day 10

mobile development

day 11, day 12

I'm still struggling to understand the concept of a callback function. Could we go over that again?

So when we talked about Ajax and you showed us the lag Google maps exhibits when dragging around quickly, it seems what actually happens is that for a split second we are shown a very blurry image of a map, which then comes into focus a second later. It seems that the lag is not due to communication time with the server (as I presume we would see a blank space for a second instead of seeing a blurry map that eventually comes into focus) but rather the rendering time on the client side. Is this a correct way to think about it? In general, when it comes to client-side image rendering, does that lag time usually outweigh the lag of the actual communication time with the server? Is that a bottleneck of the browser's power or of the client-computer's RAM?

When the appearance/format of a website changes dynamically (for example a carousel graphic, or elaborate iterations of graphics or headers, for instance here http://gisele.underarmour.com) is this an example of ajax or asynchronization? Or is this a different complicated front-end programming language and ajax is more back-end?

What's the difference between local storage and a cookie? When is an example you would use local storage and not a cookie?

vertical scaling

CPU

  cores, L2 cache, …

Disk

  SATA, SAS, SSD, …

  RAID

RAM

…

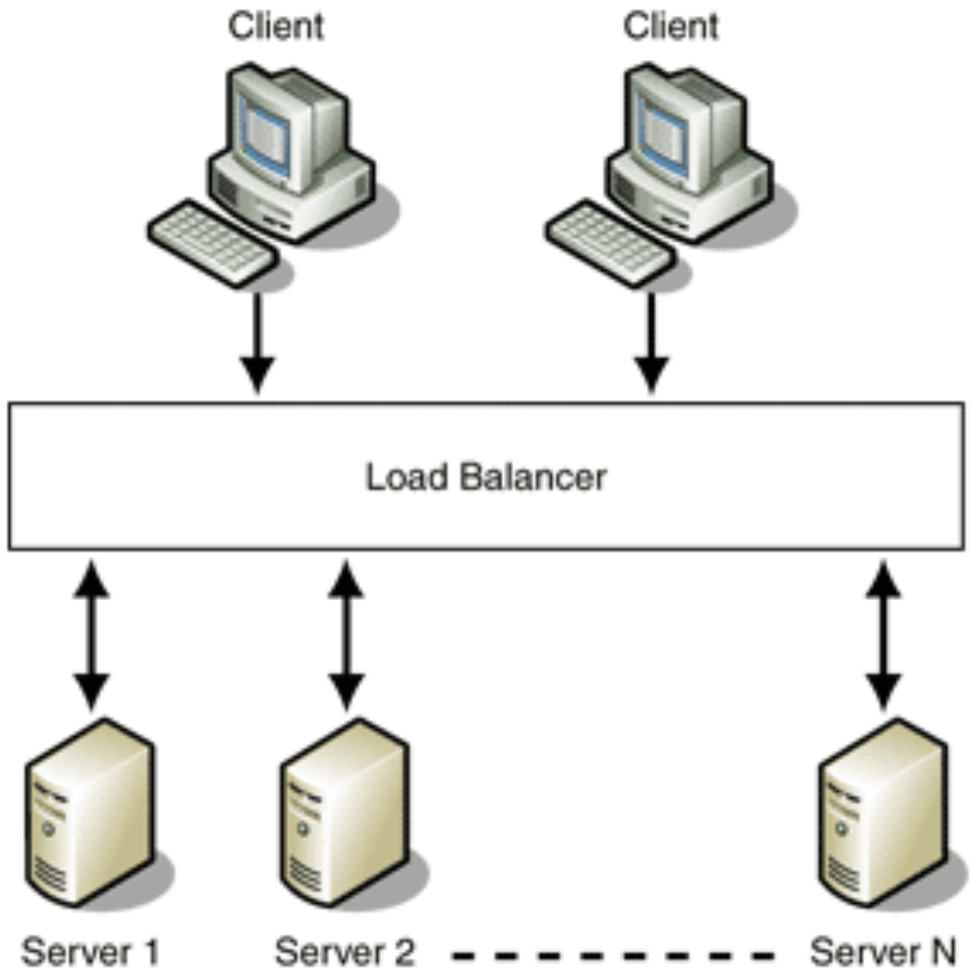
horizontal scaling

extremetech.com

caching

- Python bytecode
- MySQL query cache
- Memcache
- Redis
- …

load balancing



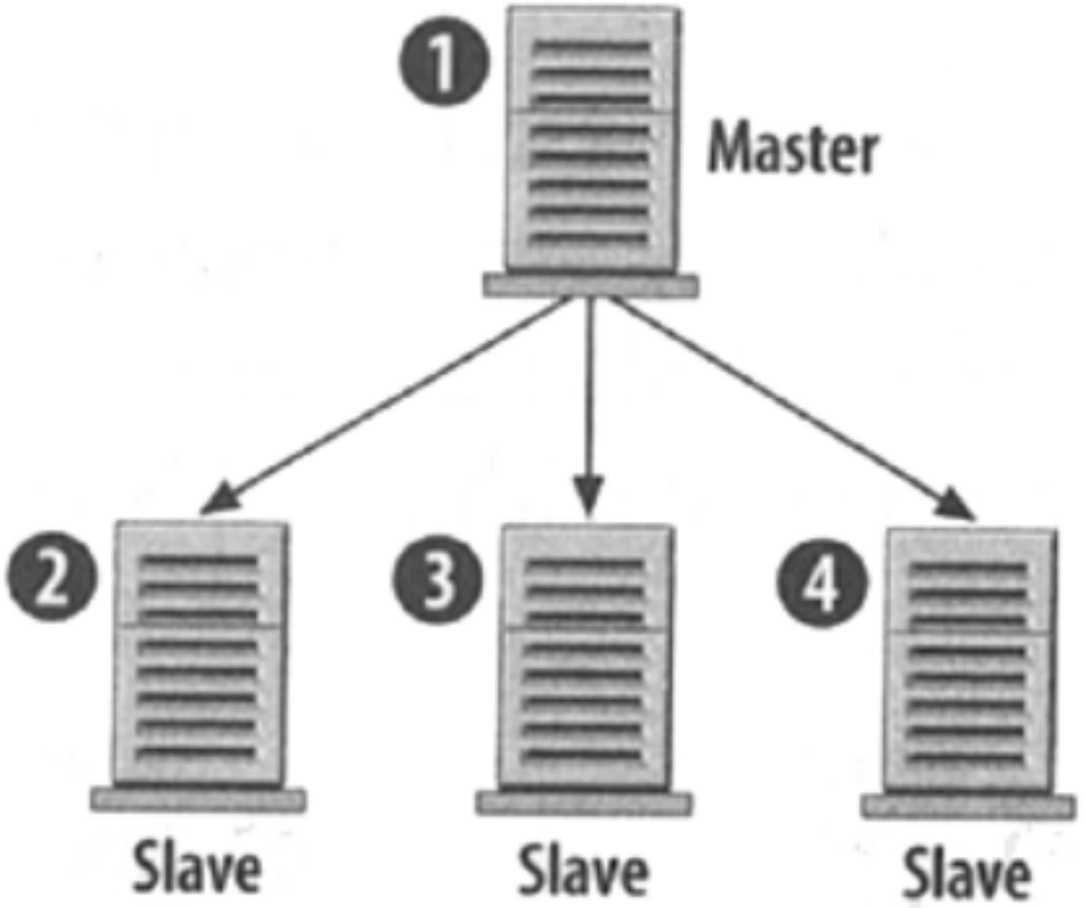
```
% nslookup www.google.com

Non-authoritative answer:
Name: www.google.com
Address: 173.194.219.99
Name: www.google.com
Address: 173.194.219.106
Name: www.google.com
Address: 173.194.219.147
Name: www.google.com
Address: 173.194.219.104
Name: www.google.com
Address: 173.194.219.105
Name: www.google.com
Address: 173.194.219.103
```

