High Throughput UDP/XMPP based Router

Applications and *When* to Set it Up

JINGLE

XMPP

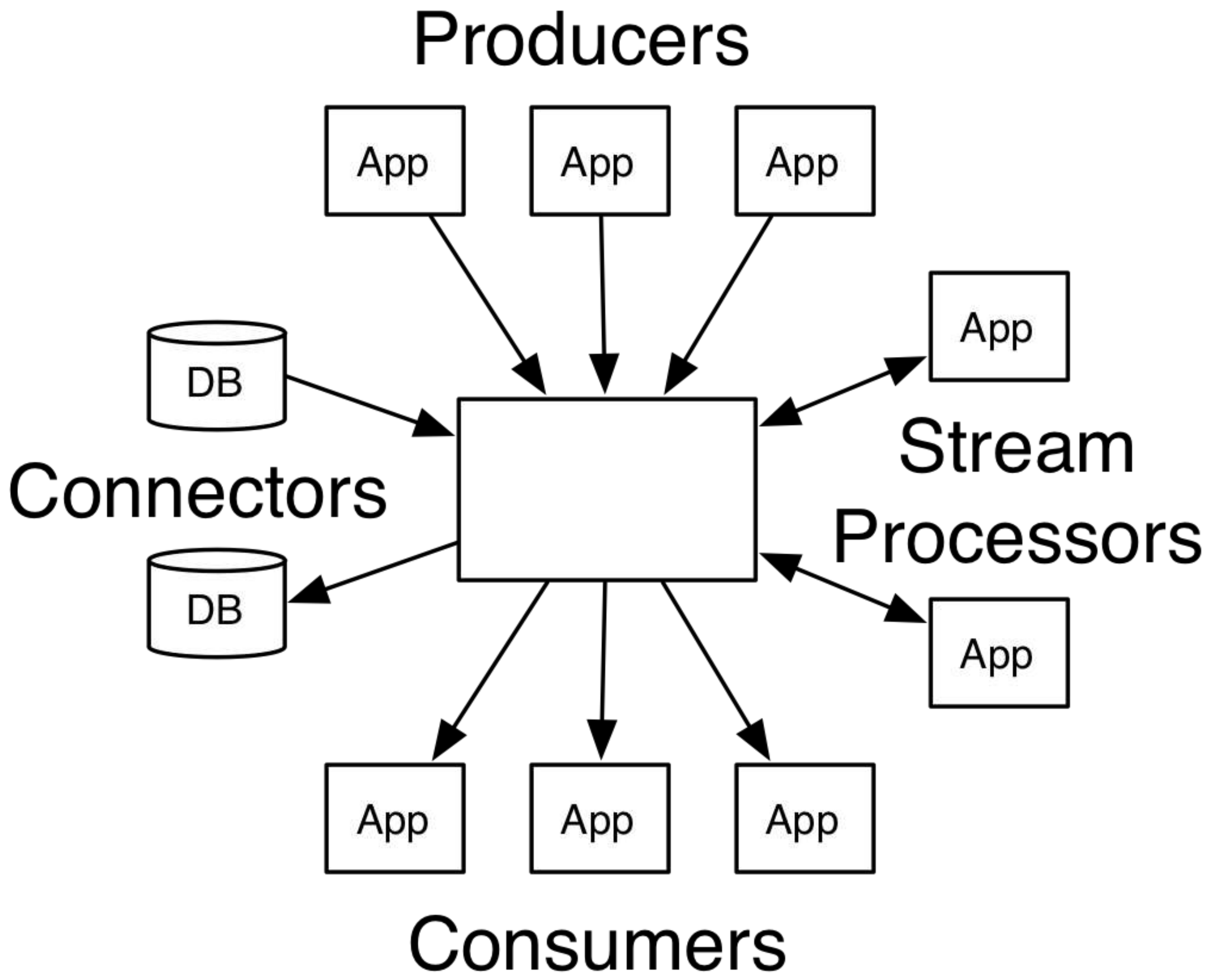
Jingle Nodes

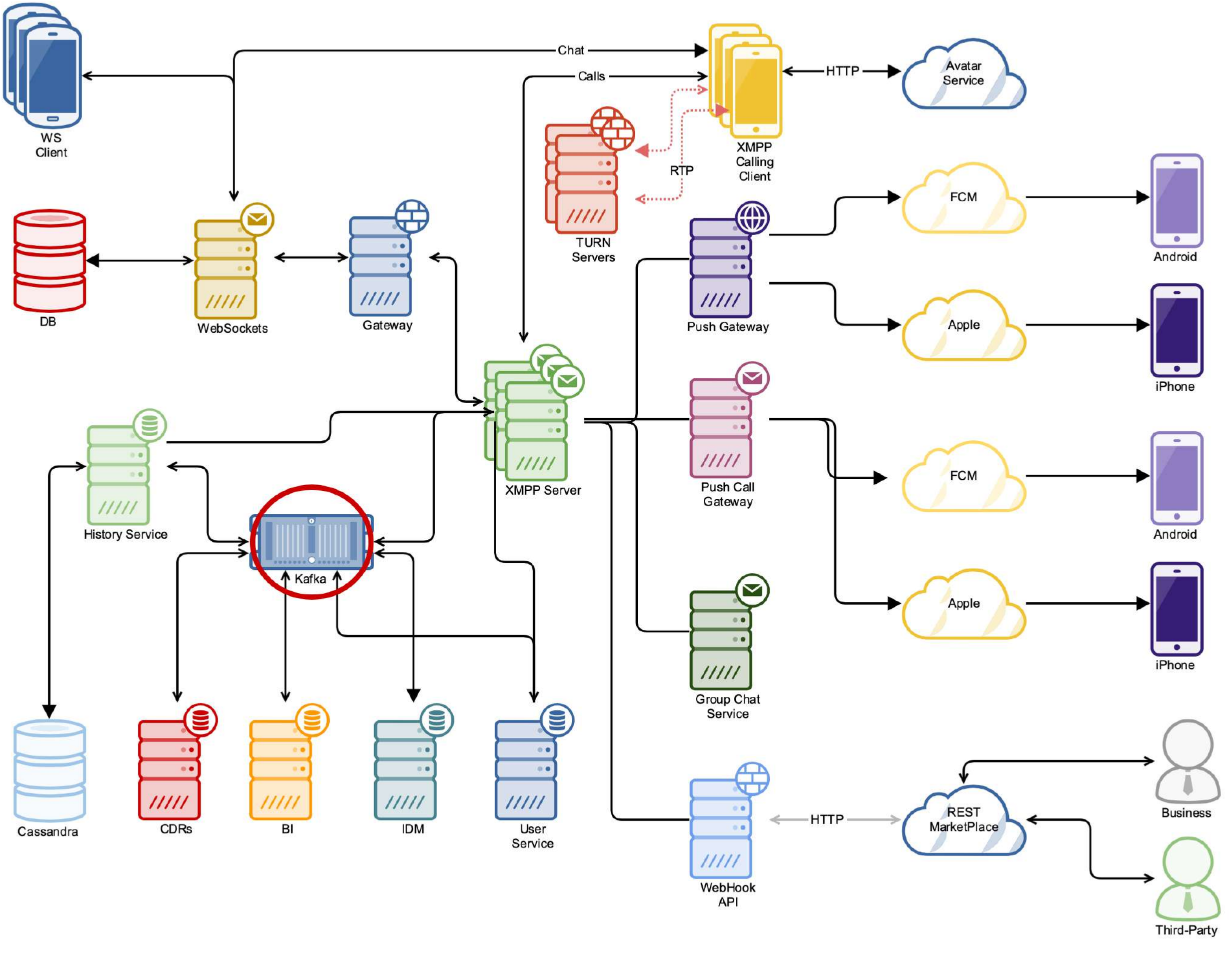
SIP

3GPP™

A GLOBAL INITIATIVE

WebRTC


Producers
App
App
App
DB
App
Connectors
Stream
Processors
DB
App
App
App
App
App
Consumers


WS
Client
Chat
Calls
HTTP
Avatar
Service
XMPP
Calling
Client
RTP
TURN
Servers
DB
WebSockets
Gateway
Push Gateway
FCM
Android
Apple
iPhone
XMPP Server
Push Call
Gateway
FCM
Android
Apple
iPhone
History Service
Kafka
Group Chat
Service
Cassandra
CDRs
BI
IDM
User
Service
HTTP
REST
MarketPlace
Business
WebHook
API
Third-Party

