
Environmental Requirements for the System

1. Hardware Requirements

Server Infrastructure:

- **CPU:** High-performance processors (e.g., Intel Xeon or AMD EPYC) capable of handling high volumes of requests, ensuring low latency and quick data processing.
- **RAM:** Minimum 16 GB of RAM, with scalability up to 64 GB depending on the server load and number of concurrent users.
- **Storage:** SSD storage with at least 1 TB for faster read/write operations, particularly for handling large insurance data and logs. RAID 1 or RAID 10 configuration is recommended for redundancy.
- **Network:** A minimum of 1 Gbps network interface for internal and external communication, ensuring quick data transfers between servers and user devices.

Client Devices:

- **Minimum Performance:**
 - **CPU:** Quad-core processors or higher, such as Intel i5 or AMD Ryzen 5 for seamless app and browser operation.
 - **RAM:** At least 4 GB of RAM for desktop devices and 2 GB for mobile devices to ensure smooth operation of the web-based interface and mobile applications.
 - **Storage:** Sufficient free storage (at least 1 GB) for app installation and local cache storage, with 10 GB recommended for storing data in mobile apps.
 - **Network:** Stable internet connection with a minimum speed of 5 Mbps for smooth usage of the web platform and mobile apps.

2. Software Requirements

Operating Systems:

- **Server:** The backend system will run on **Linux-based servers** (Ubuntu 20.04 LTS or higher) to ensure stability, scalability, and security.
- **Client Devices:**
 - **Web-based Interface:** Supports the latest stable versions of the following browsers:
 - Google Chrome (version 90 or higher)
 - Mozilla Firefox (version 85 or higher)
 - Safari (version 14 or higher)
 - **Mobile Apps:**
 - Android version 8.0 (Oreo) and above

- iOS version 12.0 and above

Database Management:

- **MySQL or PostgreSQL:**
 - **MySQL** is chosen for its high-speed performance and its suitability for handling large numbers of read-heavy operations. It is preferred in cases where the application has frequent reads and simple data structures.
 - **PostgreSQL** is recommended for handling complex queries, providing advanced data integrity, and supporting ACID compliance. It is suitable when there is a need for advanced features such as JSONB support or more complex relationships between tables.

3. Network Requirements

Internet Connectivity:

- Stable internet connection is required for all system operations, including data synchronization, updates, and real-time notifications.

Firewall and Security Controls:

- A robust firewall system must be implemented to prevent unauthorized access to internal servers, ensuring secure data exchanges between client devices and the backend infrastructure.