

# Le Van Vuong

Senior Software Engineer / Solution Architect | 1997 | +84362228388 | [vuong.lv34@gmail.com](mailto:vuong.lv34@gmail.com) | [LinkedIn](#)

## WORK EXPERIENCE

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<b>One Mount</b> <i>Senior Software Engineer, Team Lead</i>	04/2021 - 06/2023
<b>MCG Corp</b> <i>Junior Software Engineer</i>	08/2020 - 04/2021
<b>HUST Center for Data and Computing Technology</b> <i>Fresher Fullstack Developer, DevOps</i>	02/2019 - 06/2020
<b>Sapo</b> <i>Internship Fullstack Developer</i>	05/2018 - 11/2018

## SKILLS

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- Java, Javascript, Go, Python
- Mysql, MongoDB, Cassandra, Redis
- Kafka, Flink
- Docker, Kubernetes, GCP, AWS
- Git, Linux, Bash Script, Computer Network, K6 (Performance Testing)
- Problem Solving, Presentation
- Business Requirement Analysis, Research & PoC, System Design

## AWARDS

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<b>The Best Project in 2021</b> <i>Software Engineer</i>	One Mount
<ul style="list-style-type: none"><li>• Team: 10 members</li><li>• Developed a new core banking system that replaced T24. The new core achieves 1000+ TPS, saves \$100K+/year for the license and reduces the cost of operations and maintenance by 40%.</li></ul>	
<b>The Highest Potential Employee 2020</b>	MCG Corp
<b>The Most Productive Team (R&amp;D Team) 2020</b>	MCG Corp
<b>The Runner-up Prize of IBM &amp; SOICT Hackathon 2020</b>	IBM Vietnam & HUST

## NETWORKING

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- Administering group [System Design VN](#) with 1500+ members
- Sharing and hosting public tech talks about Problem Solving, Clean Code, Unit Test, Kafka, SQL, ...

## EDUCATION

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<b>Hanoi University of Science and Technology</b> <i>Major: Software Engineering - Advanced Program: Global ICT</i>	08/2015 - 06/2020
<b>Linux Professional Institute</b>	01/2018 - 06/2018
<b>CCNA (Computer Network)</b>	07/2017 - 01/2018

## CERTIFICATES

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<a href="#">Certified Kubernetes Application Developer (CKAD)</a>	2022
<a href="#">Confluent Certified Developer for Apache Kafka (CCDAK)</a>	2021
<a href="#">Linux Professional Institute (LPI 1)</a>	2018
<a href="#">CCNA Routing And Switching</a>	2017

## OUTSTANDING PROJECTS

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### 1. One Mount

#### 1.1. FS Core

10 members

*Software Engineer*

- Developed a new core banking system called FS Core that replacing T24. The new core saves \$100K+/year for the license and reduces the cost of operations and maintenance by 40%.
- Achieved 1000+ TPS and reliability, scalability, and high performance by using Java Spring, Kafka, MySQL, Redis, ...
- Solved problems:
  - Exactly-once delivery
  - Handling failed payments
  - Consistency
  - Flash sales, hot ticket sales

#### 1.2. PS2 Risk Fraud

7 members

*Team Lead*

- Designed and developed a fraud detection system for loyalty system in Techcombank with 2M+ transaction and latency p(95) = 180 ms.
- Automated the deployment process of rules by creating a DSL. Rules are processed by a stream processing system using Kafka, Flink, Ververica.
- Solved problems:
  - Applying reflection to satisfy the flexibility in rule configuration.
  - Optimizing latency: simplifying data flow, reducing I/O calls for Redis, ...

#### 1.3. Loan Management Core

8 members

*Software Engineer, DevOps, Team Lead*

- Developed a system for managing lending products and loans using Java, MySQL, Kafka, ...
- Collaborated with 6 teams to accomplish the business flow: onboarding, decision engine, payment/lending, calculate the interests and generate statements, and repayment.
- Designed the flow of daily jobs in order to calculate the interests and generate statements of 3M+ loan agreement contacts.

#### 1.5. Payslip

6 members

*Software Engineer, Team Lead*

- Automated the payment process in use cases such as salary delivery, allowance, bonus, ... that serves for 1800+ employees in the company.
- Reduced the workload by 50% for HR, Accountant and Operator in the process. The system is implemented by Java, Spring, Kafka, MySQL, Redis and integrated with Data Platform, E-Wallet, Payment Gateway, ...

#### 1.4. Risk & Fraud Detector

4 members

*Software Engineer*

- Detected cheats, frauds based on device information, user behaviors, then kick out the fraudsters. The system is made of Java, Kafka, Flink, MySQL, Redis, ...
- Prevented from money laundering using periodic jobs that scan user behaviors, transaction history.

#### 1.6. Mentorship & Workflow Design

- Unified Git workflow, REST API, Kafka event schema convention, release note, coding convention, ...
- Documented the architecture in C4 model.
- Trained freshers and juniors in theories, concepts, clean code, Kafka, Kubernetes, ...
- Supported other developers to resolve issues about coding, debug, Kafka, K8S, ...