Standard Event Buses

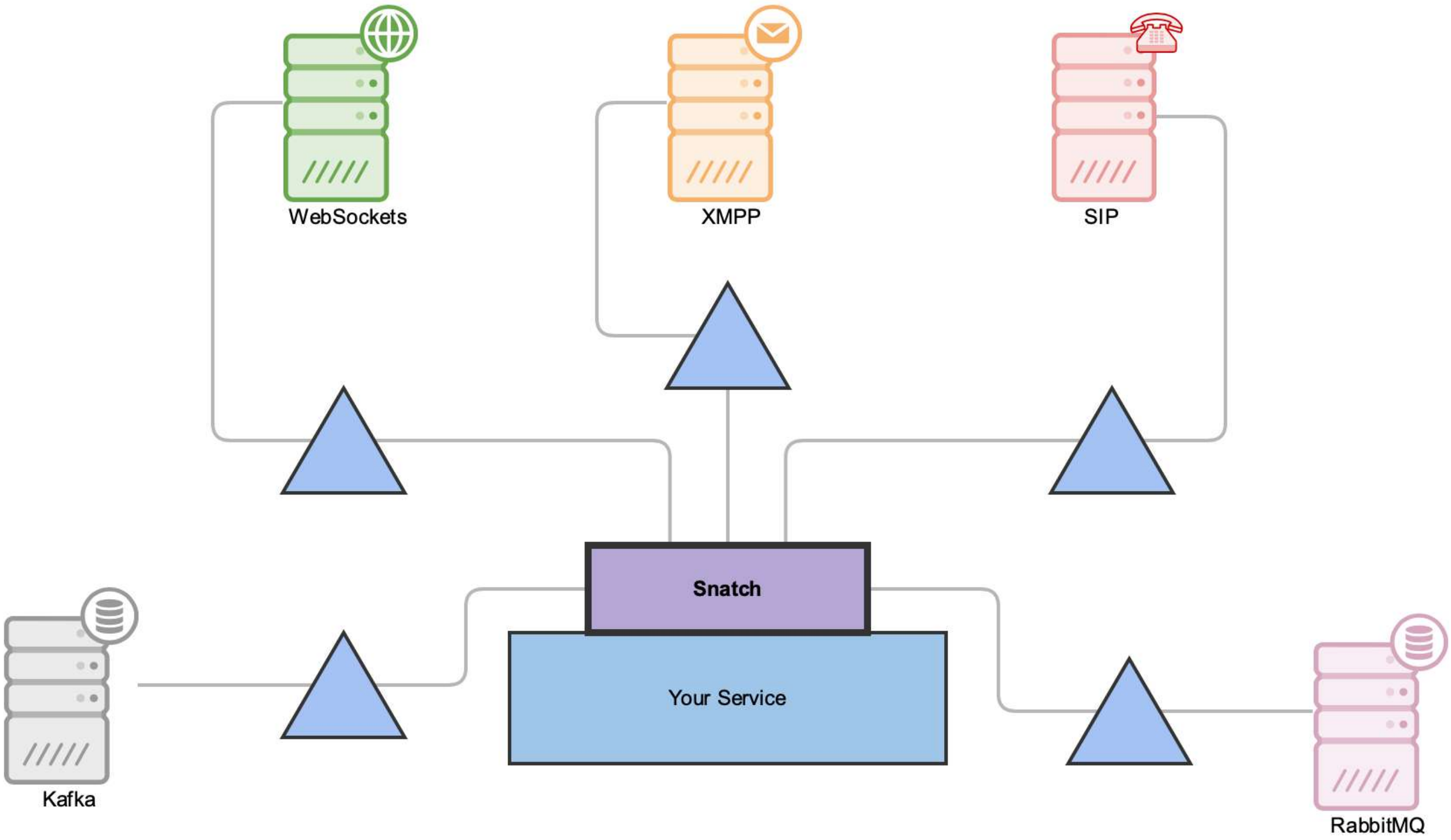
- Apache Kafka
- RabbitMQ
- ZeroMQ

Kafka

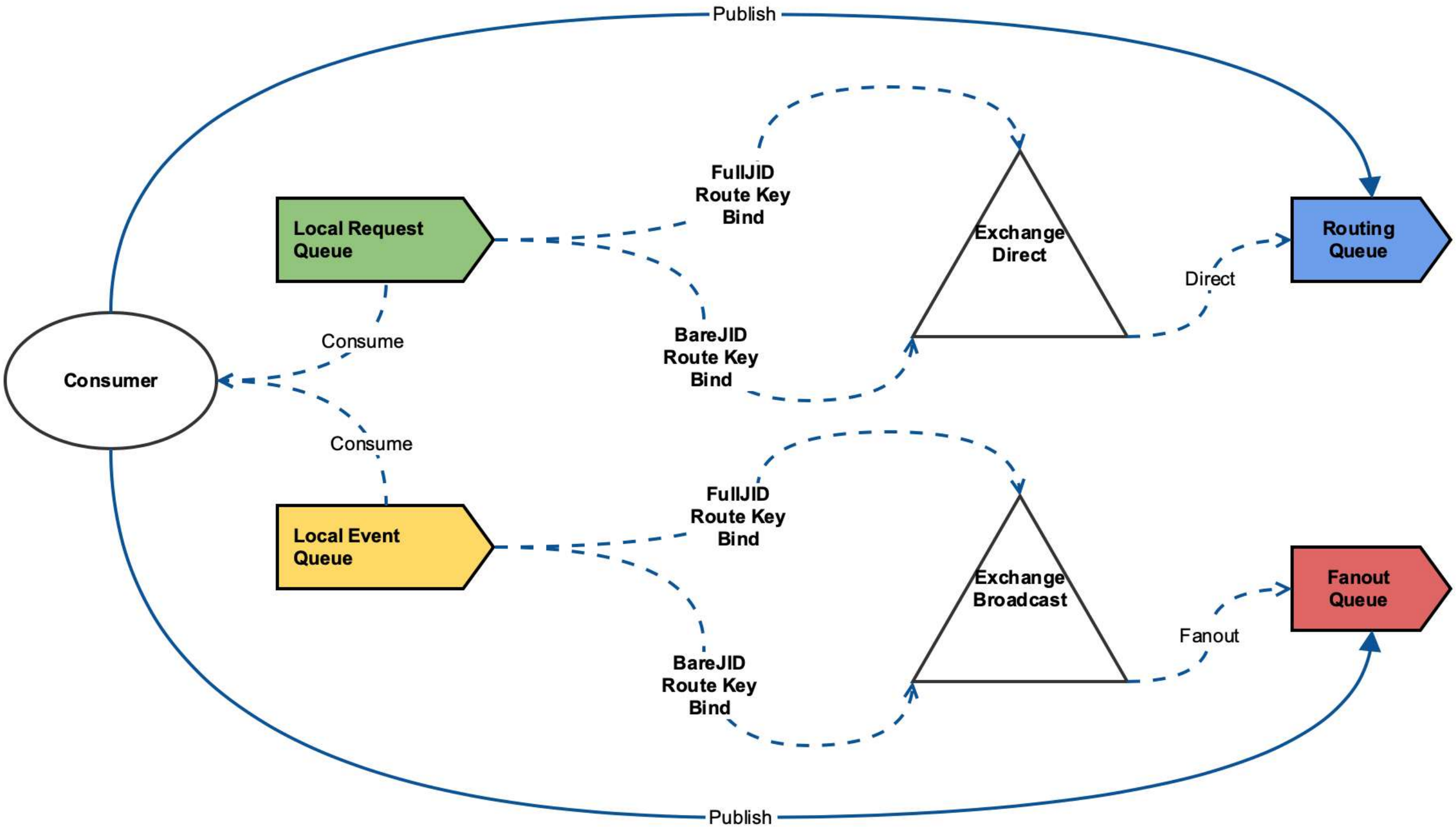
- Persistence never used
- Painful LB Resize
- Congestion Problems
- Multi DC was impractical
- Event Timestamp Chec k

