AWS Summit

AWS 技术峰会 · 北京 2014

多渠道计费系统最佳实践 - SQS

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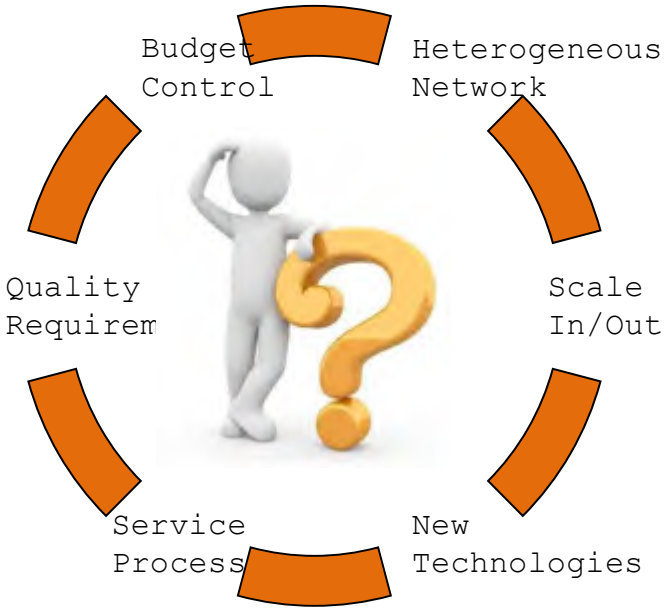
Agenda

1. Issues and Challenges
2. Alternative Proposals
3. Production IT Evaluations
4. Final Solution

Issues and Challenges



- More distribution platform，More billing channels
  - AppStore, Google play, T-Store …
  - Apple IAP, Google play billing, Alipay …
- Heterogeneous network architecture
  - TCP, HTTP …
  - Syn/Asyn callback…

Issues and Challenges

- Scalability and integrality

  Require less upfront time to develop and configure.

  Easy to extend the service.

  Easy to integrate with existing service.

- Service quality standards

  Zero tolerance to the billing failed.

  Security provision

Alternative Proposals

- RabbitMQ

  Erlang environment
  Administrative burden

- ZeroMQ

  High Performance
  Success gurantee
  No message persistence

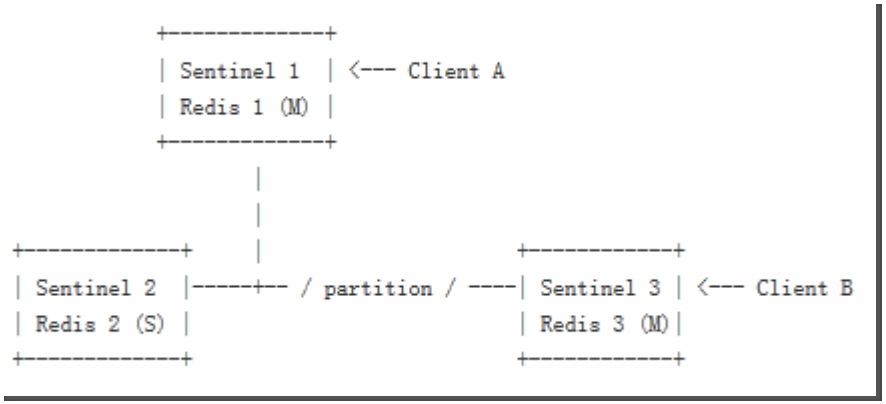
Alternative Proposals

- ActiveMQ
  - JVM based and compatible with other J2EE container
  - Hard to deep dive

- Redis Queue
  - High Performance
  - Drop dramatically with large size message

Production IT Evaluations / Redis HA

1. Redis M/S with keepalived
2. Redis Sentinel (*)
3. Other 3rd Party Cluster Plans



Production IT Evaluations / Redis Cost VS Capacity

At least 2 m3.medium instances,
¥ 1249.92 per month

How many operations per second (OPS) could the Redis server sustain:
Throughput 50,598

Production IT Evaluations / SQS HA

Reliable
Amazon SQS runs within Amazon's high-availability data centers, so queues will be available whenever applications need them. To prevent messages from being lost or becoming unavailable, all messages are stored redundantly across multiple servers and data centers.

Scalable
Amazon SQS was designed to enable an unlimited number of messaging services to read and write an unlimited number of messages at any time.

