

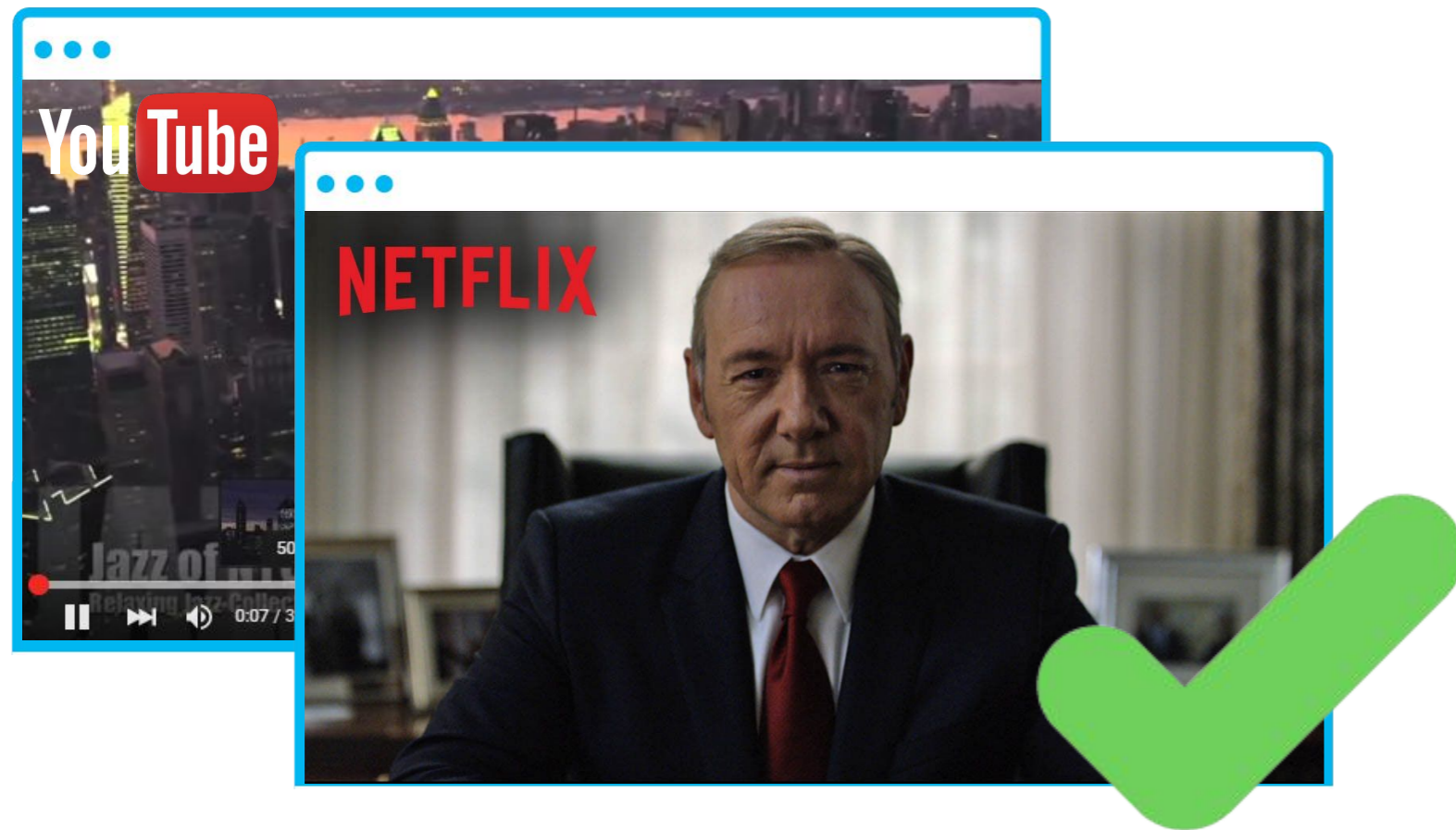


# The Evolution Of Video Delivery

# \*All\* Video Content is going online



# The State of Video