

The Benefits of Delivering High-Quality Video with a Managed Private CDN

ORA
STREAMING



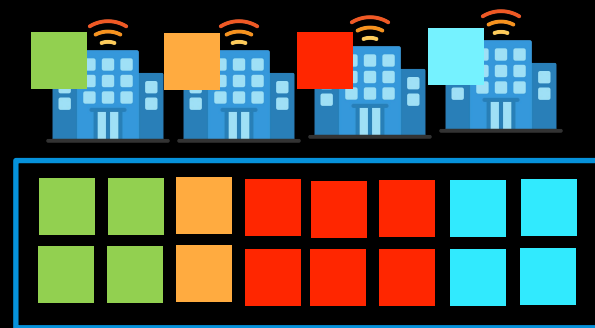
Private Managed CDN vs Public CDN

- A **Private CDN** means that you (as a company) own your Content Delivery Network through a managed service provider
 - Single tenant
 - You control the infrastructure
 - Supplements Public CDNs
 - Reduces DIY complexity

Dedicated



Shared



Why would anyone build a Private CDN?

- Growing needs for:
 - Full control of your video distribution, from an operational, commercial, and QoE POV
 - Consumer data and heuristics
 - Predictable cost
 - Differentiated capabilities
 - Hard to reach or cost sensitive region(s)
 - Improved monetization
- Risk Mitigation: CDN Industry consolidation

Building a Private CDN

Not “Rocket Science” but does
requires a few things



What does it take to build a CDN

- **Caching software, control plane software and traffic plane**

Hurdle: Significant resources, domain expertise, and lifecycle management

- **Server infrastructure**

Hurdle: CAPEX, operational management

- **Hosting, network and peering**

Hurdle: Network expertise, port fees, peering fees, contract management with > 180 carriers

- **Integration and Operations**

Hurdle: Dedicated Operations team with SREs, network engineers and DevOps teams plus 24/7/365 coverage

Managed Private CDN: Ora Streaming

Varnish Software

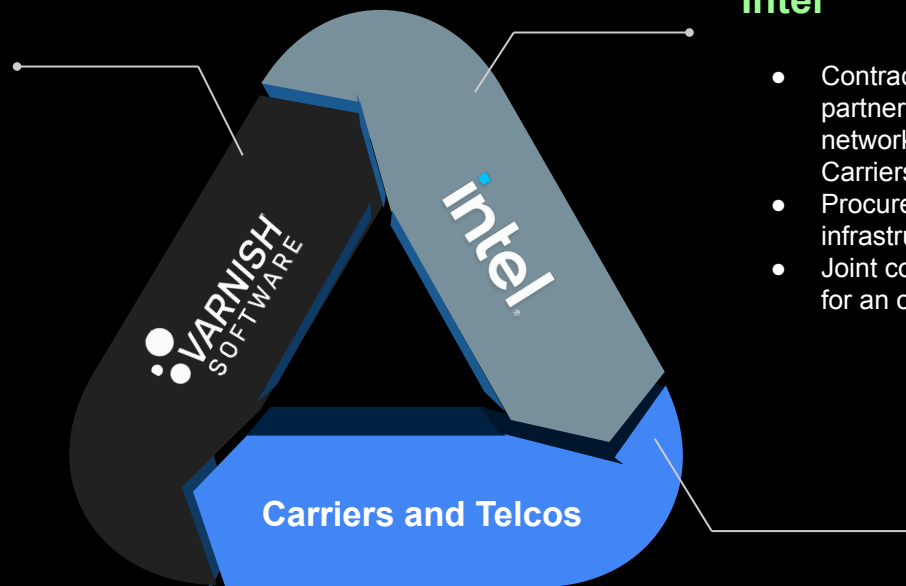
- High performance caching software
- Operations
- Support

