

# Голая правда про файлы

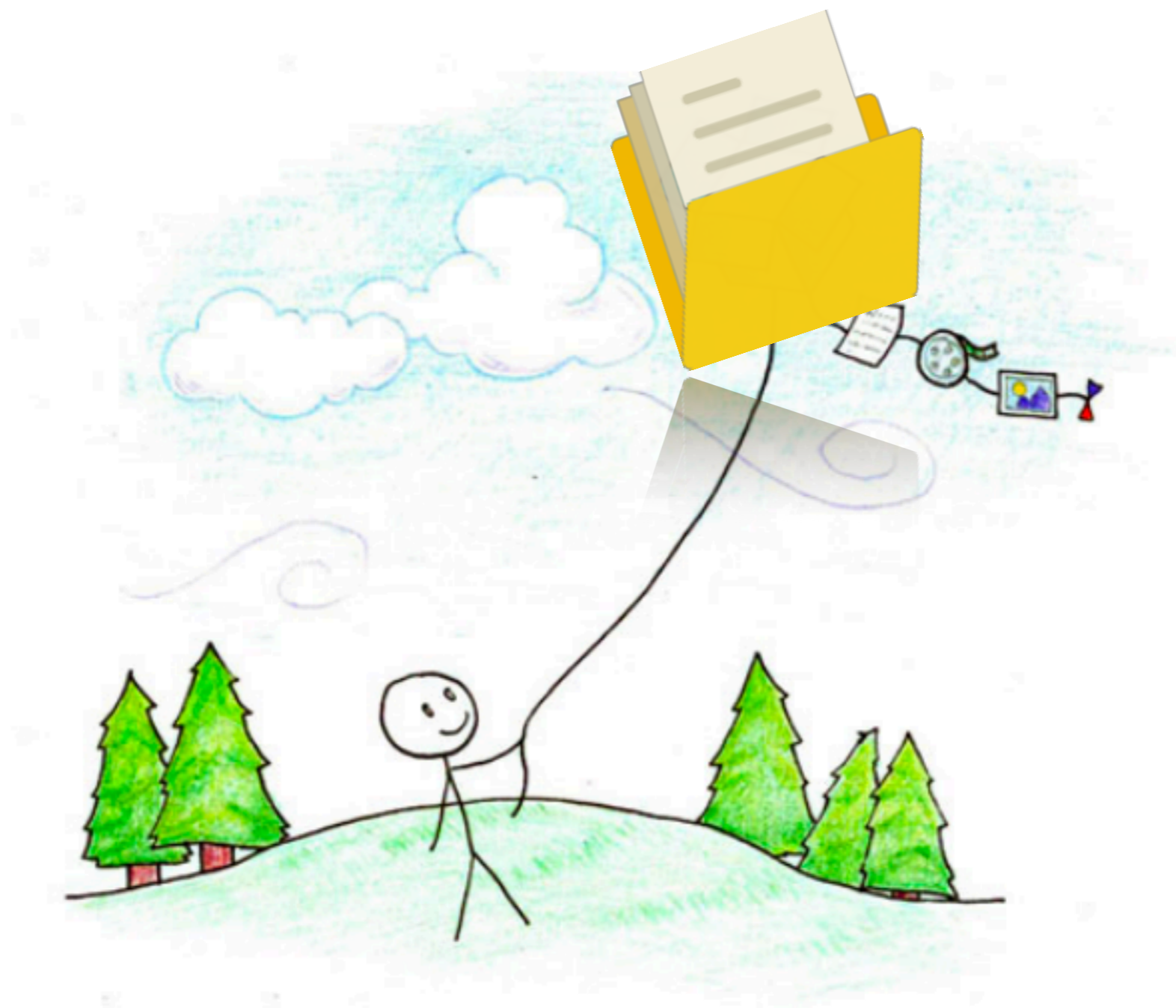
Егор Малькевич



Дав  
Мо

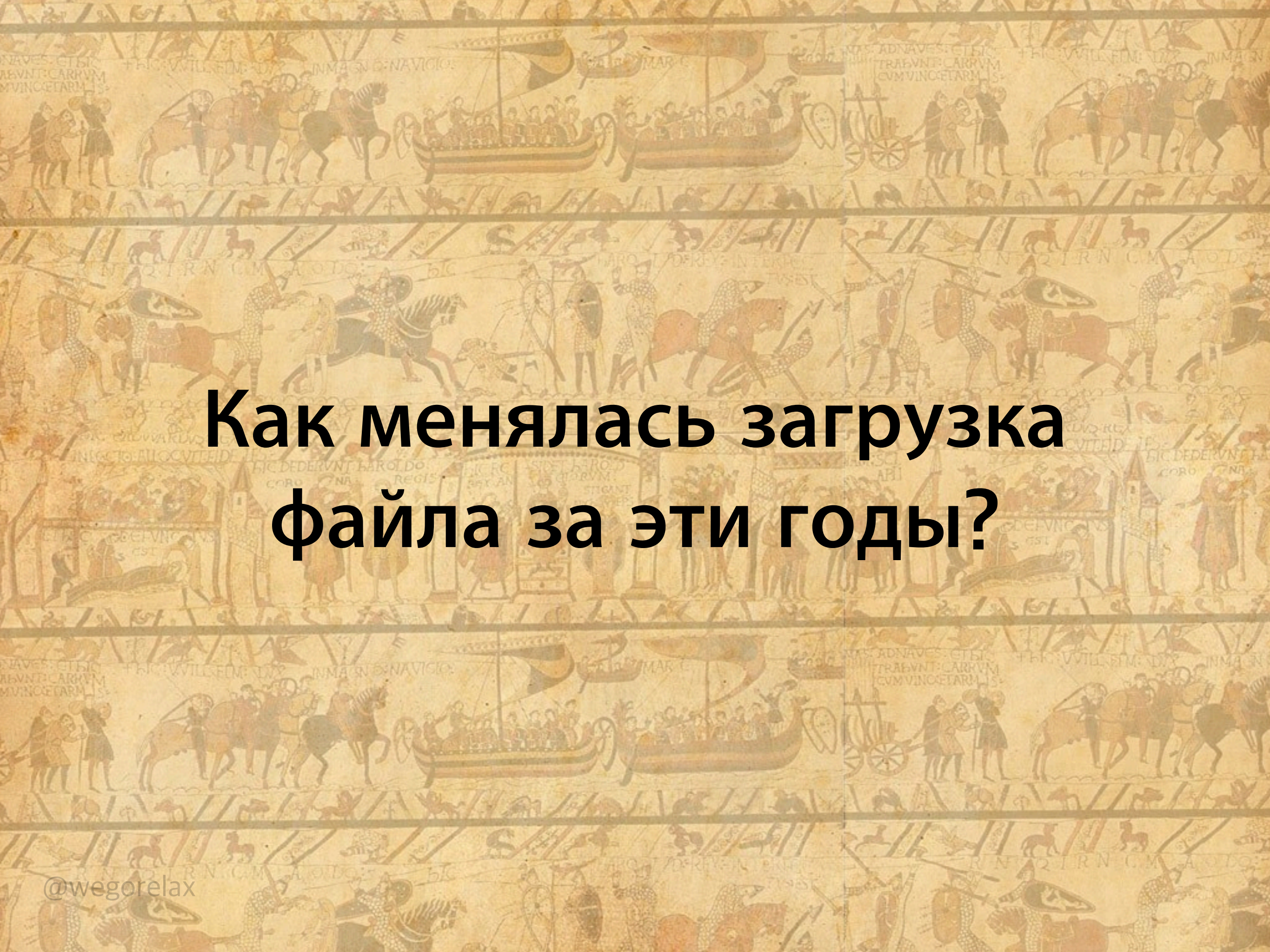
Спасибо  
Мощно

Давайте знакомиться

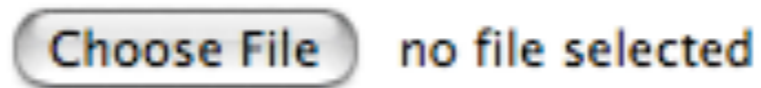


# История про боль





**Как менялась загрузка  
файла за эти годы?**



1971.г

1991.г

1998.г

2008.г

2023.г

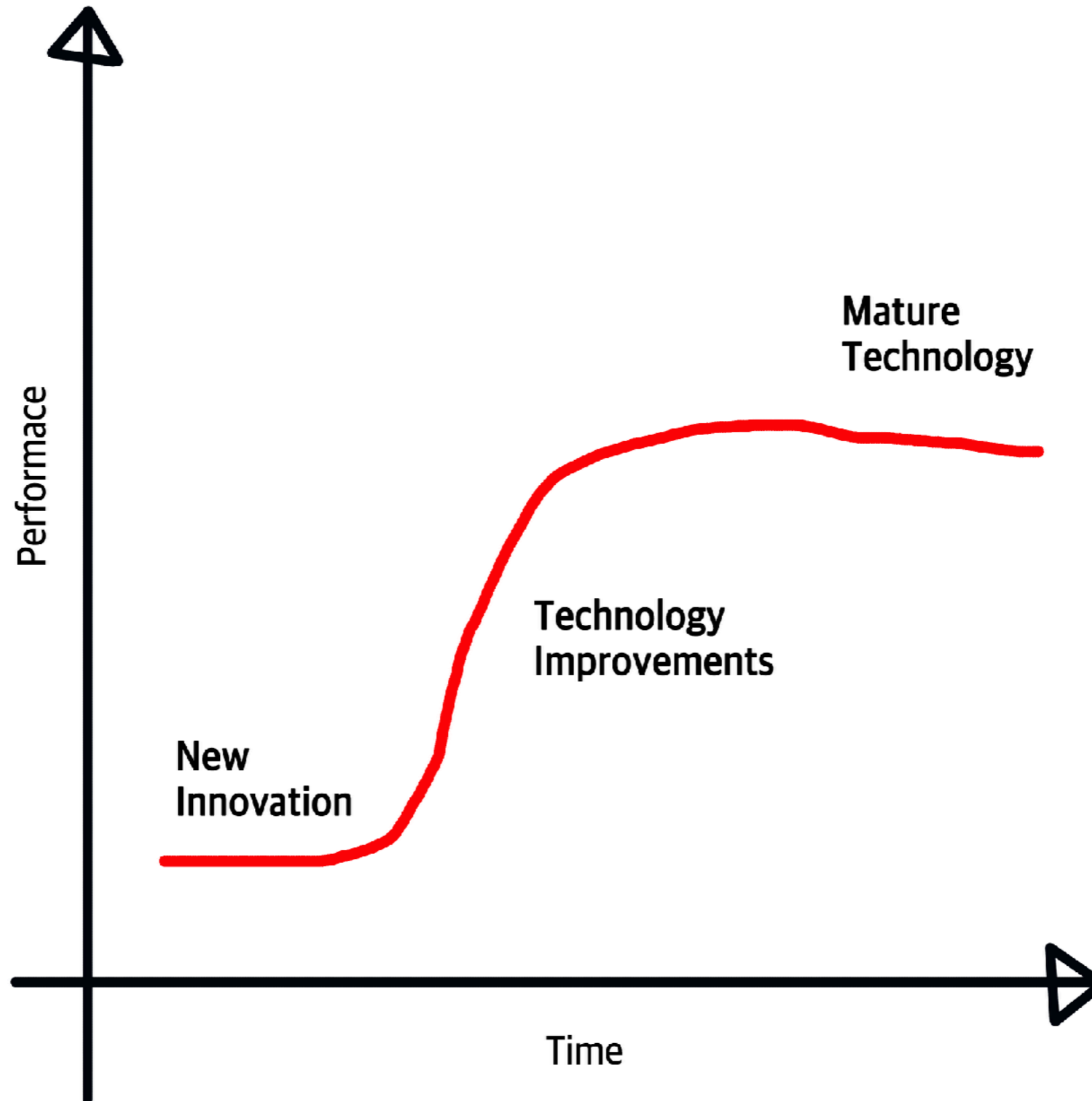
3042.г





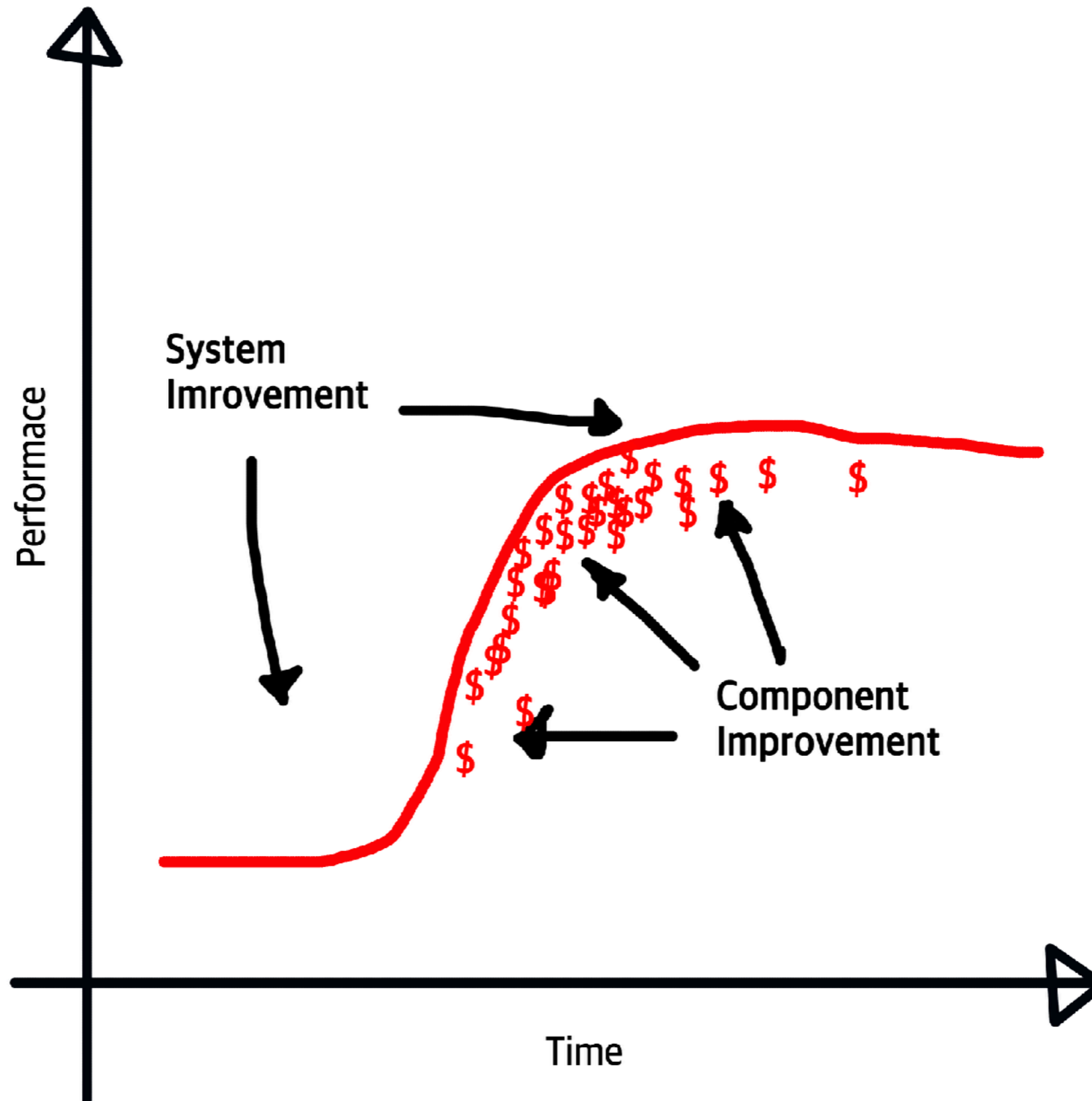
Может нам и не нужен  
file picker?

