



## **VancastVideo eCDN Brief**

**Enterprise-scale video delivery for corporate live events**

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## Enterprise-scale video delivery for corporate live events

Corporate events such as **town halls, CEO broadcasts, financial presentations, or partner briefings** can attract thousands of viewers simultaneously.

When many viewers connect from the same corporate network, traditional streaming architectures can create significant challenges:

- network congestion
- firewall saturation
- buffering and degraded video quality
- operational stress for IT teams

To address these challenges, VancastVideo provides an **Enterprise Content Delivery Network (eCDN) architecture** that intelligently orchestrates multiple delivery technologies.

This approach ensures that live and on-demand video reaches every viewer with **maximum reliability and minimal impact on corporate networks**.

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## 1. What is an eCDN?

An **Enterprise Content Delivery Network (eCDN)** is a video distribution architecture designed specifically for corporate environments.

Unlike public CDNs, which deliver video across the internet, an eCDN optimizes distribution **within corporate networks**, reducing bandwidth consumption and avoiding network congestion.

The goal is simple:

Deliver high-quality video to large internal audiences **without overloading the organization's network infrastructure** and provide **quality of experience metrics and data** to prove reliability

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## 2. The VancastVideo Enterprise Delivery Architecture

VancastVideo orchestrates video delivery across multiple layers:

- public CDNs
- enterprise eCDN technologies
- peer-to-peer distribution

- intelligent failover mechanisms

This architecture allows each event to use the **most appropriate delivery method depending on the audience and network environment**.

### Multi-CDN delivery

VancastVideo can distribute the same event through **multiple CDNs simultaneously**, with one acting as **automatic failover** for the other.

This ensures:

- high availability
  - resilience against CDN outages
  - consistent global performance.
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## 3. Hive Streaming Integration

For corporate audiences located within enterprise networks, VancastVideo integrates **Hive Streaming eCDN technology**.

Hive uses a **peer-to-peer distribution model** in which viewer devices share video segments with other viewers on the same network.

Instead of every viewer pulling the stream from the internet, the stream is efficiently redistributed across the corporate network.

This approach provides several important advantages.

### Reduced network load

Peer-to-peer delivery dramatically reduces the amount of traffic leaving the corporate network.

In many deployments, bandwidth consumption can be reduced by **up to 99%**, preventing network congestion during large events.

### Scalable video delivery

Because viewers participate in the distribution of the stream, the system can scale to **tens of thousands of simultaneous viewers** without overloading central servers.

### Consistent video quality

By optimizing bandwidth usage dynamically and distributing load across the network, Hive helps ensure:

- stable video playback
- minimal buffering

- consistent bitrate across locations.

### Real-time analytics

Hive also provides detailed analytics about the distribution of video inside the corporate network, enabling IT teams to understand:

- viewer reach
  - network performance
  - quality of service metrics.
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## 4. Flexible Activation Per Event Link

One of the distinctive capabilities of VancastVideo is the ability to configure delivery behavior **independently for each event access link**.

This allows organizations to adapt the delivery architecture to different audiences.

For example:

A single event may include multiple access links such as:

- **SSO link for corporate employees**
- **secure access link for external partners or brokers**

Each link can activate different delivery configurations.

Example configuration:

Access Link	Audience	Hive P2P	Hive Analytics
Corporate SSO	Employees inside the corporate network	Enabled	Enabled
External Access	Brokers / partners outside the network	Disabled	Enabled

This allows organizations to benefit from **P2P optimization inside corporate networks**, while keeping delivery simple and secure for external audiences.

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## 5. Adaptive Delivery for Complex Events

Because delivery can be configured per event and per access link, VancastVideo supports complex enterprise scenarios such as:

- internal town halls with thousands of employees
- partner events with external audiences
- hybrid internal / external communications
- global events with distributed corporate offices

Each audience receives the **most appropriate delivery method**, ensuring both reliability and optimal network performance.

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## 6. Benefits for IT and Communications Teams

The VancastVideo eCDN architecture delivers benefits across both technical and communication teams.

### For IT teams

- protects corporate networks from video overload
- reduces WAN and internet bandwidth consumption
- provides visibility through detailed delivery analytics
- ensures resilience through multi-CDN failover.

