

# Enterprise Streaming Delivery Solution Proof of Concept

IBM Cloud Video ECDN  
with the power of AT&T  
FlexWare<sup>SM</sup>



# Enterprise Streaming Delivery Solution

IBM Cloud Video



Proof of Concept: IBM Cloud Video ECDN with the power of AT&T FlexWare<sup>SM</sup>

*With the IBM Cloud Video Enterprise Content Delivery Network (ECDN) and AT&T FlexWare, companies can remove network bottlenecks associated with using streaming video by running ECDN as a Virtual Network Function (VNF). This enables robust, highly scalable video delivery from a company's headquarters all the way down to remote offices.*

## Company wide scalability and bandwidth reduction

IBM ECDN supports large-scale viewership of live and on-demand streaming video within enterprises. It empowers massive simultaneous user scale, while reducing WAN (Wide Area Network) strain by delivering a single copy of a video asset regardless of the number of viewers. With AT&T FlexWare, companies can support all office locations, removing network strain out to the edge without requiring smaller branches to run additional appliances or servers. IBM ECDN service:

- Enables companies to more easily scale distribution of high quality video assets, reducing travel expenses to events and company meetings that are replaced with all-hands video
- Reduces bandwidth utilization for enterprise video streaming
- Supports video delivery to both desktop and mobile devices with adaptive bitrates
- Supports a single ISP or multiple ISPs (single or multi-homed environments)
- Supports global enterprises through the installation of multiple instances of ECDN servers
- Provides built-in load balancing with no additional hardware or software required
- Is deployed for high-availability and includes an optional fallback feature to use external CDNs
- Allows you to centrally control the video infrastructure (encoders, storage, distribution, authentication, security, access)

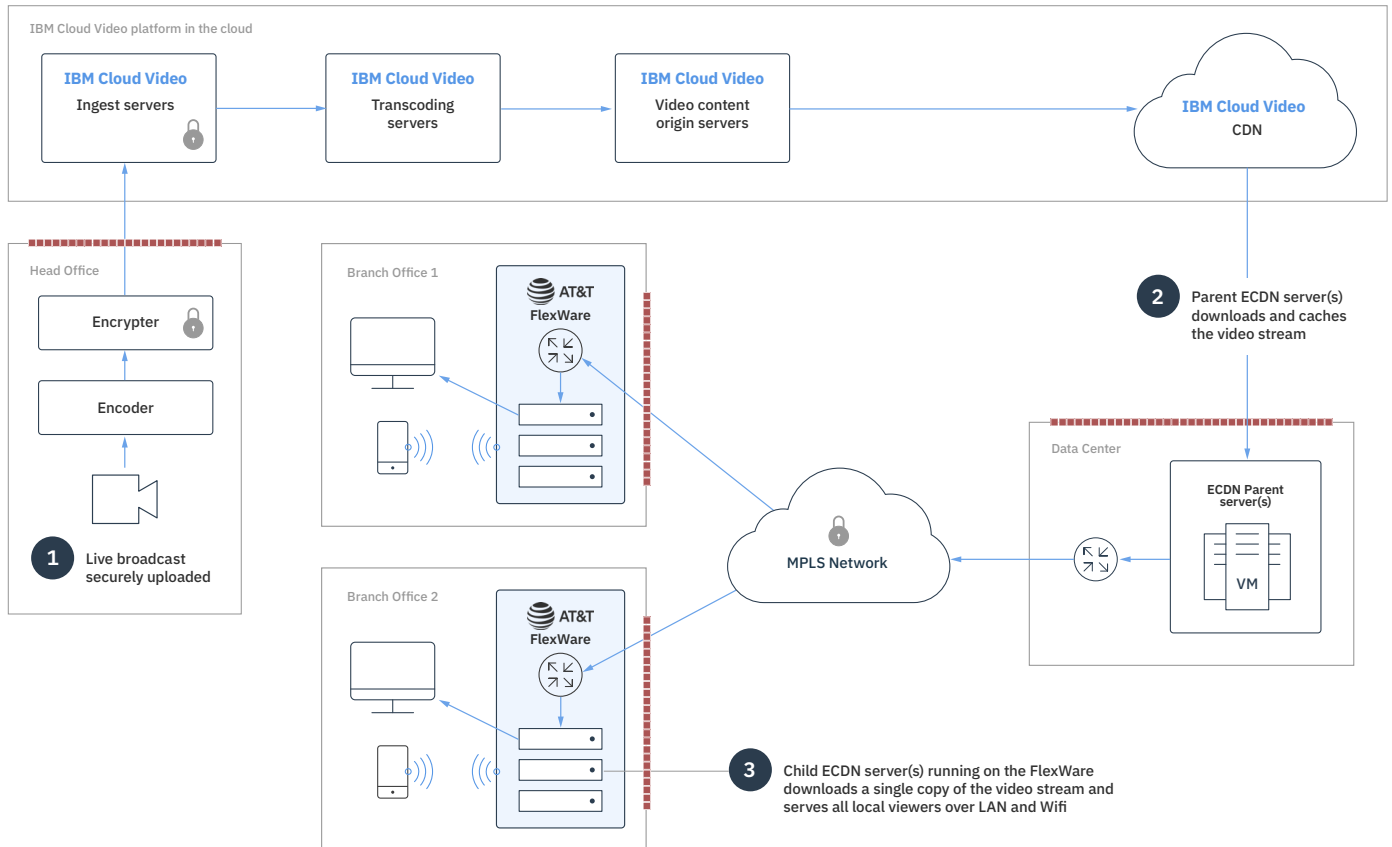
## Do more with less using AT&T FlexWare

