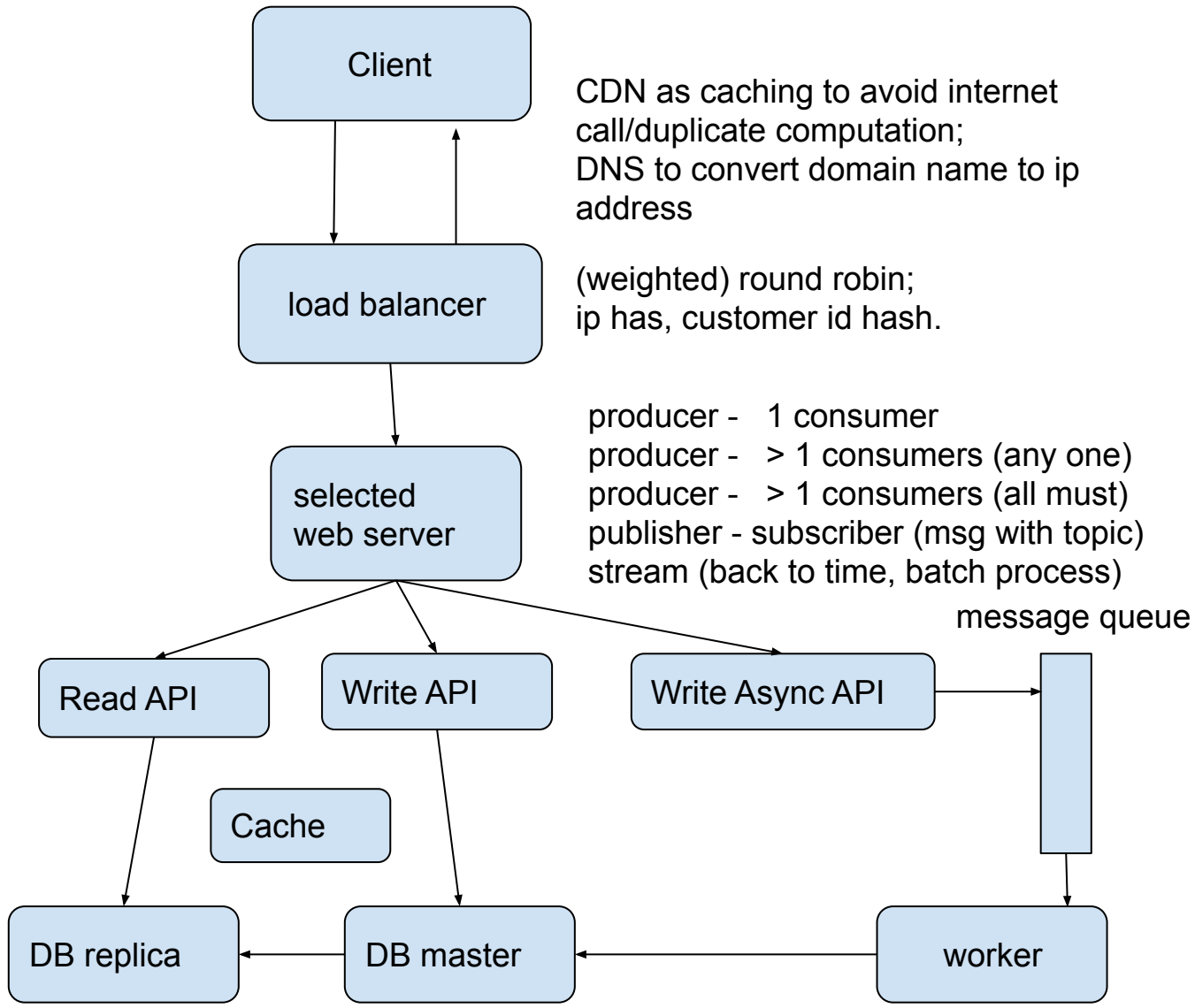


Google Analytics Backend Services - Tony Huang

single point failure
consistent hashing:
store and retrieve, add
and delete node with
minimum data move
hash ring, closest node.

atomic (either
none or all);
consistent (before
and after);
isolation (no use
of each other's
intermediate
result);
durability (in disk)

URI/resource,
method, content/json,
ask for authorization
before.
Get return content
and status.



CDN as caching to avoid internet
call/duplicate computation;
DNS to convert domain name to ip
address

(weighted) round robin;
ip has, customer id hash.

producer - 1 consumer
producer - > 1 consumers (any one)
producer - > 1 consumers (all must)
publisher - subscriber (msg with topic)
stream (back to time, batch process)

storage: cache, sql DB, NoSQL DB, file system

Database: indexing, sharding (consistent hashing)