### For communication teams

- reliable delivery for large audiences
  - consistent viewing quality across locations
  - ability to combine internal and external audiences in one event
  - simplified event management.
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## 7. Designed for Enterprise-Scale Video

Corporate video communication is becoming a central tool for leadership alignment, employee engagement and partner communication.

VancastVideo's eCDN architecture ensures that organizations can deliver these events **at scale**, while maintaining:

- network stability
- video quality
- operational simplicity.

By combining **multi-CDN resilience, enterprise eCDN technology and flexible delivery configuration**, VancastVideo enables organizations to broadcast with confidence to audiences of any size.

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## 8. Why VancastVideo eCDN Is Different

VancastVideo does not rely on a single delivery method.

Instead, it orchestrates:

- **multiple CDNs with failover**
- **Hive Streaming eCDN optimization**
- **link-specific delivery configuration**
- **support for internal and external audiences in the same event**

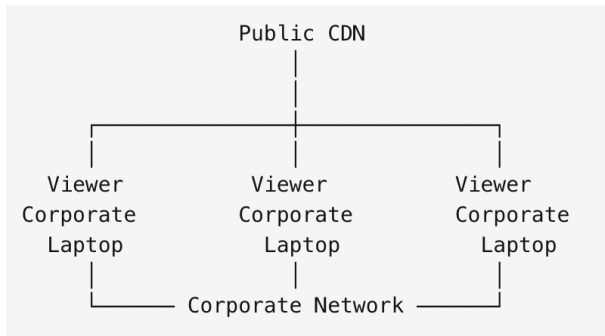
This flexibility allows organizations to deliver events at scale while adapting the delivery architecture to each audience.

# VancastVideo Enterprise Delivery Architecture

## Traditional Streaming Architecture

In most webinar platforms every viewer pulls the video stream directly from the CDN.

This creates **many identical external connections**, which can overload corporate networks during large internal events.



### Result

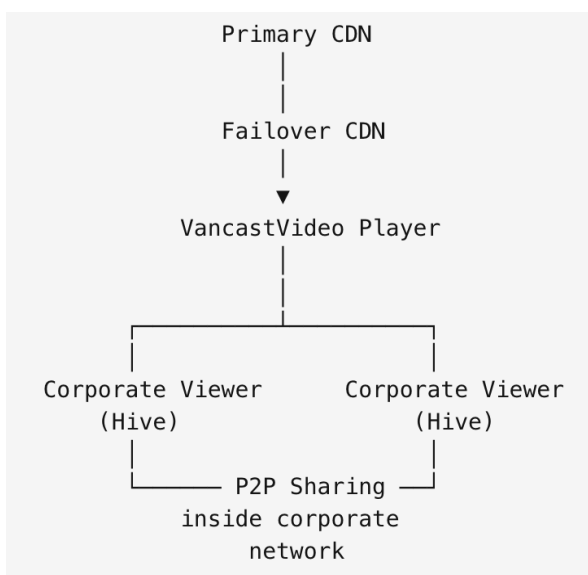
- Thousands of identical video streams
- High WAN bandwidth consumption
- Possible firewall or network congestion
- Reduced quality for viewers

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## VancastVideo eCDN Architecture

VancastVideo orchestrates **multi-CDN delivery combined with enterprise eCDN optimization**.

Inside corporate networks, **Hive Streaming peer-to-peer distribution** allows viewers to share video segments locally.



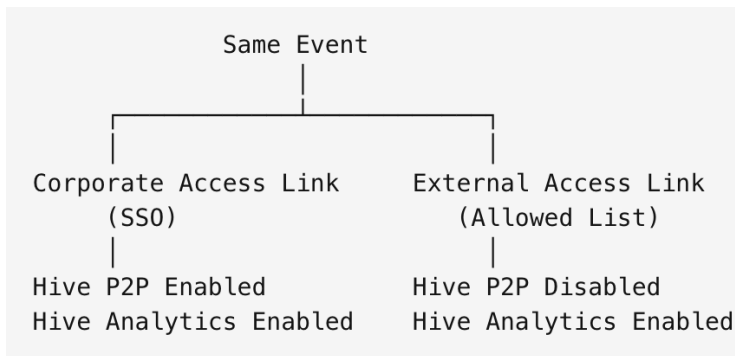
## Result

- Only a **small number of streams** enter the corporate network
  - Video segments are **shared locally between viewers**
  - Massive reduction of external bandwidth
  - Stable video quality even for **large internal audiences**
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## Flexible Delivery per Access Link

VancastVideo can apply different delivery strategies to different access links of the same event.