About Snatch

- A Protocol Hub
- Lightweight
- Unifies Transport Layers
- Interchangeable Layer
- Extensible


WebSockets
XMPP
SIP
Snatch
Your Service
Kafka
RabbitMQ

Path to Glory!

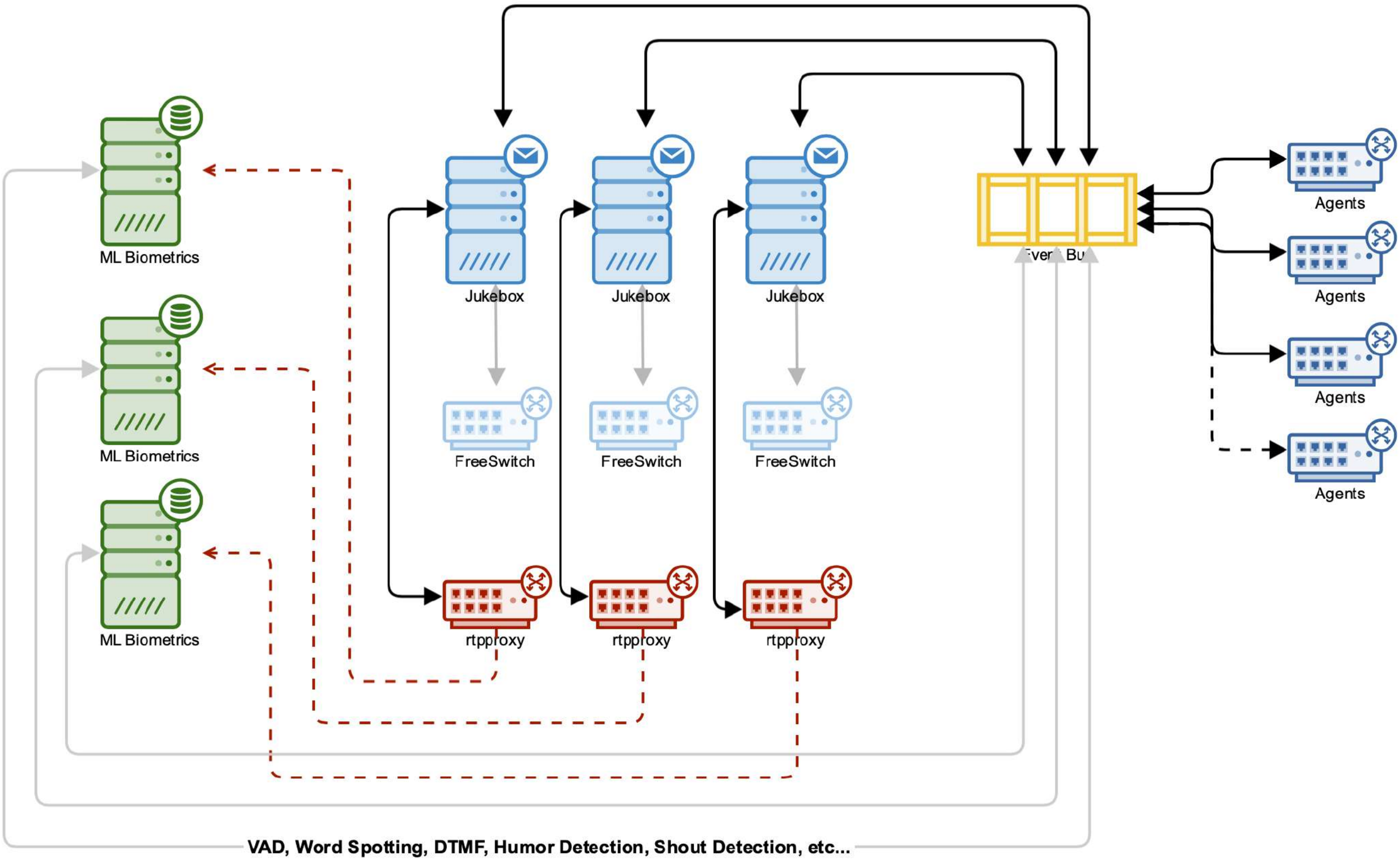


RabbitMQ

- Reliability was Great!
- Federated Queues
- Filling Queue / Overflow
- Checking Message Time

XMPP (as a Bus)

- Fast, Fast, Fast!
- Federation is a Breeze
- Flexible Routing Model
- No Check on Timestamps


ML Biometrics
ML Biometrics
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Jukebox
Jukebox
Jukebox
FreeSwitch
FreeSwitch
FreeSwitch
rtpproxy
rtpproxy
rtpproxy
Agents
Agents
Agents
Agents
VAD, Word Spotting, DTMF, Humor Detection, Shout Detection, etc...

