

Universal Disk

Architecture of Web Storage filesystem

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What's this?

An architecture to mount
Web Storage on your filesystem

Why?

- Open a big file without waiting for sync
 - High quality video
- web storage size > device storage size
 - 2 Terabytes v.s. 256GB SSD

How?

FUSE + Web Storage API

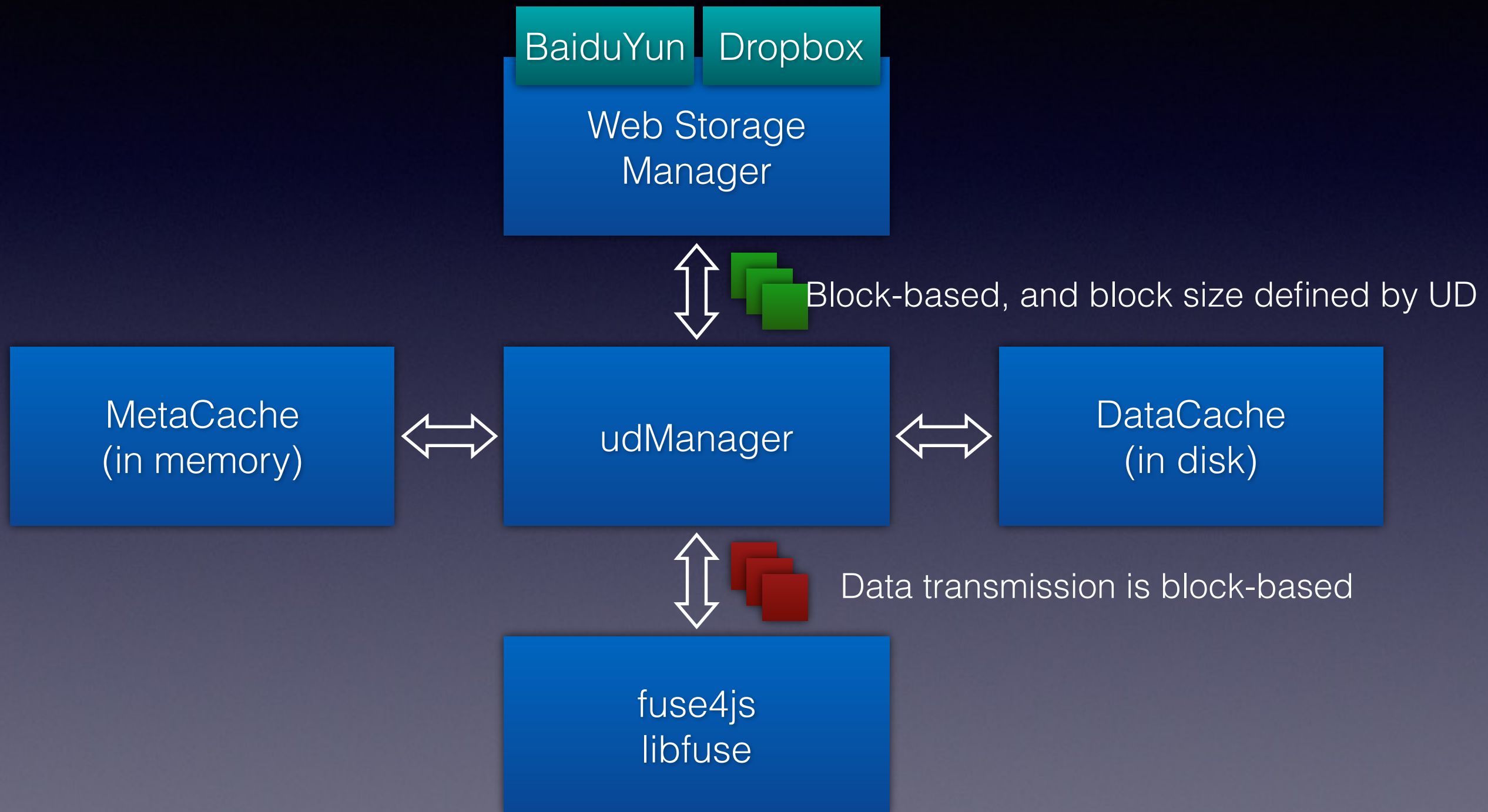
Implementation

NodeJS + fuse4js + unirest

hmm, JavaScript is good at filesystem as well. :-)


Demo

Architecture





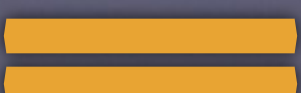



- Total Throughput v.s. Response Time
 - block size / thread lines
- Random writing support for Web Storage API
 - Upload a full file
- Resolve conflict between multiple clients
 - Notification when a file is changed

