

Request Router

A software-based routing and redirection service within a comprehensive CDN solution



The demand for online video is exploding – the sum of all forms of video is expected to be 86% of all global consumer web traffic by 2016. At the same time, video consumption is shifting rapidly to mobile devices. And audiences expect instant access and a high quality online viewing experience, no matter where they are or what device they're using. To meet these demands, network operators are opting to deploy their own content delivery networks (CDNs) and leveraging them to offer subscribers their own content libraries.

Akamai offers the Aura Licensed CDN (LCDN), a suite of licensed Operator CDN (OCDN) solutions that provide a highly scalable media CDN for multi-screen video services, large object delivery and HTTP caching. It helps operators create opportunities for new revenue, cost reductions and increased network efficiency, and deliver high quality online video streaming experiences for online content, including Over-the-Top (OTT) content services that increase subscriber loyalty.

Request Router

Request Router, a key component of the Aura LCDN, is a highly scalable DNS-based content request router that directs user requests to a high-performing available CDN node. It combines operator-provided media server mapping and content network topology information with load, latency and availability information provided by HyperCache nodes to direct client requests. It also provides DNS services for the URLs served by the CDN. For network operator deployments of multi-screen services, Request Router is proven in terms of scale and performance as well as enhanced Quality of Experience (QoE).

How it Works

Using enhanced Domain Name Server (DNS)-based techniques, Request Router translates host names from end-user requests into IP addresses of edge caches able to deliver the requested online content. In selecting the proper CDN, PoP, cluster, machine, and delivery service for each client, it also handles global and local load balancing at all levels of the CDN, and when applicable, between CDNs.

Features

- **Native Support for Adaptive Streaming** — Support highly fragmented HTTP adaptive streaming video traffic with ease. HTTP-AS breaks down large video files into small HTTP-based segments of streams encoded at a variety of bitrates. Using state-of-the-art DNS techniques, Request Router scales to support an enormous number of HTTP small object requests.
- **Enhanced Operator Control** — Select from among the set of HTTP caching nodes according to policies you define around user proximity, network topology, cache load, and hardware capabilities. This approach allows you to make traffic engineering decisions to maximize CDN cache operational efficiency.

BENEFITS TO YOUR BUSINESS

- **Control content flexibly** by defining selection policies for isomorphic content network mapping
- **Optimize performance** via low latency routing and redirection
- **Ensure non-stop operation** through fault tolerance and in-service software upgrades, a self-healing solution and automatic recovery
- **Support a large content network** by leveraging a scale-out design for web-scale implementation unaffected by the number of objects in the system
- **Contribute to the bottom line** with new revenue opportunities and lower costs via a software-only content delivery solution
- **Optimal node** selection at near-infinite scale with edge intelligence

¹ Cisco Visual Networking Index: Forecast and Methodology, 2011–2016

Request Router

- **Federated CDN Support** — Extend the Aura approach to request redirection to a federation of interconnected CDNs. Akamai Federation addresses either off-net delivery or overflow, and both solutions federate with the Akamai Intelligent Platform™. Off-net federation delivers your content with a single business agreement, eliminating the need to create complex multi-network federation business models. Use the overflow solution to provide redundancy and additional capacity in the event of an unplanned flash crowd. Both solutions enhance the online video viewing experience.
- **Software-Only** — Leverage the advantages of commercial off-the-shelf server and cloud-based storage components, for a more flexible alternative to the fixed appliance model

The Akamai Aura LCDN Solution

Akamai makes the Internet fast, reliable and secure and has relationships with hundreds of network operators to optimize delivery of Internet services to subscribers. Our comprehensive LCDN solution is built using the best-of-breed principles of web and cloud, managed through the consolidated Control System for visibility and management, and supported by Professional Services experts who get you up and running easily and inspire innovation as your strategies evolve.



Akamai® is a leading provider of cloud services for delivering, optimizing and securing online content and business applications. At the core of the company's solutions is the Akamai Intelligent Platform™ providing extensive reach, coupled with unmatched reliability, security, visibility and expertise. Akamai removes the complexities of connecting the increasingly mobile world, supporting 24/7 consumer demand, and enabling enterprises to securely leverage the cloud. To learn more about how Akamai is accelerating the pace of innovation in a hyperconnected world, please visit www.akamai.com or blogs.akamai.com, and follow @Akamai on Twitter.

Akamai is headquartered in Cambridge, Massachusetts in the United States with operations in more than 40 offices around the world. Our services and renowned customer care enable businesses to provide an unparalleled Internet experience for their customers worldwide. Addresses, phone numbers and contact information for all locations are listed on www.akamai.com/locations.