Anycast VS Unicast

What is Anycast?

Anycast technology is a system that increases both the speed and security of the Internet naming system and, consequently, the entire Internet by creating many copies of the same data in multiple locations across the world.

What is Unicast?

Unicast is a basic, easily deployed system for changing Internet names to computer IP Addresses. Each Unicast server responds to queries from all over the world, regardless of the geographical distance.

Good for Speed

CDNS's large and strategically distributed global Anycast network directs queries to the Anycast server nearest to the query's origin. Our extensive Anycast footprint means that users are never far away from an Anycast server. With each server responding to queries from its geographically relevant zone, response times are naturally significantly reduced.

VS

Bad for Speed

Because the Unicast system directs queries from all over the world to a single location, response times are significantly increased by the sheer distance a query must travel. For example, a query from Manchester may be directed to a nearby Name Server in London but may also be directed to one in Hong Kong, resulting in scattered queries and longer response times.

Good for Security

By broadcasting multiple instances of the same IP Address, CDNS's Anycast network greatly increases security and resilience against attack by diffusing the impact. Even in the event that one Anycast server is disabled, the remaining majority continue to broadcast and overall service is left largely unaffected.

VS

Bad for Security

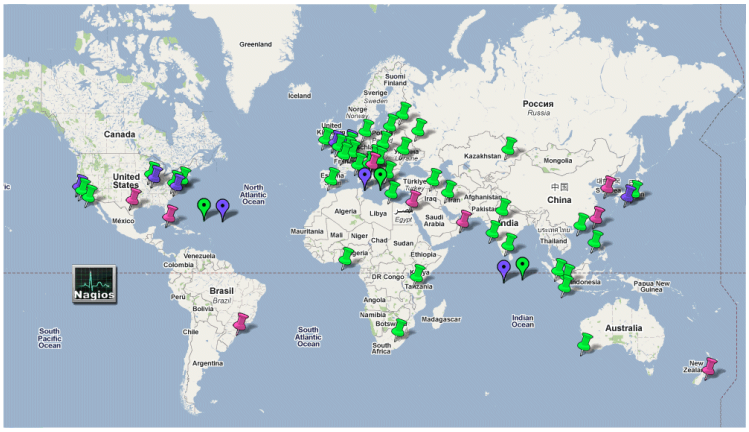
Because the Unicast system is somewhat primitive, it is significantly more vulnerable to disruption, both unintentional and deliberate. Assigning a unique IP Address to each individual server means that a DoS attack, for example, is able to concentrate on a single location for maximum disruption.

DNS Today

As reliance on the Internet by more and more essential services continues to grow, the need for greater resilience, security and efficiency has never been more important. CDNS's DNS resolution services provide the solutions required by Registries, ISPs and large Internet-dependent enterprises. CDNS utilises industry-leading technology to deliver top-class services combined with excellent customer service.

CDNS's Anycast network is comprised of six Anycast clouds with over 40 servers in more than 30 countries across the world. This means your customers are always provided with the fastest, safest and most efficient DNS service, no matter where they happen to be.

CDNS uses industry-leading technology to provide customers with a super-fast resolution service that outperforms traditional DNS platforms whilst providing military-grade security and state of the art monitoring equipment for complete peace of mind.



CDNS's Global Anycast Footprint

CDNS Fast Facts

- Six independent Anycast clouds in over 40 locations
- Customers currently include many multi-national companies and Registry operators from around the world including .EU, .BE, .PL, .VN, .PH and many others.
- Software successfully tested to handle 585,000,000,000 queries day
- Update times of less than 3 seconds anywhere in the world.
- Outperforms industry standard software such as BIND and NSD
- Extensive 24/7 real-time monitoring of all your public facing services.
- Independent validation of your data including integrity checks to prevent loading flawed data.

feedback@cdns.net