# Keyword: Technology s Curve

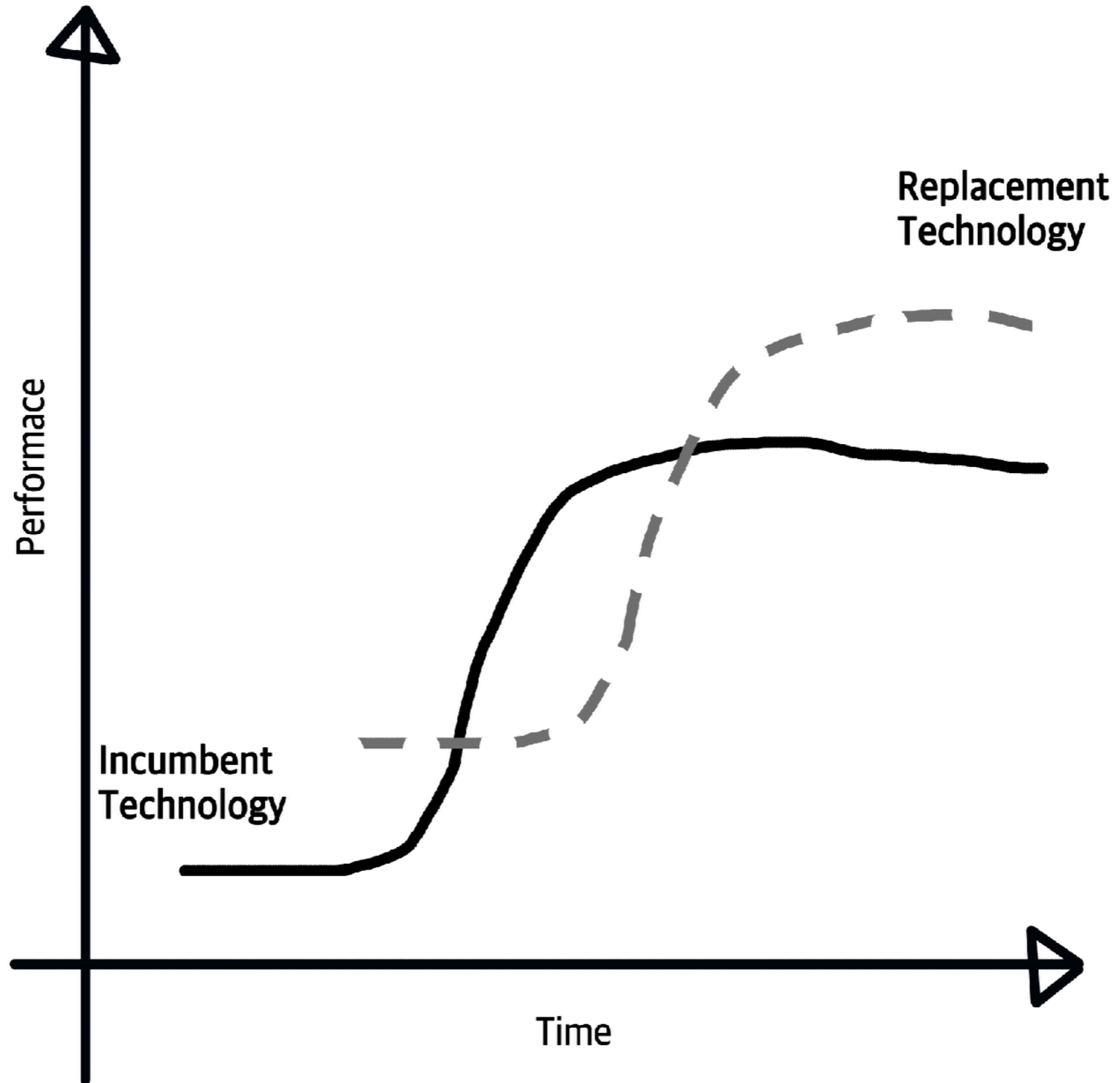




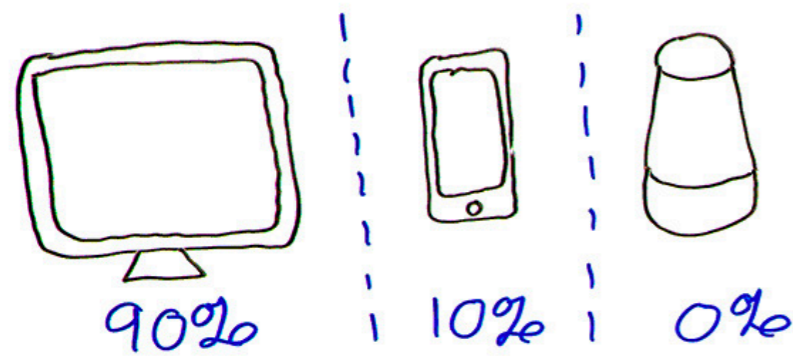
# Keyword: Technology s Curve



# Keyword: Technology s Curve



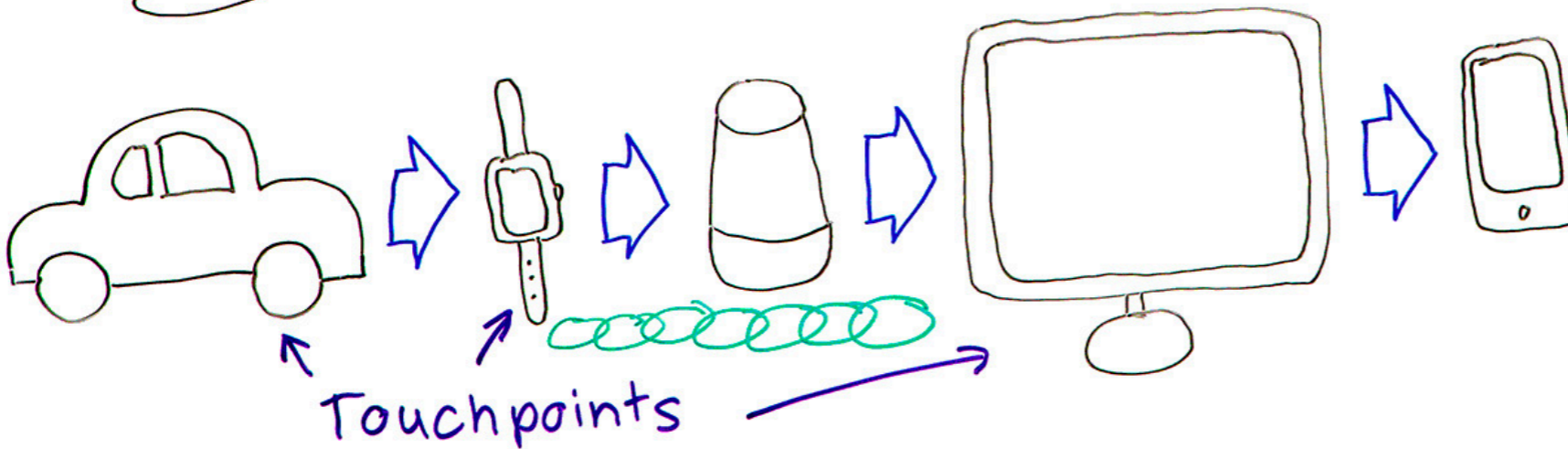
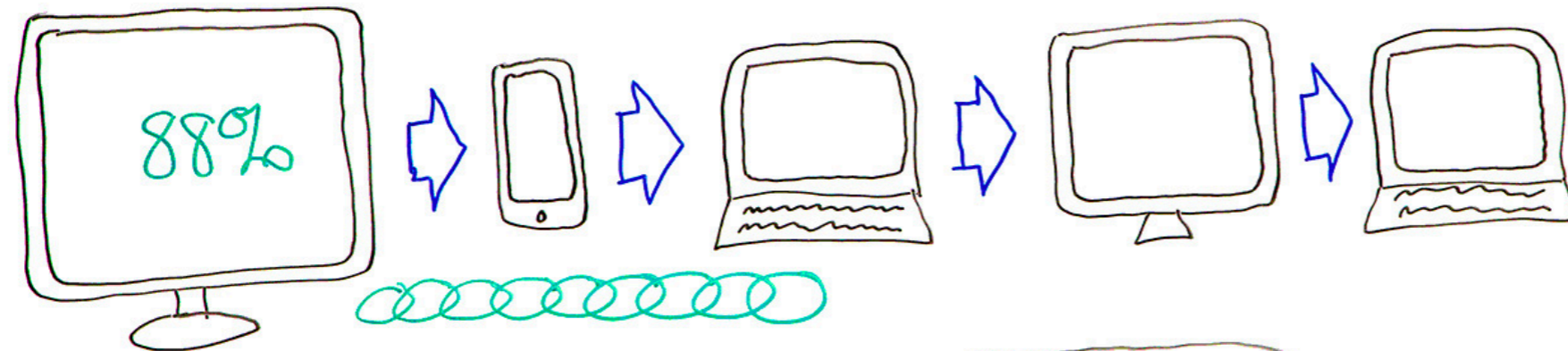
# Desktop, Mobile, or Voice? (D) All of The Above



## Multi-Screen World (2012)

65% of searches start on smartphones

60% continue on laptop/desktop



Question?  
Answer ~~~~~  
~~~~~  
~~~~~

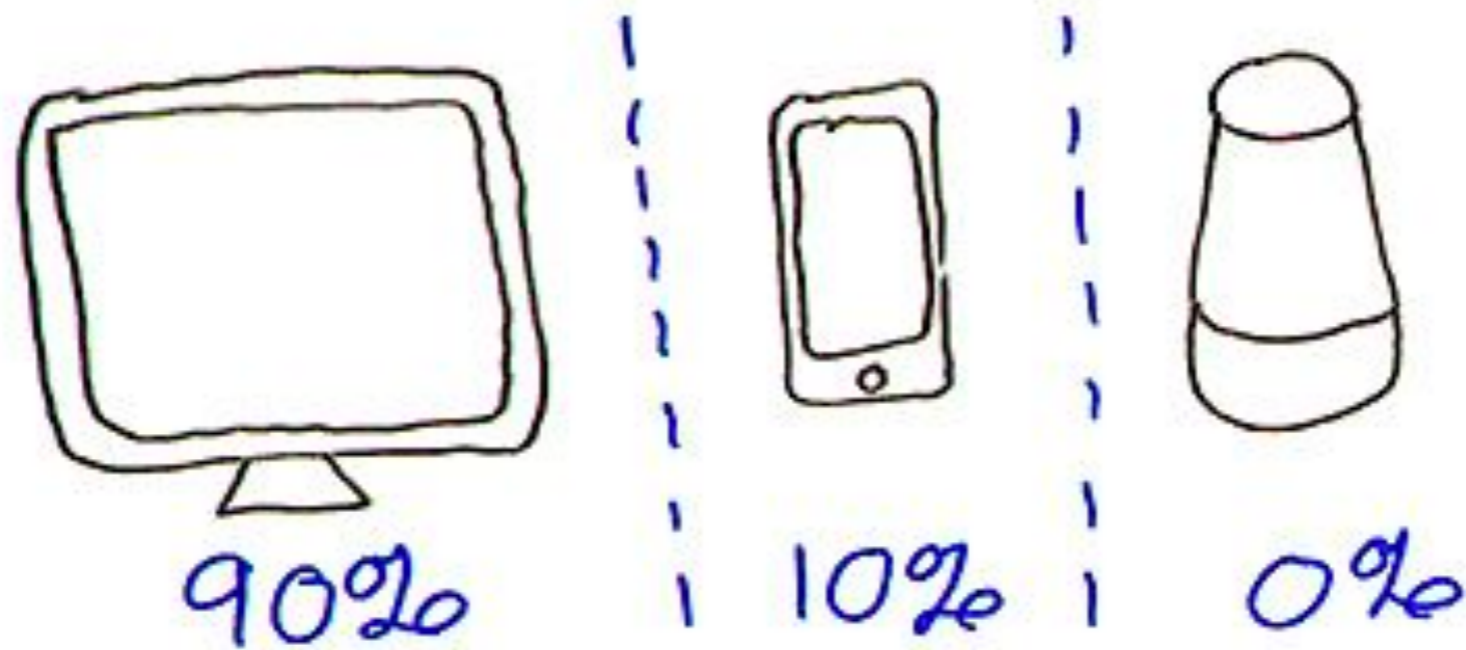
Q?  
An  
~  
~

Question?

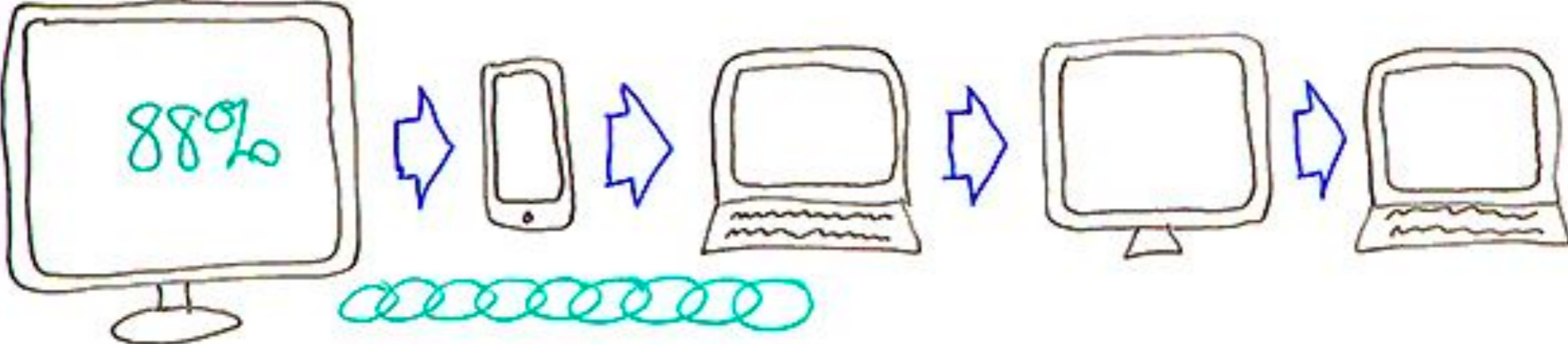
Answer

The best answers leave searchers wanting more...

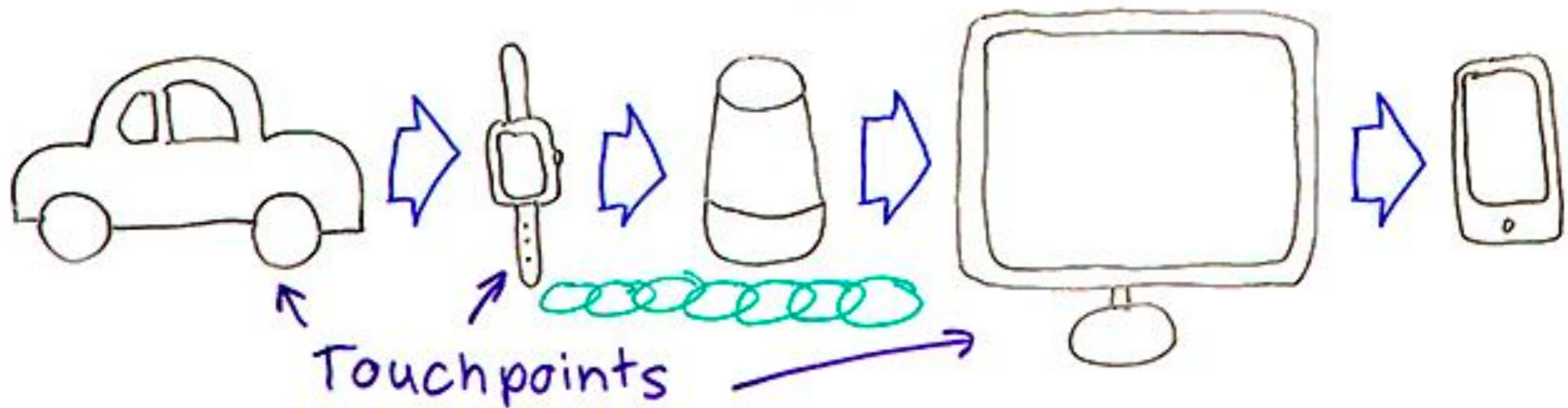
## Keyword: The mistakes we make in traffic