sticky sessions

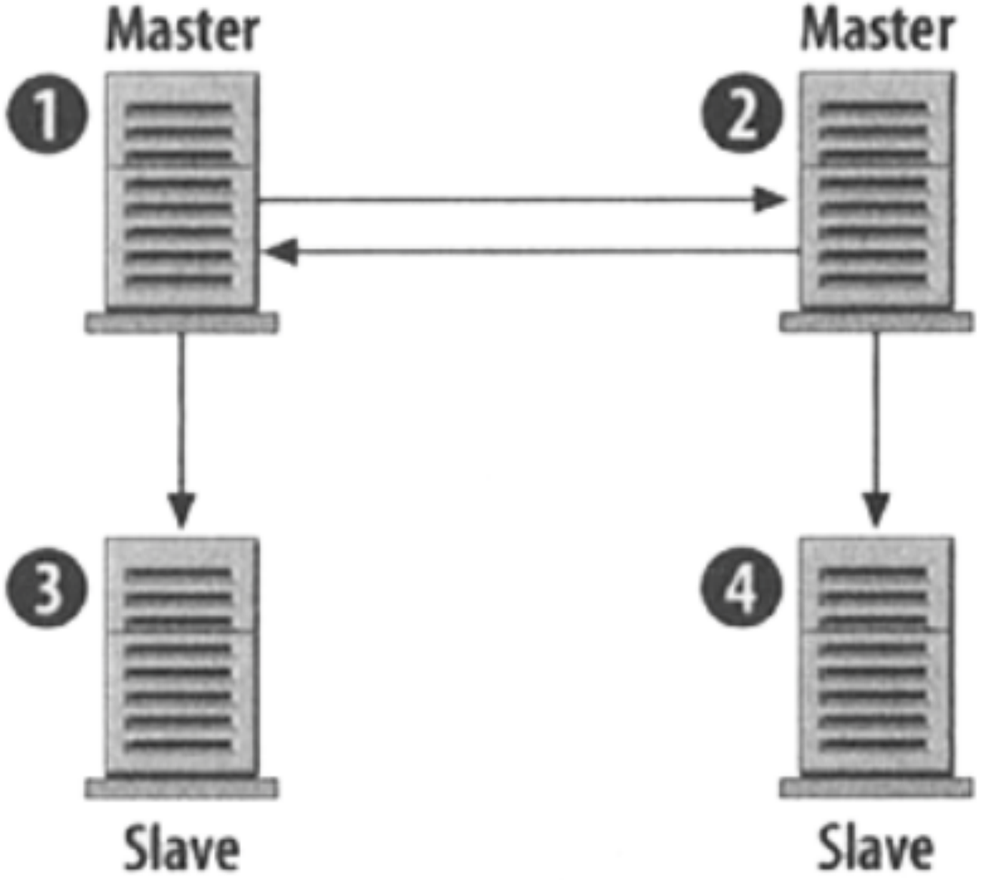
cookies

shared storage

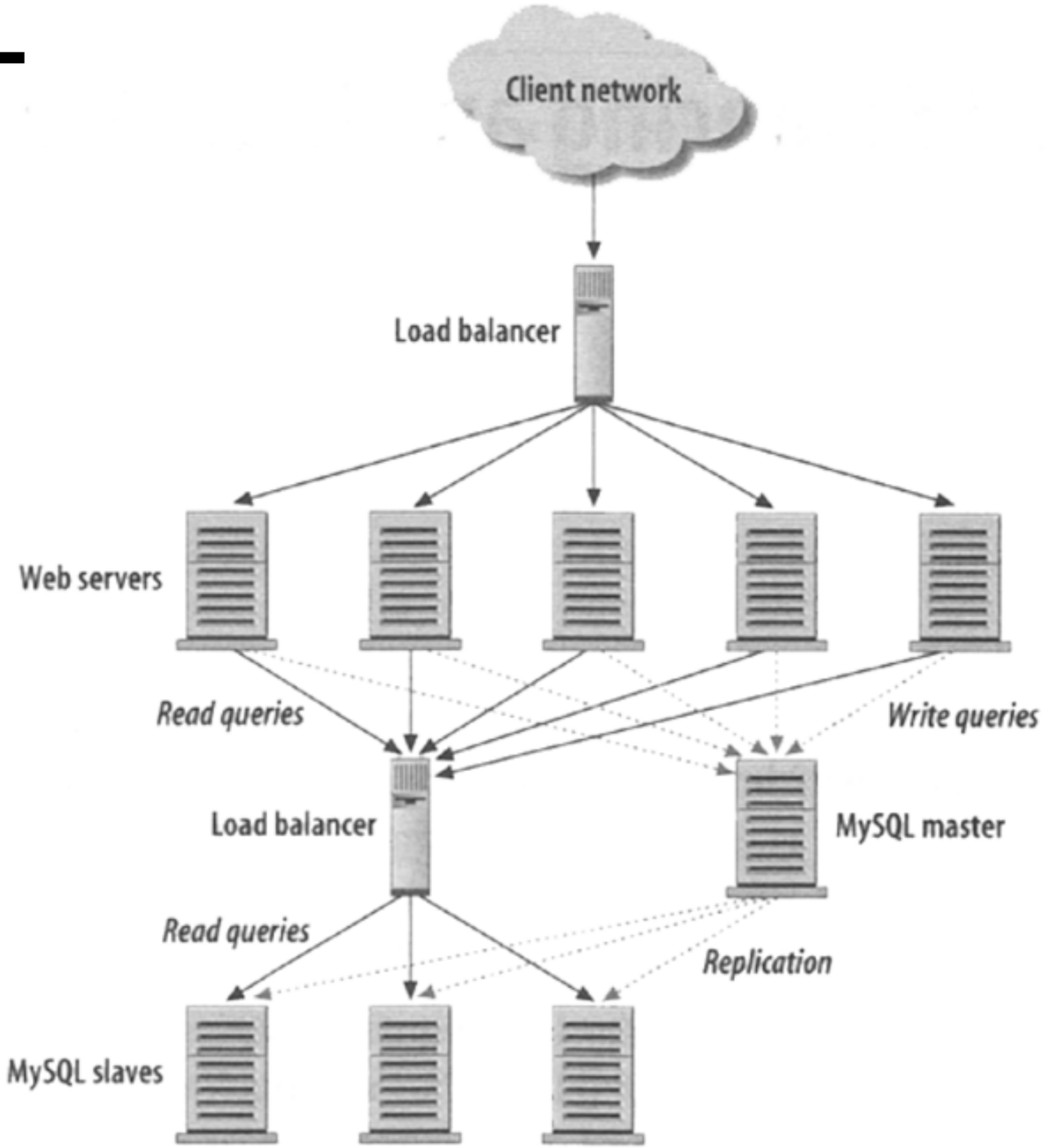
master-slave replication



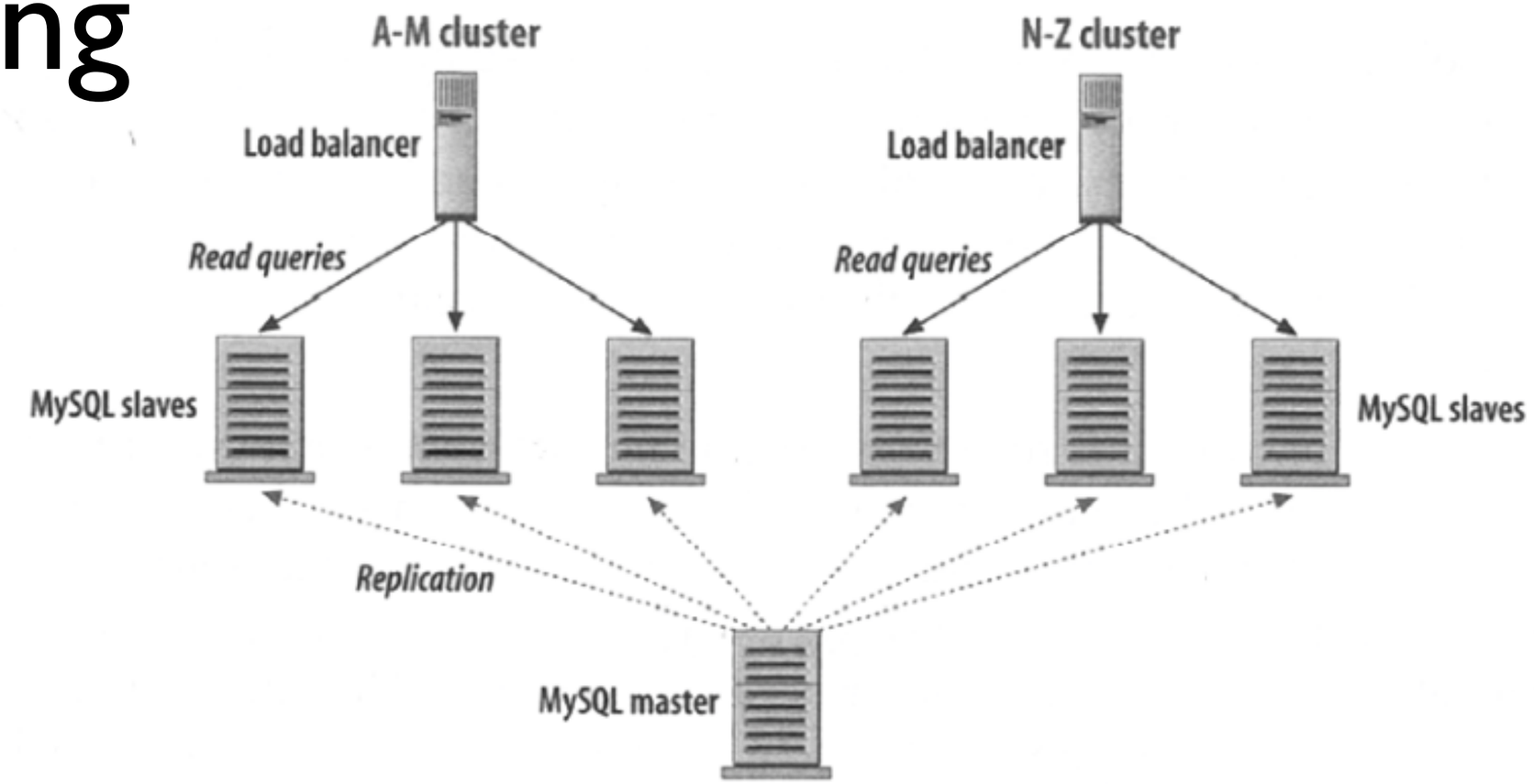
master-master replication



