



CDNetworks

# Cloud Load Balancer

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# DNS-based Global Load Balancing

Web content owners face significant challenges in delivering content to their users. The number of users has exploded, fuelled especially by the melting of online cultures across geographies. The variability in the type of content has increased manifold. A typical web site can now be composed of text, images, videos and animations to name just a few. Further, in an age where customer stickiness is directly correlated to online revenue, there is a tremendous need to deliver personalisation resulting in an increase in dynamic content.

The above challenges can be readily addressed by content distribution networks (CDN) which are optimised for performance, scale and reliability. But traditional CDNs lack the flexibility to be controlled in real time by content owners. This is often necessary for business needs – such as reacting to specific segments of the market - while never compromising the multiple objectives of availability, performance and operational efficiency.

CDNetworks offers a cloud-based load balancing service that is designed to solve this specific problem. CDNetworks Cloud Load Balancer works at the DNS layer. It is a powerful and flexible software solution that allows you to manage your traffic by giving you the control over your content deliverer, whether it is a CDN or a datacenter. It is a policy-based engine that allows you to manage traffic by specifying business and technical rules. The policies are applied in real-time and include weighted distribution between CDNs, load balancing across multiple servers, whitelist/blacklist users based on geo-location and route traffic based on infrastructure health. It allows you to quickly react to new markets, customise content delivery based on market-specific conditions and in the process allow you to control price and performance while increasing operational efficiency.

CDNetworks Cloud Load Balancer is built on CDNetworks Cloud DNS infrastructure which is secure, reliable and scalable and offers high performance under any traffic conditions from anywhere in the world. Outsourcing your traffic management needs to CDNetworks allows you to focus on your core business without the need to make capital investment in infrastructure and personnel.

Cloud Load Balancer has been purpose-built to address the web performance needs of enterprises. It is natively integrated with our Web Performance Suite and provides optimal performance when used in conjunction with other products in the suite, such as Dynamic Web Acceleration.

CDNetworks Cloud Load Balancer provides sophisticated and flexible traffic management capabilities at the DNS level without capital investment in deploying and maintaining complex hardware and software systems. Traffic management is realised through policies which are a combination of conditions and actions. Conditions could either be static such as geographic origin of users, or dynamic such as percentage of traffic or time of day. Actions define how content is to be served.

Typical examples include using a single CDN or using multiple CDNs or combining CDNs and servers maintained in datacenters. Conditions and actions can be combined in any manner. For example, one rule could specify that all dynamic content be served by CDNetworks Dynamic Web Accelerator. Another rule could specify that all users from the US are served from the customer's origin server while everyone else is directed to CDNetworks CDN. Yet another rule could specify that all traffic be usually served from a cheaper CDN but when traffic crosses a certain threshold, to switch over to a more reliable CDN. Conditions and actions can be combined in any manner



to generate a set of extremely powerful policies for traffic management.

In addition, CDNetworks Cloud Load Balancer offers failover and blacklisting services. The former provides a round-the-clock monitoring of critical servers. When the server fails, the DNS response for that service is replaced by a standby server until the former is restored online. The latter allows no response to be sent to service requests from certain IP addresses or geographical regions.

CDNetworks Cloud Load Balancer is built on a globally distributed platform across 20+ strategic locations - from the US to Australia. The large infrastructure provides high degree of availability, scalability and superior performance for your users every single time, irrespective of their location. It provides you unrivalled management and reporting ability through a Web-based portal. Setting your load balancing rules is as easy as clicking a few buttons. New policies are propagated in minutes, ensuring that DNS requests are always resolved with the latest data. The exhaustive near real-time reporting features provide you tremendous visibility into your DNS traffic and your customers.

CDNetworks Cloud Load Balancer is natively integrated with our CDN platform and works very well in conjunction with other technologies such as Content Acceleration and Dynamic Web Acceleration. An additional step of resolving the location of the CDN is eliminated which further improves the overall performance of your website.

CDNetworks Cloud Load Balancer provides you unprecedented flexibility to set up traffic management policies in real-time that increase performance and efficiency while reducing cost.