**Keyword: Cross-device journey**



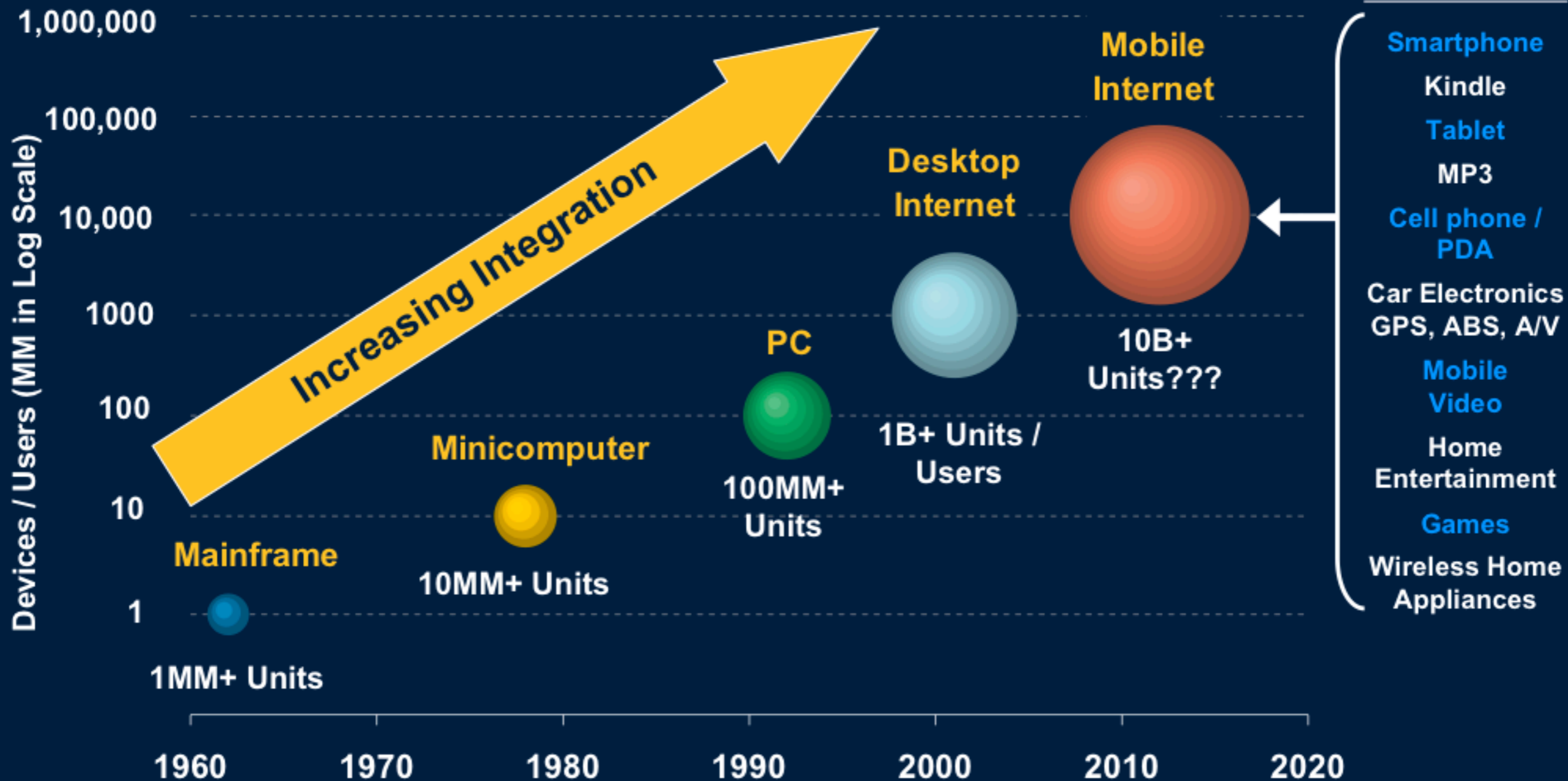
# Keyword: Touchpoints



# New Computing Cycle Characteristics

Reduce Usage Friction Via Better Processing Power + Improved User Interface + Smaller Form Factor + Lower Prices + Expanded Services = 10x More Devices

