N-ABLE™

Worldwide Data Centers:

Redundant, scalable, fast

One of the benefits of DNS Filtering is its wide expansion of DNS resolvers all over the globe.

Q. What is the Anycast Network?

Anycast is a way to route a network when multiple routing paths are available. In our case, we have over 50 data centers globally that DNS requests may go through. We announce the same IPs from those data centers, from Singapore to New York City. Our users point their DNS requests to the IP addresses we supply. Depending on which data center you're closest to, your DNS requests will be sent to that data center. So if you're in Germany, your requests might go through our Frankfurt location, while if you're in the Pacific Northwest, your requests will likely go through our Seattle location. We're able to do this through BGP (Border Gateway Protocol) and announcing our IP space from multiple locations; this is what enables Anycast.

Q. How many locations are the DNS Resolvers in?

DNS Filter maintains over 50 data centers worldwide and two completely separate Anycast Networks. That means we're faster than the competition and can guarantee 100% uptime. If a node serving your DNS requests goes down for any reason, DNS Filtering will immediately reroute your traffic to the next-nearest location with zero packet loss.

Q. How fast is your service? Will it slow down my connection or add latency?

Our servers are spread out geographically, so you hit a server close to you. This allows us to offer a very fast response time. We have only a slight hit over querying Google or Cloudflare, which is excellent considering they have minimal filtering. Our servers also distribute policy changes very rapidly. Changes to your allow/block list take place in less than one second across our servers.

Q. How robust is your network infrastructure?

Utilizing the largest public Anycast Network, our transit provider boasts an impressive 2300+ BGP peers and growing, with 19+ Internet Exchange memberships and an open peering policy. Our Anycast network is configured to automatically reroute to the next nearest destination if one of these nodes goes offline. Below is a list of our important services, along with a description of what would happen if they were degraded or offline:

DNS Resolvers

- **Primary DNS Resolver:** If this server was not functioning, requests would be gracefully rerouted to the secondary DNS resolver

- **Secondary DNS Resolver:** If this server was not functioning, there would be system-wide issues in resolving DNS requests only in the event that the primary DNS handler was also down

Dashboard

- **Analytics:** This server collects analytic data; if it is down, DNS requests are still served and data is being collected, but may not be visible in the dashboard

- **Interface (front end):** This refers to the customer dashboard/UI—if down, DNS requests are still resolved and statistics are being collected, but you may not be able to view/edit your networks

- **API:** If this server was not functioning, we would still be resolving requests, but third-party integrations may be degraded.

Q. How are my DNS requests to a large service or CDN provider handled when my city is different than the nearest DNS Filtering Anycast node city?

We support a technology called eDNS0 Client Subnet (ECS). When we receive a request from you, we note your public source IP and we pass along the /24 of that to the authoritative DNS of Microsoft 365™. They then use that information in order to provide us with the best location for you, regardless of where our anycast node that your traffic went to is located.

About N-able

N-able empowers managed services providers (MSPs) to help small and medium enterprises navigate the digital evolution. With a flexible technology platform and powerful integrations, we make it easy for MSPs to monitor, manage, and protect their end customer systems, data, and networks. Our growing portfolio of security, automation, and backup and recovery solutions is built for IT services management professionals. N-able simplifies complex ecosystems and enables customers to solve their most pressing challenges. We provide extensive, proactive support—through enriching partner programs, hands-on training, and growth resources—to help MSPs deliver exceptional value and achieve success at scale.