Neustar® UltraDNS®

Real-time Directory

What would it mean for your business if your website was down for a minute? An hour? A day? Dissatisfied customers, confused prospects, and potential loss for revenue would only be the beginning.
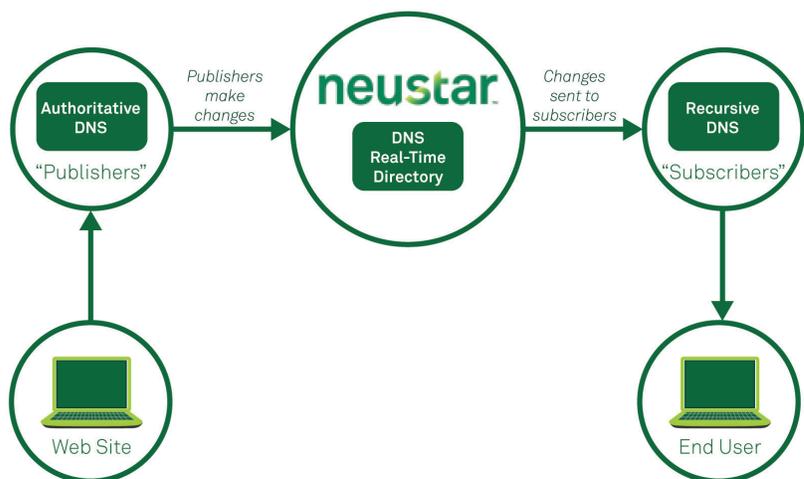
Often, the root cause of downtime can be traced back to the Domain Name System (DNS), which is the master directory that allows Web users to find your site. If a DNS entry is incorrect or out of date, users may not be able to reach your site for up to 24 hours.

Neustar's patent-pending DNS Real-time Directory is the first service of its kind to solve the issue of delayed DNS directory updates. Put simply, the Directory collects changes made to DNS entries and then sends a message out to all directory (recursive) servers to clear the corresponding information out of its cache. Clearing the cache ensures that with the next request, new data will be pulled into the directory.

How It Works

Neustar's DNS Real-time Directory has three components: a consolidated collection of DNS changes, authoritative servers that publish those changes, recursive servers that accept those changes. The directory leverages Neustar's powerful UltraDNS platform to improve the responsiveness and performance of individual websites.

In the spirit of improving Internet performance for all users and websites, Neustar is pioneering and sponsoring the DNS Real-time Initiative, which is intended to improve the Internet's performance as a whole. Contact Neustar today for more information about joining the DNS Real-time Initiative as a subscriber or publisher.

WHY THE INTERNET NEEDS DNS REAL-TIME DIRECTORY

Today's Domain Name System (DNS) has no central management. DNS changes can't and don't happen automatically and it's generally accepted that there will be a "lag time" (known to some as "Time to Live," or TTL) during which the site will not be accessible to Internet users. The default setting for TTL is 24 hours—an eternity in the online world.

How will DNS Real-time change day-to-day operations?

- Manageable disaster recovery: change and update IP addressing as needed.

- Instant error correction: corrections will take effect immediately — everywhere across the internet.

- General flexibility: fears of change and concerns about inaccessibility will be a thing of the past.

Subscriber Benefits:

- Free: Improve your end users' online experiences at zero cost.

- A Better User Experience: Eliminate website inaccessibility due to outdated directory information.

- Customer Support: Reduce customer support costs related to website inaccessibility.

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Real **Intelligence.** Better **Decisions.**

Subscriber Benefits Cont'd:

- Accuracy: Ensure that your end users get the most accurate and reliable Internet experience.

- Security: Guard against security issues such as cache poisoning.

- Innovation: Become a part of an initiative working to improve the performance of the Internet!

Publisher Benefits:

- Customer Experience: Provide most current DNS to your customers.

- Reliability and Speed: Give customers the ability to rapidly deploy changes, regardless of TTL settings.

- Security: Push out updates to domains suspected to be involved in cache poisoning attacks.

- Low Barrier to Adoption: the DNS Real-time Directory is easy to deploy, and transparent to support internally.

- Customer Service: Reduce support calls and costs related to DNS propagation.

- Innovation: Become an integral part of a team working collectively to improve the performance of the Internet!

Who is a subscriber?

Subscribers to Neustar's DNS Real-time Directory are providers of Recursive DNS services to Internet end-users. They may include Internet service providers (ISPs), enterprises, government agencies, and consumer-facing public Recursive DNS services such as OpenDNS and DNS Advantage. The Directory will send changes to your recursive servers to clear outdated cached answers.

How do I integrate my recursive DNS with the DNS Real-time Directory?

Subscribers download and install the DNS Real-time Directory subscriber script on their Recursive DNS servers. The script listens for updates, and then instructs the Recursive DNS server to "flush" items from the caches. Each customer provides source IP information for the servers running the script to configure their feeds. Several common DNS platforms are pre-configured, including BIND, PowerDNS, Unbound, Microsoft DNS, Nominum, and others.

Who is a publisher?

Publishers to Neustar's DNS Real-time Directory are providers of Authoritative DNS services. They may include all players with a role in updating DNS records including Root Servers, TLDs, SLDs, Registrars, CDNs, and others. Publishers provide a feed of domains to be updated using Neustar's DNS Real-time Directory service to propagate changes out to subscribers.

How do I integrate my authoritative DNS with the DNS Real-time Director?

Similar to the subscriber side, publishers will download and install the DNS Real-time Directory publisher script in their Authoritative DNS systems. The script updates the domains in the DNS Real-time Directory, which subsequently instructs subscribers' recursive DNS servers to flush items from their caches. Each publisher provides source IP information for the servers running the script to configure their feeds to publish to.

For More Information

Online **www.neustar.biz**

About Neustar

Neustar, Inc., (NYSE: NSR) is a trusted, neutral provider of real-time information and analysis to the Internet, telecommunications, information services, financial services, retail, media and advertising sectors. Neustar applies its advanced, secure technologies in location, identification, and evaluation to help its customers promote and protect their businesses. More information is available at **www.neustar.biz**.

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