## 2. MCG Corp

### 2.1. Chat System

5 members

Software Engineer

- Designed and developed the messaging system for end users with scalability, which serves 20K+ websocket connections using NodeJS (Typescript), MongoDB, Redis.
- Supported mobile developers to initialize websocket connection and chat flow.

### 2.2. Data Crawler

3 members

Software Engineer

- Crawled and cloned the information of 100K+ products from e-commerces (Shopee, Tiki, timnhaphanphoi.vn,...) into the system using Nodejs, MongoDB, Redis.
- Created and invited 6K+ shops automatically from the crawled data.

### 2.3. Log System

3 members

Software Engineer

- Designed and implemented a log system that uses ClickHouse (data warehouse), Java Spring, and produces statistics and reports in near real time.
- Analyzed and provided useful metrics so that the marketing team and operation team are able to evaluate the result of campaigns and sale events easily.

### 2.4. Auction System + Bidding Bot

1 member

Software Engineer

- Maintained an auction system like eBay auction platform implemented by Kafka Stream, Java, ...
- Designed and developed a distributed task scheduling system used for bidding bot which is able to achieve 3000 tasks hourly spikes.
- Improved response time for bidding events by 40% using websocket (instead of HTTP interval calls), Kafka Streams and adding appropriate cache layers.

## 3. HUST Center for Data and Computing Technology

### 3.1. Customer Relationship Management System (CRM)

1 member

Fullstack Developer, DevOps

- Designed a CRM system which leveraged customer retention by 10%.
- Systemized deployments automatically using GitOps method using Jenkins (CI), Argo (CD).
- Managed customer info, campaigns of customer service, auto reminder using Python, Redis.

## 4. Competition & Contribution

### 4.1. Idea Streaming

4 members

Backend Developer, DevOps

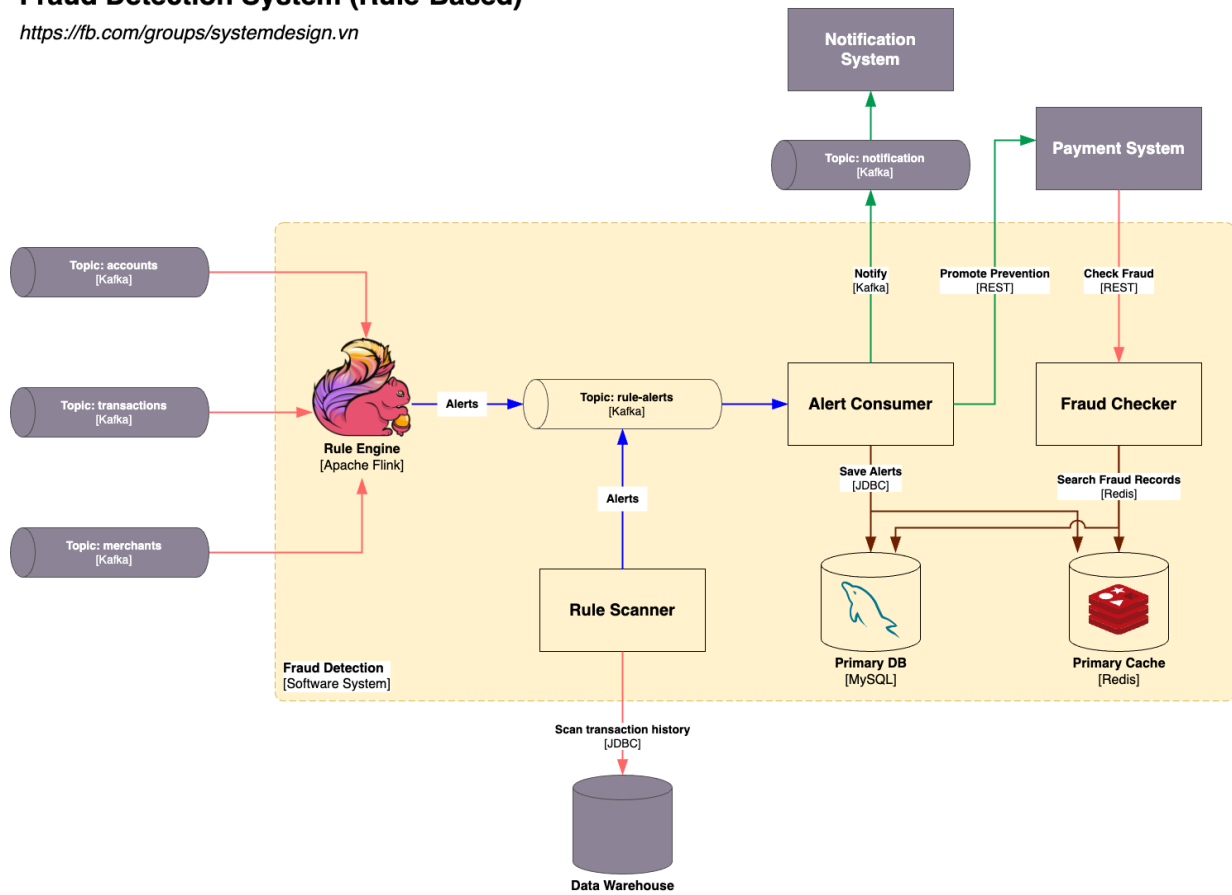
- Implemented a livestream system in 2 days used for streaming pen strokes, drawing lines which helps to express ideas easily and clearly in online education, meeting, conference.
- Provided a solution for users (teachers, presentor, ...) to use a smartphone taking video while writing, drawing then the output stream is pen strokes/drawing lines on the white background.