Delivery



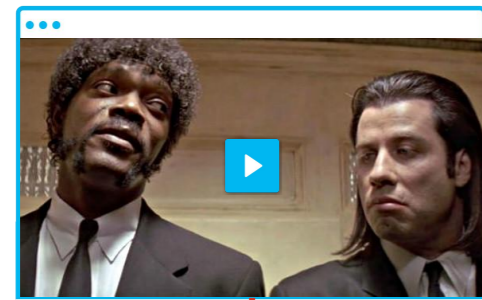
Netflix, YouTube QoE is excellent



The rest is sluggish and expensive

**Why is that?**

# Evolution of Video CDN



1995

1 gen



2000

2 gen



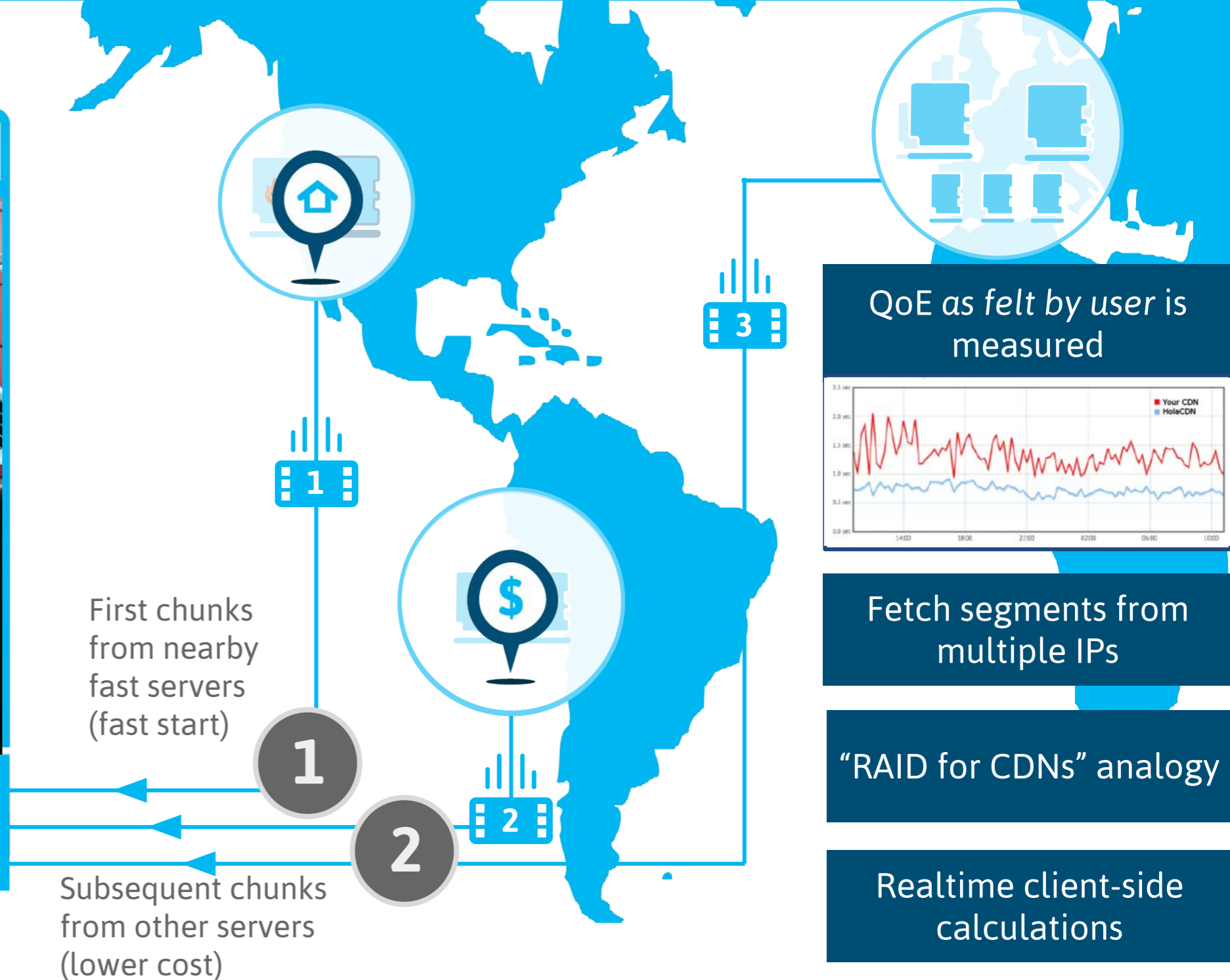
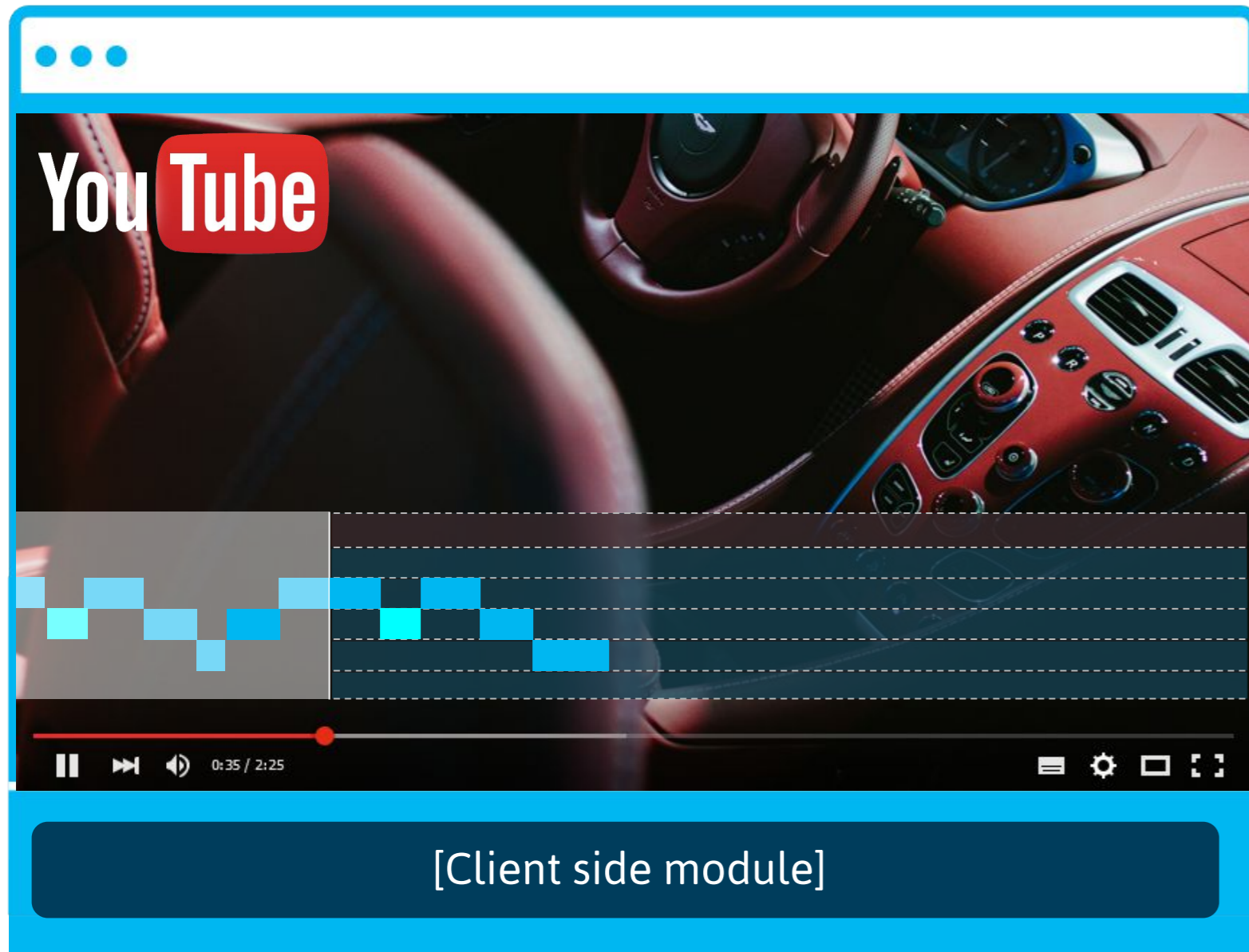
2016

