saltwaterbrc.com · Training Doc · February 2026

Cloudflare Stream — Video Delivery at the Edge

What Is Cloudflare Stream?

Cloudflare Stream is an end-to-end video platform. You upload a video, and Stream handles everything: encoding, storage, adaptive bitrate delivery, and a built-in player. No FFmpeg. No transcoding pipelines. No CDN configuration. No managing video infrastructure.

Think of it this way: if Pages is "upload HTML, get a website," then Stream is "upload a video, get a player." Same philosophy — remove the infrastructure complexity so you can focus on the content.

Why It Matters

Video is the hardest thing to serve on the internet. A single 1080p video requires multiple bitrate versions (240p, 480p, 720p, 1080p), different codec encodings, adaptive streaming manifests (HLS/DASH), a storage backend, a CDN for delivery, and a player that handles all of it. Most companies either pay YouTube/Vimeo to handle it or build expensive transcoding pipelines on AWS (MediaConvert + S3 + CloudFront).

Stream replaces all of that with a single product.

How It Works

Upload

Three ways to get video into Stream: 1. **Dashboard** — Drag and drop in the Cloudflare dashboard (easiest) 2. **API with a link** — Point Stream at a URL (S3 bucket, CMS, public link) and it pulls the video 3. **Direct upload** — Upload from a file on your computer via API

Supported formats: MP4, MKV, MOV, AVI, FLV, WebM, and more. Files up to 30GB.

Processing

After upload, Stream automatically:

- Transcodes to multiple bitrates (adaptive streaming)
- Generates thumbnails
- Creates HLS/DASH manifests
- Optimizes for every device and connection speed

You poll the API or use webhooks to know when `readyToStream: true`.

Embedding

Stream gives you an iframe embed code:

```
<iframe src="https://customer-<CODE>.cloudflarestream.com/<VIDEO_UID>/iframe" allow="accelerometer; autoplay;
encrypted-media; gyroscope; picture-in-picture" allowfullscreen> </iframe>
```

Drop that in any webpage. The built-in Stream Player handles adaptive bitrate, fullscreen, mobile, everything.

API

Full control via the Cloudflare API:

```
# Upload from URL curl -X POST \ -d '{"url":"https://example.com/video.mp4","meta":{"name":"My Video"}}' \ -H
"Authorization: Bearer <API_TOKEN>" \ https://api.cloudflare.com/client/v4/accounts/<ACCOUNT_ID>/stream/copy # Check
status curl -H "Authorization: Bearer <API_TOKEN>" \
https://api.cloudflare.com/client/v4/accounts/<ACCOUNT_ID>/stream/<VIDEO_UID>
```

Live Streaming

Stream also supports live video via RTMPS: 1. Create a live input (dashboard or API) 2. Get an RTMPS URL and stream key 3. Use OBS or any streaming software to broadcast 4. Same embed code works for live and on-demand

Pricing

- **$5/month** base — includes 1,000 minutes of stored video and 5,000 minutes of delivered video
- Additional storage: $5 per 1,000 minutes
- Additional delivery: $1 per 1,000 minutes

For comparison: AWS MediaConvert + S3 + CloudFront for the same workload can easily run 10-50x more, especially with egress costs.

What We Built on saltwaterbrc.com

The Video

"The Lightbulb Moment" — a short AI-generated film about the journey from passively selling a platform to actively building on it. Created with Kling AI (AI video generation), prompts crafted with Claude AI.

The Integration

- Video uploaded to Cloudflare Stream via the dashboard
- Embedded on saltwaterbrc.com/stream using the Stream Player iframe
- Raw assets stored in R2 (zero egress)
- Delivered globally via Cloudflare's edge network

What This Demonstrates

- Stream handles all video complexity (encoding, storage, delivery, player)
- Zero infrastructure to manage
- Works seamlessly with the rest of the Cloudflare stack (Pages, R2, Workers)
- Enterprise-grade video delivery at a fraction of the cost of traditional solutions

Customer Use Cases

Media & Entertainment

Traditional video pipeline: upload → transcode (AWS MediaConvert) → store (S3) → deliver (CloudFront) → player (Video.js/custom). That's 4-5 services, each with its own billing, configuration, and failure modes. Stream replaces all of them.

E-Commerce

Product videos on every listing. Stream handles adaptive bitrate so the video looks good on any connection. No buffering on mobile. No managing video CDN infrastructure.

Internal Communications

Training videos, town halls, company updates. Stream supports both on-demand and live. Upload the recording, embed it in your intranet, done.

Education & Healthcare

HIPAA and compliance considerations: video stays on Cloudflare's network. No third-party video hosts touching sensitive content. Combined with Access (Zero Trust), you can restrict who can view the video.

Competitive Positioning

vs YouTube/Vimeo

- No ads, no recommendations, no branding
- Your player, your domain, your analytics
- API-first — built for developers, not content creators
- No platform risk (YouTube can demonetize or remove content)

vs AWS MediaConvert + S3 + CloudFront

- Single product replaces 4-5 AWS services
- No transcoding pipelines to build or maintain
- No egress fees on delivery (built into Stream pricing)
- Adaptive bitrate streaming out of the box

vs Mux

- Closer comparison — Mux is also an API-first video platform
- Stream integrates natively with the rest of Cloudflare (Workers, Access, R2)
- Stream pricing is simpler and often cheaper at scale

Sales Talking Points

1. "Video is the hardest content type to serve. Stream makes it the easiest." 2. "Upload a video, get a player. No transcoding pipeline, no CDN config, no video infrastructure." 3. "We built a video page on our site in minutes. The same architecture scales to millions of viewers." 4. "Stream + Access = video that only authorized users can watch. No third-party platform touching your content." 5. "Our customers are paying AWS for MediaConvert + S3 + CloudFront. Stream replaces all three."

The Stack After Phase 6

saltwaterbrc.com now runs on 9 Cloudflare products: 1. **Astro** — Frontend framework (Cloudflare-owned) 2. **Pages** — Hosting and auto-deployment 3. **Workers** — API endpoints and edge compute 4. **Durable Objects** — Visitor counter with persistent state 5. **R2** — Zero-egress object storage (PDFs, video assets) 6. **Workers AI** — LLM inference for Ask This Blog 7. **Vectorize** — Vector database for semantic search 8. **AI Gateway** — AI observability and logging 9. **Stream** — Video encoding, storage, and delivery

Total monthly cost: ~$5 (Workers Paid plan + Stream base).