### 4.2. Open Source Contribution

- Contributed the broadcast feature to go-socket.io (a Go socket lib) by applying the pub/sub mechanism of Redis in order to scale socket servers horizontally.
- Reference: <https://github.com/googollee/go-socket.io/pull/421>

## Fraud Detection System (Rule-Based)

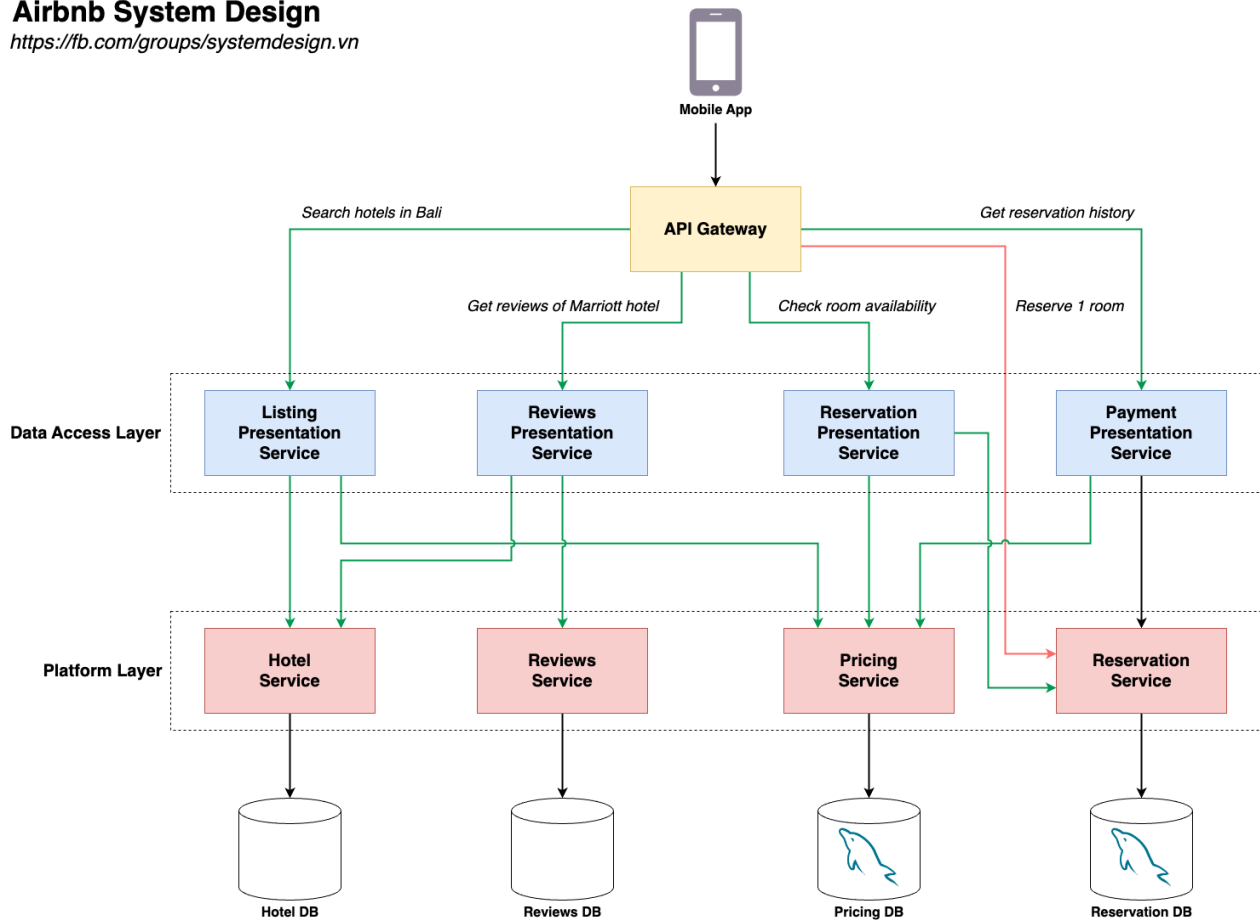
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### 1. Fraud Detection System Design

