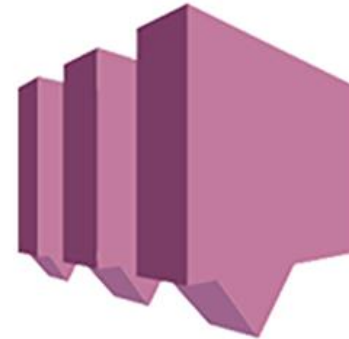
Amazon Lambda



DynamoDB

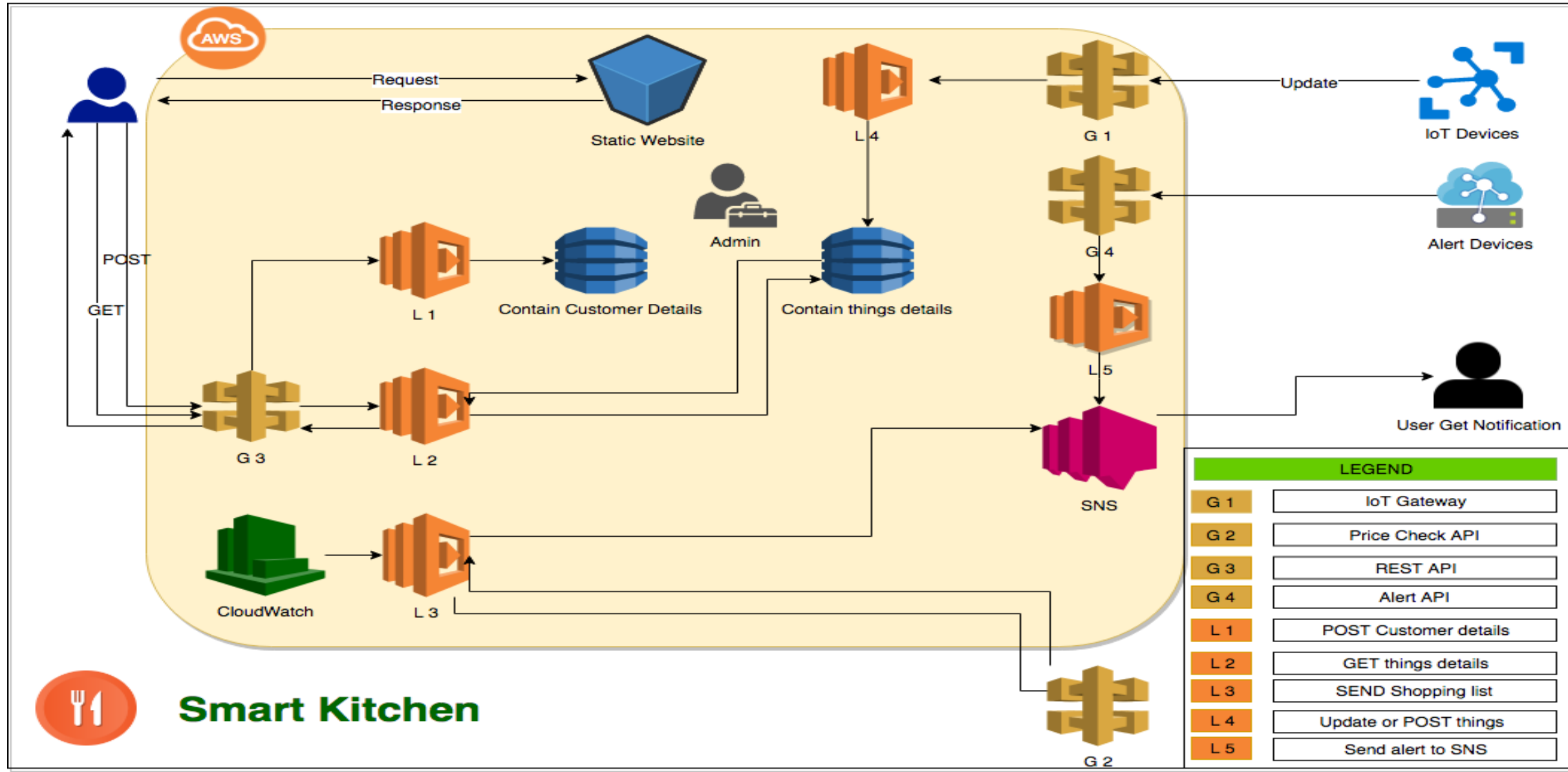


AWS CloudWatch



AWS SNS

# System Architecture



# Cost Analysis

**Table 1: Necessary estimation**

Total number of household	10000
Each household	10 Sensors
User send GET request	86 times a day

**Table 2: Lambda Calculation**

Monthly compute price per GB (MC)	\$0.00001667
Running time	1 second
Monthly Request price	\$0.20 per 1 million requests
*Monthly Get update, Put things update and get shopping list functions = <b><u>\$84.77</u></b>	

# Cost Analysis (Cont.)

**Table 3: API Gateway Calculation**

<b>AWS API call charge</b>	<b>\$3.5/ million</b>
Data transfer charge	\$0.09/GB
*If 10 sensors send update 4 times a day, Monthly Get request and Sensors update request= <b><u>\$136.42</u></b>	