Intel

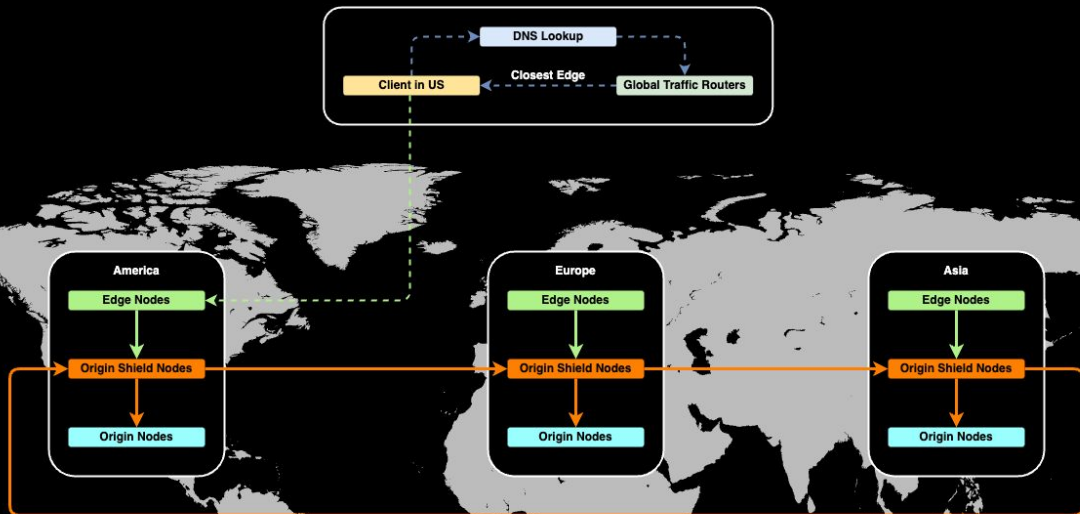
- Contract management and partnerships with Global network of Tier-1 ISPs and Carriers
- Procurement of bare metal infrastructure
- Joint collaboration with Ora for an optimal solution

Carriers and Tier ISPs

- Provide dedicated bare metal edge hardware + network, peering and NoC



Custom Config, Managed Service, OPEX



You Can Control

- Logs
- Availability
- Failure scenarios
- Edge compute
 - Ad insertion
 - Watermarking
 - ...

Intel ECSS: Technical Integration Overview

Intel has established the Edge Content Streaming Service (ECSS) with Ora Streaming as a technical integration partner. The collaboration leverages complementary strengths:

- Intel's enterprise architecture expertise
- Combined technical capabilities
- Shared development resources

Benefits from Intel's established telecommunications partnerships with global carriers and ISPs, enabling reliable service delivery provides advanced edge computing architecture to optimize network efficiency and performance

Brief
Intel® Edge Content Streaming Service
Intel® Xeon® Processors

intel.

Intel® Edge Content Streaming Service:
A Cost-Effective and World-Class Streaming Platform

From captivating subscribers with live concerts and sports to empowering businesses with interactive webinars and conferences, the influence of live-video streaming fundamentally transforms the way viewers engage and collaborate.

Globally, live video streaming has expanded dramatically, transcending its modest beginnings to reshape how people connect, entertain and learn, growing from \$1.4 billion in 2023 to \$1.63 billion in 2024 (a CAGR of 16.6%). It bridges geographical divides, ignites cultural exchange and redefines how we live.¹

To deliver exceptional live experiences that captivate viewers and defy the limitations of the current environment, content providers must constantly innovate. This means diversifying partnerships, prioritizing delivery optimization, championing net neutrality and embracing cutting-edge technologies.

Today's live-streaming market challenges

- **Streaming broadcast quality video at scale:** The content streaming industry has been going through a consolidation phase of evolution due to price erosion and the cost of delivering quality video is expected to rise.
- **Quality of service:** Geographical limitations further exacerbate the issue, with distant servers causing latency and hindering real-time engagement.
- **Network neutrality:** Network neutrality concerns cause Internet service providers (ISPs) to prioritize traffic, fragment subscriber reach, stifling competition and innovation in the market.
- **Growing need for customization:** Content providers are increasingly seeking a more bespoke and private streaming solution while reducing CapEx spending.

Today's technical challenges require innovative solutions

- **Throughput:** Ensuring smooth delivery across diverse devices and network conditions remains a constant battle.
- **Complex audio/video workflow:** Content providers grapple with complex workflows involving encoding, caching and real-time delivery optimization, all while navigating the ever-evolving landscape of codecs and protocols.
- **Content protection:** Security and piracy concerns add another layer of complexity, demanding robust Digital Rights Management (DRM) solutions to protect valuable content.

