Data Sheet

IBM Cloud Video Enterprise Content Delivery Network

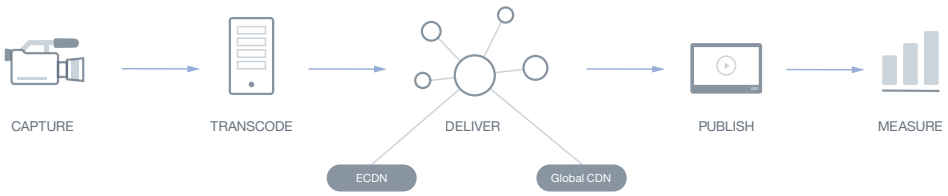
Deliver internal video at scale

IBM Cloud Video

IBM Cloud Video Enterprise Content Delivery Network

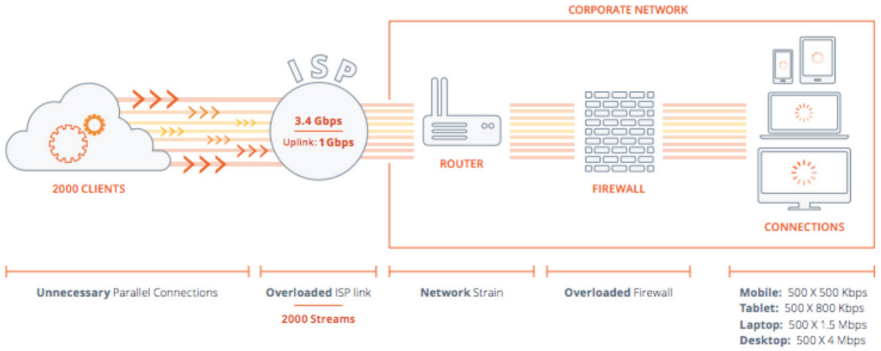
With IBM® Cloud Video's Enterprise Content Delivery Network (ECDN), you can relieve the bottlenecks associated with delivering streaming video to single or multiple locations within your organization's network.

How Enterprise Content Delivery Network works

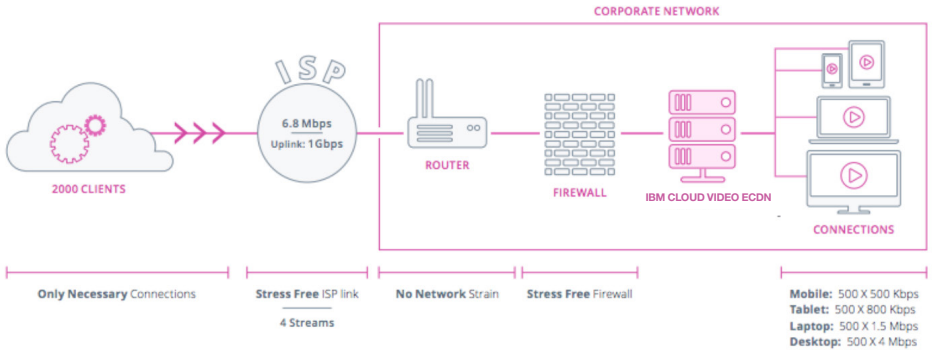


ECDN edges are delivered as virtual appliances and are deployed close to the target audience, inside the corporate network. As a result, ECDN helps reduce the number of streams that need to be downloaded through ISP links and distributed internally on the local network.

WITHOUT IBM Cloud Video ECDN 2000 CLIENT USE CASE



WITH IBM Cloud Video ECDN 2000 CLIENT USE CASE



Features

IBM Cloud Video ECDN was built to support large-scale viewership of streaming video within complex corporate network environments, offering mass scaling in the number of connections to allow organizations to confidently deliver high quality video content.

Reduced network strain on ISP links

Avoid expensive ISP link upgrades and protect your organization from occasional bursts in traffic.

Improved video quality, no buffering issues

Don't tolerate low quality videos or buffering. Release video content with crisp image quality and fluid motion.

Cost saving

Postpone or possibly even eliminate the need of network capacity upgrades.

Low maintenance

Update ECDN edges automatically, keeping in sync with feature updates.

Monitor performance

View health checks on nodes and see concurrent users. IT administrators can configure their ECDN fleet and access useful metrics like network, memory, CPU, and disk usage, all through the admin portal.

Firewall support

Use ECDN in conjunction with firewalls, requiring port 80 (HTTP) and port 443 (HTTPS) to be opened toward the outside of the network. No inbound port is required to be open.