**Table 4: S3 Calculation**

<b>Total website (Smart Kitchen) file size</b>	<b>9 MB</b>
Total GET request	26 million
Amazon S3 Service (Asia Pacific (Sydney)) = <b><u>\$11.43</u></b>	

**Table 5: DynamoDB Calculation**

<b>Total database size for 10000 household</b>	<b>1KB*100000/ 0.01GB</b>
Number of Read request per month	26 million
Write request per month	12 million (why)
Amazon DynamoDB Service (Asia Pacific (Sydney)) = <b><u>\$7.05</u></b>	

# Cost Analysis (Cont.)

**Table 6: CloudWatch and SNS calculation**

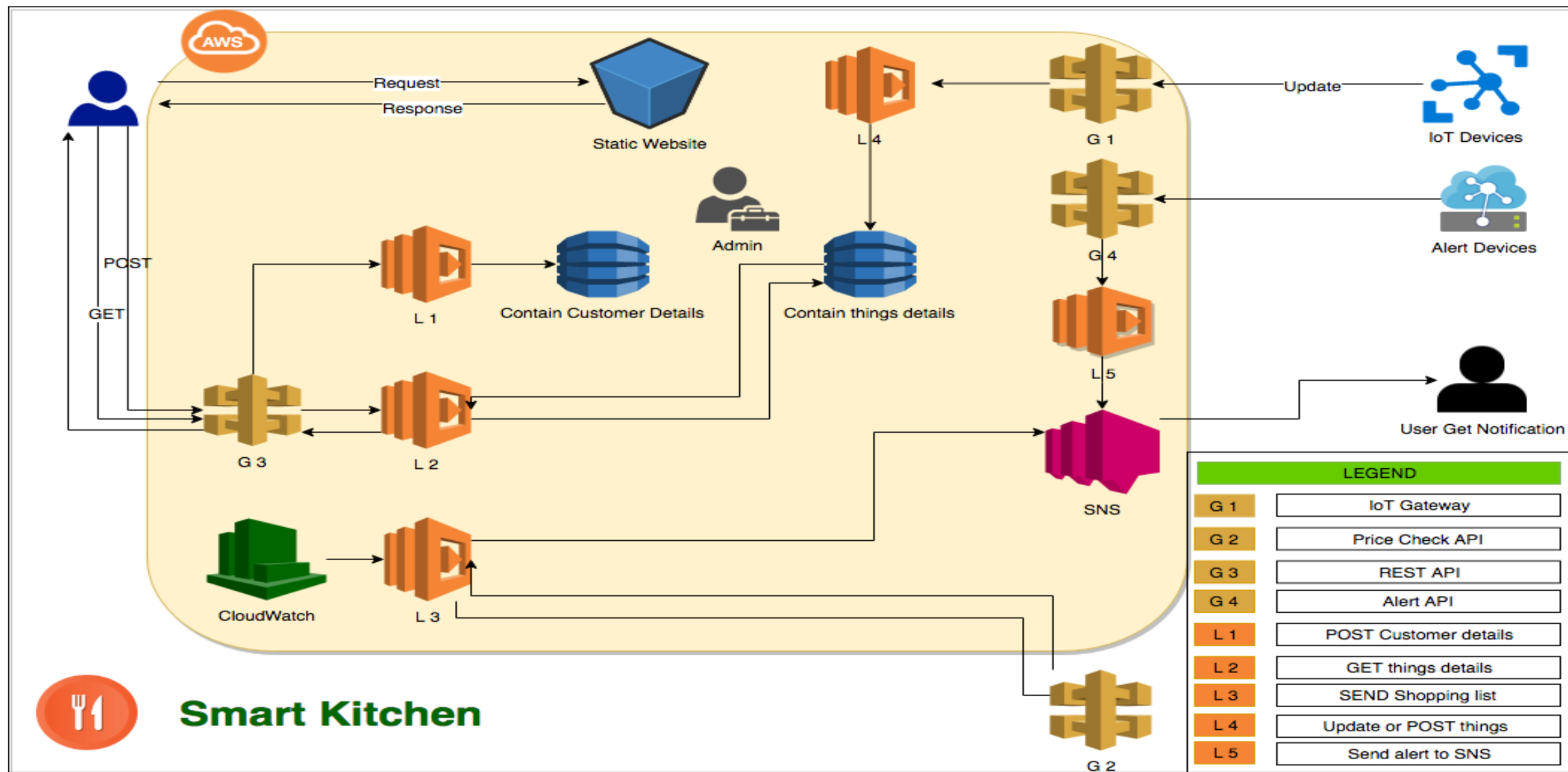
Number of CloudWatch and SNS request per month	4 * 10000 = 40000
Amazon CloudWatch Service (Asia Pacific (Sydney))	\$0
Amazon SNS Service (Asia Pacific (Sydney))	\$0.78

**Table 7: Total cost**

Smart Kitchen whole project cost	Monthly	Yearly
Total service cost for 10000 households	\$240.45	\$2885.4



# Demonstration





THANK YOU