AT&T FlexWare is a managed service that uses Network Function Virtualization (NFV) technology enabling customers to deploy an x86 hardware platform, also known as Universal Customer Premises Equipment (uCPE), at their premises to run one or more VNFs.

The AT&T FlexWare managed service always includes AT&T management of the uCPE platform up through the levels of the hardware, base OS software, hypervisor, virtual machines and service chaining of the virtual machines. Depending on the VNF, configuration and operational management of the VNF software may include options for management by AT&T or by the customer (or third party). By breaking the traditional appliance-based networking model, it provides more flexibility and control in managing edge devices. AT&T FlexWare:

- Programmable, highly automated – running on an SDN-enabled core and NFV technology
- Modular and agile, so you can easily add, scale, and change network services
- Mix and match applications
- Enforce security policies and maintain reliability
- Manage and update your network faster, and from virtually anywhere
- Reduce total cost of ownership

## Proof of Concept: IBM ECDNs with AT&T FlexWare delivers video to remote branches



### Installation and solution components

ECDN is installed as a VNF on the AT&T FlexWare devices in the branches. ECDN service:

- Includes a web-based administrative portal accessible by any modern browser
- Measures video usage and bandwidth consumption with detailed reporting
- Works behind corporate firewalls (needs outbound-to-Internet port 80 for HTTP and port 443 for HTTPS)
- Provides an analytic dashboard showing CPU usage, physical memory usage, disk usage, network I/O, and concurrent users on each server
- Managed, updated and optimized automatically by IBM Cloud Video
- IBM professionals assist with a comprehensive network assessment for installation
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### System requirements for ECDN instances

Multiple instances per location are suggested to take advantage of the built-in load balancing and high availability. Cache size per instance is increased based on the available memory or attached storage.

CPU	Minimum 4 CPUs required
Memory	Minimum 4 GB RAM required
Storage	Minimum 4 GB disk space required
Network interface on host hypervisor	1Gbps or 10Gbps NIC

For ECDN services, call to talk to an IBM Cloud Video expert

**1-800-778-3090**

For AT&T FlexWare services, call to talk to an AT&T agent

**1-800-553-6387**

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San Francisco, CA 94108

Produced in the United States of America  
October 2018

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