Computing Growth Drivers Over Time, 1960 – 2020E





**Worker**



**Office worker**



**A housewife**





Worker

**Use content**



Office worker

**Use content**



A housewife

**Use content**



Worker

**Use content**

—



Office worker

**Use content**

**Manage content**



A housewife

**Use content**

—



Worker

**Use content**

—



Office worker

**Use content**

**Manage content**

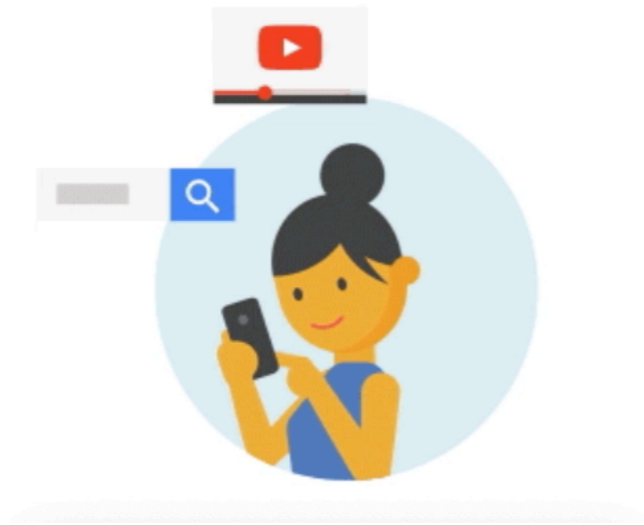


A housewife

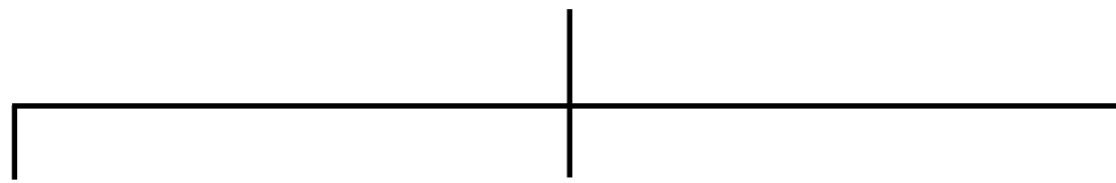
**Use content**

—





Google Sees  
**More Profitable Monetization**  
Opportunities Here



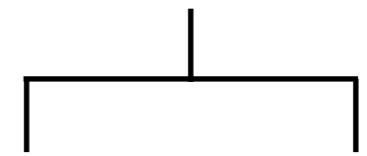
**Maps**



**Media**



**Shopping**



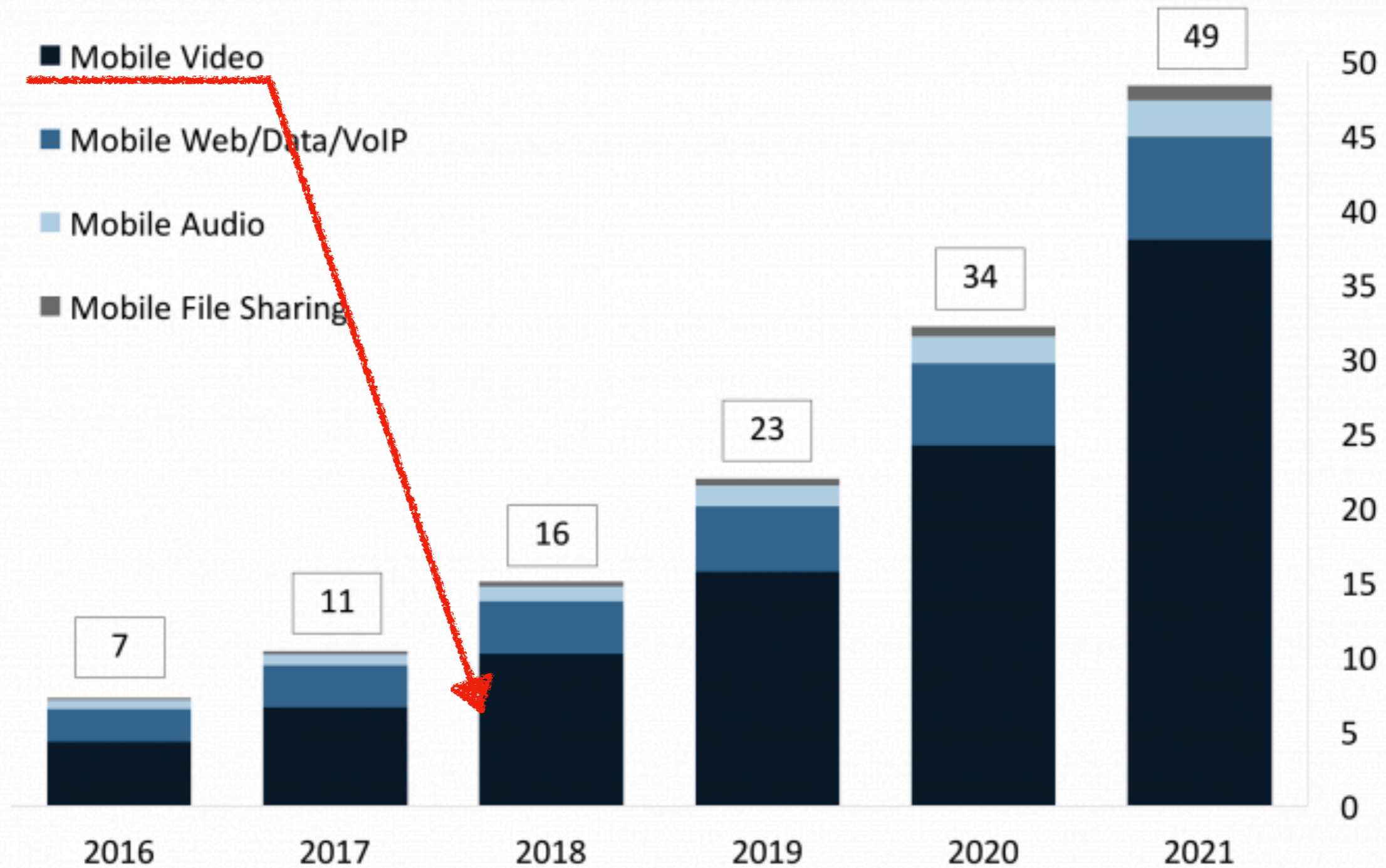
**Quick info**



**THE RISE OF  
ENTERTAINMENT ON DEMAND**

# Global Monthly Mobile Data Traffic, By Type

In exabytes

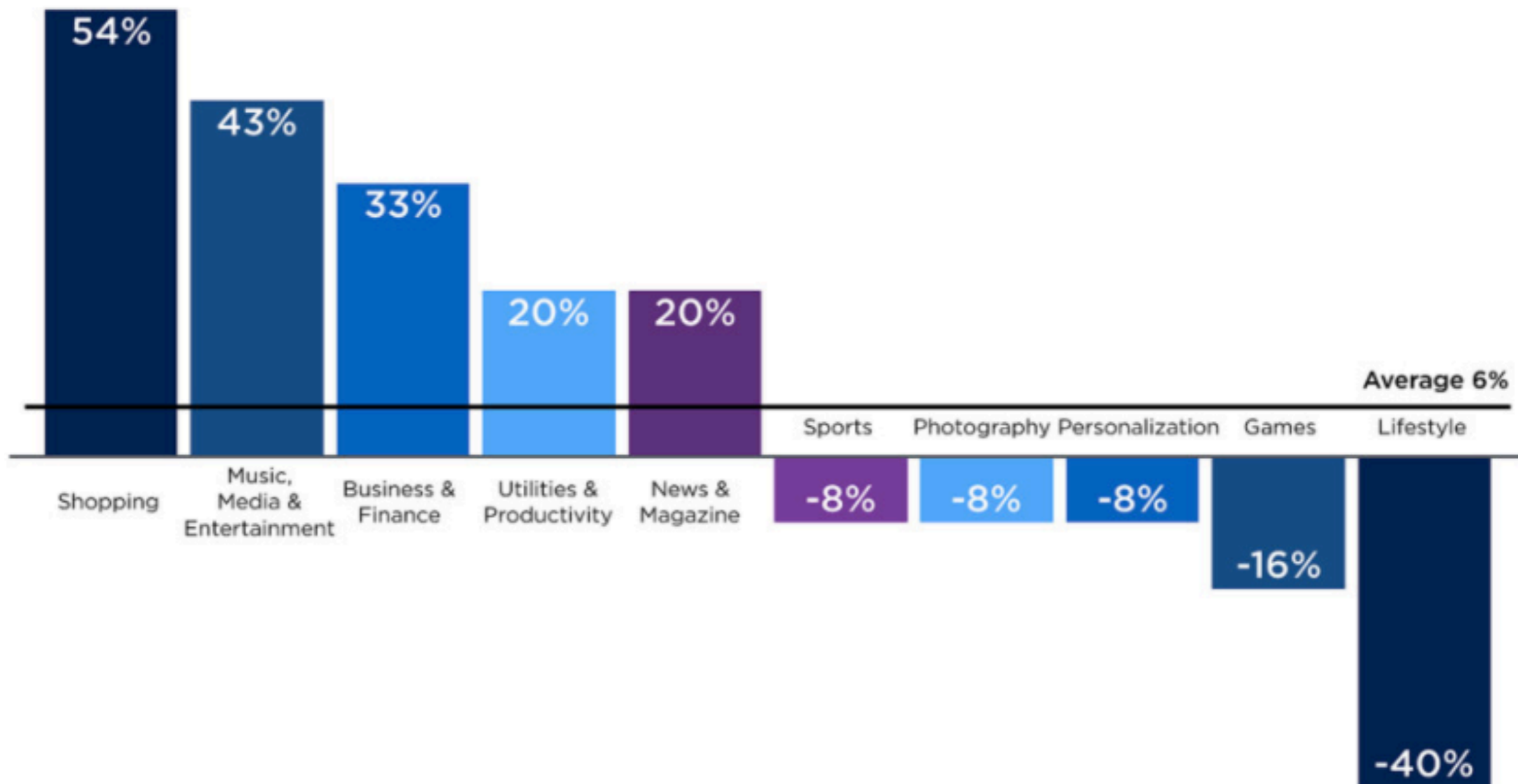


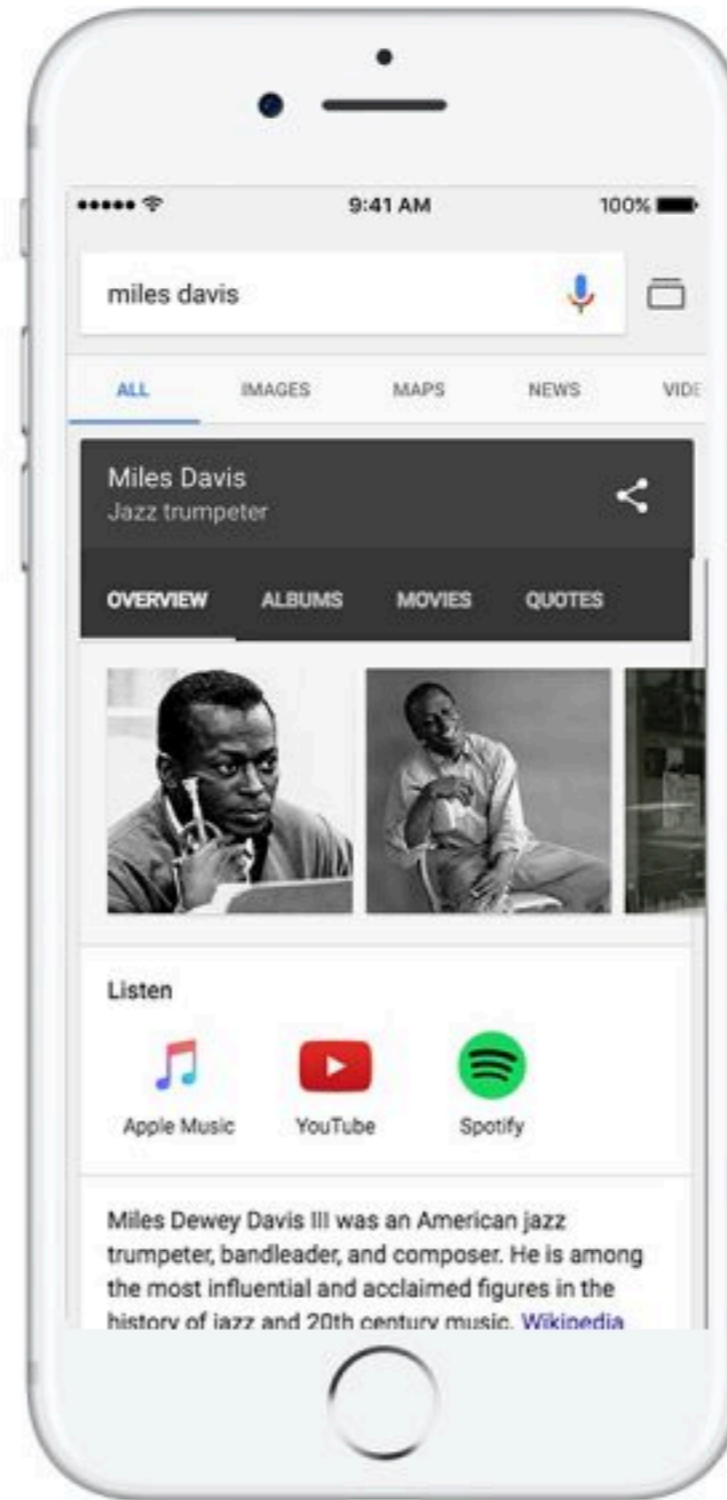
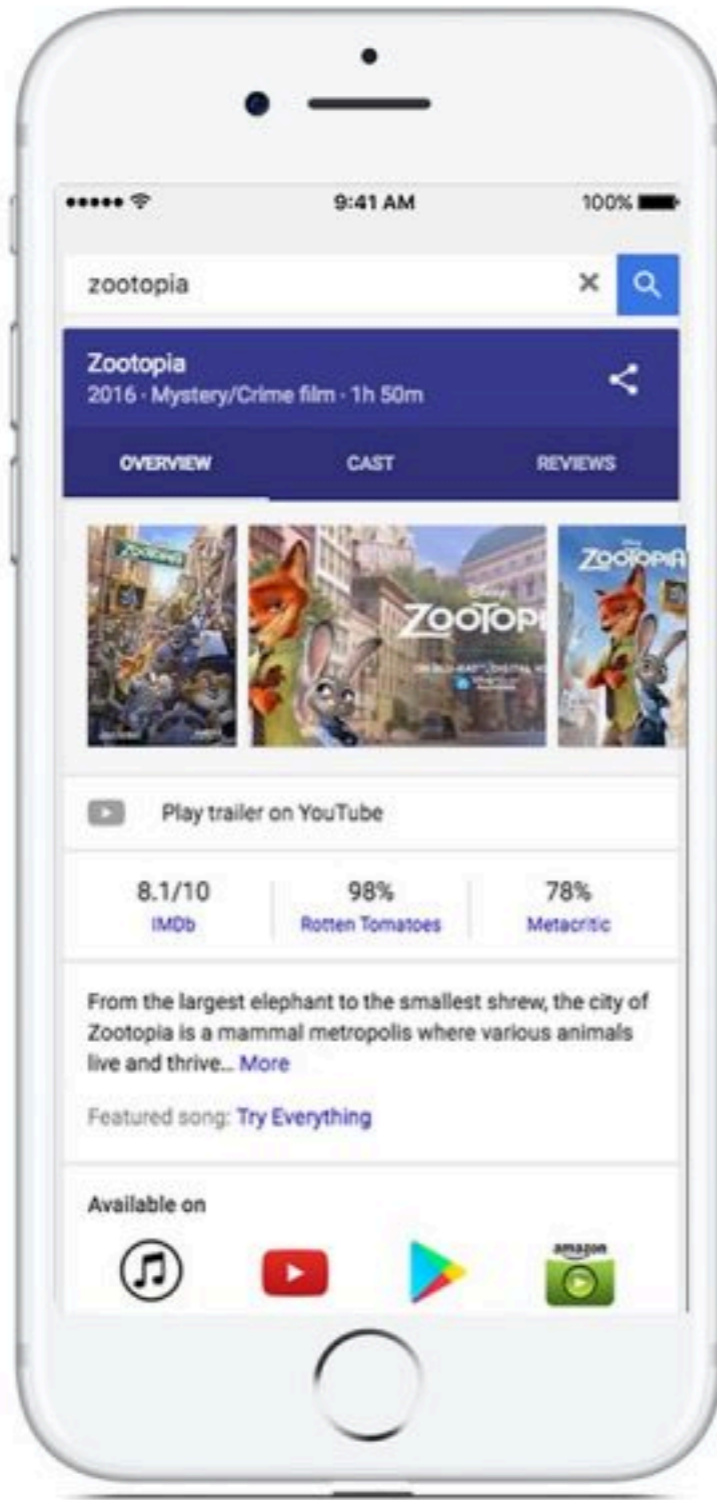
Source: Cisco, BI Intelligence calculations, 2017

BI INTELLIGENCE

# Mobile App Usage Grows 6% Year-Over-Year

## Sessions








Bad Dog!  
Animated series


AVAILABLE ON EDIT PROVIDERS

 YouTube  
From \$1.99 [Watch](#)

 Prime Video  
From \$1.99 [Watch](#)

 Google Play Movies & TV  
From \$1.99 [Watch](#)

 Vudu [Watch](#)

 iTunes  
Not available on this device

This video requires payment to watch.

Buy episode

\$2.99 BUY HD

\$1.99 BUY SD

Buy season

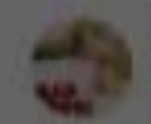
\$9.99 BUY HD

Enter coupon code



Buy this

BAD DO  
Foodie  
TV PG

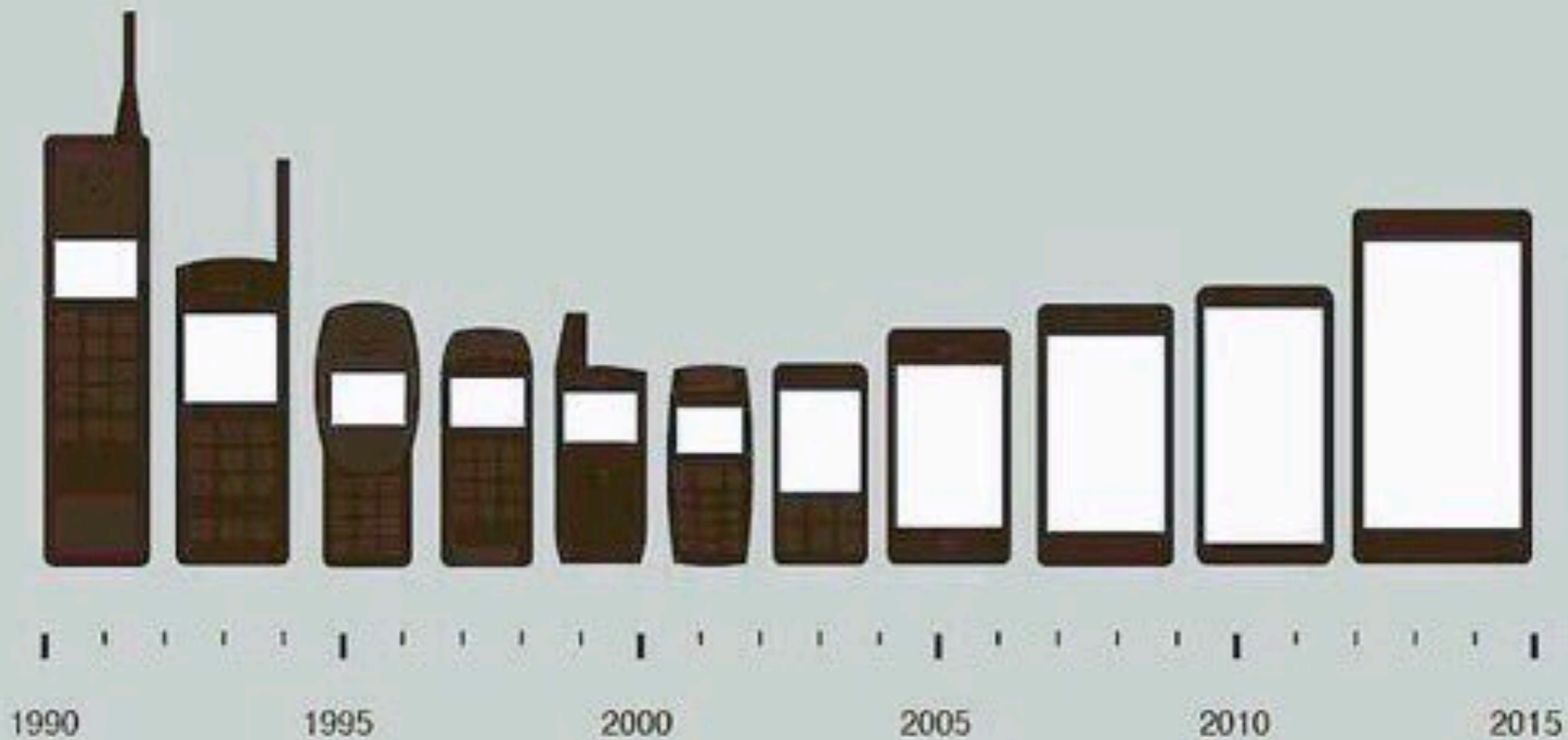


125 subscribers

Provider	Discovery Communications
Release date	12/27/14
Running time	41:50

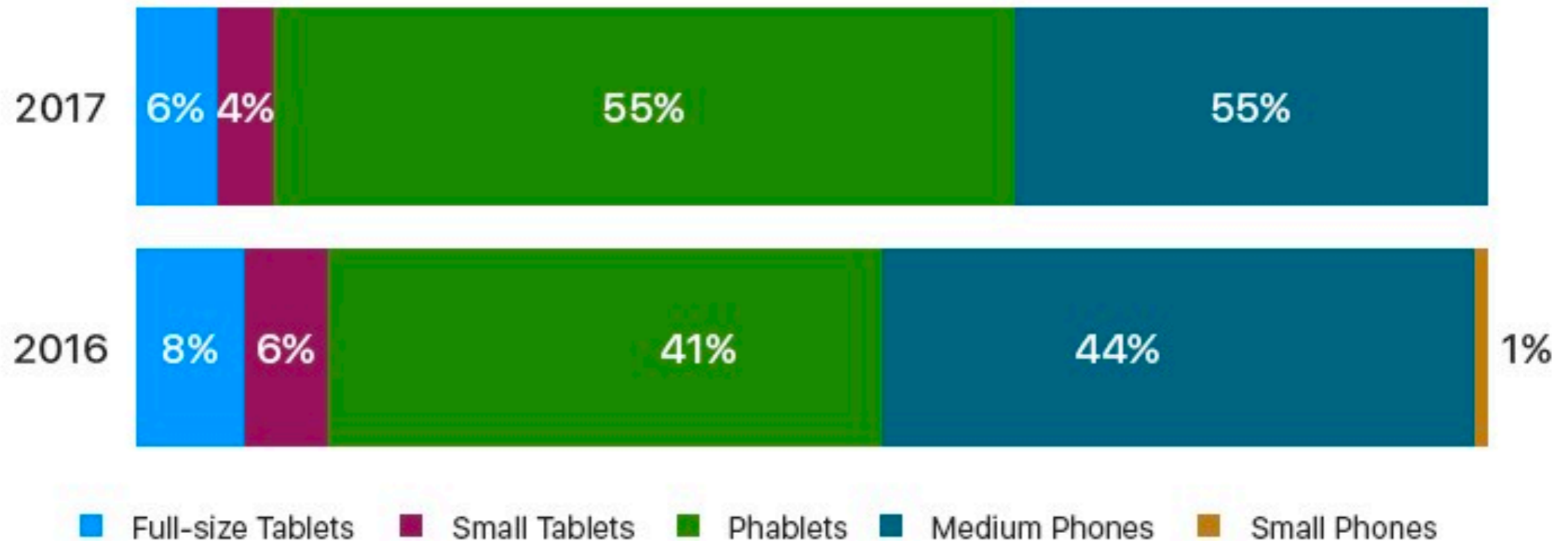


Finding Bigfoot S0b1 - E52  
Season 5 Episode 103:  
Nepal: Behind the Scenes

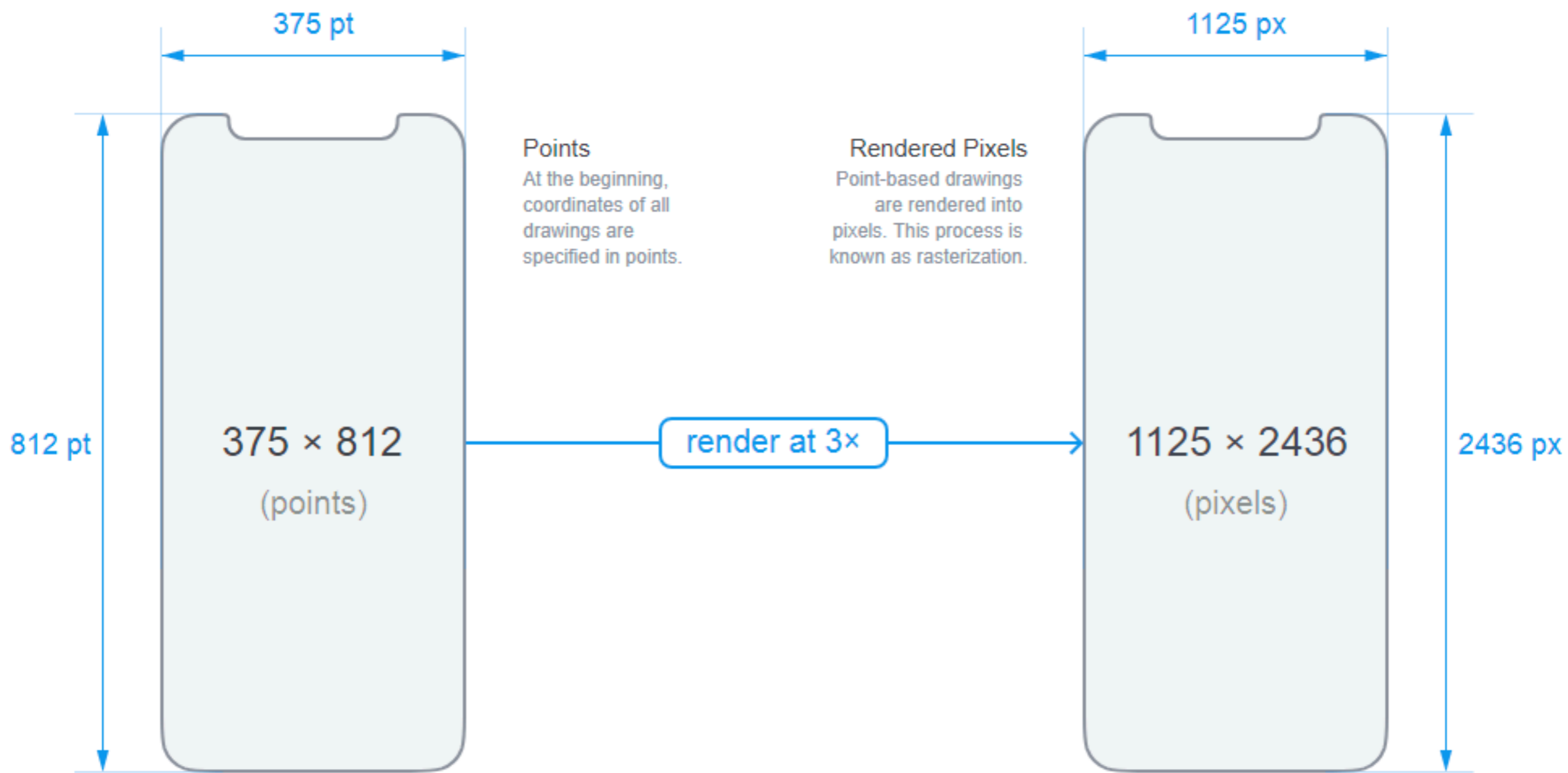


# Form Factor Distribution

End of Year Device Distribution



Source: Flurry Analytics, 2016-2017





Capture by  
**Using iPhone X**

	1 min — 1080p	1 min — 4K
One high quality photo		
<b>20 MB</b>		
	<b>30 FPS — 60 MB</b>	<b>30 FPS — 170 MB</b>
	<b>60 FPS — 90 MB</b>	<b>60 FPS — 400 MB</b>

# Версия фильма для кинотеатра

90 min 2D — 140 GB

«Star Wars» — 200 GB

...

