

# Distributed Server Architecture Model

## For Publishers and Subscribers

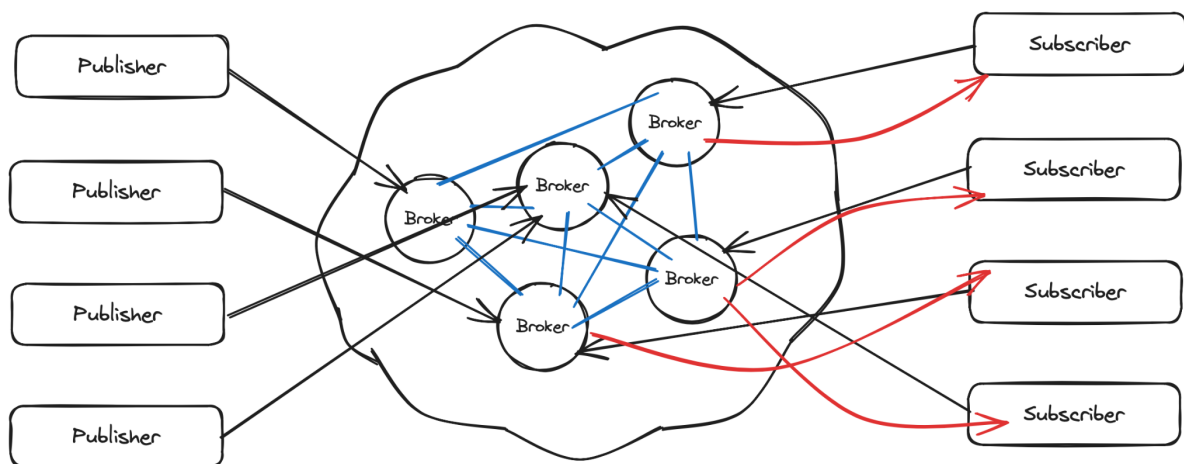
Single server based model has some single point failures because of these failures the server can go offline and the entire system's functionality will be down, publishers and subscribers can't communicate.

Some reasons they can interrupt the communication between publishers and subscribers

- If the server goes down communication will be down
- If the server corrupted or lost the data all connections will be down
- If publishers and subscribers count is increased it is difficult to maintain uninterrupted communications, servers can crash some time.
- All the messages going through the single server chances to lost some messages

## The Distributed Server Architecture

The main goal is to distribute the single server's activity to multiple servers to maintain proper communications among publishers and subscribers.



Distributed Pub and Sub Model

This model has many message brokers instead of single server handling message distribution between publishers and subscribers

It has many improvements than single hand server architecture they are. It has multiple redundant servers and they have copies of the same data. If one server is down another one will take over its responsibility to ensure seamless performance. So the system is more fault tolerant. Distributing the incoming messages to message brokers to prevent overloading and improve the performance. So Multiple parties can communicate at the same time without any interruption. Using Content Delivery Network (CDN) technology to reduce message sharing time significantly.