





No Backend? No Problem





A Dropbox Clone with Cloudflare

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Everyone Knows Cloudflare For...

-  DNS Management
-  Bot Protection
-  CDN and Edge Caching
-  Performance Boosts

...But Few Know Cloudflare Offers

-  **Workers** (Serverless code at the edge)
-  **R2** (Object storage without egress fees)
-  **D1** (SQLite-based edge database)
-  **KV Namespaces** (Key-Value store for global state)

Let's Build Something Real

A serverless Dropbox clone using:

- Workers
- R2 (for files)
- D1 (for metadata)
- KV (for rate limits)

Tools Used

Terraform

For provisioning infrastructure

Wrangler

For local development, migrations, and deployment

Part 1: Provision Infrastructure

 What we provision:

- R2 bucket
- KV namespace
- D1 database
- Worker (placeholder) + subdomain

 Let's check provisioned objects and bindings!

Part 2: Upload Files

POST `/files`

- Accept `multipart/form-data`
- Store file in R2
- Save metadata to D1

Part 3: List Files

GET `/files`

- Read from D1
- Return file list as JSON

 Handy for debugging or listing uploads

Part 4: Download Files

GET `/files/:id`

- Lookup metadata in D1
- Stream file from R2
- Set `Content-Disposition`

Part 5: Add Rate Limiting

 KV used to store IP-based upload counters

- 5 uploads/hour per IP
- Enforced in Worker
- Uses `CF-Connecting-IP`

 Basic, but effective protection

Use Cases in the Wild

Real projects:

- ✓ Rate limiting for sensitive endpoints
- ✓ Protect against bot enumeration (return 404s)
- ✓ Serve static pages

Other Use Cases You Might Consider

Workers




- 💡 Custom APIs
- 💬 Middleware (auth, redirects, headers)
- 📊 A/B testing at the edge

R2




- 📁 Media storage
- 🧪 CI artifacts / cache
- 📄 Static blog hosting

Other Use Cases You Might Consider





D1

-  Metadata
-  Auth sessions
-  Small queues / logs

KV

-  Feature flags
-  Caches / counters
-  Global config

Try It Yourself

-  No Cloudflare egress fees
-  Truly serverless
-  Dev workflow feels familiar
-  Free-tier friendly

Questions? 🙋