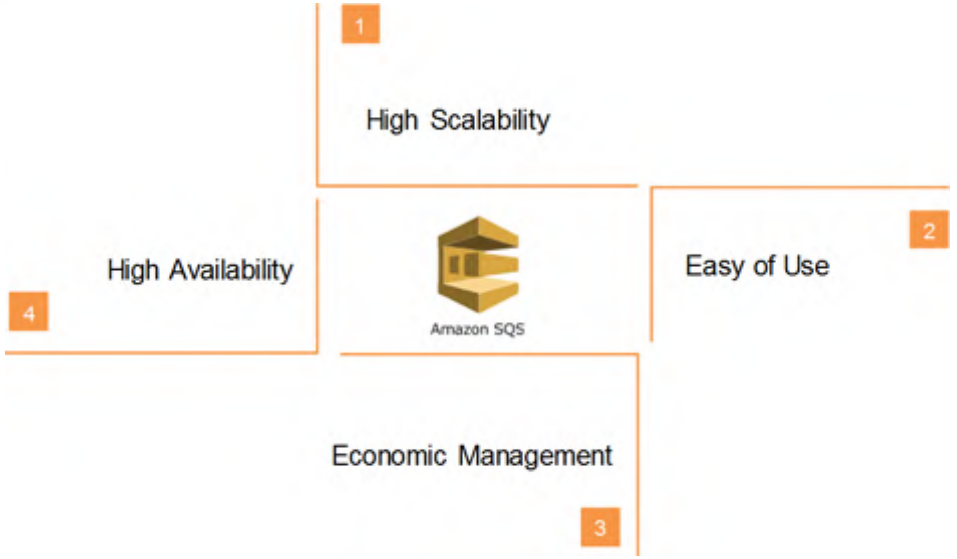
Production IT Evaluations / SQS Cost VS Capacity

¥ 3.73 per 1 million Amazon SQS Requests (¥ 0.00000373 per SQS Request)

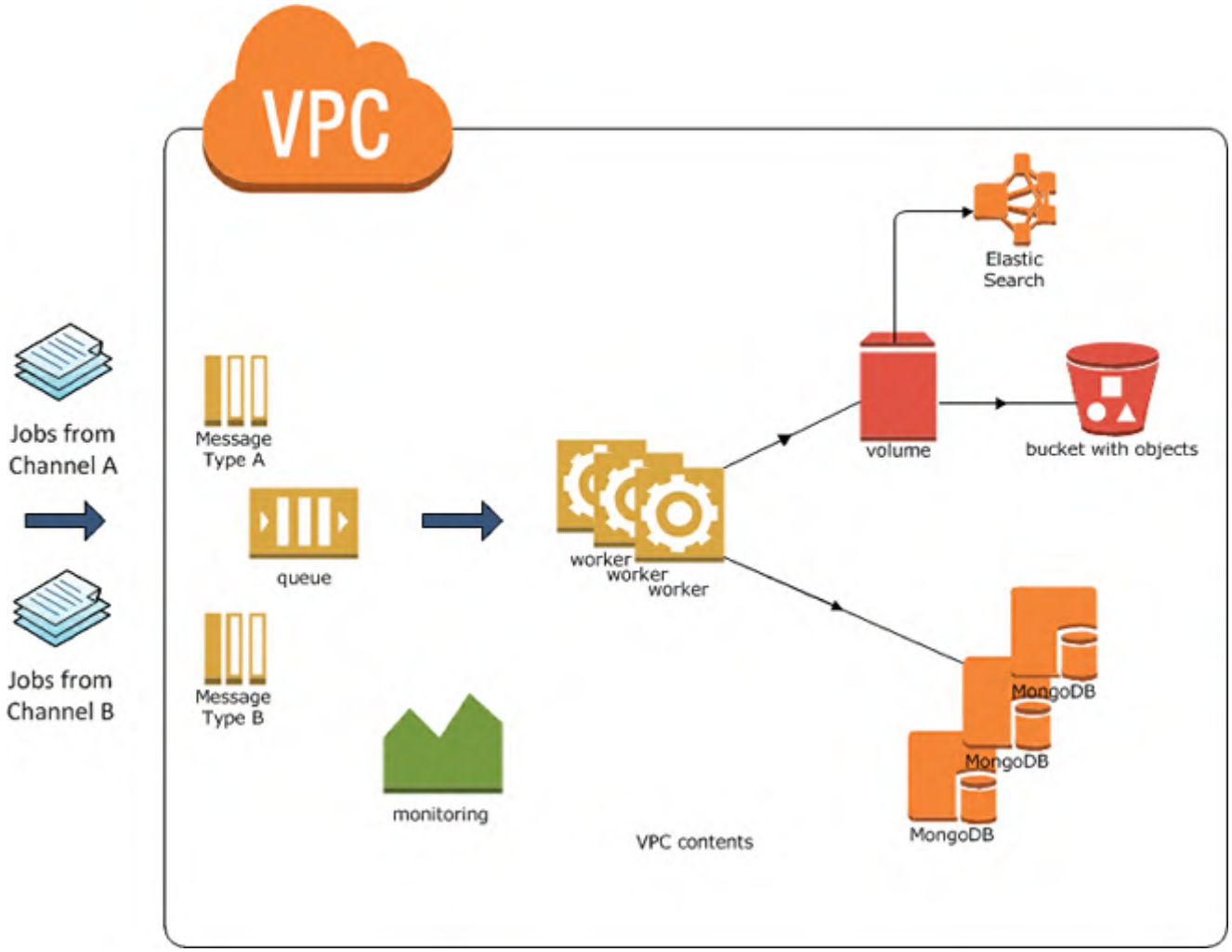
All data transfer in	¥ 0.000 per GB
All data transfer out	¥ 0.933 per GB (Promotional)

¥ 1242.92 gives you about 266 millions requests (1k per request)
That is around 8.8 millions per day (LOL)

Production IT Evaluations / Result



Final Solution



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