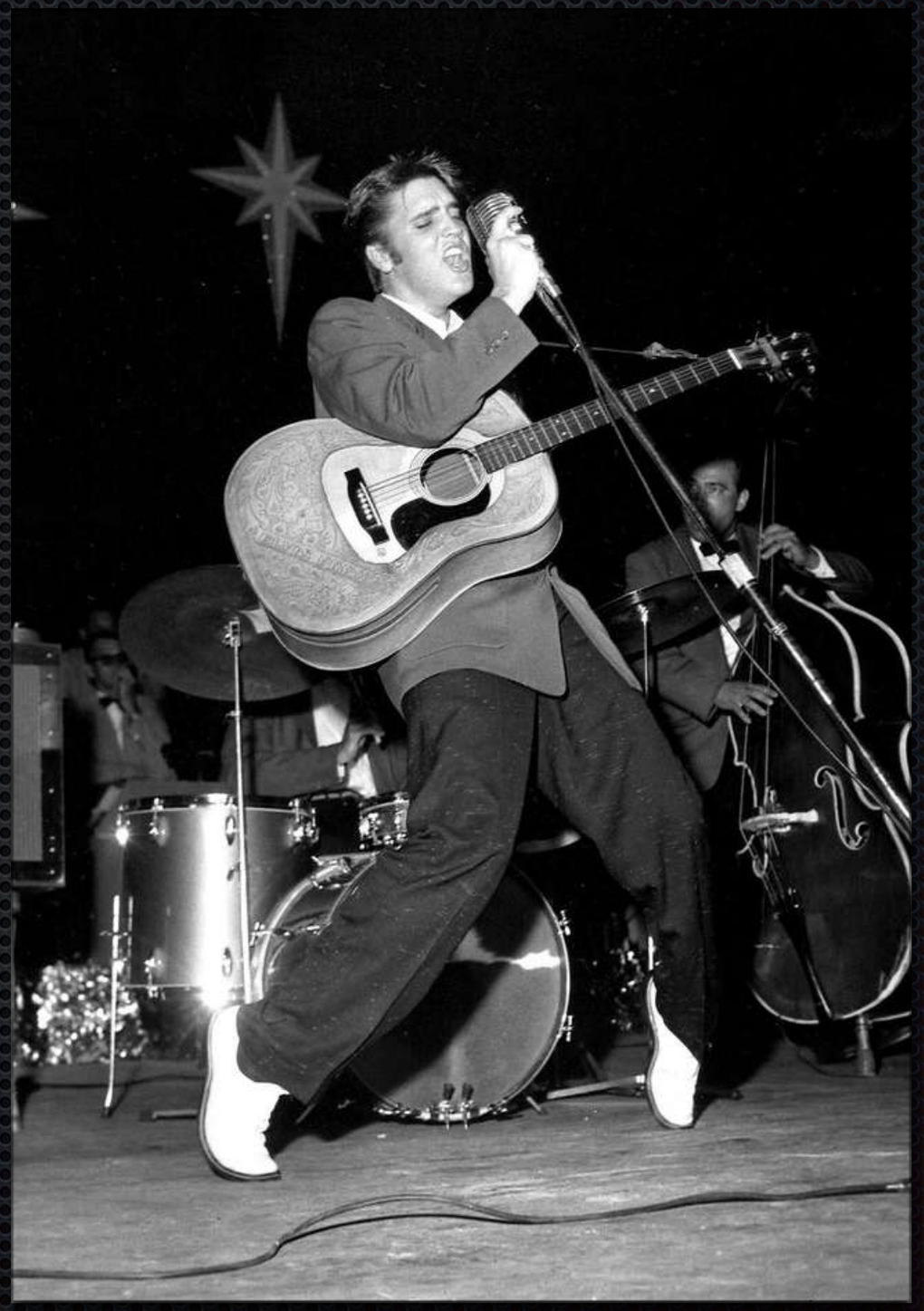
When it’s about Realtime

- Extreme Amount of Events
- Low Latency as Possible
- Volatile Events
- Ephemeral Events
- Usually Reduced Payload

VIDEO COMPUTER SYSTEM™
ATARI

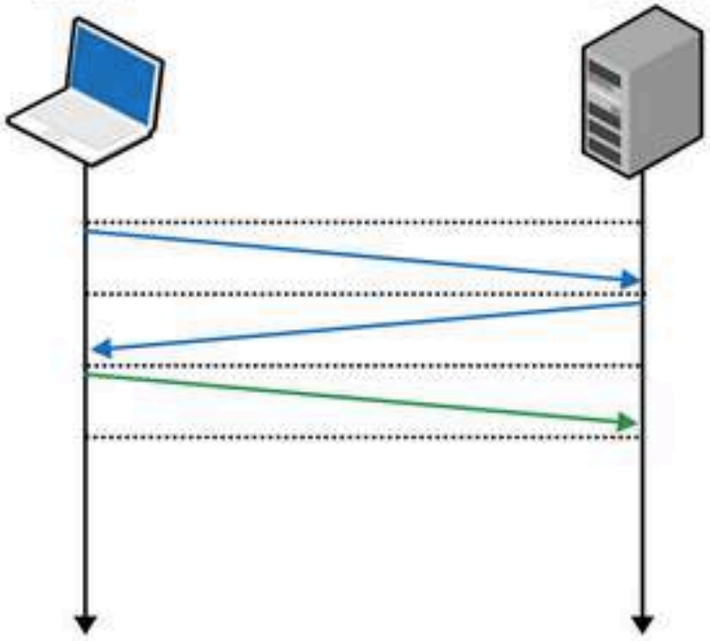
"It's now or never"