Sufficient Bandwidth

	Total Throughput	Response Time
 Block Size		
 Thread Lines		

Insufficient Bandwidth

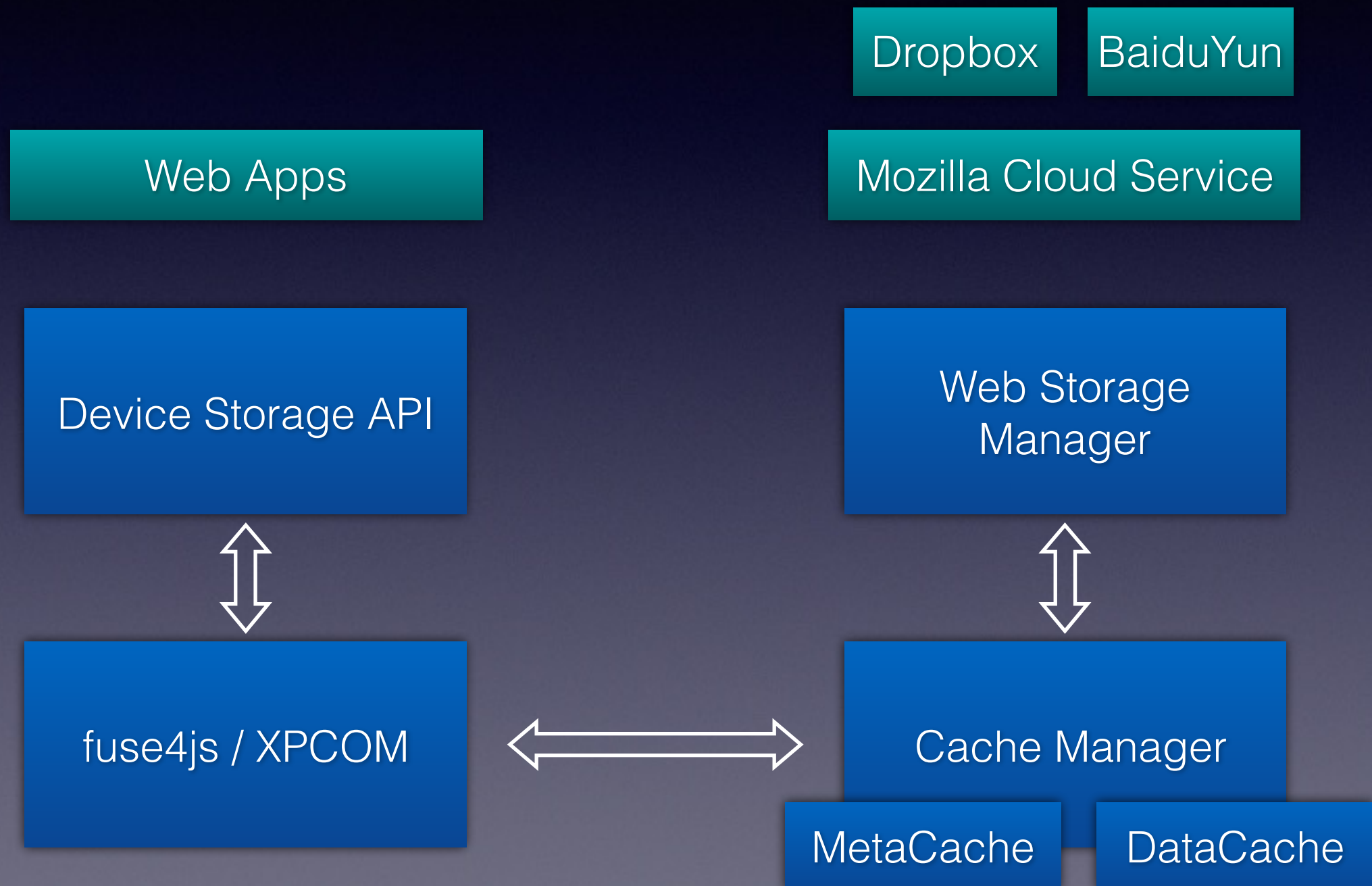
	Total Throughput	Response Time
 Block Size		
 Thread Lines		

What's the next?

- Web Storage switching
- Support more Web Storages
- Writable (resolve conflict)
- cache policy for specific filetype

So many...

Firefox OS



Thank you!

- <https://www.dropbox.com/developers/core/docs#files-GET>
- <http://www.w3.org/Protocols/rfc2616/rfc2616-sec14.html#sec14.35.2>
- http://developer.baidu.com/wiki/index.php?title=docs/pcs/rest/file_data_apis_list