Example:



This allows organizations to:

- optimize delivery **inside corporate networks**
  - keep distribution **simple for external audiences**
  - maintain a **single event environment**
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## What This Means for Enterprise Events

This architecture allows VancastVideo to support events with:

- thousands of internal viewers
- hybrid internal / external audiences
- global corporate networks
- strict IT network policies

All while maintaining **high reliability, optimized bandwidth usage and detailed analytics.**

## Bandwidth Impact: Traditional Streaming vs eCDN

### Traditional CDN Delivery

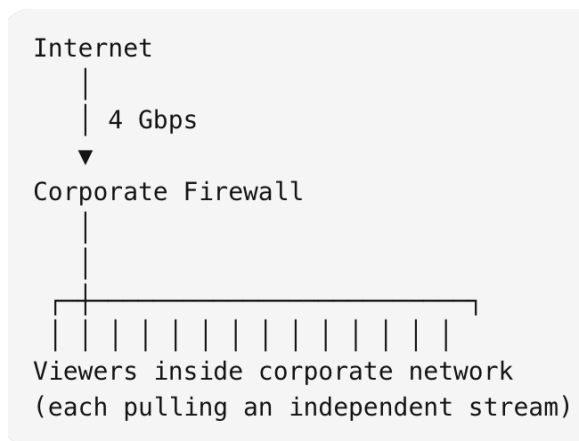
Every viewer pulls the stream directly from the internet.

Example:

1,000 employees watching a Town Hall

Bitrate per stream: 4 Mbps

Total external bandwidth required:  $1,000 \text{ viewers} \times 4 \text{ Mbps} = 4,000 \text{ Mbps} (4 \text{ Gbps})$



### Result

- High internet bandwidth consumption
- Possible firewall saturation
- Network congestion in large offices
- Increased risk of buffering

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### eCDN Delivery with Hive Streaming

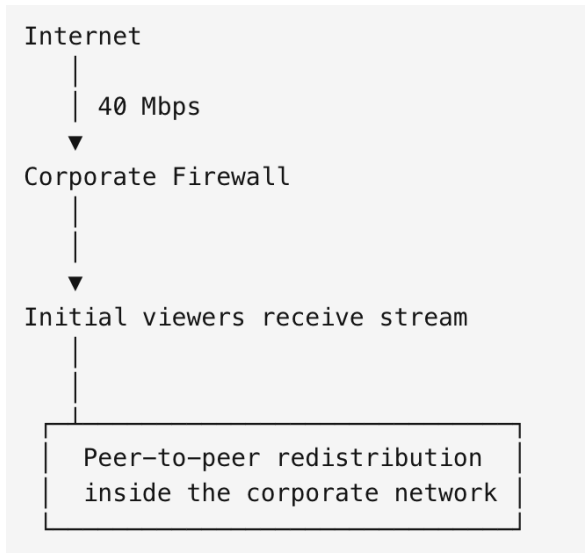
Only a **small number of streams enter the corporate network**, and viewers share video segments locally.

Example: 1,000 employees watching a Town Hall

Streams entering network: ~10

Bitrate per stream: 4 Mbps

Total external bandwidth required:  $10 \times 4 \text{ Mbps} = 40 \text{ Mbps}$



## Result

- Massive reduction of external bandwidth
  - Efficient use of internal network capacity
  - Stable playback for large audiences
  - No infrastructure changes required
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## Typical Enterprise Impact

In many corporate environments, peer-to-peer eCDN delivery can reduce external bandwidth consumption by **90–99%** during large internal broadcasts.

This allows organizations to support:

- company-wide town halls
- global leadership broadcasts
- training sessions with thousands of participants

without placing stress on the corporate network.