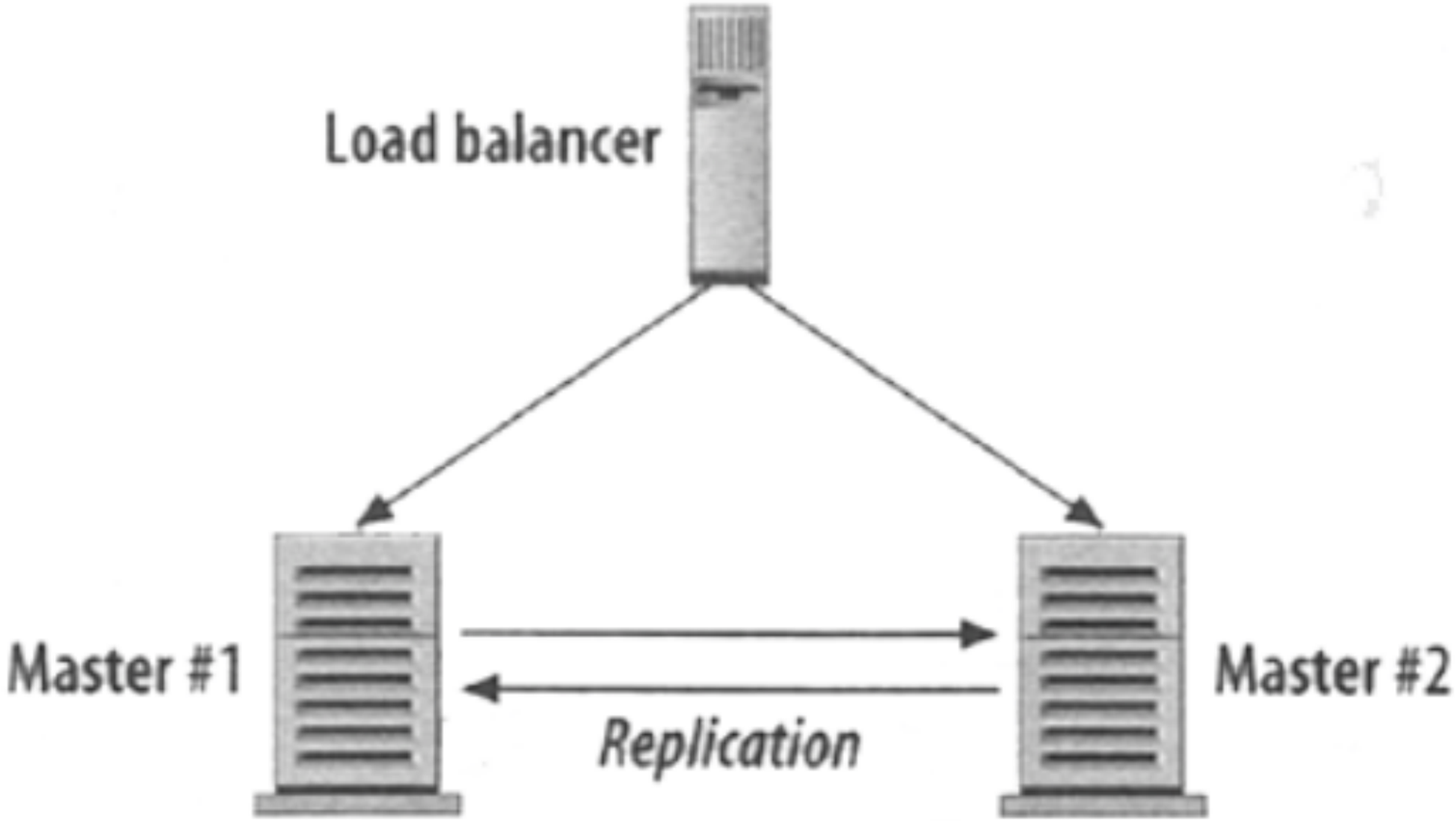
load balancing + replication



load balancing + replication + partitioning



high availability



cloud services

Amazon Web Services

Google App Engine

Microsoft Azure

…

Amazon Web Services

CloudFront
Elastic Compute Cloud (EC2)
Elasticache
Elastic Load Balancer (ELB)
Glacier
Relational Database Service (RDS)
Route 53
Simple Storage Service (S3)
…

to be continued