3D, Dolby Atmos > 200 GB

[http://www.kinometro.ru/materials/show/name/что\\_такое\\_DCP\\_210417](http://www.kinometro.ru/materials/show/name/что_такое_DCP_210417)

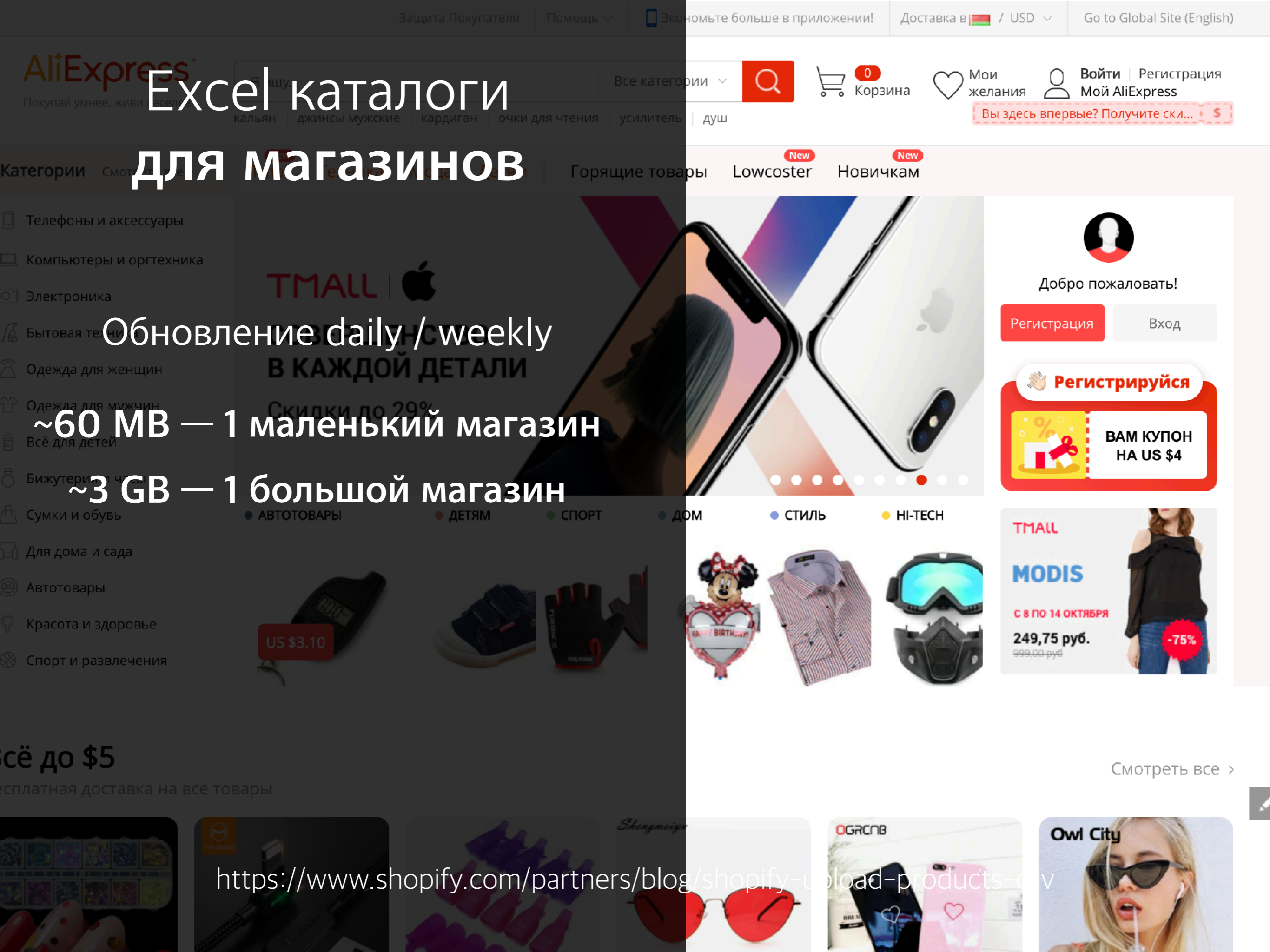


# Excel каталоги для магазинов

Обновление daily / weekly

~60 MB — 1 маленький магазин

~3 GB — 1 большой магазин



<https://www.shopify.com/partners/blog/shopify-upload-products-cv>

# Роботизированные СИСТЕМЫ

Обновление weekly/monthly

∞

...

предположим  
от 500mb - 60GB в среднем





**Для примера:**

**6** месяцев ношения телефона  
**~3mb** данных в логах у сотового  
оператора

или к примеру для **Tele2**

40.3 млн \* 0.016 mb ~ **0.67 тб / день**

[https://docs.google.com/spreadsheets/d/1PMjlkymwzYNGhENCi9BZst63H-UPagYgPO6DwHVdskU/edit?authkey=COCjw-kG&hl=en\\_GB&hl=en\\_GB&authkey=COCjw-kG#gid=0](https://docs.google.com/spreadsheets/d/1PMjlkymwzYNGhENCi9BZst63H-UPagYgPO6DwHVdskU/edit?authkey=COCjw-kG&hl=en_GB&hl=en_GB&authkey=COCjw-kG#gid=0)

# Даже McDonalds

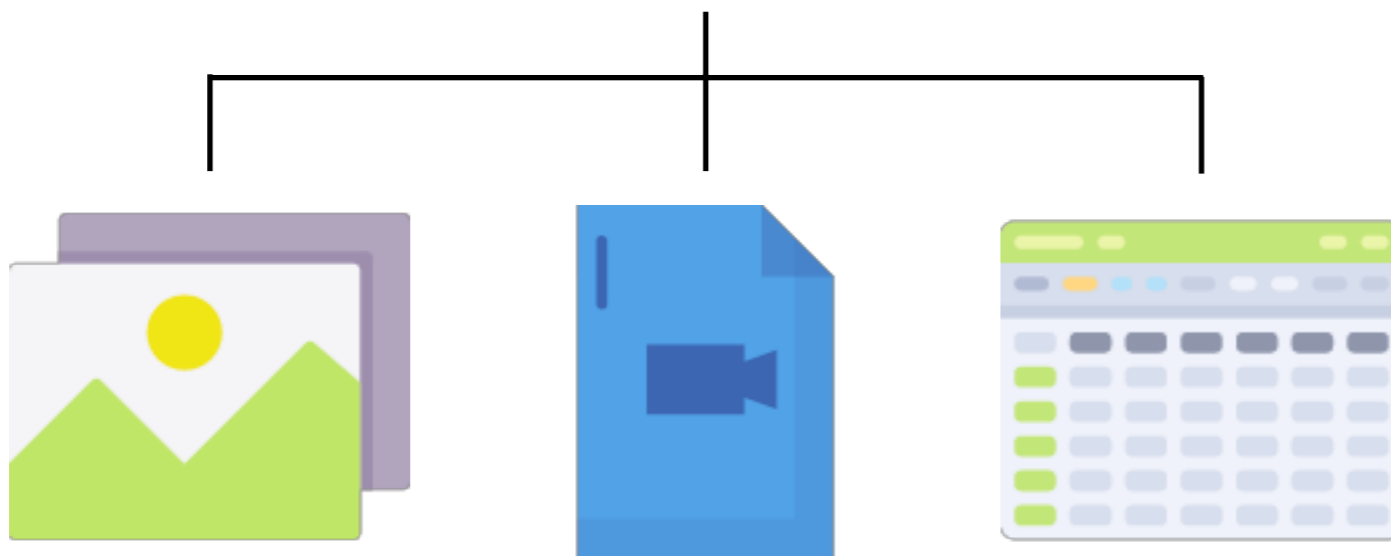
Синхронизирует базы ежедневно  
с главным офисом

??? GB



Files  
**More popular for upload**  
It may looks strange

Much less popular



**Image**

**Video**

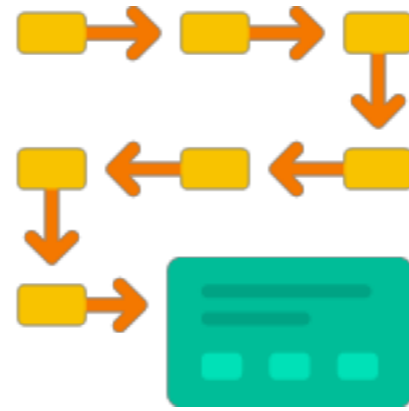
**Excel**



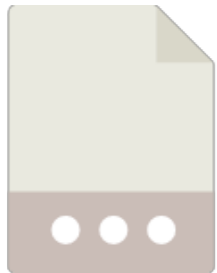
**Other**



Data  
**Workflow**



## File Workflow



File



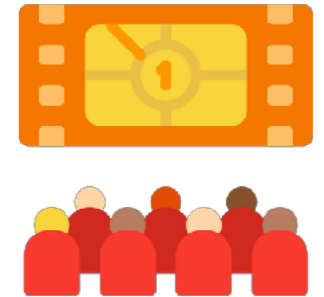
Validation  
Preprocessing



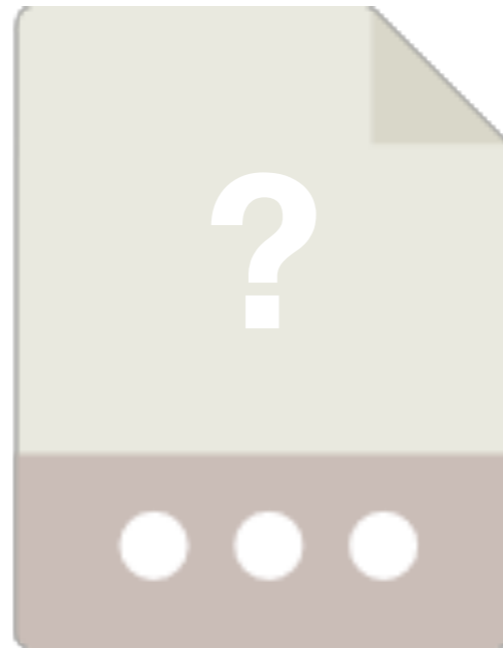
Uploading



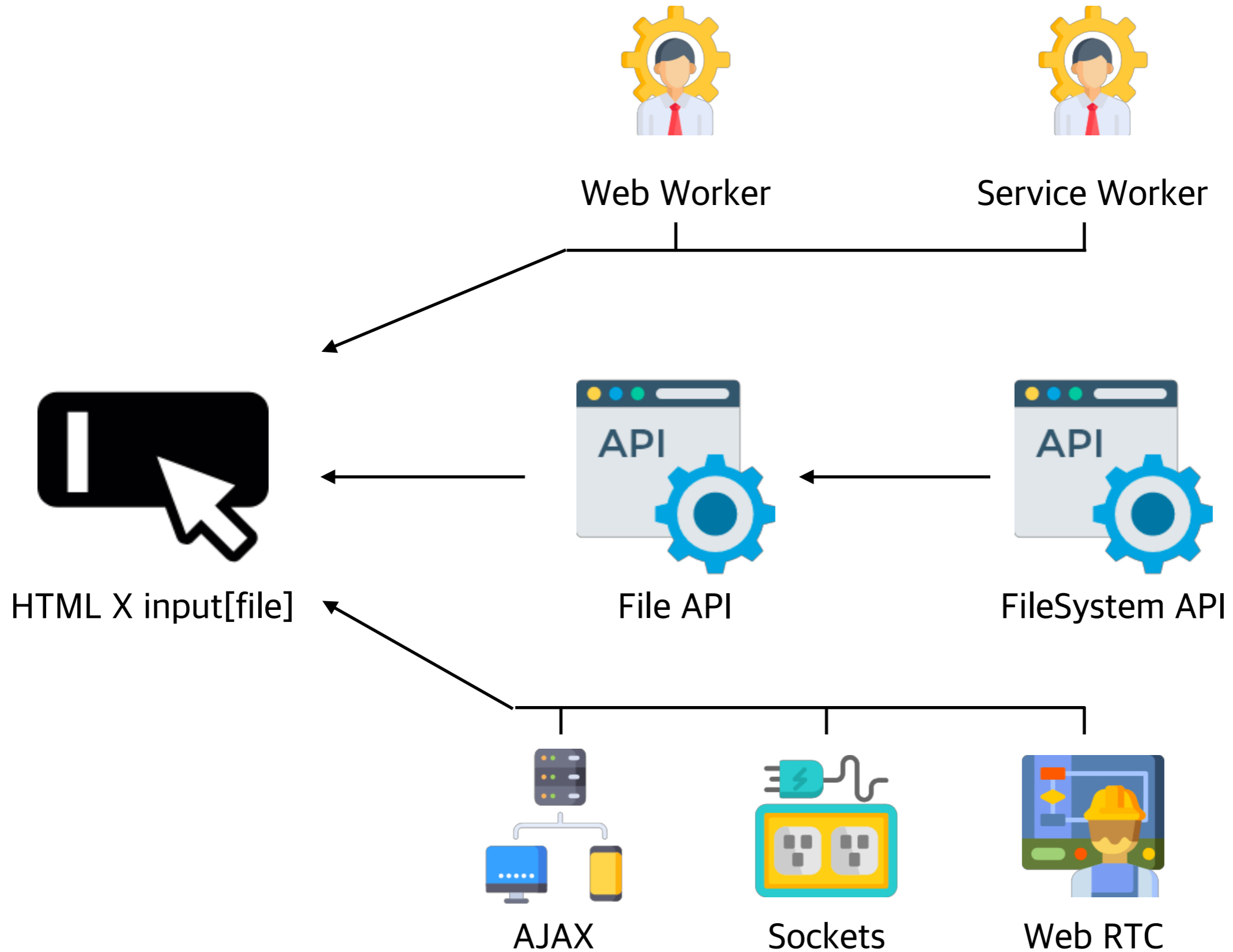
Processing

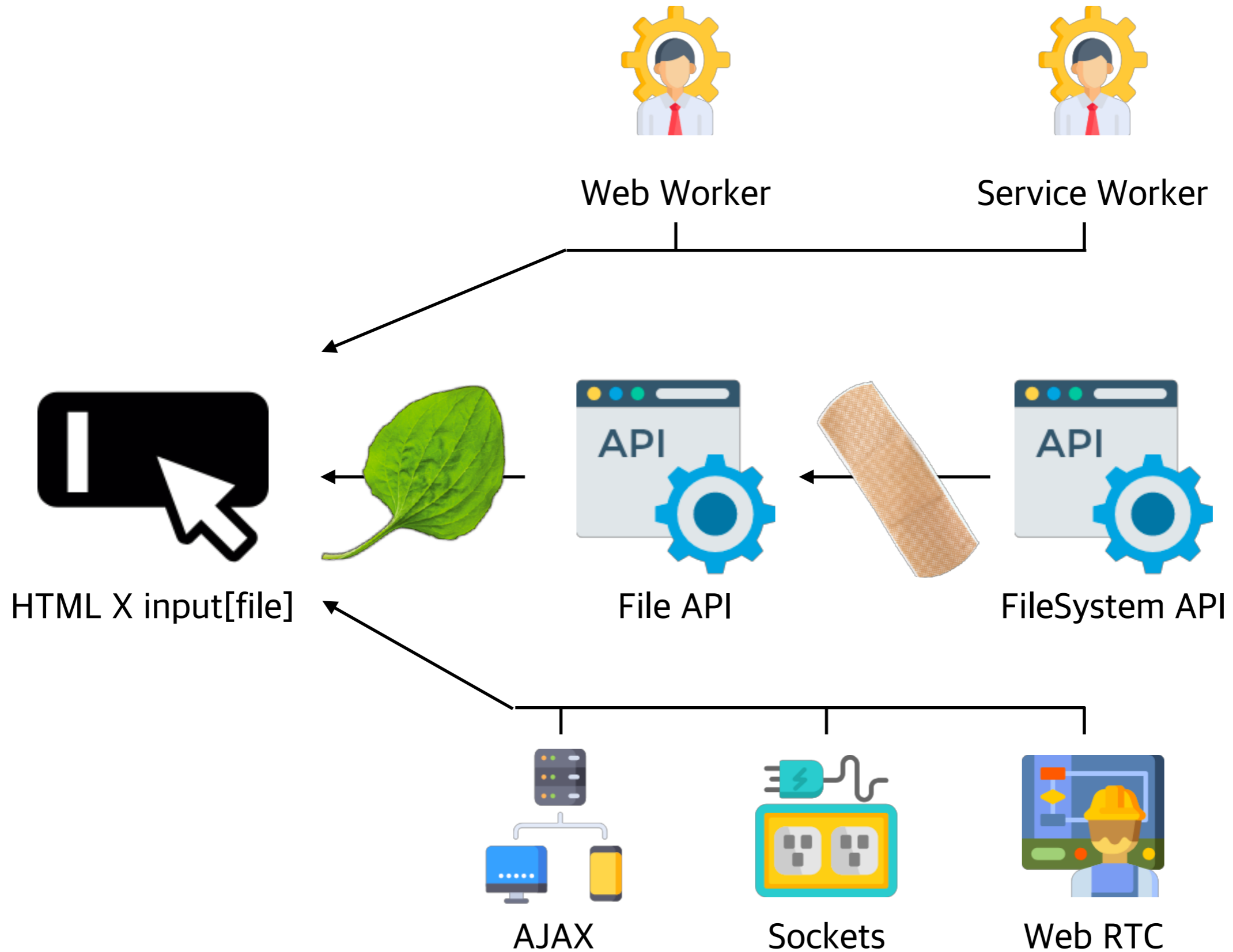


View  
Download  
Result



What  
**possible to do with File**  
on client side







# Can I use

# File API

?  Settings

1 result found

Detected your country as "Belarus". Would you like to import usage data for that country?