## Airbnb System Design

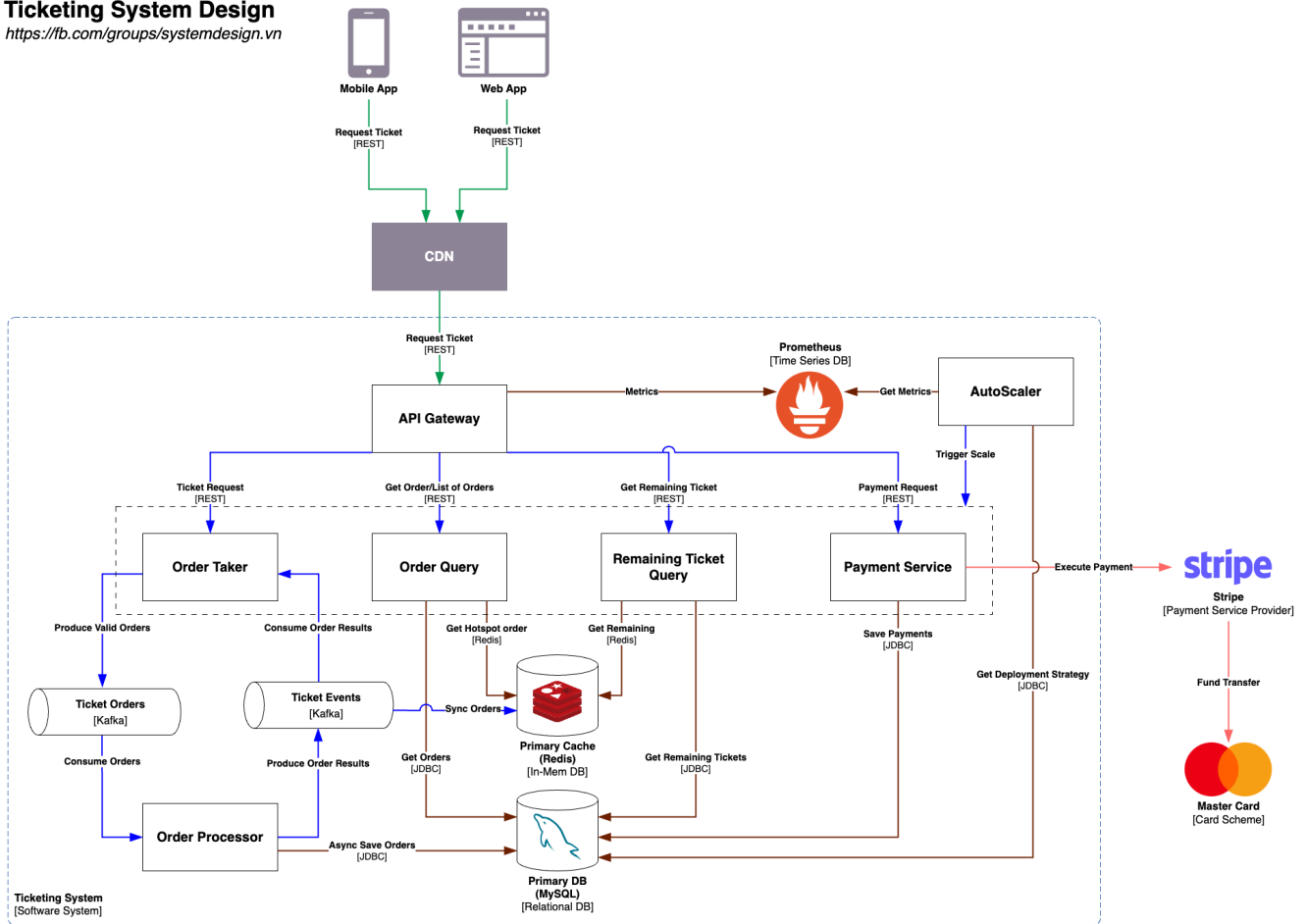
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