

# Lumen<sup>®</sup>

## CDN Mesh Delivery

Manage spikes and scale your delivery footprint

### Scale: a critical foundation for a successful video platform

Due to the unpredictable nature of modern video delivery and viewers' demand for high-quality, reliable streams, providers rely heavily on placing content as close as possible to their users.

However, cutting down on latency and scaling for greater bandwidth requires costly investments in CDN servers, which can be particularly challenging during unexpected traffic spikes and in emerging markets where the network infrastructure may lack.

With a peer-to-peer network that provides greater elasticity by acting as an overlay on top of your CDN infrastructure, video providers can rapidly increase their bandwidth capacity and geographic footprint without spending significant capital on new infrastructure or CDN commits. A mesh network may also provide an extra layer of redundancy in case of CDN failure, as the mesh network can continue delivering the content available in the network during temporary server outages.

Video is predicted to account for **82%** of all internet traffic by 2022.<sup>1</sup>

Video on-demand grew by **155%** in 2019, while live video grew by **93%**.<sup>2</sup>

### Scaling can be a challenge even with a robust CDN or multi-CDN strategy



Unplanned traffic spikes can overwhelm the network, cause operational teams headaches, and trigger expensive overages



Reaching users in new geographies requires onboarding new vendors as well as CAPEX and/or OPEX investment



Implementing multi-CDN redundancy can be time-consuming and complex for platforms looking to go to market quickly with limited resources

<sup>1</sup>Cisco Annual Internet Report (2018-2023)

<sup>2</sup>Conviva, State of Streaming Q2 2019

# With Lumen® CDN Mesh Delivery:

## Manage traffic spikes

Bolster your CDN delivery while improving quality for end users with elasticity that server infrastructures cannot provide.

## Keep content at the far edge

Decrease the distance between content sources and users by turning viewer devices into edge servers.

## Expand delivery footprint

Provide high-quality streaming sessions for users in remote geographies without investing in new CDN infrastructure.

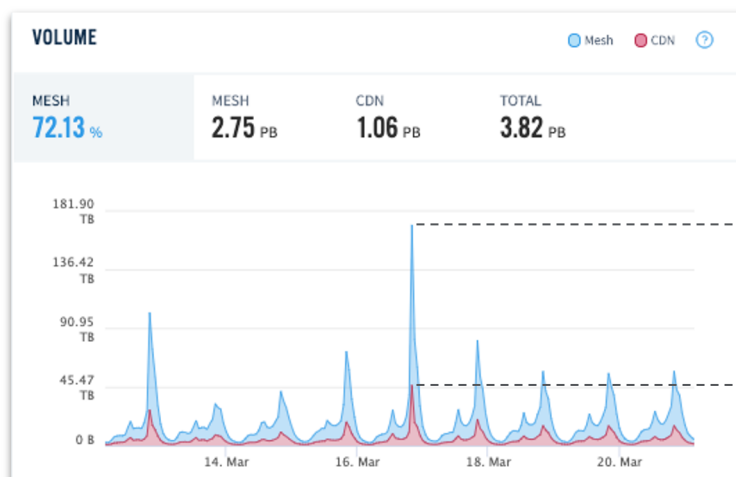
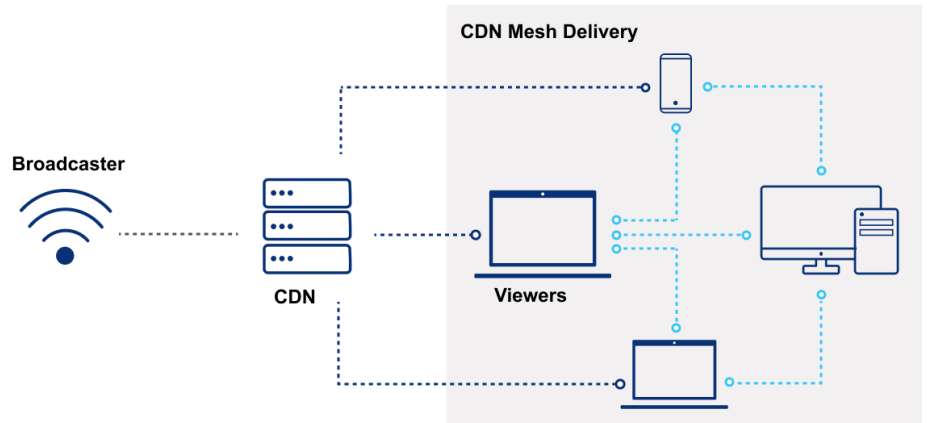
## Protect against CDN failures

Avoid user experience disasters when a CDN fails. The mesh network can continue to share available content during a momentary outage.

## How it works

CDN Mesh Delivery functions as a hybrid solution. After fetching content from the CDN, viewer devices share that content with other devices watching the same stream, thereby reducing the traffic and strain on the CDN.

If no other devices are available, the CDN will provide all of the content.



Lumen customer data; March, 2020

Capacity with CDN Mesh Delivery

Maximum server use

CDN Mesh Delivery enables this major European TV network to handle bandwidth spikes of more than **10x** their average viewers.