Import

No thanks

#

## File API - WD

Usage

% of all users

Global

86.27% + 6.89% = 93.15%

Method of manipulating file objects in web applications client-side, as well as programmatically selecting them and accessing their data.

Current aligned

Usage relative

Date relative

Show all

?

IE	Edge *	Firefox	Chrome	Safari	iOS Safari *	Opera Mini *	Chrome for Android	UC Browser for Android	Samsung Internet
			49						
			63						
			67		10.3				
		61	68		11.2				4
<sup>2</sup> 11	<sup>2</sup> 17	62	69	11.1	11.4	all	67	11.8	7.2
	<sup>2</sup> 18	63	70	12	12				
		64	71	TP					
			72						

Notes

Sub-features (3)

Known issues (0)

Resources (4)

Feedback

Can I use

FileSystem

? Settings

1 result found

Detected your country as "Belarus". Would you like to import usage data for that country?

Import

No thanks

## # Filesystem & FileWriter API - UNOFF

Usage % of all users

Global 63.41% + 0.03% = 63.45%

unprefixed: 0%

Method of reading and writing files to a sandboxed file system.

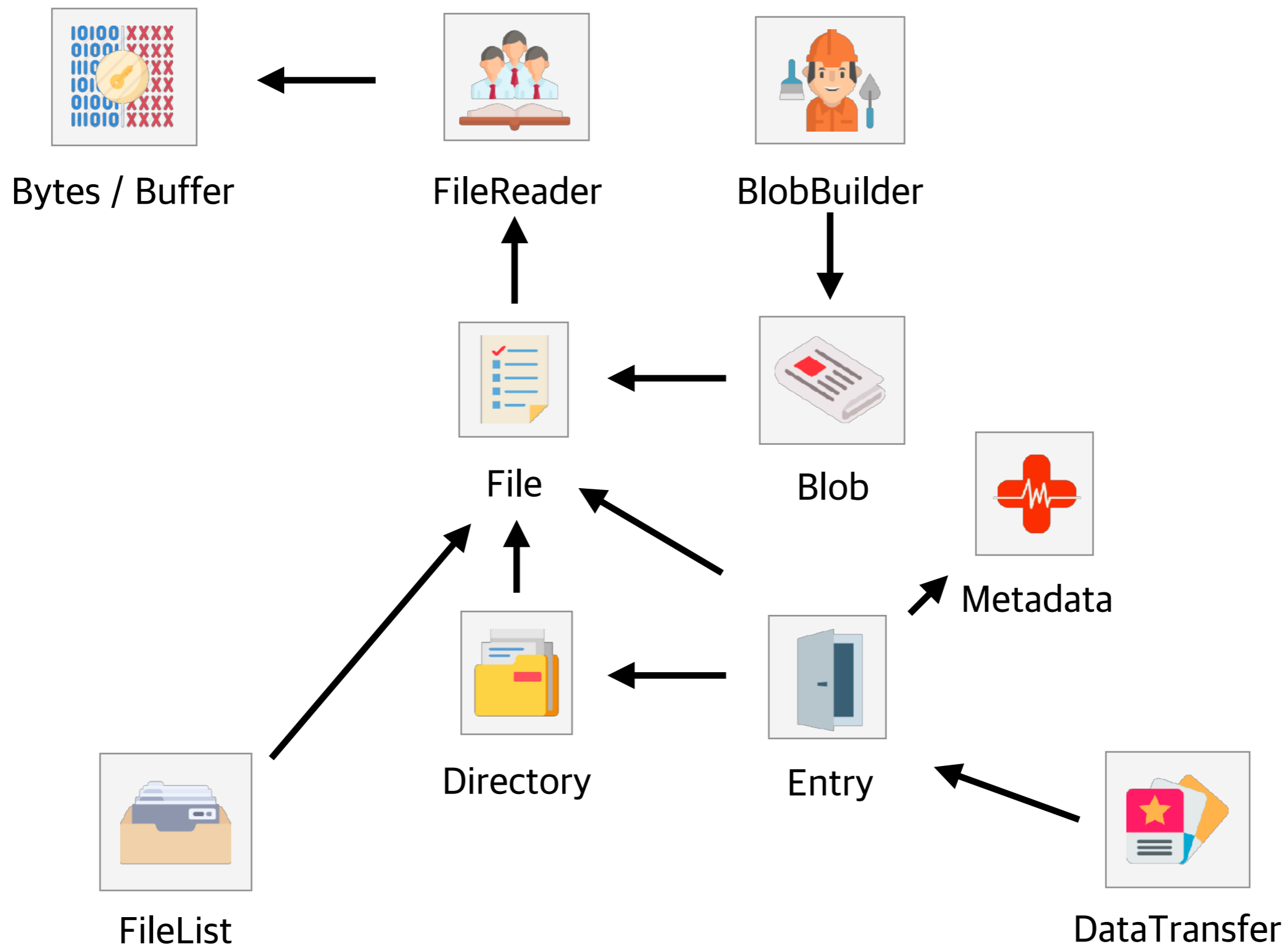
Current aligned | Usage relative | Date relative | Show all | ?

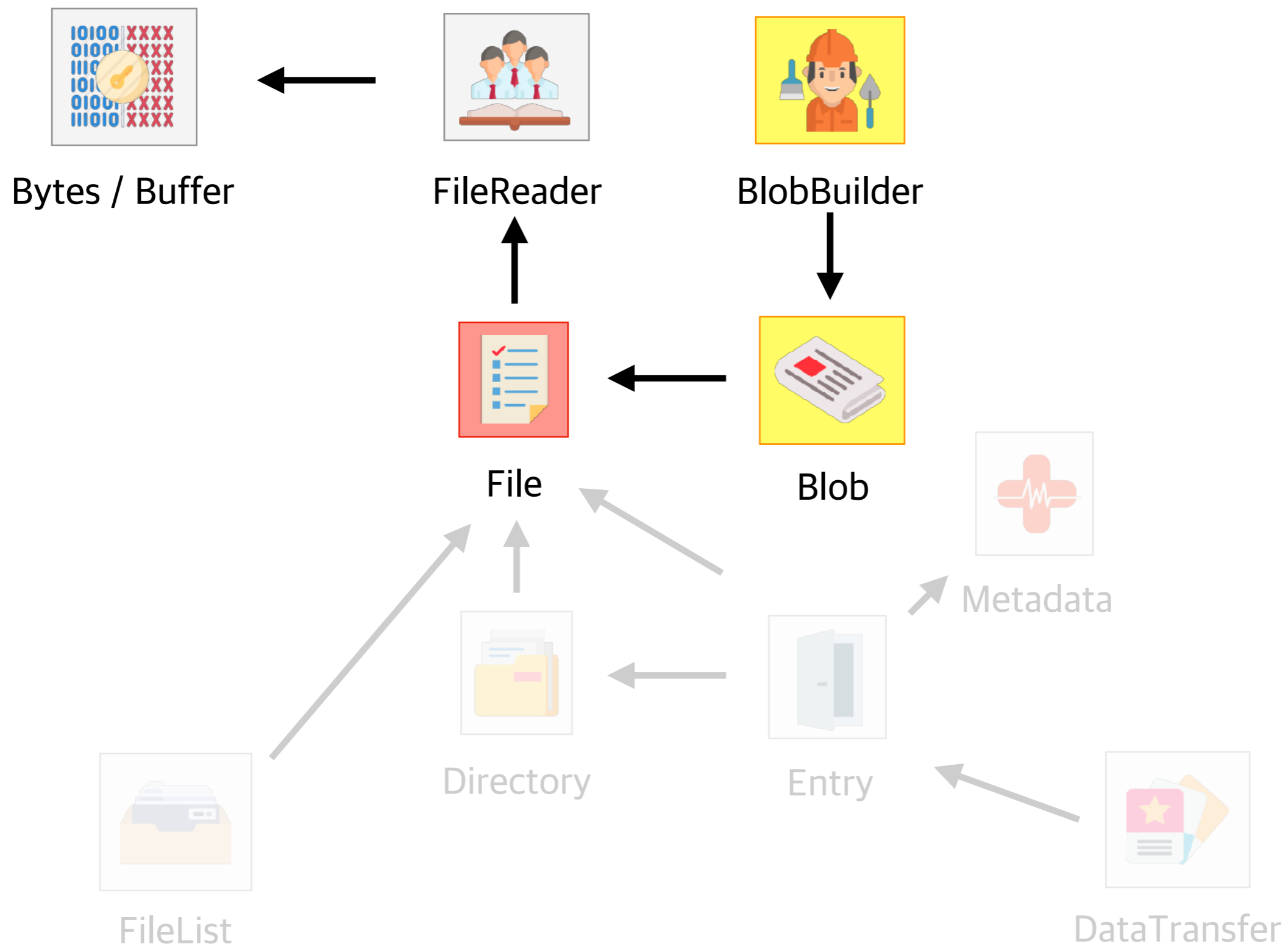
IE	Edge *	Firefox	Chrome	Safari	iOS Safari *	Opera Mini *	Chrome for Android	UC Browser for Android	Samsung Internet
			49						
			63						
			67						
		61	68	11.1	11.2				4
11	17	62	69	12	11.4	all	69	11.8	7.2
	18	63	70	TP	12				
		64	71						
			72						

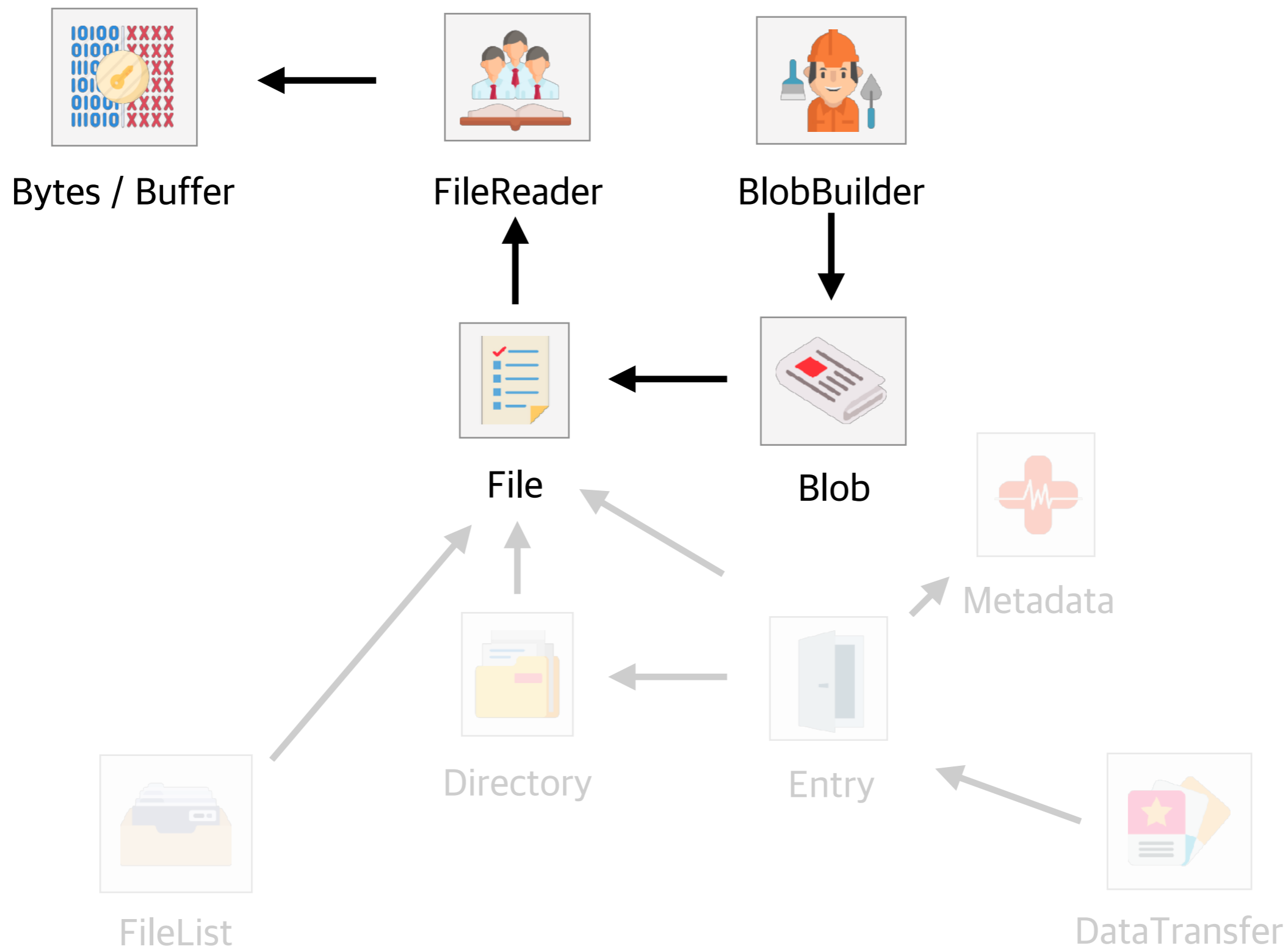
Notes | Known issues (0) | Resources (6) | Feedback

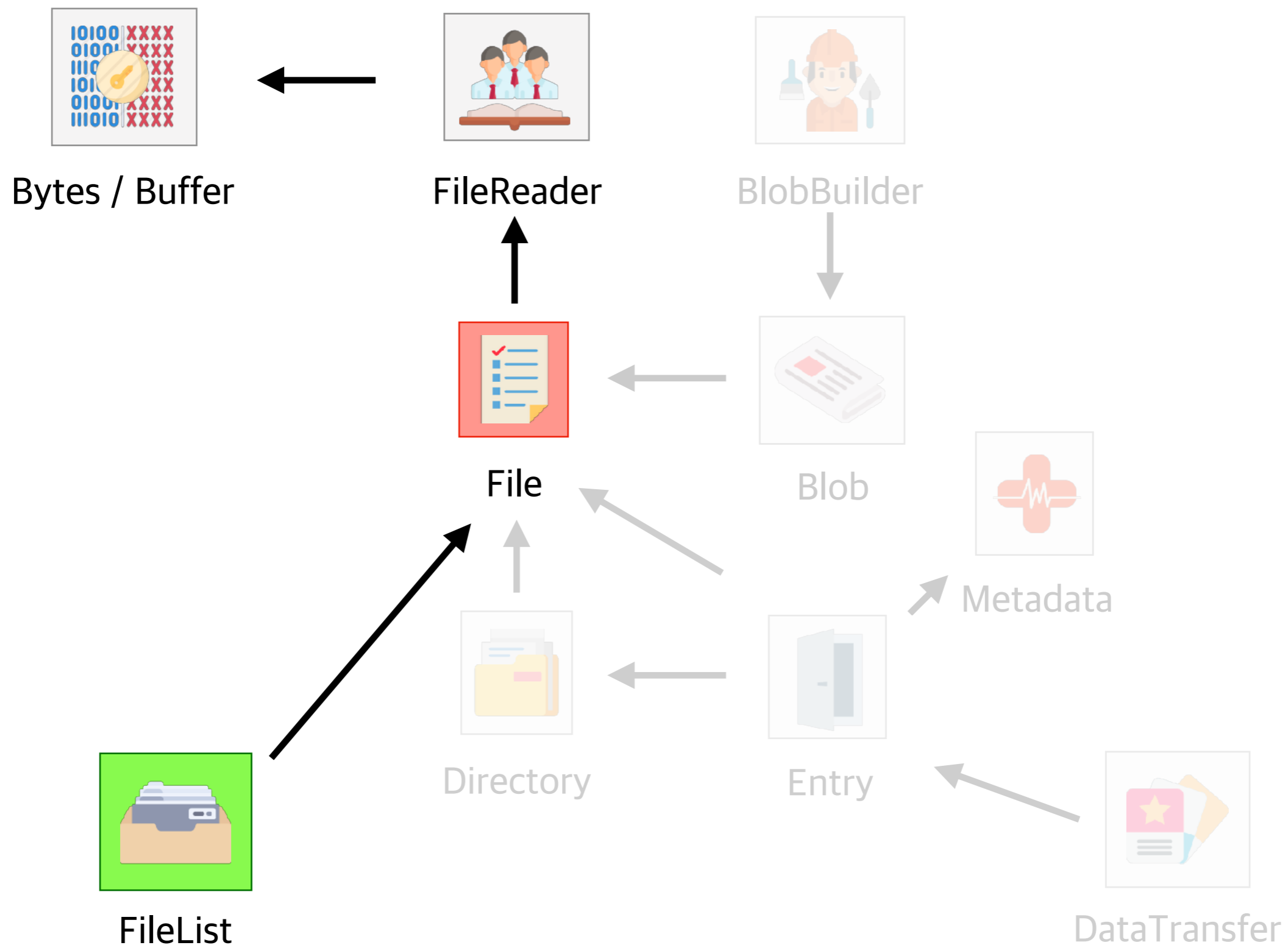
The File API: Directories and System specification is no longer being maintained and support may be dropped in future versions.

