

# Aura Licensed Content Delivery Network (LCDN)



Optimize IP video and provide network offload through a revenue-generating dedicated CDN

Subscriber demand for video is at an all-time high and growing. Viewers expect consistently high service – meaning a fast, secure, reliable online content experience on any device. In addressing those realities, pay TV providers have discovered that a CDN is no longer an option, but a competitive need. At the same time, network operators seek to drive greater efficiency, agility, and performance through their networks. It's how they optimize quality and reliability, in addition to offloading transit and other bandwidth-related costs.

In this increasingly competitive and dynamic IP video and pay TV services marketplace, dedicated CDNs have become more desirable, providing pay TV operators and content owners with CDN resources dedicated solely to the owner or licensee of specific video or other content. This helps them meet evolving subscriber demands, while simultaneously increasing revenues and cutting costs.

The Akamai Aura Licensed CDN (LCDN) is a dedicated CDN solution, owned and operated by content owners or pay TV providers for use with their own services. Performing a critical role within an end-to-end video delivery ecosystem, Aura LCDN is an important component of the comprehensive portfolio of pay TV and video delivery solutions from Akamai, the world's largest and most trusted cloud delivery platform. Aura LCDN is backed by Akamai's dedicated team of engineers and video experts, as well as 24/7 customer support, and is currently used by network and pay TV operators around the world to reliably deliver the most popular and highest-quality on-demand programming and live events.

## BENEFITS

- **Offer premium subscription content to many devices** with multiformat HTTP video delivery
- **Increase subscriber acquisition and loyalty** by offering access to a broad content library consisting of live linear channels and video on demand (VoD) content
- **Create additional revenue opportunities** by upgrading subscribers to higher-tier packages and bundles, and offering CDN services directly to content owners
- **Reduce costs and elevate quality** by eliminating expensive proprietary hardware and implementing reliable, high-quality video delivery capabilities through a virtualized infrastructure

## Aura Licensed CDN (LCDN)

Aura LCDN is software that network operators or content providers use to create new revenue opportunities, enhance viewer experience, and streamline infrastructure – all while reducing costs.

Aura LCDN can deliver video in multiple formats, including both unicast and multicast-assisted adaptive bitrate (M-ABR) through Akamai Licensed Multicast Solution, an optional add-on to Aura LCDN.

As the diagram on the next page illustrates, Aura LCDN uses a common HTTP caching infrastructure to let operators efficiently deliver their own video content, as well as other online content. This provides high-quality, low-latency viewing experiences for both live and on-demand video content. Aura LCDN also includes the option to configure a combination of unicast and multicast-assisted channels to create additional network efficiency, along with higher overall quality and reliability. And because it interconnects with the global Akamai Intelligent Edge Platform, Aura LCDN can provide global CDN reach beyond the hosting operator’s network footprint with a single business agreement. The solution runs on commercial off-the-shelf hardware or in virtualized infrastructure, giving operators the ability to allocate delivery resources where and when they are needed.

