

Oracle Dyn DNS Overview

Trusted by the World's Most Influential Web Properties

Why Should You Rethink Your DNS?

DNS is something we simply take for granted. You probably get it from your internet service provider (ISP) or cloud provider. But when your DNS doesn't provide the manageability, reliability, or performance you need, it can have an enormous impact on your business. With DNS failures and hacker attacks becoming more frequent and costly,¹ it's time to rethink the investment you are making in DNS.

DNS Reliability and Consistency Matter!

Ensuring high-quality user experiences is just one reason to partner with the DNS experts at Oracle Dyn. Another is that we consistently respond to DNS queries from anywhere in the world in less than 30 milliseconds and propagate DNS records across the globe in under a minute. And that's important, because consistency in response times is just as important as speed.

A shocking number of internet disruptions occur each month—so reliability, or lack of it, has a direct impact on your business and your bottom line.

Why Oracle Dyn DNS?

Enterprise-class managed services and support: Our world-class technology is delivered with a passion for our craft and a focus on the success of our customers. Our service is backed by dedicated support and customer success teams. With our web application firewall (WAF) solution and our industry-leading DNS, you can rest easy knowing that both WAF and DNS policies are supported by a single support team. Session flows go back and forth between DNS and WAF platforms to direct traffic to WAFs and then intelligently get to the desired endpoints. A complex scenario like this is best configured and monitored by a single support team.

Consistent, industry-leading consistency in performance: DNS resolution can account for up to 30 percent of site load time for websites and internet-facing applications. Our network is consistently fast and responsive, delivering dependable

78% of organizations reported having at least four website disruptions a month, and 15% experience 10 or more.

– according to a recent *Aberdeen Group* study

“Oracle Dyn is a very customer-oriented company. The products and services we use have served us well over the years, and we are more than satisfied with the level of service we get.”

– **Michael W. Moreo**
Assistant Director of IT,
National Arbitration &

performance for web sites and applications. If your company runs on the web, faster and more consistent DNS performance translates directly to better user experiences, improved customer loyalty, and increased revenue.

World's most comprehensive internet performance data set:

The internet performance data we collect and analyze gives Oracle Dyn the ability to deliver intelligent responses to DNS queries based on policies, geolocation, and network latency. Our internet intelligence makes you smarter with:

- Intelligent routing of traffic using data from over 600 collection points across the globe
- Collection and analysis of over 240 billion data points daily
- 40 billion decisions on traffic optimization per day

Battle-tested reliability and security: Our global anycast network is strategically located across multiple continents and leverages a mix of redundant internet transit providers. The network is split into two constellations and supports active/active failover to ensure service continuity. We monitor this world-class network 24/7 and detect and remediate 50 significant DDoS attacks every month—usually before they are noticed by our customers.

Solutions

Our Managed DNS offers advanced features that help you ensure redundancy, shape online traffic, and ease cloud migrations—all while delivering exceptional user experience.

Load Balancing and Traffic Steering

Modern DNS with intelligent response² has opened new opportunities for traffic steering across hybrid resources. But to take full advantage, you need an approach to global load balancing and traffic steering that starts at the edge: Powered by DNS, it steers user traffic to destination endpoints based on policies.

Applying global load balancing and traffic steering policies at the appropriate layer from the user edge to the endpoint where the request is served. Typical use cases include:

- **Ratio/round robin** load balancing assists with performance and cloud migration by splitting traffic based on predetermined ratios or percentages.

² Intelligent response means that a response to a DNS query is based on information that determines the target endpoint or the optimal network path to an available endpoint. A basic example of intelligent traffic steering is to "round-robin" traffic across multiple cloud or data center locations for load balancing.



Oracle Dyn DNS
network performance
is up to 10x more
consistent than
competing solutions.

- **Geolocation load balancing** is generally based on proximity of asset to user, but it can also help you comply with local regulations stipulating geo-based service areas.

Resiliency

Digital channels are critical to your business, but disruptions are far too frequent. When your site is not available, the cost is high and directly impacts the bottom line in a digital economy.

Failover

Active failover is an advanced DNS service that steers traffic to a healthy endpoint in the event of degraded service. Oracle Dyn can monitor your primary IP from multiple locations and verify endpoint health. When the primary service fails to respond, traffic is redirected to an alternate endpoint.

There are three primary failover deployment patterns. In each of the scenarios, failover is set up to monitor the server at the primary site and fail over based upon the configuration that is chosen: single-zone redundancy, nested failover, and nested failover with load balancing.

Secondary DNS

A secondary or multivendor DNS service that's "always on" is another important component of your resiliency strategy. Such a service is needed if it's not your site, but your primary DNS that suffers an outage. With a secondary DNS implementation, you'll be able to complement existing DNS infrastructure with an always-on, redundant DNS. There are three configurations to choose from:

- **Primary-Primary:** where both DNS services are in delegation. Because each DNS service is updated independently, you can update DNS records from either service.
- **Primary-Secondary:** where the existing DNS solution acts as the primary service from a DNS records management perspective, automatically updating the secondary, and both services respond to DNS queries.
- **Hidden Master:** where your existing DNS runs behind a firewall and acts as the primary DNS service and is responsible for management and configuration, while a cloud-based DNS is used for resolving queries.









"Having a leader in internet performance helps ensure that we're delivering optimal value for visitors to Zappos.com."

– **Kris Ongbongan**
Director of Technical
Operations, Zappos.com

Conclusion

By implementing Oracle Dyn Managed DNS, you'll improve overall performance and ensure greater consistency of performance.

The Unique Value of Oracle Dyn Managed DNS

		
Consistent high resiliency and performance	Advanced DDoS mitigation process	Optimized transit connections at each PoP
		
DNS propagation time in under 30 seconds	Superior geolocation accuracy	Exceptional domain expertise and performance

Ready to learn more?

We're here to discuss your DNS needs with you. Contact us or learn more at dyn.com/dns

ORACLE[®] Dyn

Oracle Dyn, an Oracle Cloud Infrastructure global business unit (GBU), helps companies build and operate a secure, intelligent cloud edge, protecting them from a complex and evolving cyberthreat landscape. Our managed Web Application Security, DNS, and Email Delivery services are powered by a global network that drives 40 billion traffic optimization decisions daily. More than 4,500 customers rely on Oracle Dyn edge services, including preeminent digital brands such as Netflix, Twitter, CNBC, and LinkedIn. Deployed as standalone solutions or fully integrated with Oracle Cloud Infrastructure, Oracle Dyn edge services are the key to delivering resilient, high-performance sites and applications.

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