3 gen

<b>Content served</b>	Dynamic & static content: HTML/ AJAX/JS/CSS/Images/Flash/Video	Static content: JS/CSS/Images/Flash/Video	Static content: Video
<b>Server software</b>	Generic HTTP: Apache, nginx, tinyhttpd, proprietary	Generic caching proxy: ATS, nginx / squid optimized for CDN, proprietary	Video only caching proxy
<b>Client side</b>	NONE	NONE	Mid-Stream switching, CDN aware
<b>Servers per stream</b>	1 (global)	1 (per geo)	Multiple (worldwide)
<b>QoE</b>	Not measured, Bad	Guesstimate, Mediocre	Granular / Excellent

# 3rd gen: Mid-Stream Switching

Fast start, less buffering, cheaper costs



# Live Demo

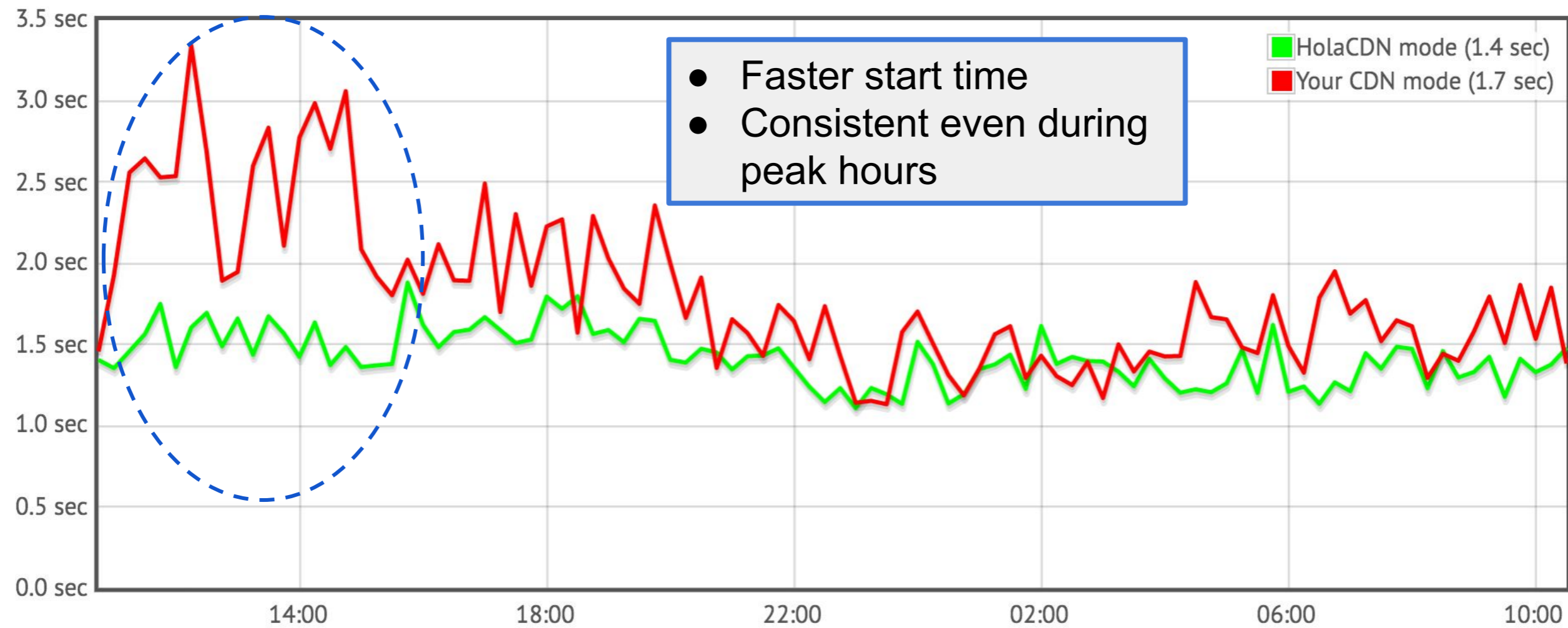
The screenshot displays a video player interface with a dark theme. At the top, there are tabs for video formats: MP4, HLS, HDS, DASH, HTML5 (selected), and FLASH. On the right, there are tabs for content types: VOD and LIVE (selected). The main video area shows a desert landscape with a satellite dish. A 'Detailed statistics' overlay is visible, featuring a 'Savings calculator' table and a 'timeline' visualization. The timeline shows various colored segments representing different data points. Two callout boxes point to specific segments: 'Playing from Hola CDN 2' and 'Loading from Hola CDN 2'. The savings calculator table lists the following data:

Source	Amount	Percentage
Your CDN	2.27M	40%
HolaCDN1	0	0%
HolaCDN2	2.45M	43%
HolaCDN3	950K	16%
HolaCDN4	0	0%
Browser-cache	0	0%