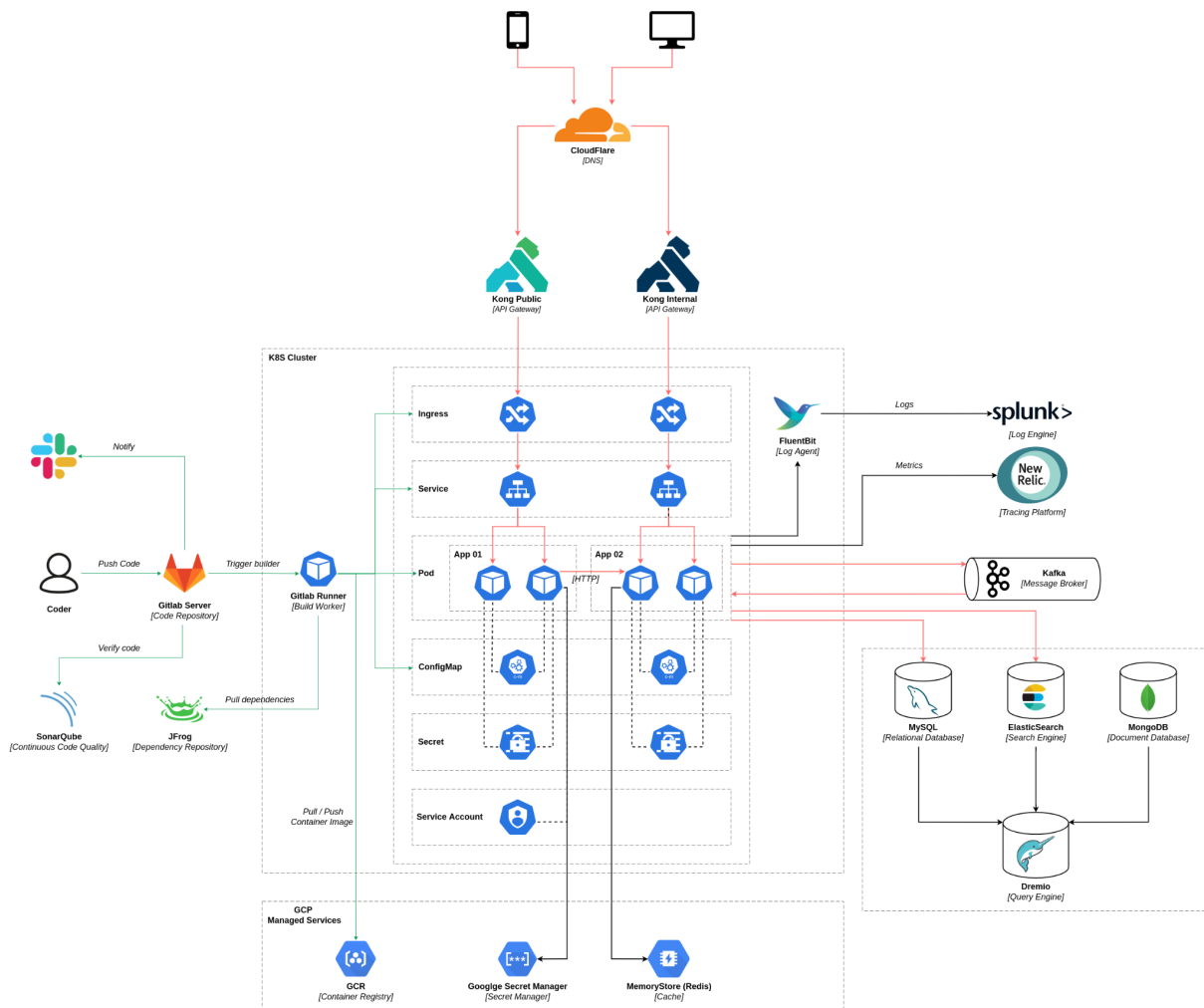
### 2. Airbnb System Design