Install multiple instances

Enhance support for a single ISP, multiple ISPs or to support industries with multiple offices, including world-wide reach.

Mobile delivery

Support viewing on desktop and mobile devices via cloud transcoding to deliver an HLS (HTTP Live Streaming) stream.

Automatic routing logic

Pull video content for each viewer from the appropriate node with virtually no disruption to normal delivery over a worldwide network.

Built-in administration

Manage ECDN deployment through a web-based panel that is accessible by modern browsers, including tablets.

Use cases

- Town hall meetings
- Training
- Internal meetings

Cloud installation and configuration

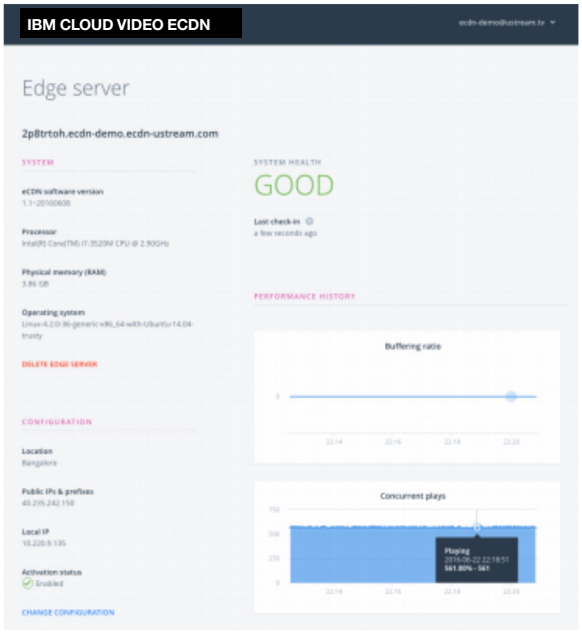
IBM Cloud Video ECDN is a virtual appliance that is run on virtualization platforms, such as VMware ESXi™, Citrix XenServer®, Microsoft Hyper-V® and other hypervisors that support the Open Virtualization Format. Installation of the ECDN edges takes virtually minutes and can be deployed to existing hardware.

Development steps

Assessment and Portal

Before ECDN deployment IBM Cloud Video examines the topology of the corporate network and collects various information - like number of employees per office locations, public IP addresses, available bandwidth - as a prerequisite for the solution design. Based on the information, IBM Cloud Video creates the proposed deployment architecture and provisions the customer portal.

The ECDN fleet is managed through the customer portal. After running the installer, edges can be assigned to public IP addresses and locations. The IBM® Cloud Video Streaming Manager platform uses these public IP addresses to identify valid customers.



System requirements

Hardware environment	Dedicated or shared
Hypervisors	Hypervisors with OVF support (e.g., VMware ESXi™, Microsoft Hyper-V®, Citrix XenServer®)
OS	The appliance is delivered as an Ubuntu Linux 14.04 LTS OS virtual machine
Memory	Minimum requirement: 4GB Recommended: 16GB
Network interface	Recommended 1Gbit/s or 10Gbit/s
Maximum suggested viewers per instance	In case of 1Gbit/s NIC ~200 users In case of 10 Gbit/s NIC ~2,000 users
Inbound Internet connection bandwidth	The sum of the bitrate of inbound stream versions. Example: 1 channels with 3 resolutions: 1.5Mbit, 3Mbit, 8Mbit average bit rate: 12.5Mbit
Outbound LAN connection bandwidth	Number of concurrent viewers * stream bitrate + overhead Example: 500 concurrent viewers, 3 Mbit/s average bit rate equals 1.5Gbit/s + ~10% overhead = 1.65Gbit/s required outbound bandwidth

Summary

Using IBM Cloud Video's ECDN, combined with IBM Cloud Video Streaming Manager for Enterprise, organizations can create targeted video assets for specific audiences without concerns for congesting local connections. "All hands" meetings, and other employee communications, can be achieved and can target all employees, both local and off-premise. ECDN offers enterprises a comprehensive internal video solution that can be used to serve restricted content to employees and stakeholders helping enterprises avoid the worry about individual setups or corporate network strain.

IBM Cloud Video

IBM Cloud Video delivers reliable and scalable video streaming services globally. Combining robust video functionality and exceptional cognitive abilities, IBM Cloud Video provides one of the most comprehensive video offerings available today. For more information on IBM Cloud Video, please visit www.ibm.com/cloud/video.

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