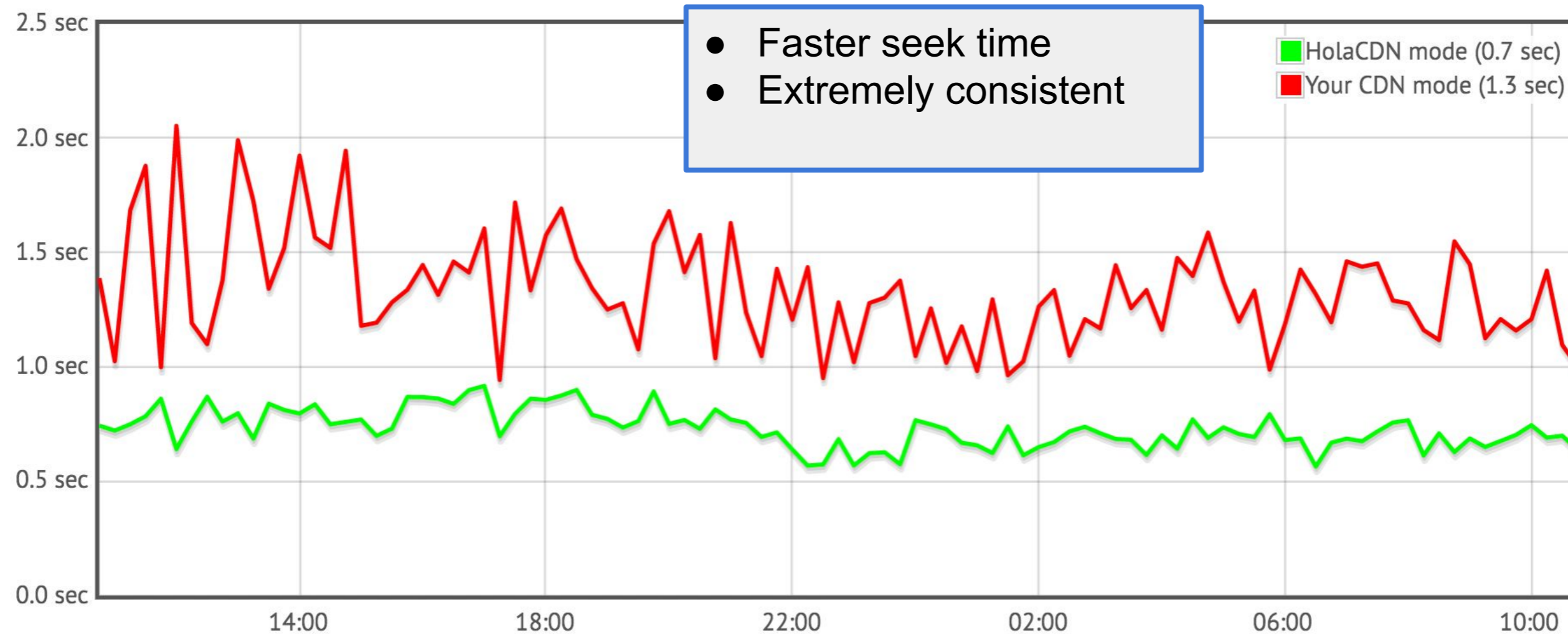
At the bottom of the player, there is a video control bar with a play/pause button, a volume icon, and a progress indicator showing 0:51 / 5:26. Below the player, a code snippet is displayed:

```
<script src="http://holacd.com/video_manager.js">
```