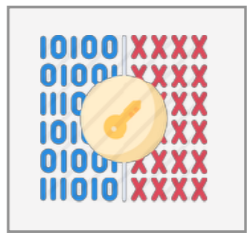
MS Edge status: **Under Consideration**



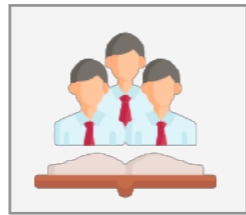








Bytes / Buffer



FileReader



BlobBuilder



File



Blob



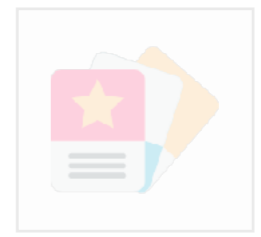
Metadata



Directory



Entry

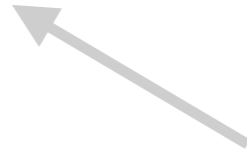
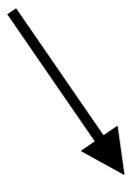
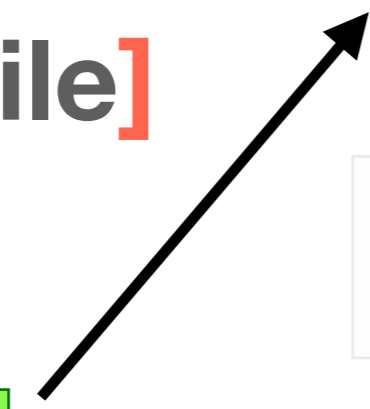


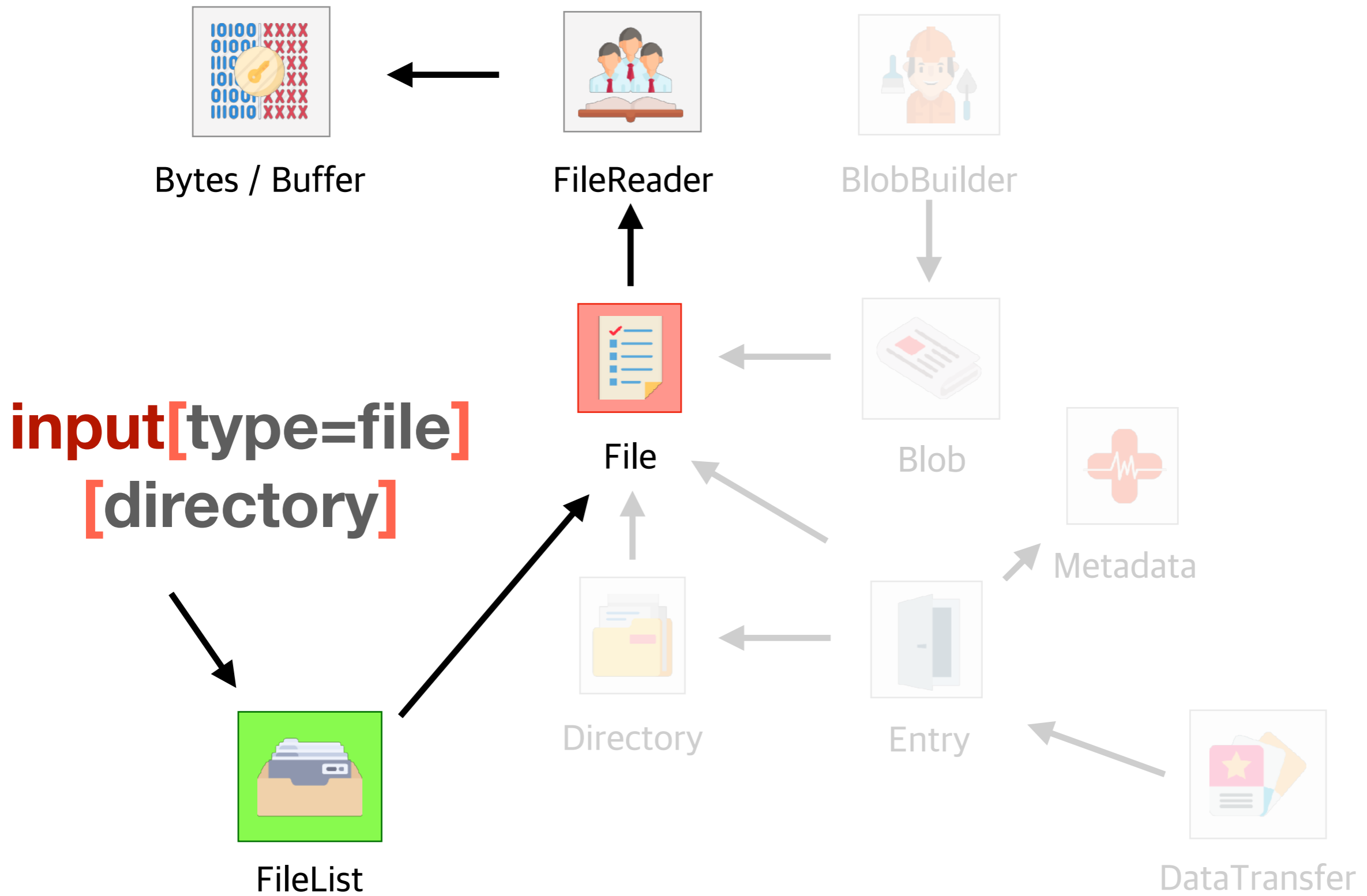
DataTransfer



FileList

**input[type=file]**







Can I use

directory



Settings

1 result found

Detected your country as "Belarus". Would you like to import usage data for that country?

Import

No thanks

## # Directory selection from file input - UNOFF

Usage Global % of all users 37.93%

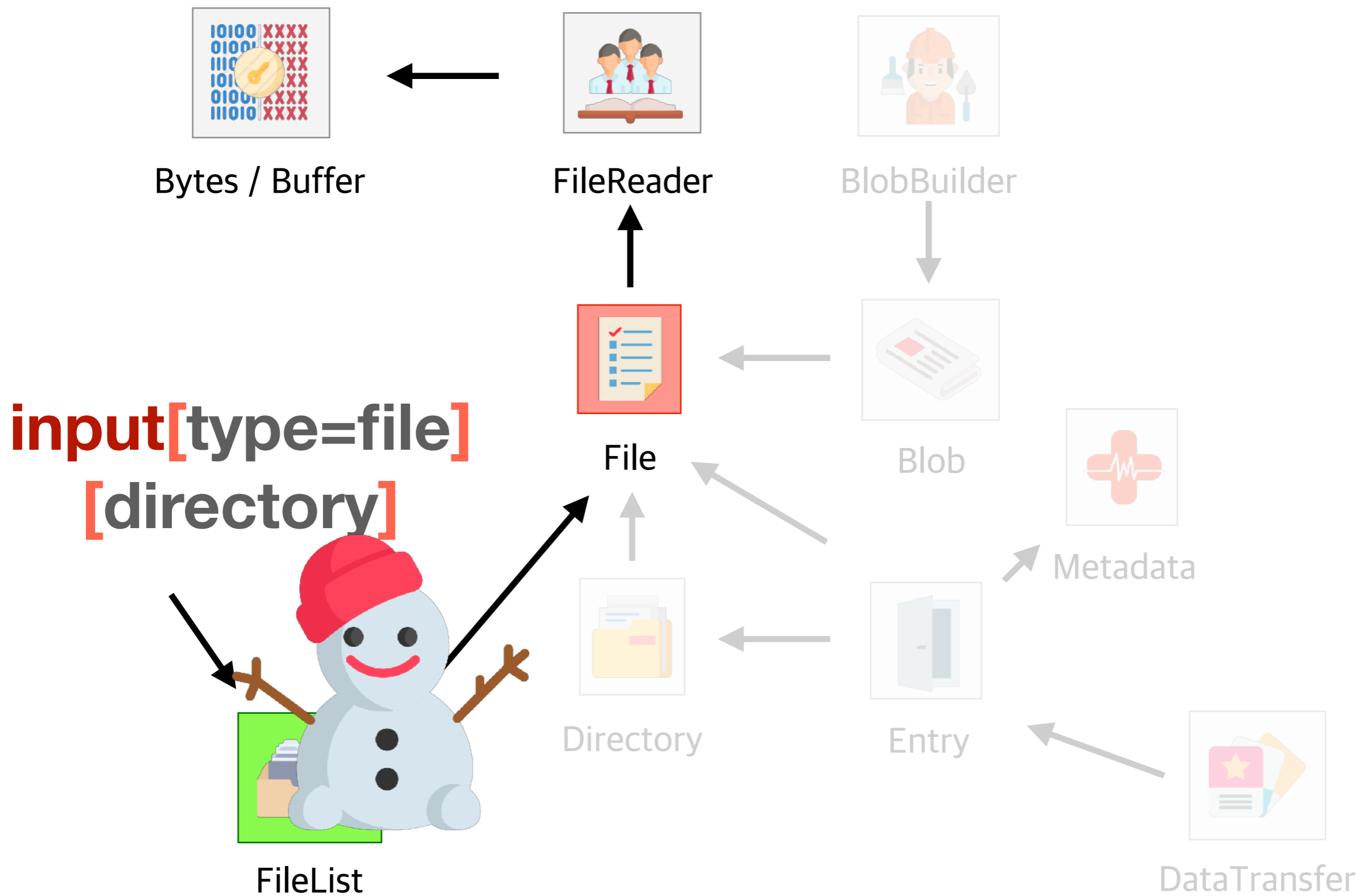
The `webkitdirectory` attribute on the `<input type="file">` element allows entire directory with file contents (and any subdirectories) to be selected.

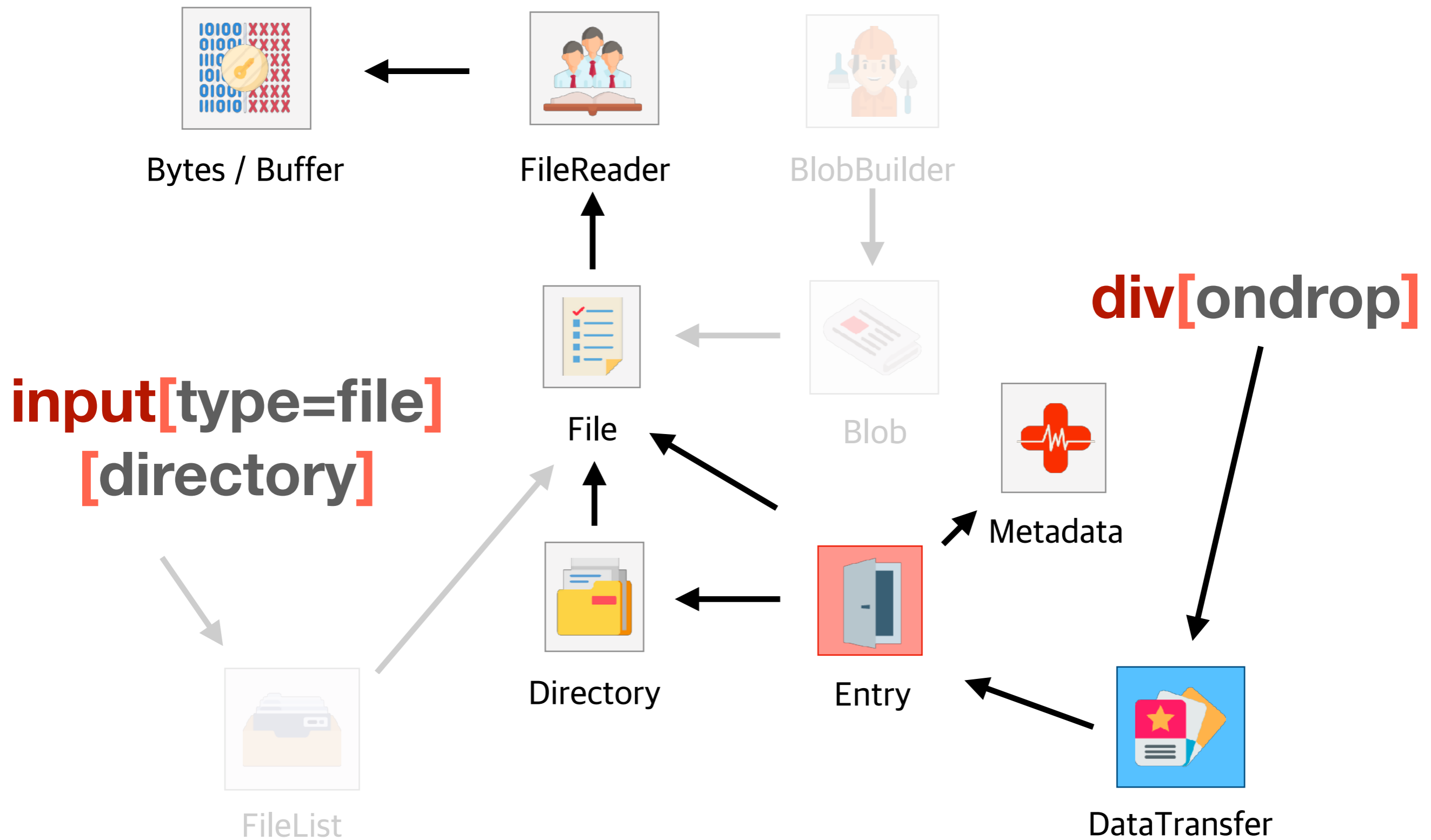
Current aligned Usage relative Date relative Show all ?