# Ticketing System Design

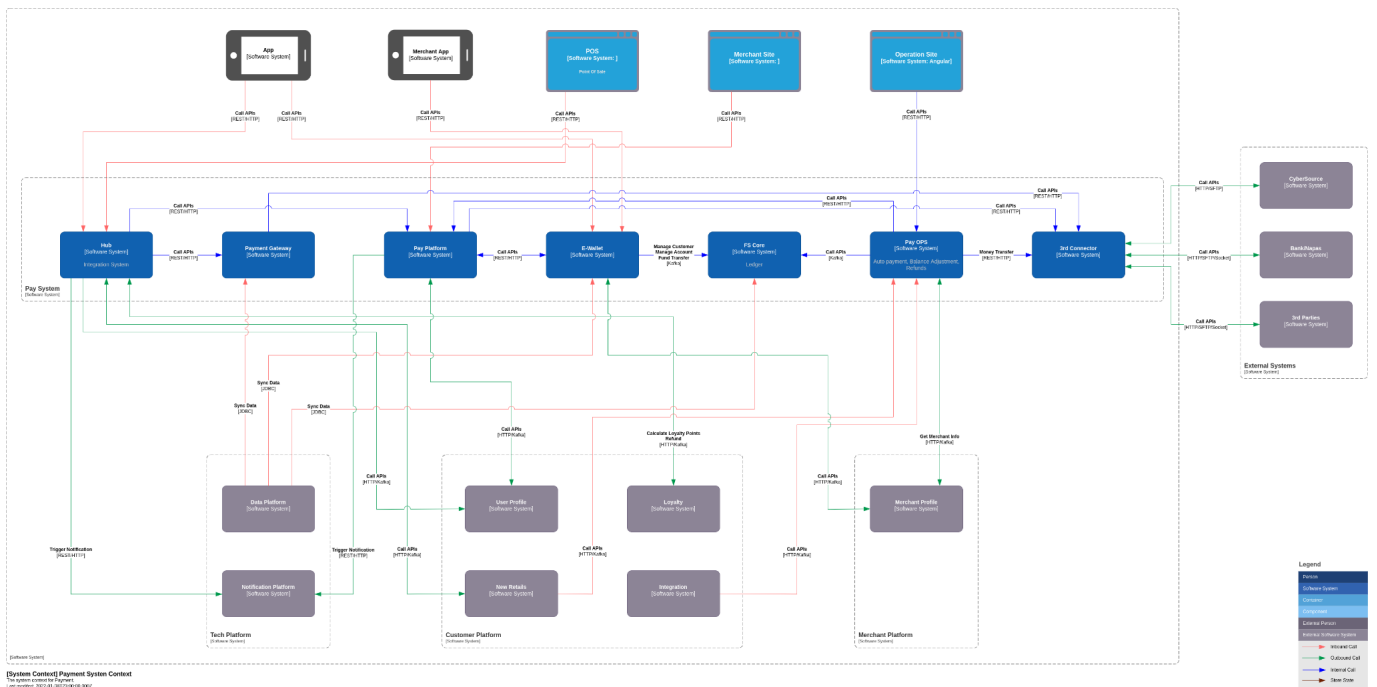
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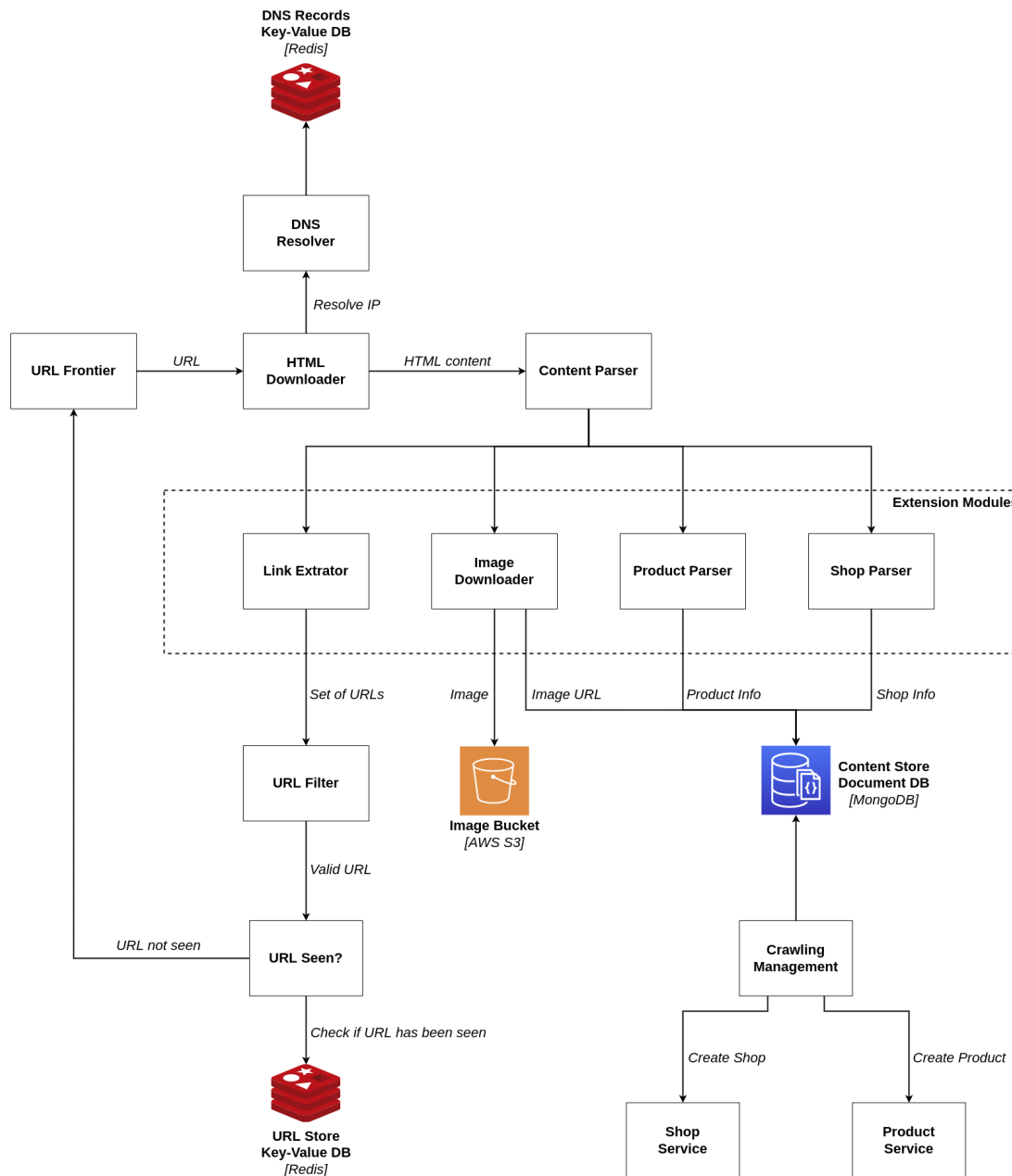
## 3. Ticketing System Design



