



Cloud Wrapper

Boost Origin Offload, Protection, and Performance

Many organizations that distribute online media content are migrating to the cloud. They may be moving at different rates and for different reasons, but all have a common need to lower costs and deliver amazing user experiences to their online audiences.

When audiences request content in large and sometimes unpredictable volumes, retrieving it from origin can raise costs and performance often suffers. Cloud Wrapper protects origin infrastructures from these overloads to improve performance and control egress costs.

Cloud Wrapper at a Glance

Cloud Wrapper optimizes connectivity between cloud infrastructures and the Akamai Intelligent Edge. It consists of a highly efficient custom caching layer that wraps around centralized cloud infrastructures. This reduces the frequency of user origin requests and the cost to distribute content from the cloud.

A high-availability solution, Cloud Wrapper provides consistently high offload levels, even in the event of a traffic spike. As a result, public and private cloud origin infrastructures maintain a high level of service predictability and performance. And end users receive more consistent, high-quality experiences delivered from the Akamai edge.

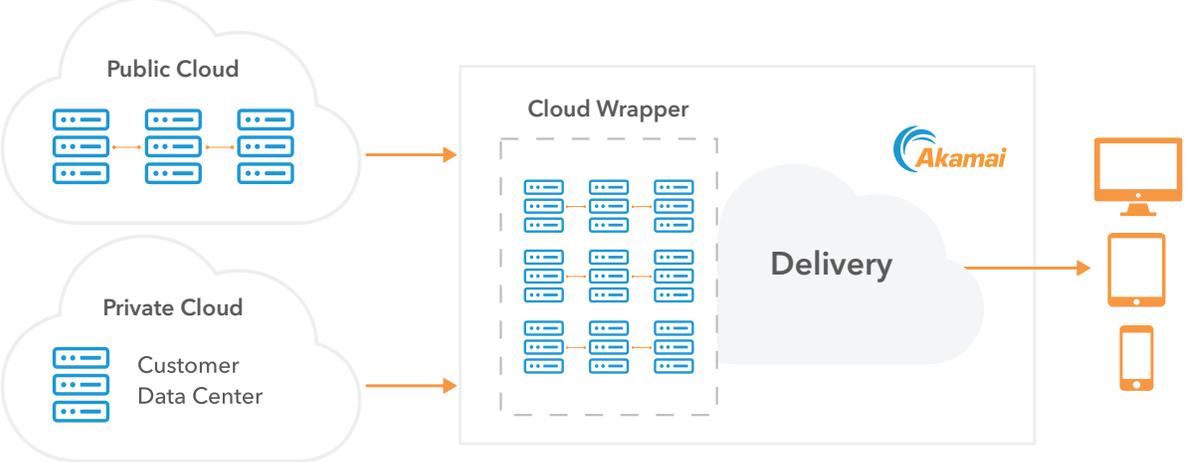
Use cases include live and on-demand streaming, as well as the distribution of online games, software, and other downloads. You can also combine Cloud Wrapper with Akamai's Adaptive Media Delivery, Download Delivery, or Object Delivery – all of which deliver high-performance media at scale unique to Akamai.

BENEFITS

- **Minimize costs:** reduce calls to origin, cloud infrastructure requirements, and egress fees
- **Consistent quality of experience:** more requests served from the Akamai Intelligent Edge results in happier audiences
- **Consistent service predictability:** maintain high origin offload even during spiky or high traffic volumes
- **Flexible deployment options:** meet unique end-user requirements globally

“We’ve already seen that Cloud Wrapper improves offload numbers and of course that means egress costs go down. We’re getting the benefits out of Cloud Wrapper now.”

*- Tomas Perovuo,
Head of OTT, MTV Oy*



Maximizing Origin Offload

The high-performance Akamai Intelligent Edge platform is one key to delivering great online media experiences. The health and performance of the origin infrastructure is another.

