

A man with glasses and a dark polo shirt stands in a server room, looking directly at the camera. He is positioned in front of a server rack with a mesh door. To his left, a bundle of blue and red network cables is visible. The background is dark, with some light reflecting off the server rack's mesh.

**PROTECT**  
YOUR BUSINESS

**D-ZONE ANYCAST  
DNS SECONDARY SERVICE**



# D-ZONE ANYCAST DNS SERVICE

## Your External DNS is Mission Critical

A high performance and reliable DNS is mission critical to your business. Fast DNS response times contribute to a positive user experience on your website and 100 per cent up-time for DNS resolution keeps your organization from disappearing off the Internet. There are numerous vulnerabilities that can take down your DNS - Denial of service attacks ( DDoS ), network outages, configuration errors, power outages. The cost of a DNS outage can range from hundreds to millions of dollars per hour.

Despite the high risk and cost of DNS outages, most organizations have not taken steps to adequately protect their DNS. The solution is a high performance and reliable anycast DNS infrastructure managed by an expert team. The cost of building and managing such an infrastructure is prohibitive for most organizations. Fortunately, D-Zone Anycast DNS Service provides a cost effective alternative.

D-Zone is a secondary DNS service that leverages a global anycast infrastructure, providing a 100 per cent SLA for DNS resolution and fast DNS response times. D-Zone helps to improve both the availability of your websites and the speed of access to them.

## REDUCE LATENCY AND ENHANCE SECURITY FOR AN ORGANIZATION'S EXISTING EXTERNAL DNS

### Backed by the expertise of .CA

D-Zone is backed by the proven experience of .CA, and leverages the same anycast infrastructure and expertise used to provide uninterrupted DNS resolution for more than 2 million .CA domains.

### High Reliability

Anycast DNS eliminates the single point of failure of unicast name servers. With Anycast, DNS queries are automatically routed around server failures or network outages. In addition each D-Zone Anycast DNS site features two load-balanced servers, backup power and diverse network connections.

### High Performance

Customers accessing your website are automatically routed to the closest nameserver. With nameservers in seven Canadian and four international locations, DNS queries are answered faster and closer to your customers. Nameservers are co-located in data centers with peering to IXPs to maximize performance.

### DDoS Protection

The D-Zone uses high-capacity international nodes with high bandwidth transit and peering at Internet Exchange Points (IXPs) to absorb DNS DDoS attacks and provide uninterrupted service within Canada.