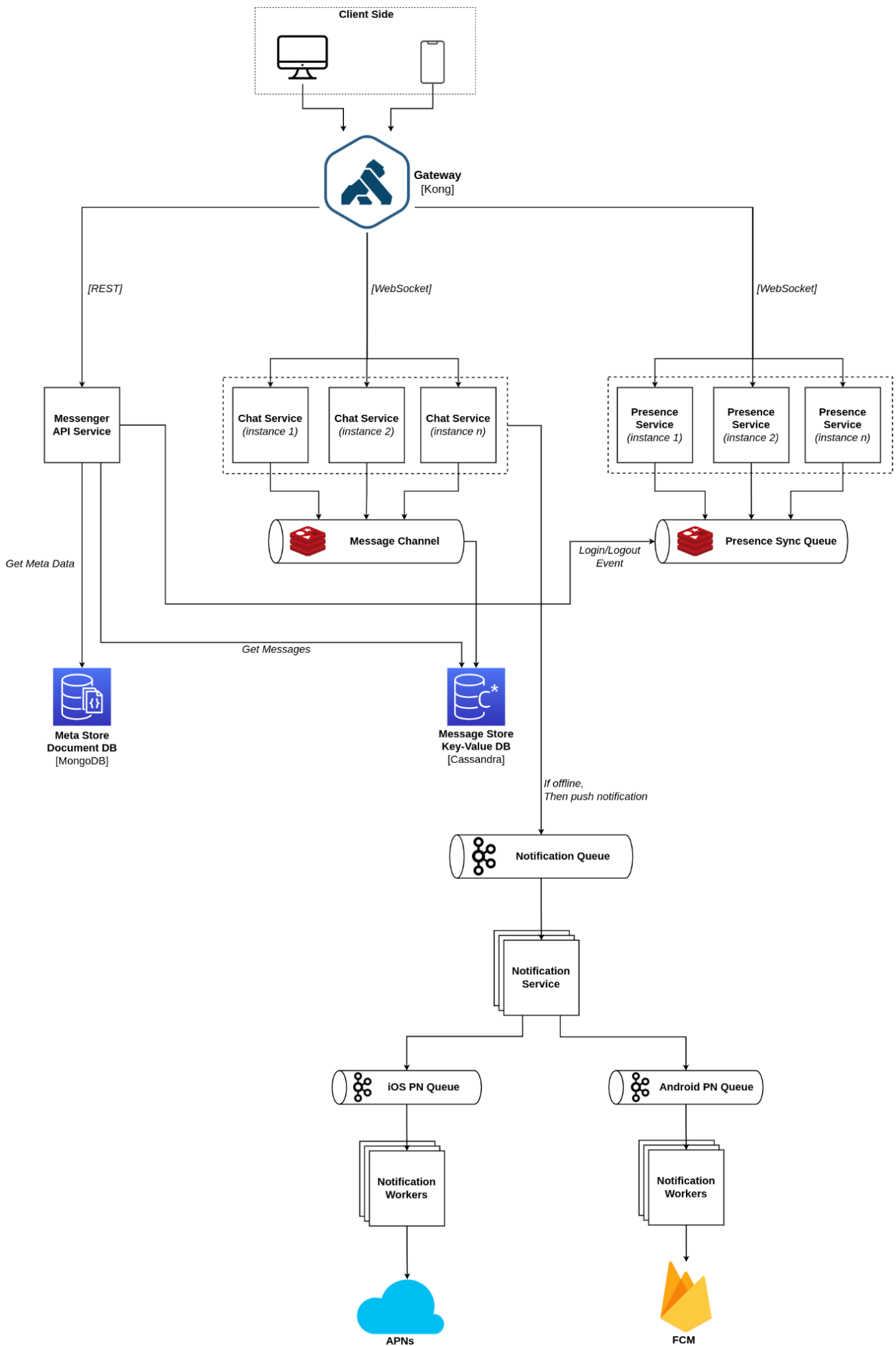
## 4. Techstack



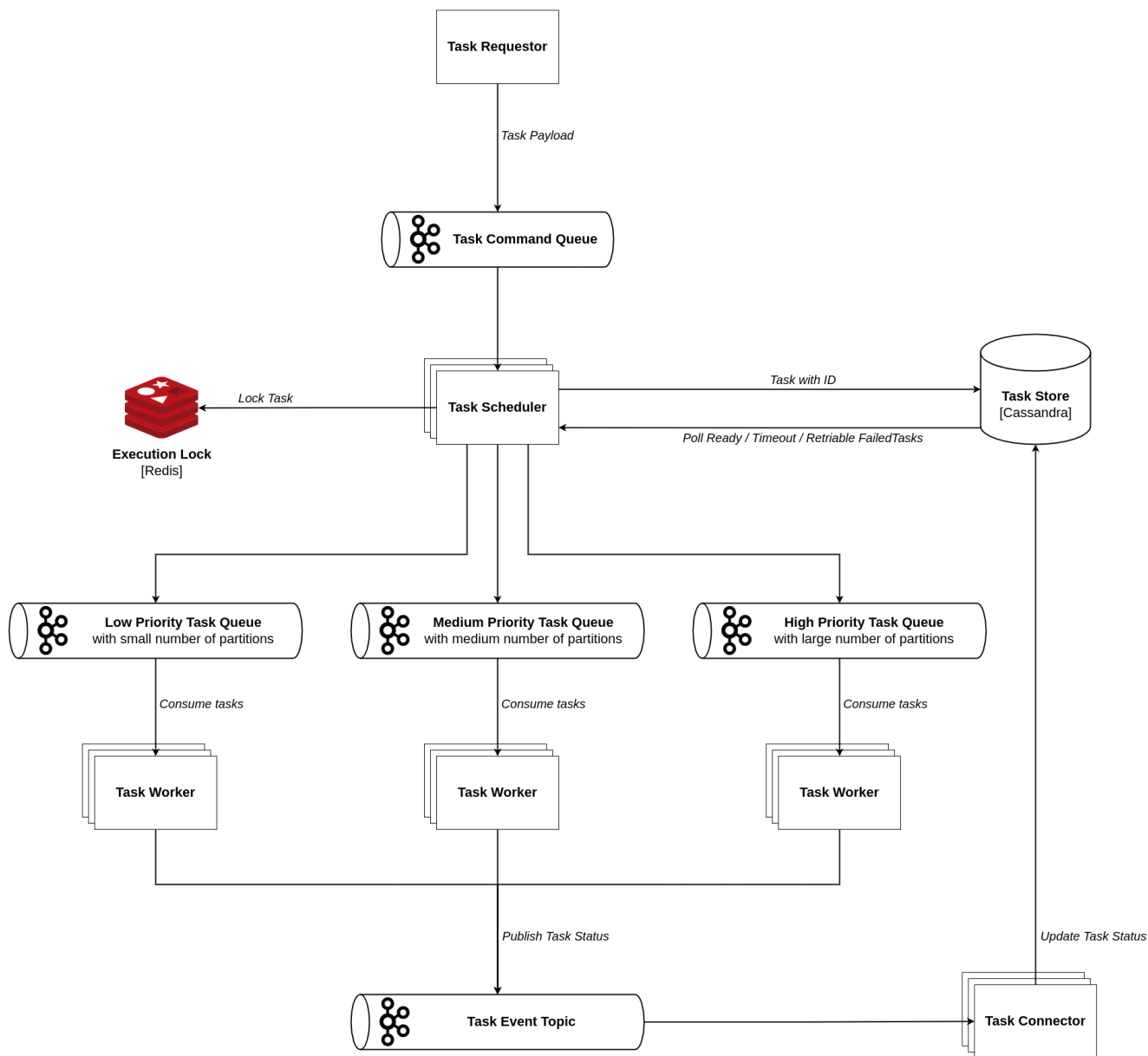
## 5. Software Architecture in C4 model



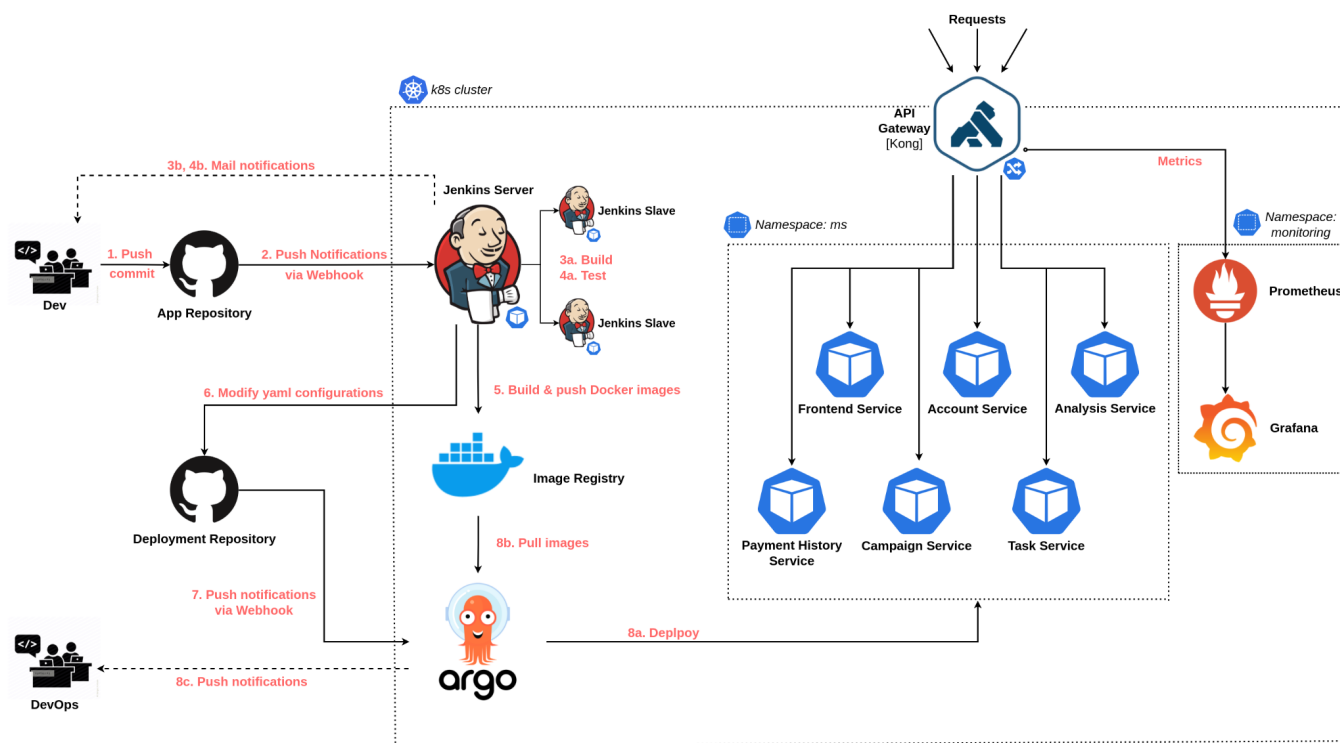
## 6. Data Flow Diagram of Crawler System



7. Chat System Design



## 8. Distributed Task Scheduling System Design



## 9. CRM Operation Flow