Design of a Client-side Monitoring System

Learn to design a system to monitor the errors that don't reach our service.

We'll cover the following

A service has no visibility of the errors that don't occur at its infrastructure. Still, such failures are equally frustrating for the customers, and they might have to ask their friends, "Is the service X down for you as well?" or head to sites like Downdetector to see if anyone else is reporting the same issues. They might report the problem via a Tweet or some other communication channel. However, all such cases have a slow feedback loop. As a service provider, we want to detect such problems as quickly as possible to take remedial measures. Let's design such a system.

Initial design

To ensure that the client's requests reach the server, we'll act as clients and perform reachability and health checks. We'll need various vantage points across the globe. We ca run a service, let's call it prober, that periodically sends requests to the service to check availability. This way, we can monitor reachability to our service from many different place