

# HyperCache

High performance content delivery and caching system



The consumption of rich media is at an all time high and growing, fueled by the proliferation of mobile devices and a widening array of content choices. The result is that traffic is pushing content delivery networks to capacity, and the quality of experience is more important than ever — consumers expect a fast, secure, reliable experience on any device. To feed demand and meet expectations, network operators are increasingly deploying their own CDNs, and leveraging HTTP caching solutions to offer their own content libraries to subscribers.

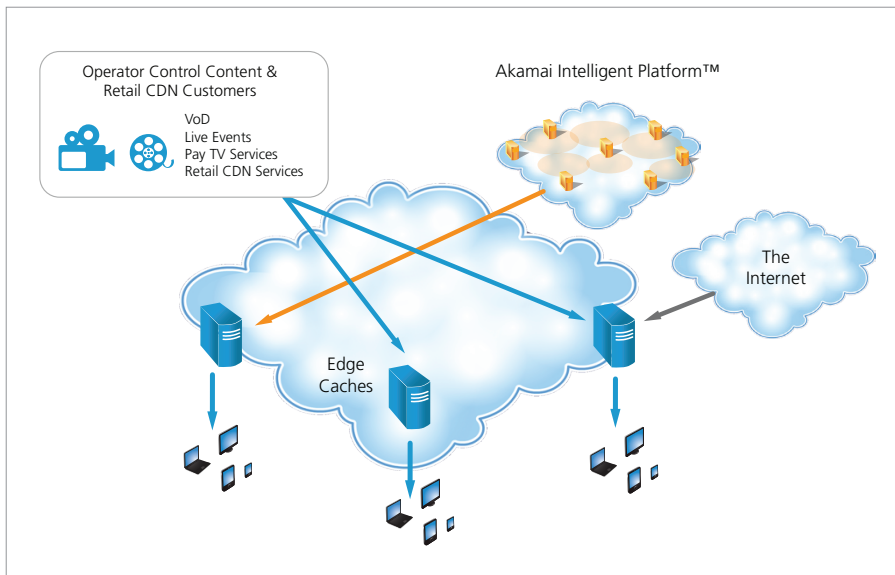
Akamai offers the Aura Licensed CDN (LCDN), a suite of licensed Operator CDN (OCDN) solutions that provide a highly scalable media CDN for multiscreen video services, large object delivery and HTTP caching. It helps network operators create opportunities for new revenue, cost reductions and increased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

## HyperCache

HyperCache, a key component of the Aura LCDN solution, is licensed software that provides a common HTTP caching layer in the network and is deployed by an operator to support traffic offload and delivery of operator content, operator customer content and OTT content. Intelligent cluster technology distributes objects and fragmented videos across commodity servers or Virtual Machines (VMs), preventing hot spots and handling flash crowds automatically. It supports a variety of HTTP workloads, providing whole site delivery from a single platform with no performance penalty.

## BENEFITS TO YOUR BUSINESS

- **Leverage a common HTTP caching infrastructure** for operator video, commercial CDN and transparent caching
- **Increase caching performance** with self load balancing, consistent hashing algorithms, automatic handling of flash crowds and prevention of hotspots
- **Grow revenue** by enabling new online content delivery opportunities
- **Reduce costs** with a software-only solution that harnesses the advantages of COTS
- **Tap proven technology and expertise** from CDN experts



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## Features and Capabilities

- **Scale-out Architecture** — Unlike single node systems, HyperCache is designed specifically for web-scale systems, with a scale-out content delivery network architecture that enables bandwidth and storage capacity to be expanded without limit by adding and connecting individual nodes to form a cluster. All nodes are Ethernet-connected Ethernet and have full read/write access to storage across all other nodes, forming a common online content store.
- **Low-latency Cut-through Proxy Support** — HyperCache reduces delay in the handling of cache misses, a critical requirement for live HTTP streaming applications. This method begins delivering bits downstream before the entire object is received into the node. Live online video is pulled through several levels of cache hierarchy with minimum latency and supports a fast channel change for HTTP streams.
- **Self Load Balancing** — Distribute workload and online content storage across all nodes in the cluster to help eliminate performance hotspots without external load balancers, saving cost and complexity and reducing energy consumption and rack space. As new nodes are added, HyperCache redistributes cached objects automatically, integrating the additional bandwidth and storage capacity into its overall resources. No explicit mapping of cached content to nodes is required.
- **High Availability** — An advanced self-healing design is designed to provide continuous availability of the cluster even after hardware failures. All remaining content network components subsume the workload of the failed component seamlessly, preventing hotspots and providing non-stop operation. Server clusters can be deployed in places where on-site server support may not be regularly available.
- **Software Only** — HyperCache harnesses commercial off-the-shelf server and content storage components, offering a more flexible alternative to a 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](http://www.akamai.com) or [blogs.akamai.com](http://blogs.akamai.com), and follow @Akamai on Twitter.

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