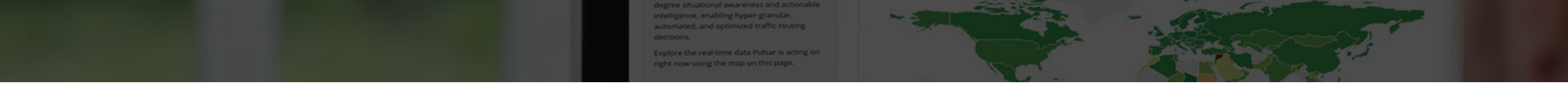

degree situational awareness and actionable
intelligence, enabling hyper-granular,
automated, and optimized traffic routing
decisions.
Explore the real-time data Pulsar is acting on
right now using the map on this page.

NS1.

# Geotargeting and Geofencing

**NS1's revolutionary Filter Chain technology perfectly balances the competing interests of power, flexibility, and usability, allowing you to configure complex routing algorithms that direct end users to your infrastructure in a way that's custom tailored to your application, infrastructure, and network.**

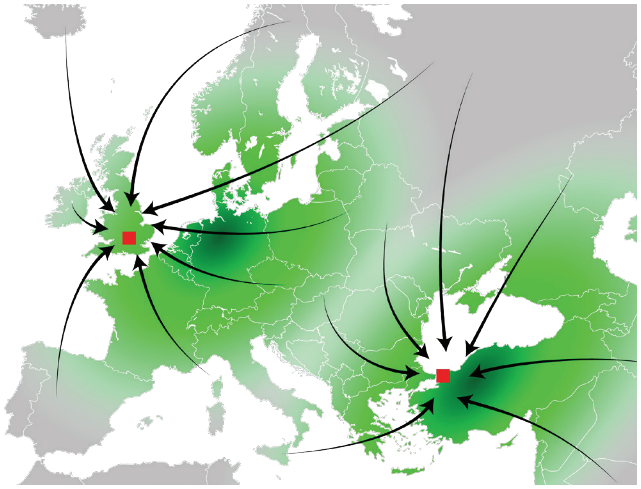
Today you can mix and match more than 15 Filters to route your traffic in a way that makes most sense for your business. There are filters let you balance traffic evenly or based on weights and commits, impart properties into your answers like stickiness and priority, and filters that let you make routing decisions based on real-time Data Feed metrics like Up/Down status, active connection counts, and health-data like system load and Apdex.

One of the most powerful pieces of information we can use to route your end users is location. NS1 offers several unique ways to use geographic data to make routing decisions, but broadly speaking they fall into two categories: targeting and fencing..

## Geotargeting

Adding location metadata (coarse region, country, state, or even lat/long) to each of your servers or datacenters and enabling one of our geotargeting filters provides turn-key proximity-based routing. When a request hits our nameservers, we reference our state of the art geo-IP database to determine the location of the end user. In real-time our DNS kernel automatically calculates the user's proximity to your datacenters, and each of your servers will act like a source of gravity, attracting end-users from around the globe and ensuring they're routed to your nearest answer.

In addition to maintaining one of the most accurate and up to date geo-IP databases in the industry, NS1 also employs cutting edge technologies like edns-client-subnet. The result is a geographic routing engine with unparalleled speed and accuracy.



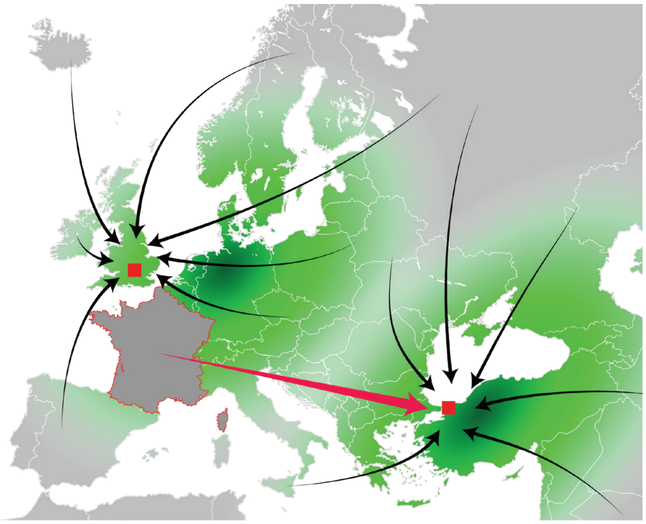
## Geofencing

Geofencing filters look at requests coming from specific IP prefixes, regions, countries, or states, and by cross referencing the IP of the requester with our geo-IP database, route and restrict those end-users to the servers or datacenters of your choosing. This allows you to go beyond simple geographic proximity in order to build a routing algorithm that's based on your real world business needs.

Suppose we have two datacenters, one in London and one in Istanbul, and a copyright law prevents users in France from accessing information that's stored in England. We still want to route your users to the closest datacenter unless the user is located in France. By adding "France" to the country-level metadata on your Istanbul answer and enabling one of our geofencing filters, end users in Paris will always be routed to Istanbul, while all other users who are not explicitly geofenced will continue on to be routed to either London or Istanbul, whichever is closer.

Some other interesting use cases for geofencing:

- Ensure users in the European Union are only routed to servers that are physically located within the EU
- Serve users in China with a local CDN like Chinacache, geotarget the rest of the world to another CDN (or CDNs)
- Restrict sensitive or internal DNS records to your office IP space



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