

High-performance DNS TLDs can trust

CIRA TLD Anycast combines anycast technology with multiple levels of redundancy across the entire global network.

For top-level domains (TLDs) we offer flexible implementation options that include using your own IP blocks and

hybrid clouds that combine your local nodes with CIRA's global clouds.

CIRA offers a 100 per cent uptime service-level-agreement (SLA) for answering DNS queries and there have been no service-impacting outages since the service went live in December of 2014.



The need for secondary DNS services at the TLD level has never been clearer. CIRA is thrilled with the global response to the world-class network and service we offer through TLD Anycast.” | **JACOB ZACK, DNS ARCHITECT, CIRA**

Trusted by over 520 top-level domains

CIRA TLD Anycast offers less than 40ms global average response time (as measured by third-party measurement tool RIPE Atlas)



Global coverage

Connected to some of the largest internet exchanges in the world for superior performance from anywhere



Always-on

High levels of redundancy, traffic soaking and throughput capabilities



Protection against DDoS attacks

Soak up cyber threats so your TLD can keep operating as normal, monitored on IPv4/IPv6 and UDP/TCP from a large CIRA-run global monitoring network



Unparalleled performance

100 per cent uptime, fast worldwide response times and hosted in the highest quality data centres around the world for maximum resilience



Reporting and data insights

Comprehensive global monitoring and reporting systems

CIRA TLD Anycast features



IXP connections and peering

With CIRA TLD Anycast, sites are connected to internet exchange points (IXPs). In total, sites are peered with more than 8,000 networks worldwide to respond to queries in the event of a transit failure.



Management transit

CIRA maintains independent management transit capabilities outside of its dedicated query transit and IXP connectivity. The management transit is used to ensure a site is reachable in the event of a transit failure or a DDoS attack.



Redundant primaries

Our solution offers fully redundant primary server clusters in multiple data centre, with diverse network connections accessible via IPV4 and IPV6.



DNS software diversity

CIRA TLD Anycast runs on a best-practice design, incorporating diverse transit, hardware and software to mitigate against zero-day vulnerabilities and software bugs.



Global deployment

CIRA's worldwide footprint is built on flexible large, medium and small deployments, which maximizes RTT and DDoS resiliency. By focusing on network optimization, we have created a blazing fast network with the capacity to support millions of queries per second—we actively work to ensure packets don't cross oceans with CIRA TLD Anycast.



Reporting and data insights

With CIRA TLD Anycast, PCAP, and DSC data is delivered in near real-time to enable your research and data collection. The solution also offers comprehensive global monitoring and reporting systems.



Hybrid ccTLD DNS model

CIRA supports a hybrid cloud architecture that allows a TLD partner to own and operate nodes. TLD partners supply the IP address block for their cloud to effectively create a custom cloud. TLD partners can extend their local anycast infrastructure with CIRA's global nodes. CIRA TLD Anycast also supports a hybrid ccTLD DNS model.



Bandwidth and query capacity

CIRA is continually increasing the aggregate bandwidth and query capacity of the anycast clouds through:

- ✓ Peering relationships
- ✓ Packet scrubbing and filtering
- ✓ New technology deployments