## Key Features and Benefits

- **On- Demand Traffic Management** - Near real-time propagation and application of policies. Allows instant reaction to market needs.
- **Geo-Based Traffic Control** - Better performance and cost control.
- **Traffic Distribution Between Servers** - Better utilisation of current investments, reducing costs and improving performance. Balanced servers.
- **Traffic Distribution Between Servers and CDNs** - Easily reach out to newer markets. Quickly react to market specific needs. Control costs.
- **Traffic Distribution Between CDNs** - Content and market specific delivery choices. Provide a higher degree of redundancy and improve operational efficiency.
- **Automatic Failover** - Higher availability and redundancy reducing costly outages.
- **Blacklisting** - Deny services to certain users based on business (for example, cost) or technical (for example, prevention of attacks) reasons.



- **Completely Outsourced Solution** - Reduced IT investment since there is cost of deploying and maintaining complex network and systems.
- **Advanced Control and Reporting** - Web-based portal for easy DNS administration. Near real-time advanced reporting that provides unparalleled insights into your DNS traffic.

## POP Map



To find out more about CDNetworks Cloud Load Balancer solution, visit <http://www.cdnetworks.com/products/cloud-load-balancer/> or contact us at [info@cdnetworks.com](mailto:info@cdnetworks.com)

## About CDNetworks

Founded in January of 2000, CDNetworks Science & Technology provides global solutions and services that cover content distribution and acceleration, server hosting and renting and network optimization for ISP. It's a premier comprehensive service provider of CDN and IDC. CDNetworks was publicly listed on Shenzhen Stock Exchange in October, 2009.

Headquartered in Shanghai, CDNetworks Science & Technology also has three offices in other three global cities in China: Beijing, Guangzhou and Shenzhen. CDNetworks also has set up subsidiaries in America, Hong Kong, Malaysia, Tianjin, Nanjing, Jinan and other places all 9 of them. In Xiamen and Silicon Valley of US, it has set up a R&D center in each place. There are over 2,000 employees in CDNetworks and more than 60% of them are in research and development. Our customers cover a wide of range of industries and types of portals, from Internet companies in streaming media, gaming, e-commerce, search browsers and social media to governments, enterprises and various ISPs. At present, our customers are up to 3,000 and we are proud to say that our company is second to none in this industry in terms of number of customers and business range it covered.

Holding the Business License for Cross-region Value-added Telecommunications Busines (IDC, ISP) issued by



Ministry of Industry and Information Technology of China, CDNetworks Science & Technology is also a member to Asia-Pacific Network Information Centre (owning Autonomous System) and a member to China Internet Network Information Center (owning Autonomous System).

## CDNetworks Science & Technology Enjoys Many Firsts in This Industry

- First publicly listed company in China that is specialized in CDN and IDC
- The most profitable CDN and IDC company in China
- The first company in China that has developed CDN platform independently
- The first company in China that has developed the technology of dynamic acceleration
- The first company in China that has developed the CDN content distribution platform with cloud architecture
- Largest CDN content distribution platform in China in terms of scale
- The first CDN company in China that has passed the compliance certification of PCI DSS V3.0

## Quality Global Resources

A complete coverage of ISPs in China, and in cooperation with big three telecommunication companies (China Mobile, China Telecommunications, and China Unicom) and two specialized network (China Education and Research Network and China Science & Technology Network). CDN content distribution and acceleration nodes of CDNetworks cover the entire globe and besides its nearly 500 domestic nodes, CDNetworks has deployed almost 60 nodes overseas, in San Jose, Los Angeles, Dallas, Chicago, New York, London, Amsterdam, Paris, Mumbai, Singapore, Sydney and other cities. Its service has expanded to developed countries and regions in 6 continents, North America, Europe, Asia, South America, Asia and Oceania. Acceleration requirements from customers around the world can be supported with our quality resources.

## Rich Experience of Professional Experience

With 15 years of operation experience in acceleration and improvement of Internet user experience, CDNetworks is a premier service provider of Internet acceleration and it also has been serving Four Web Portals (sina.com, souhu.com, qq.com and 163.com ) for many years. CDNetworks knows clearly the basic structure and applications of the Internet in China.

CDNetworks is committed to providing its customer with one-to-one professional service and in serving many foreign and domestic big brands with quality acceleration, it has collected many years of service experience, which in turn can help us better meets customers' needs of informationization and business development.

## One-Stop Sales Network

In Beijing, Shanghai, Guangzhou, Shenzhen and other cities or regions, CDNetworks has set up subsidiaries or offices that cover regions with more than 80% of China Internet users. Business consultation and business process are available in each office of CDNetworks for 7\*24, with fast response and other one-stop sales service.