Elvis - The King



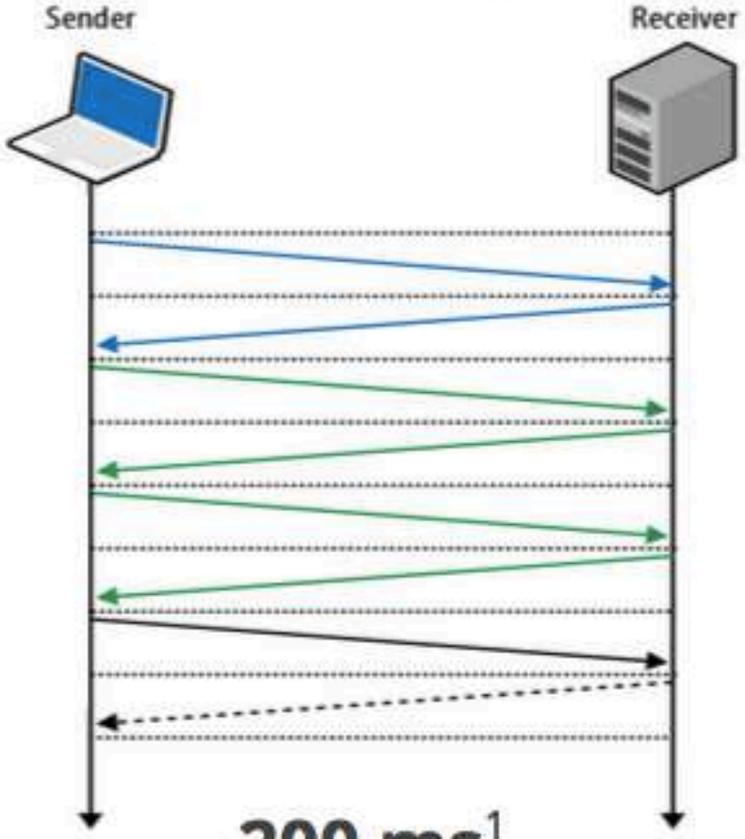
Zero RTT Connection Establishment

TCP



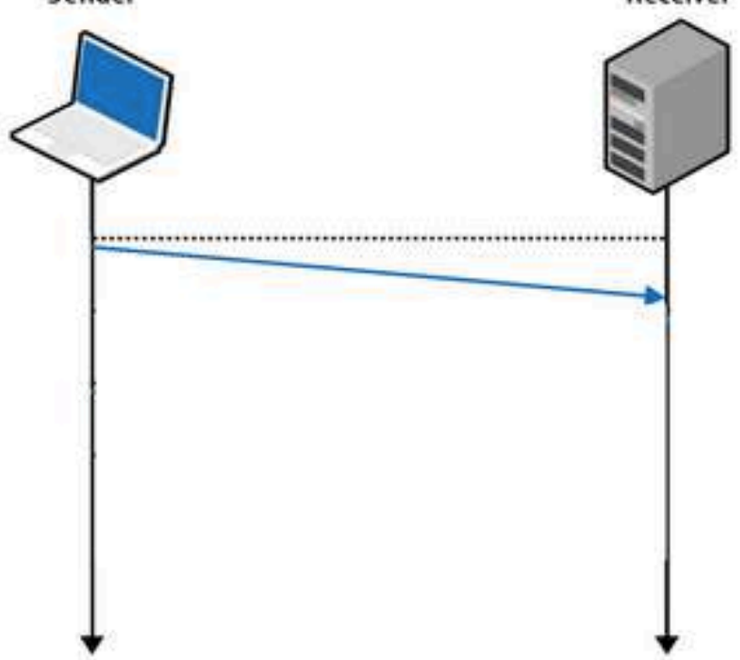
100 ms

TCP + TLS



200 ms[1]
300 ms[2]

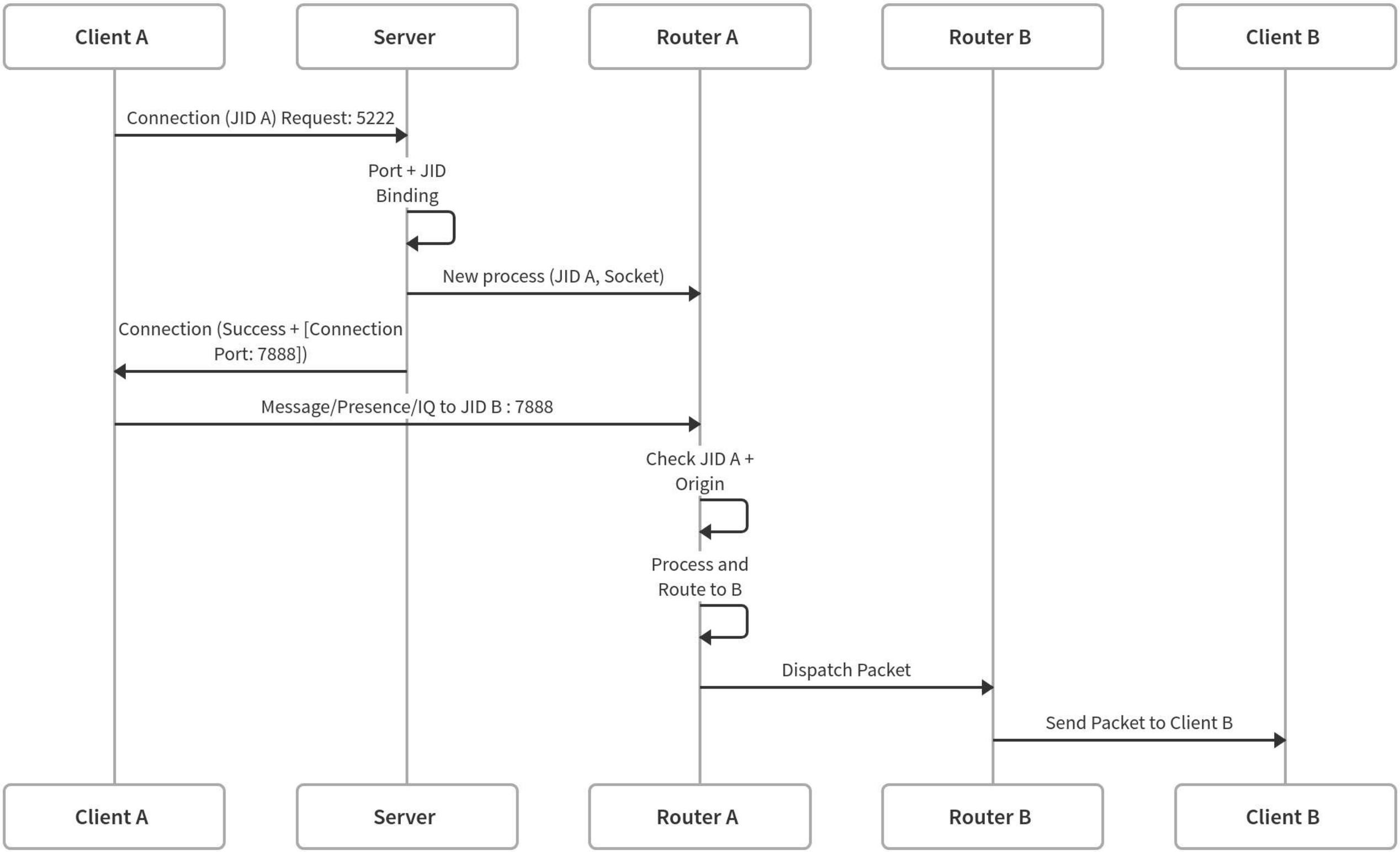
QUIC
(equivalent to TCP + TLS)