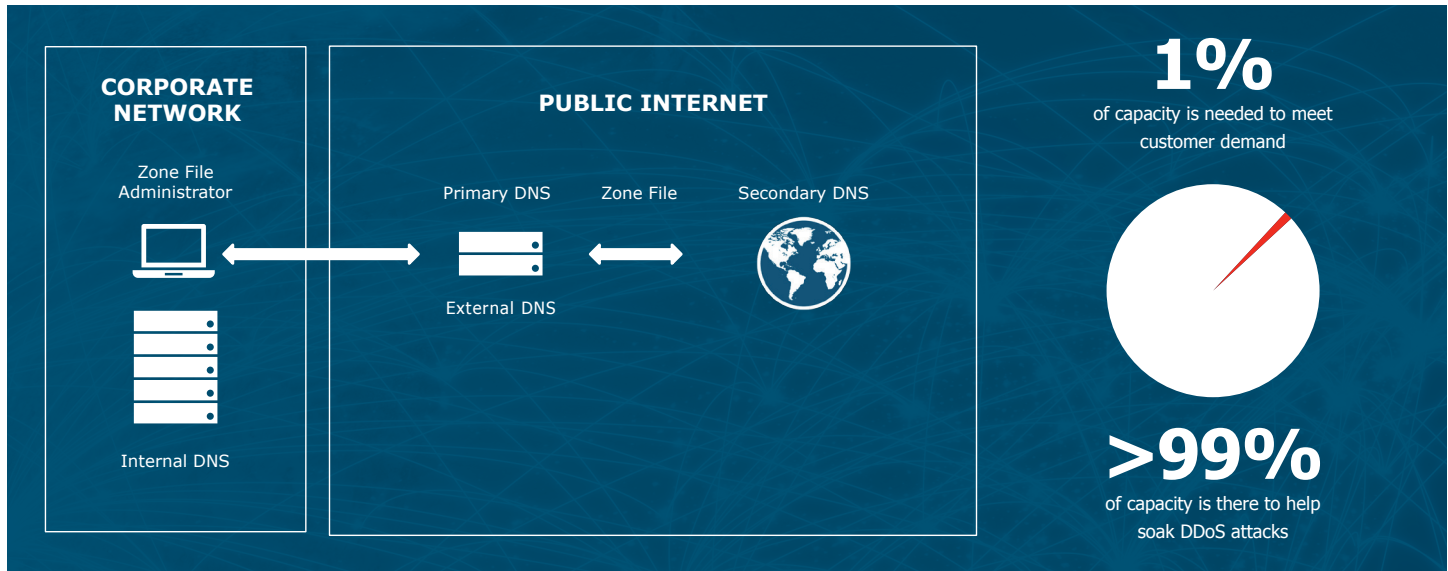
### Easy and Flexible Implementation

D-Zone Anycast DNS is easy to implement and fits seamlessly into your existing DNS architecture. Simply configure the service as a secondary nameserver. Once configured, .CA D-Zone Anycast DNS is updated from your primary nameservers using standard or secure zone transfers.

# PROVISIONING YOUR D-ZONE IS SIMPLE AND SECURE

The D-Zone Anycast DNS Service is a secondary nameserver service that is global in nature, but delivers a particular focus on Canadian traffic. As a secondary service it is easily added to an organization's existing DNS.

This approach enables organizations to maintain control of their external DNS in order to keep it safe and secure within their corporate security framework. Communication with the D-Zone Anycast DNS service can be managed via a secure zone transfer, signed using TSIG.



## FEATURE SUMMARY

### Disaster Proof

- ✓ In total 22 Anycast servers are online and managed to provide a 100 per cent up time service level agreement (SLA).
- ✓ Fully redundant, load-balanced, state-of-the-art equipment in every node helps improve capacity, latency, security and up-time.

### Faster

- ✓ Anycast technology automatically routes DNS queries to the geographically closest nameserver to reduce latency for your visitors.
- ✓ Includes seven sites across Canada in well-peered IXPs to keep latency low for your important Canadian traffic.

### DDoS Resiliency

- ✓ DDoS attacks that originate off-shore are soaked up by the International nodes to mitigate the risk that hackers can bring down your website and services.
- ✓ DDoS attacks within Canada are soaked up by the local node that is geographically closest to the attack, protecting the rest of your Canadian traffic.

### Easy to Use Web Interface and API

- ✓ Provision, monitor and manage via an easy-to-use web management console.
- ✓ Integrate D-Zone provisioning and monitoring into your existing systems using the REST API.

### Enterprise Support

- ✓ D-Zone Anycast DNS is monitored 24 hours a day by CIRA's networking and DNS experts to keep the system running and help mitigate attacks.
- ✓ 24x7 technical support.

### 100% Uptime SLA

- ✓ Our global anycast infrastructure is architected to provide uninterrupted DNS service.
- ✓ Service is backed with a 100 per cent uptime SLA.

### DNS Reporting and Alerts.

- ✓ Hourly, daily, and monthly reports by zone let you analyze your DNS traffic.
- ✓ Customized alerts based on changes in DNS activity ensure that DNS managers are the first to know about potential problems.