Overcoming these market and technical obstacles require a deep understanding of the underlying infrastructure and a commitment to continuous improvement. Content providers must adopt intelligent platforms and tools that automate tasks, optimize delivery and provide real-time insights to ensure a seamless and secure live-streaming experience for every viewer.

State of Internet: Robust Yet Fragile

Trends

- Growth in private direct interconnect
- Ramp to cloud -> Peering tier-2/3
- The flattening of the Internet

Any downsides?



The Growing Discontent

Net Neutrality vs. Fair Share

*"FCC lacks authority to
Impose Net Neutrality"*



- Sixth Circuit Court. January, 2025

*ETNO's fair share proposal
Postponed*



-October 2023 to 2025

Do We have the Right Model For Video Delivery?

Consumption Based vs. Capacity Based

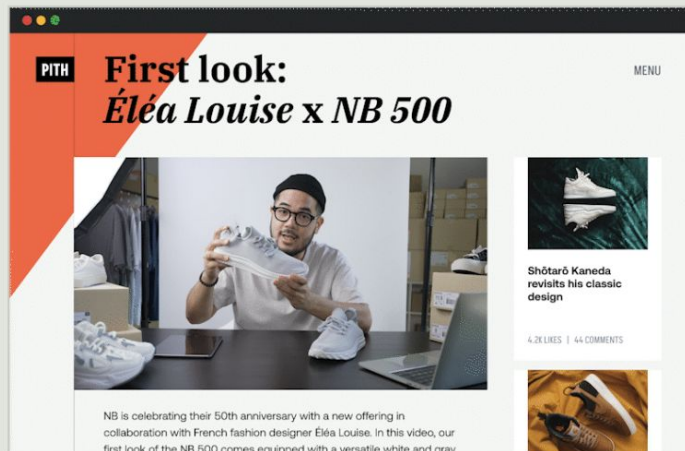
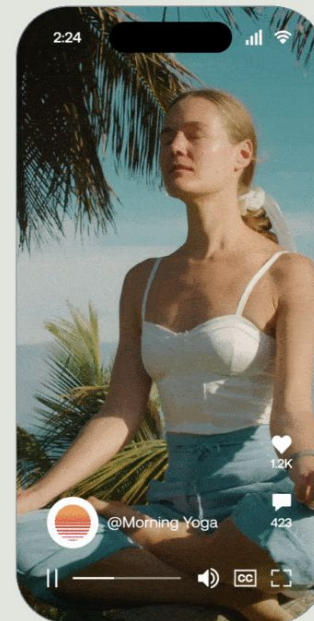
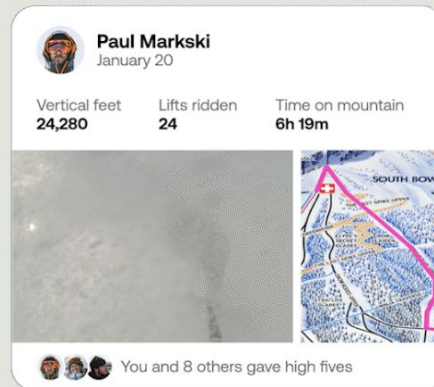


Use Case

MUX



Mux Video



Mux Video

PATREON

Staylive

HubSpot

yelp

Typeform

substack

'GLASSDOOR'

CITIZEN

fourth wall

img

PVOLVE

Vercel

Robinhood

bandcamp

EQUINOX

shopify

LifeFitness

LTK

DATO
CMS

maestro

Managed Private CDN Benefits for Video Delivery

Customization

Full control over cache config for specific traffic patterns, workloads, failure scenarios and availability guarantees—no noisy neighbors

“Single tenancy means no cache competition, giving us stronger guarantees that our TTLs will be honored.”

Performance

Full stack control from origin to edge

“Dedicated infrastructure gives us control to optimize our runtime for what matters most—maximizing performance for customer traffic”

Support

Access to developers that developed core systems

“Ora is very transparent. A partner you can trust.”

Thank you