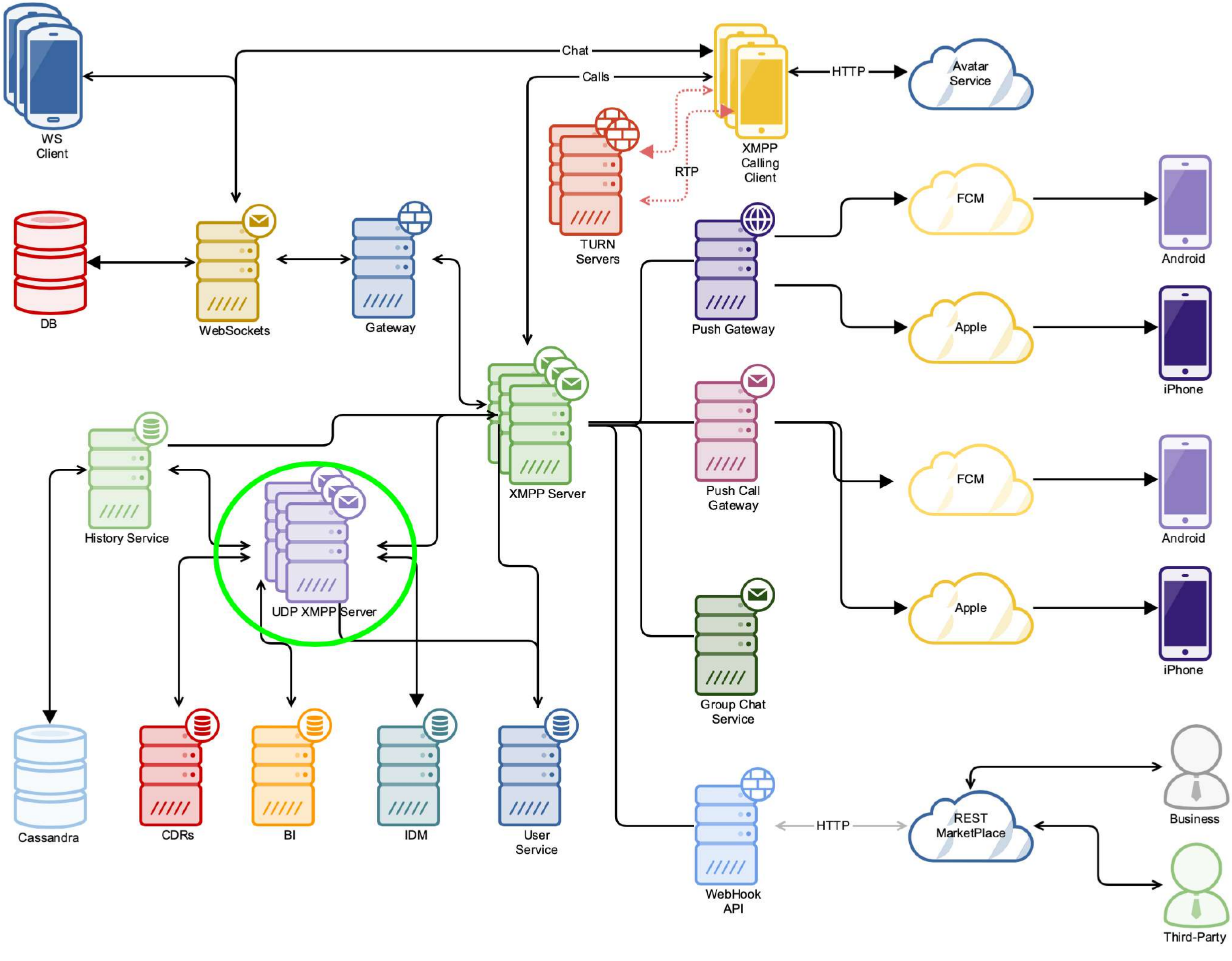
0 ms[1]
100 ms[2]

1. Repeat connection
2. Never talked to server before

Connection and Packet Flow



POWERED BY swimlanes.io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Cassandra
CDRs
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IDM
User
Service
HTTP
REST
MarketPlace
Business
WebHook
API
Third-Party

https://github.com/xmppjingle/uxmpp

@xmppjingle

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