### Secure

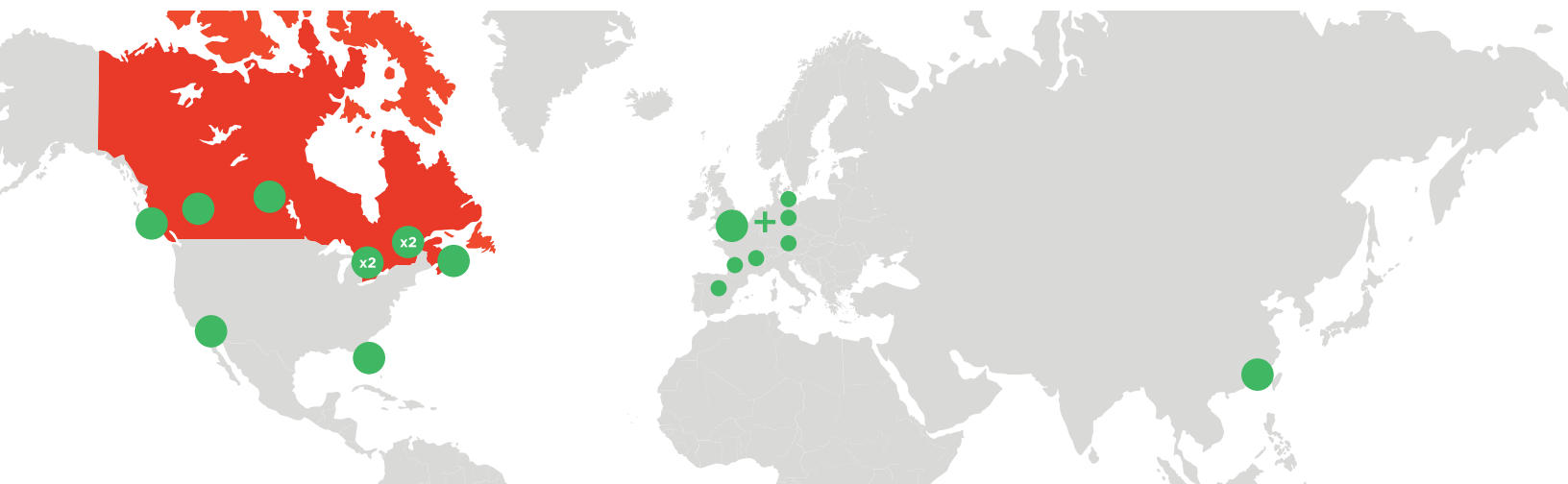
- ✓ Support for DNSSEC.
- ✓ Signed zone transfers using TSIG.

### IPV6

- ✓ Support for IPv6 DNS resolution.

## D-ZONE ANYCAST DNS - DEPENDABLE, DISTRIBUTED, DEFENSIVE AND DOMESTIC

D-Zone is a world-class anycast DNS infrastructure with a strong Canadian presence. The D-Zone service is comprised of two clouds spanning 11 locations worldwide with a super-node in London that peers to six additional European IXPs. This adds additional nodes with a capacity of more than five million DNS queries per second.



DOMESTIC	
LOCATION	GEOGRAPHY
Calgary, AB	Canada
Montreal, QC - x2	Canada
Toronto, ON - x2	Canada
Winnipeg, MB	Canada
Vancouver, BC	Canada
Halifax, NS	Canada

INTERNATIONAL	
LOCATION	GEOGRAPHY
Miami, FL	US East
Los Angeles, CA	US West
London, UK	Europe
Hong Kong, CN	Asia

## LEARN MORE

For information on ordering, finding a reseller, or becoming a reseller please contact [info@d-zone.ca](mailto:info@d-zone.ca) or visit [cira.ca/d-zone](http://cira.ca/d-zone).

## ABOUT CIRA

The Canadian Internet Registration Authority (CIRA) manages Canada's .CA domain name registry as a 100 per cent up time service for Canadians and Canadian organizations. In addition to stewardship over .CA, CIRA develops and implements policies that support Canada's Internet community and the .CA registry internationally.