Cheatsheet

WhatsApp High Level System Design

- Functional Requirements
  - 1-on-1 chatting
  - Group chatting
  - Message delivery
- Non-Functional Requirements
  - Scalability - Achieved using decoupling and microservices
  - Availabality - Achieved by providing multiple Websockets
  - Lower Latency - Achieved by using CDNs
- Calculations
  - Throughput = 10 Billion messages per sec / 86,400 sec per day = 115,740 messages per second
  - Storage = 10 billion messages per day * 100 bytes per message = 1 Terabyte per day
- API Design
  - Send message - POST /messages
  - Receive message - GET /messages