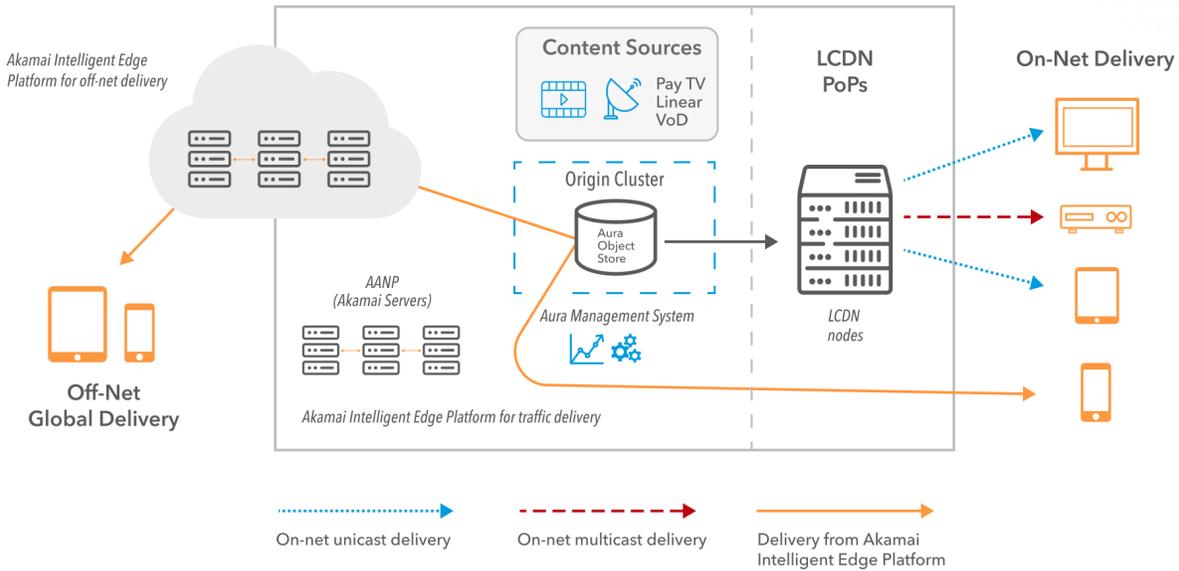
## How It Works

Aura LCDN is a complete solution, consisting of multiple software components that function in tandem. Built for openness and flexibility, Aura LCDN is designed for seamless integration into the end-to-end video workflow, based on the customer’s choice of servers and network infrastructure. The diagram illustrates a common topology.

*Developing an Orange CDN service powered by Akamai will allow us to enrich our existing B2B services portfolio and support our customers’ growth by providing them with new and differentiated web features that improve the end-user experience and ultimately increase customer loyalty.”*

**- Gilles Prunier, Senior Vice President, Smart Network Program, Orange**

## OPERATOR NETWORK



## Aura LCDN Functional Components

Aura LCDN leverages two core software components that operate in tandem to deliver HTTP content from the network operator to end users in a highly efficient, scalable, and reliable fashion.

### CORE COMPONENTS

Aura HyperCache provides a common HTTP caching infrastructure for operator-originated content, as well as content from its customers and/or OTT sources. Intelligent cluster technology distributes objects across commodity servers or virtual machines, preventing hot spots and handling flash crowds automatically. It supports a variety of HTTP workloads with no performance penalty – critical for more advanced websites that present multiple types of content (e.g., text, audio/video, scrolling ads, etc.) and page layouts to end users.

Aura Request Router (RR) is a highly scalable, DNS-based client request router that maps end-user requests for content to the best available CDN node. RR translates host names from end-user requests into IP addresses of the edge caches best able to deliver the requested online content, based on the configuration defined by the operator. By combining web content server mapping and network topology information, RR directs client requests to the optimal CDN resource. Additionally, by functioning as a global cluster load balancer, RR eliminates the need for costly dedicated load balancers, often an additional requirement with other CDN solutions.

## MANAGEMENT AND ANALYTICS

Customers manage Aura LCDN via a consolidated, comprehensive portal that consists of two software components: Aura Management Center and Aura Analytics Service.

**Aura Management Center (AMC)** provides a graphical, consolidated view of the LCDN. It centrally orchestrates the provisioning and configuration of all LCDN services and enables system-level monitoring of the LCDN. This provides operators with detailed real-time reports derived from the LCDN traffic.

**Aura Analytics Service (AAS)** is an integrated collection of modern big-data analytics tools that functions as a repository for transaction logs and real-time statistics that are used to monitor, measure, and troubleshoot the LCDN. AAS exports dynamic, real-time views of the LCDN and presents them as a series of dashboards exposed via the AMC GUI.

## OPTIONAL FUNCTIONS AND SOLUTION ADD-ONS

**Multicast** - Through the Akamai Licensed Multicast option, Aura LCDN offers the flexibility to configure M-ABR delivery for certain channels and standard unicast delivery for others. M-ABR is typically used for high-audience, live linear programming. This level of flexibility leads to more efficient use of network resources, with the potential for significant cost savings on last-mile network resources.

**Aura Object Store** - A standalone Akamai solution that can be bundled with the Aura LCDN, Aura Object Store is licensed software that provides scalable origin services for operator CDNs.

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](http://www.akamai.com), [blogs.akamai.com](http://blogs.akamai.com), or @Akamai on Twitter. You can find our global contact information at [www.akamai.com/locations](http://www.akamai.com/locations). Published 05/19.

