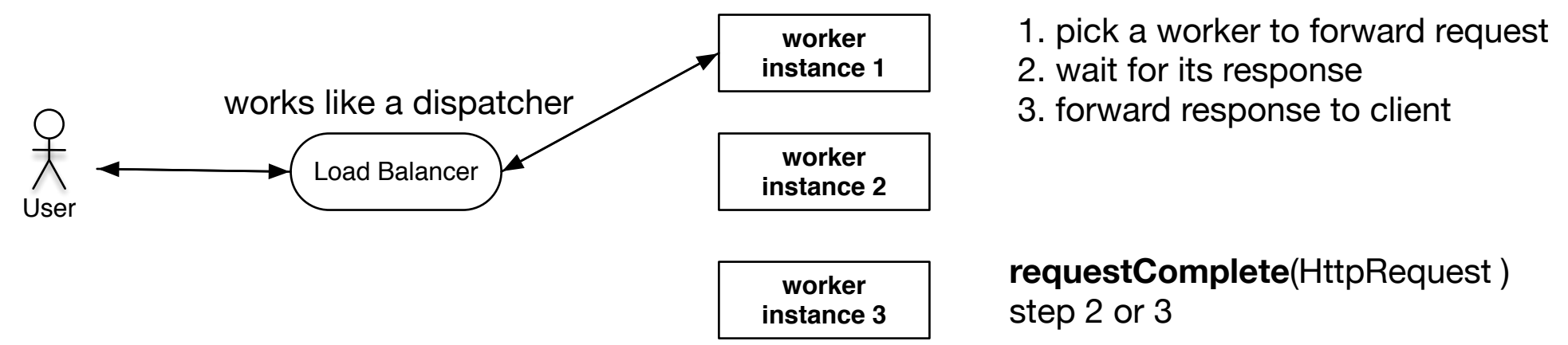


Load Balancer



forwardRequest(HttpRequest)

- 1. random
- 2. round robin
- 3. least busy (available filtering mode)
- 4. sticky session/cookies (source IP hash mode)
- 5. by request parameters

0. Round robin

- allocates servers in a rotational basis. The first request was forwarded to the first server, and second to the second server and so on. It is a server allocation in a continuous looping fashion.

1. weighted response time mode

- uses the **response information from a server health check** to determine the server that is responding fastest at a particular time

2. availability filtering mode

- uses the connection information from a server. Pick the one that is serving the least number of active sessions at the current time.
- if active connection count are the same, then consider the weight of the servers, higher one will be allocated to serve the new request

3. source IP hash mode

- uses an algorithm that takes the source IP address to generate a unique hash key to pick a particular server (**ensure stickiness - limitations source IP dynamically changing**)

Round robin:

- 1. data structure - ArrayList - random access, dynamically resizing
next_index = (current_index + 1) % size;
- 2. how to add/remove/update information of a given server