Global Traffic Management

Business continuity with a cloud-based intelligent traffic manager

Akamai

Everyone connected to your enterprise expects instant gratification and a secure, dynamic experience every time they access your website or application, no matter where they are or what device they're using. To meet expectations and capture opportunities, IT organizations must aim for zero downtime while ensuring the consistently optimal response times that deliver the best online experiences.

Achieving high application availability and optimal online response times can involve a variety of site implementation strategies, including geographically diverse data centers and redundant network architectures and components. Traditional hardware load balancing appliances alone can fall short, as they do not account for Internet bottlenecks that can affect an end user's ability to connect to an appropriate data center.

Global Traffic Management

Global Traffic Management (GTM) is designed so that Internet users can more reliably get to your websites or any other IP application. It applies an Internet-centric approach to global load balancing to provide high site availability and responsiveness to online user requests. Unlike traditional hardware-based solutions that reside within the data center, Akamai's GTM service is a fault-tolerant solution that makes intelligent routing decisions based on real-time data center performance health and global Internet conditions, routing user requests to the most appropriate data center using an optimized route for that user at that moment. It's the only load balancing solution that leverages the scale and speed of the global Akamai Intelligent Edge Platform.

BENEFITS TO YOUR BUSINESS

Reduce IT cost and complexity by offloading to the Akamai Intelligent Edge Platform and standardizing optimization across all applications

Improve response time and mitigate traffic impact by addressing real-time Internet conditions

Optimize site availability so users can always reach your applications and site by improving load balancing

Modify web traffic allocation and new property setup dynamically via greater network visibility and control

Increase service availability and avoid potential security threats with built-in reliability and redundancy

"Audi AG views Akamai as a scalable extension to the infrastructure of our internal web center and offers us a quality of web performance that we would not be able to achieve by our own means."
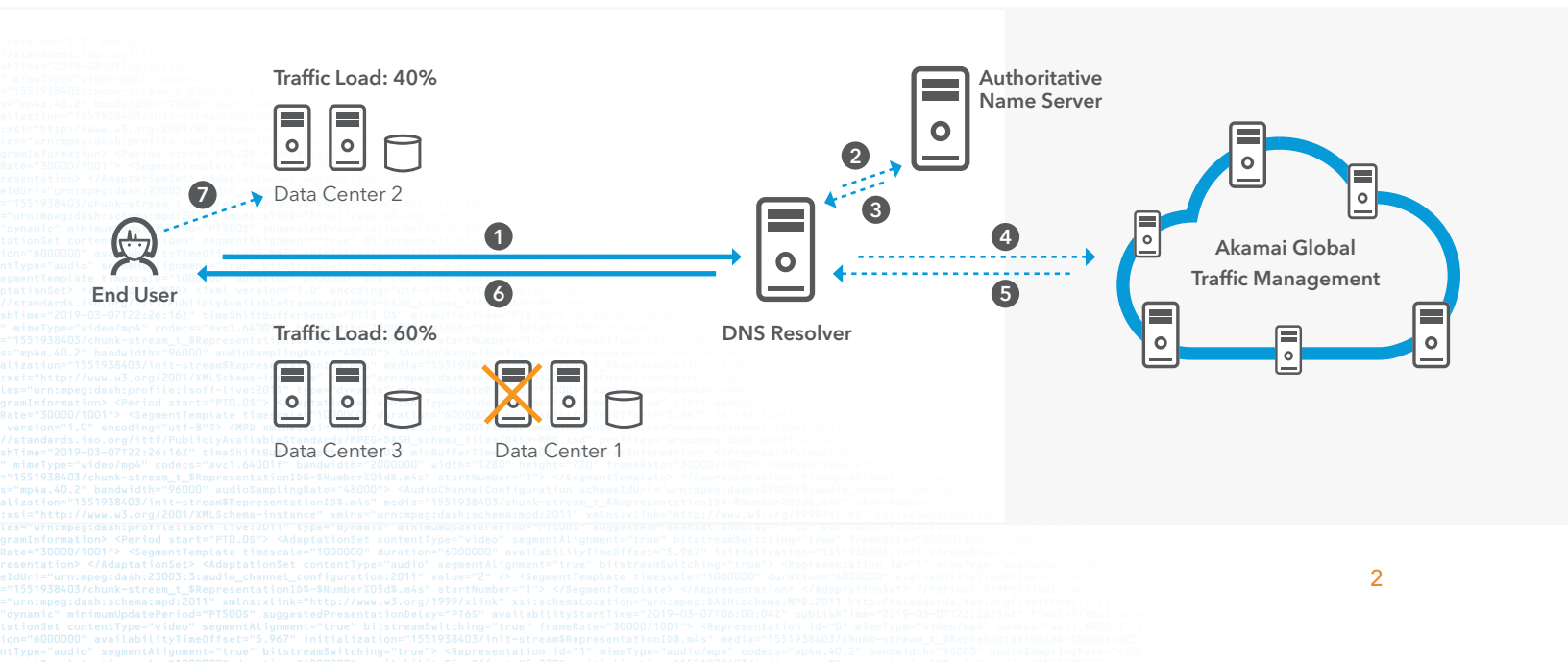
— Christian R., *Audi AG*