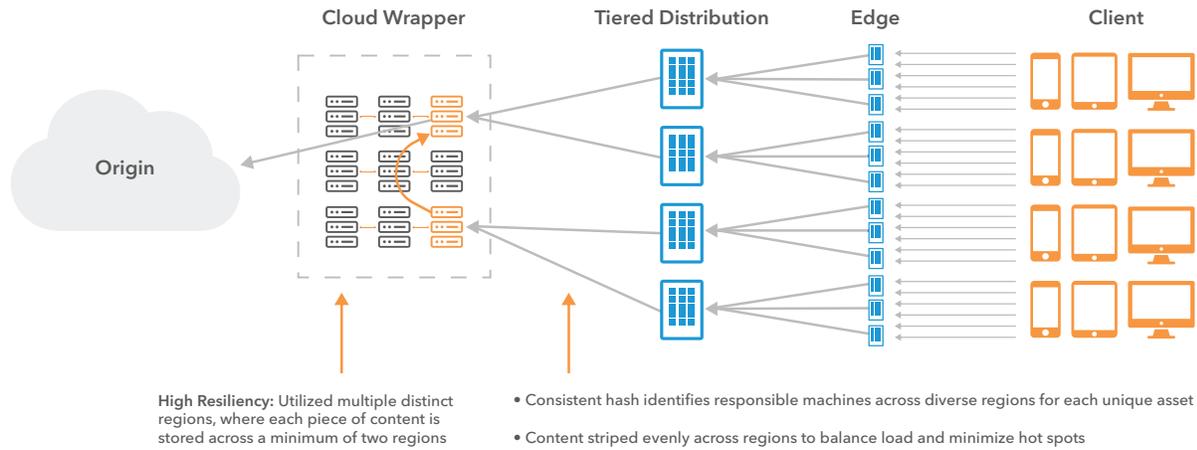
When an edge server receives an end-user request for content that's not in cache, the result is a cache miss and the request may be sent to origin. As traffic volumes on the origin infrastructure increase, performance can begin to suffer. Moreover, when the origin resides in a public cloud, high volumes of requests can mean more cloud infrastructure requirements and egress costs can rise rapidly.

Akamai's Cloud Wrapper boosts cache efficiency for massive libraries consisting of both popular and infrequently accessed content. It routes cache misses at the edge to the Cloud Wrapper caching layer. Ultimately, this increases the likelihood that content will be served without a request from origin.

To further reduce trips to the origin, especially during popular live streaming events, Cloud Wrapper provides request collapsing. This combines multiple end-user requests when retrieving from origin. The result is fewer, more-efficient origin requests.

Protecting the Origin From Spikes

Maximizing origin offload levels, and consistently maintaining those levels, is imperative. If a flood of requests makes its way directly to origin, they could act like a distributed denial-of-service event and cause the origin to fail. For that reason, Cloud Wrapper includes highly available, consistent-origin spike protection.



Designed for high availability, the solution incorporates built-in redundancy with several independent regions that balance and store content evenly. Each piece of content resides in a minimum of two locations.

Moreover, this architectural design doesn't rely on any single physical location. If one region goes down, Cloud Wrapper reshapes stored content and spreads it evenly across the available regions. Any time a content request hits an unavailable region, the request goes to at least one backup region before being routed to the origin.

Because this spike protection provides added assurance for consistently high offload levels, it makes sure you're prepared for the next live streaming event, game launch, or an unplanned increase in end-user requests.

Consistent Quality of Experience

The best user experiences are delivered at the edge; i.e., locations that are closest to end users. However, as more organizations embrace public cloud infrastructures, they move their content farther away. Every time you retrieve content from origin, user experience suffers.

Cloud Wrapper keeps more content closer to the edge. As a result, more requests are served from the Akamai Intelligent Edge, leading to better, more consistent user experiences. And more satisfied audiences.

Flexible Deployments and Ease of Use

Akamai offers flexible options to meet your requirements. Cloud Wrapper provides reserved cache space within the Akamai Intelligent Edge Platform for content libraries.

Moreover, you can choose your preferred geography from many available locations worldwide. There are also simple origin integration settings that don't force you to change to your workflow.

With live and on-demand video streaming, game downloads, and other online content becoming more popular, traffic patterns can become more unpredictable; spikes can be expensive. Cloud Wrapper lets you maintain high performance and control costs. So you're always ready for business growth.



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 04/19.