# Impact on start time

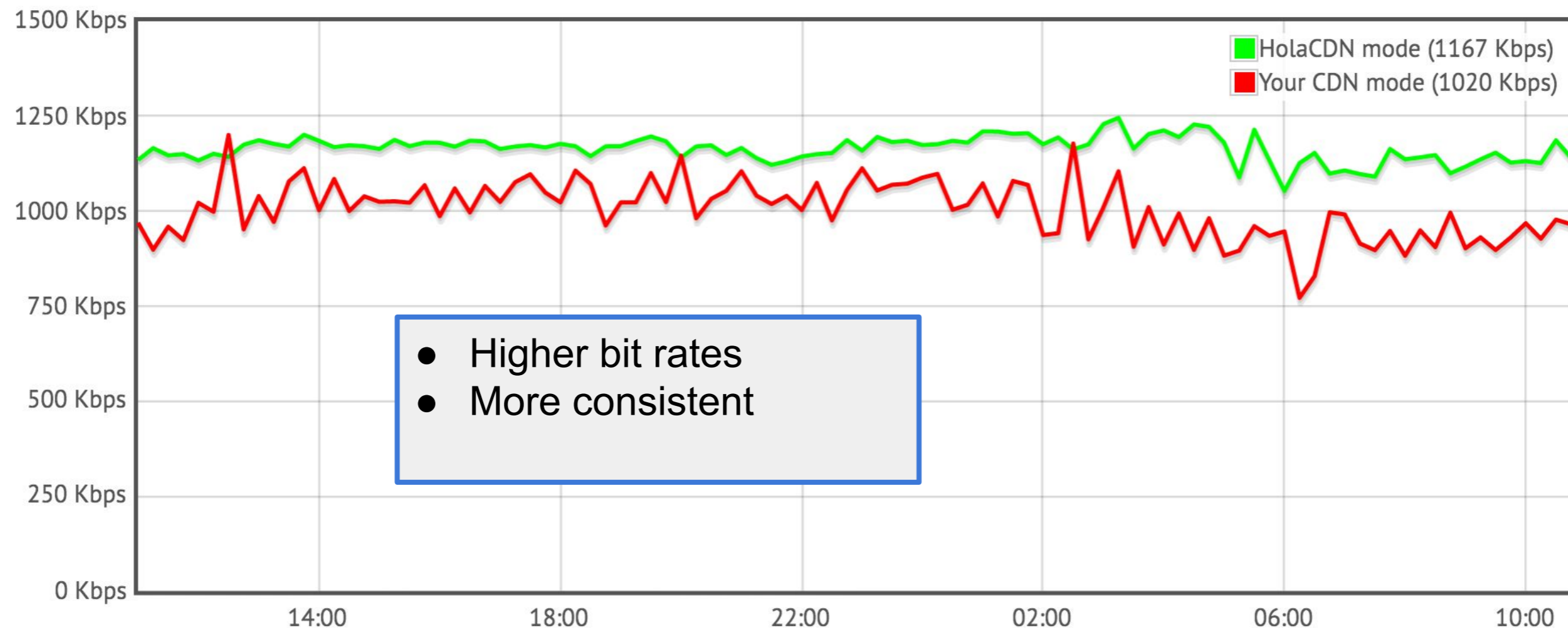


# Impact on seek time





# Impact on bitrates





# HolaCDN

The Pure Play Video CDN

# Video QoE dashboard

Browser	Country	Desktop/Mobile	OS	Zone	Video source
all ▾	all ▾	all ▾	all ▾	all ▾	all ▾
			All your CDNs	HolaCDN	Comments
▶ <b>User experience</b>	Successful start		56.1%	62.6%	12% better
▶ <b>Start</b>	Start time		4.6 sec	2.9 sec	37% better
▶ <b>Seek</b>	Seek time		2.5 sec	1.2 sec	52% better
▶ <b>Buffering</b>	Mid-video buffering		5.2%	5.1%	~ same
▶ <b>Video quality</b>	Bitrate		–	–	
▶ <b>General</b>	Clicked play		63%	68.5%	
▶ <b>Multi-CDN</b>	Traffic served		40.7%	59.2%	
▶ <b>Cost savings</b>	HolaCDN cost saving		N/A	\$223	71.9% savings



It's free and on GitHub!  
[github.com/hola/cdn](https://github.com/hola/cdn)

# Multi-CDN client

- Specify cost per source
  - E.g. Akamai \$0.05/GB, Cloudfront \$0.04/GB, HolaCDN \$0.01/GB
- Dynamic switching for best cost/performance
- Choose between:
  - Your own mix of origin and CDN(s)
  - Your CDN(s) + HolaCDN servers



It's free and on GitHub!  
[github.com/hola/cdn](https://github.com/hola/cdn)

# Traffic: Simple Pricing

Pay only for the bandwidth you actually use. Fixed price of 1¢ per GB from the first GB to everywhere in the world, 100% availability. No setup fee, no minimum spend.

	USA & CA	EU	Asia-Pacific	AU & NZ	South America
1-50TB	\$0.06	\$0.06	\$0.06	\$0.095	\$0.095
51-150TB	\$0.05	\$0.05	\$0.05	\$0.07	\$0.07
151-400TB	\$0.03	\$0.03	\$0.03	\$0.06	\$0.06
401-1000TB	\$0.03	\$0.03	\$0.03	\$0.05	\$0.05
1-2PB	\$0.02	\$0.02	\$0.02	\$0.05	\$0.05
3-5PB	\$0.01	\$0.01	\$0.01	\$0.05	\$0.05
Over 5PB	\$0.01	\$0.01	\$0.01	\$0.05	\$0.05

**1¢/GB**  
From the first GB, worldwide.

representative sales@old-cdn.com



**HolaCDN**

Start now on [holacdn.com](https://holacdn.com)