

Cloudflare Load Balancing Global Traffic Manager (GTM)

Maximize Application Availability and Resilience

The Need for Global Traffic Management

Modern online businesses are dependant on their applications being accessible, without interruptions, to millions of concurrent users at any given time. Slow or unavailable applications can not only negatively impact user experience, but lead to huge revenue losses due to website sluggishness and downtime. This can be caused by numerous factors including data center outages, geographic distance between users and applications, slow DNS resolution times, cyber attacks, and more.

These problems can be solved by making applications more resilient, ensuring continuous availability and optimal performance by deploying them across geographically distributed, redundant data centers.



However, traditional load balancers fail to provide the resilience necessary to solve these problems. Instead, they can introduce additional limitations and bottlenecks into the network.

Limitations of Legacy Load Balancers

While hardware appliances can be very expensive to acquire in the first place, sophisticated, modern cyber attacks, including DDoS attacks, as well as unexpected traffic spikes can easily overwhelm them and render them useless. Scaling these appliances to meet the ever-increasing demands of modern businesses can also prove to be expensive as these devices go through regular hardware refresh cycles, physical upgrades for capacity and feature addition, and downtimes caused by these maintenance windows. These solutions are also deployed within specific locations and are dependant on the hairpinning traffic back to these locations, which can introduce bottlenecks and impact performance.

In comparison, while most traditional cloud-based solution providers provide load balancing and redundancy between servers deployed within their own infrastructure, or between public, internet-connected sites, they generally lack the ability to work in complex multi-vendor, multi-cloud environments.

This forces enterprises into an impossible choice between investing into inflexible, hardware load balancers to maintain high availability and performance for the existing application infrastructure, or uprooting and moving their existing applications to a cloud-based platform, where they will be subjected to unnecessary vendor lock-in. Hybrid load balancing can be an alternative, however such deployments can introduce new challenges including complex and disparate multi-vendor load balancers, performance bottlenecks, and unpredictable costs.

Cloudflare Global Traffic Manager

Cloudflare Load Balancing helps enterprises drive down latency and downtime and decreases their impacts on business outcomes. Cloudflare GTM allows customers to distribute traffic across geographically distributed data centers, maximizing application resilience and availability, reducing latency, and improving user experience.

With Cloudflare GTM, customers can benefit from:

Unparalleled application performance, scalability and resilience

- Ensure optimal application performance and uptime, even during data center outages, by steering traffic to the best available data center, based on geolocation, network conditions and shared intelligence.
- Protect applications and users against unexpected traffic surges with virtually unlimited scalability.
- Ensure near real time failover globally by steering traffic away from unavailable data centers and unhealthy origin servers.

Unified of application delivery and security

- Leverage the seamless integration of Cloudflare GTM with our global CDN, local traffic manager (LTM), and application security solutions like DNSSEC, DDoS protection, WAF, Bot Management, and API protection to ensure security incidents are identified and mitigated quickly.
- Protect customer data and privacy against infiltrations and threats enroute to their application servers with Zero Trust and tunnels support.

Ease of configuration and management

- Configure and launch all Cloudflare solutions, including GTM, within in minutes with minimal management required. Our unified graphical UI and powerful APIs makes the solution easily reconfigurable to support evolving business needs.
- Minimize time to value by 10X compared to hardware appliance vendors.
- Create custom rules and health monitors without introducing key person dependencies.

Predictable, transparent and flexible pricing

- Enable efficient growth by paying only for the resources needed, instead of paying high hardware costs upfront for solutions that may not be fully utilized.
- Reduce dependence on professional services and save valuable engineering hours spent on configuration and management to focus on highest-priority initiatives while maximizing savings.