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How It Works

Akamai monitors application availability through widely deployed points of presence to capture Internet traffic conditions relative to the customer's data centers. Based on these conditions, customer-specific policy rules are evaluated and acted upon. Backed by a 100% SLA, you can be assured that Akamai will direct traffic to a live data center, and depending on the policy rules, to the closest one or to a high-performance one.

1. A user seeking to access a website or application causes the user's browser to request the site's IP address via the configured DNS resolver

2. Using standard DNS procedures, the DNS resolver requests the IP address from the site's authoritative name server (whether Akamai Fast DNS or a third-party name server)

3. The name server replies with a CNAME alias that points to Akamai's Global Traffic Management (GTM) servers

4. Using standard DNS procedures, the DNS resolver requests an optimized route from GTM for the user request, based on policy rules

5. GTM replies with the list of IP addresses for servers at an optimal data center location, which could be an Akamai data center (if the site uses Akamai for delivery), a public cloud provider, or even an enterprise origin

6. The resolver sends the correct IP address to the user's browser

7. The user is connected transparently to the requested website or application

Traffic Load: 40%
Data Center 2

Authoritative Name Server

End User

Traffic Load: 60%
Data Center 3   Data Center 1

DNS Resolver

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Service Variations

GTM Standard includes:

- **Failover** — directs requests to an alternate location when there is a failure at the primary site; can be used across disparate network carriers

- **IP intelligence** — directs requests to a data center based on geographic or IP rules

- **Weighted** — directs requests to data centers based on preset percentage splits

- Any combination of the above

GTM Premier includes:

- Every capability in GTM Standard

- **Policy rules** — trade off between availability and performance

- **Load feedback** — based on real time communication with the customer's premises, load policies can be modified depending on actual data centers' performance

Global Traffic Management can also be combined with any Akamai Web Performance or Delivery solution to accelerate the delivery of dynamic content.

" Akamai is a key plank in our platform, enabling the performance and availability we need to achieve our goals in a cost-effective manner."

— John L., Qantas.com

Akamai secures and delivers digital experiences for the world's largest companies. Akamai's intelligent edge platform surrounds everything, from the enterprise to the cloud, so customers and their businesses can be fast, smart, and secure. Top brands globally rely on Akamai to help them realize competitive advantage through agile solutions that extend the power of their multi-cloud architectures. Akamai keeps decisions, apps, and experiences closer to users than anyone — and attacks and threats far away. Akamai's portfolio of edge security, web and mobile performance, enterprise access, and video delivery solutions is supported by unmatched customer service, analytics, and 24/7/365 monitoring. To learn why the world's top brands trust Akamai, visit www.akamai.com, blogs.akamai.com, or @Akamai on Twitter. You can find our global contact information at www.akamai.com/locations. Published 12/19.