IE	Edge *	Firefox	Chrome	Safari	iOS Safari *	Opera Mini *	Chrome for Android	UC Browser for Android	Samsung Internet
			49						
			63						
			67						
		61	68	11.1	11.2				4
11	17	62	69	12	11.4	all	69	11.8	7.2
	18	63	70	TP	12				
		64	71						
			72						

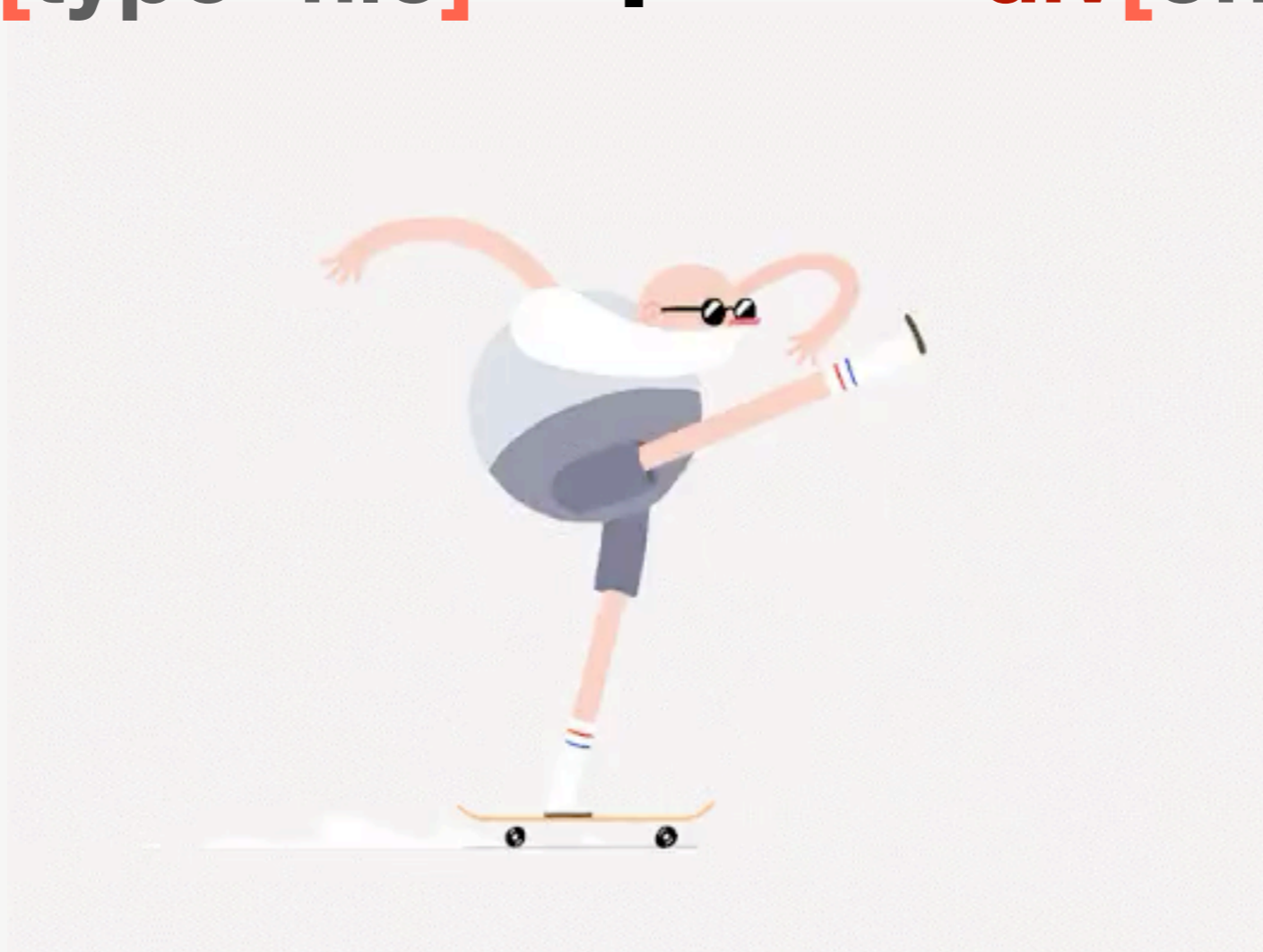
Notes Known issues (0) Resources (3) Feedback

Lack of support in mobile browsers may be due to the OS file picker not having support for selecting a directory.

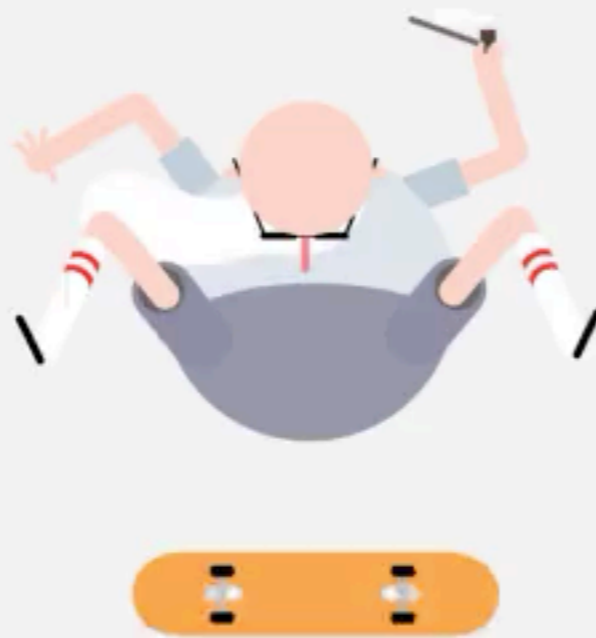




**input[type=file]** !== **div[ondrop]**



**input[type=text] !== div[contenteditable]**



# HTML Elements **VS** div

**footer**

**header**

**a**[href]

**input**[type=submit]

**input**[type=file]

**input**[type=??]

**div**[class=footer]

**div**[class=header]

**div**[onclick]

**div**[onclick]

**div**[ondrop]

**div**[contenteditable]

....

Выбрать файлы    Файл не выбран

Files: 0/0, Folders: 0

Выбрать файлы Число файлов: 21107

Files: **20998**/21107, Folders: 1

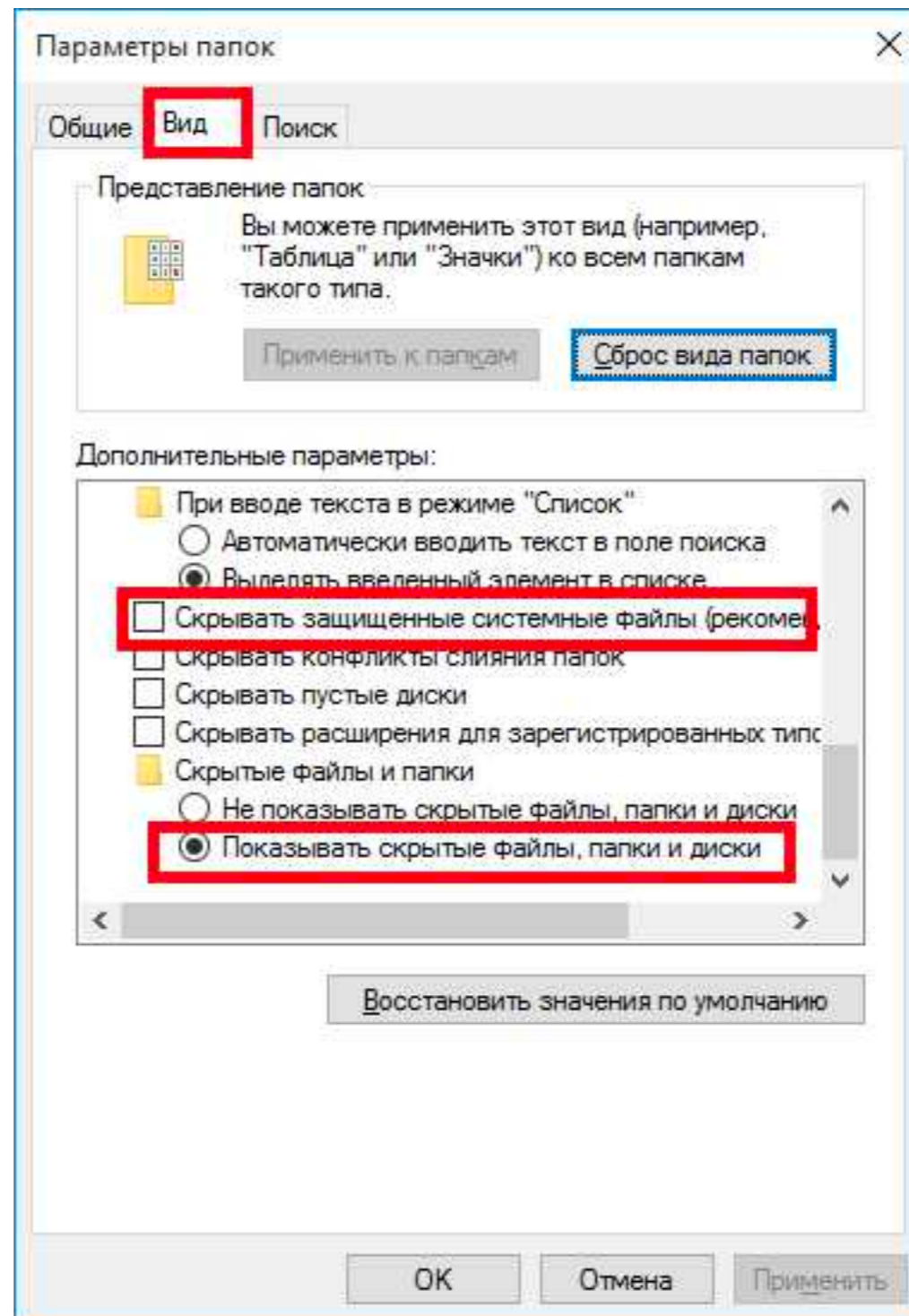
file-api/6-pandoc-example.mp4	mp4
file-api/screencast 2018-10-12 17-49-36.mp4	mp4
file-api/temp.mp4	mp4
file-api/screencast 2018-10-14 14-46-56.mp4	mp4
file-api/screencast 2018-10-12 16-44-06.mp4	mp4
file-api/.DS_Store	DS_Store
file-api/ezgif-1-5357e62f85e9.mp4	mp4
file-api/screencast 2018-10-13 22-22-51.mp4	mp4
file-api/3-preload-video.mp4	mp4
file-api/screencast 2018-10-13 23-13-48.mp4	mp4
file-api/ezgif-1-00fd10fb737b.mp4	mp4
file-api/sample-video.mp4	mp4
file-api/demo-speech.mp4	mp4

@wegorelax

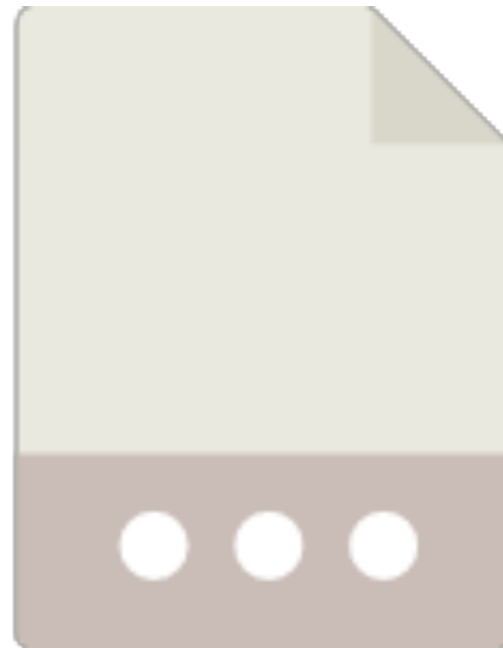


20 998 vs 8 415 files

# А еще файлы...



# А еще файлы...



File  
**0 bites**



**Validation**  
Preprocessing



**What is  
your file?**

<b>.xls</b>	-	<b>application/vnd.ms-excel</b>
<b>.xlt</b>	-	application/vnd.ms-excel
<b>.xla</b>	-	application/vnd.ms-excel
<b>.xlsx</b>	-	application/vnd.openxmlformats-officedocument.spreadsheetml.sheet
<b>.xltx</b>	-	application/vnd.openxmlformats-officedocument.spreadsheetml.template
<b>.xlsm</b>	-	application/vnd.ms-excel.sheet.macroEnabled.12
<b>.xltn</b>	-	application/vnd.ms-excel.template.macroEnabled.12
<b>.xlam</b>	-	application/vnd.ms-excel.addin.macroEnabled.12
<b>.xlsb</b>	-	application/vnd.ms-excel.sheet.binary.macroEnabled.12
<b>.csv</b>	-	text/csv
<b>.csv</b>	-	text/plain
<b>.csv</b>	-	text/x-csv
<b>.csv</b>	-	application/vnd.ms-excel
<b>.csv</b>	-	application/csv
<b>.csv</b>	-	application/x-csv
<b>.csv</b>	-	text/csv
<b>.csv</b>	-	text/comma-separated-values
<b>.csv</b>	-	text/x-comma-separated-values
<b>.csv</b>	-	text/tab-separated-values

**file.name.css.html.csv**

# Mime

## `mime.getType(pathOrExtension)`

Get mime type for the given path or extension. E.g.

```
mime.getType('js');           // ⇨ 'application/javascript'
mime.getType('json');        // ⇨ 'application/json'

mime.getType('txt');          // ⇨ 'text/plain'
mime.getType('dir/text.txt'); // ⇨ 'text/plain'
mime.getType('dir\\text.txt'); // ⇨ 'text/plain'
mime.getType('.text.txt');    // ⇨ 'text/plain'
mime.getType('.txt');         // ⇨ 'text/plain'
```

`null` is returned in cases where an extension is not detected or recognized

```
mime.getType('foo/txt');      // ⇨ null
mime.getType('bogus_type');   // ⇨ null
```

## `mime.getExtension(type)`

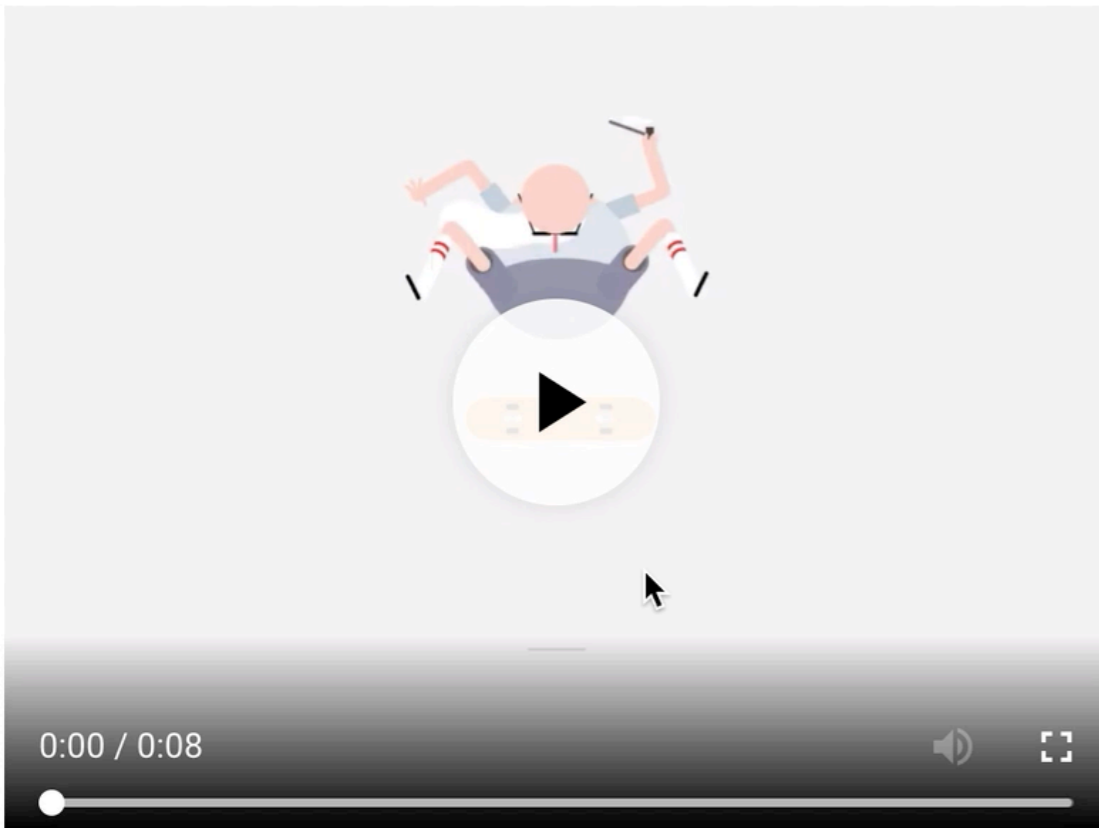
Get extension for the given mime type. Charset options (often included in Content-Type headers) are ignored.

```
mime.getExtension('text/html; charset=utf8'); // ⇨ 'html'
mime.getExtension('application/json');        // ⇨ 'json'
mime.getExtension('text/html; charset=utf8'); // ⇨ 'html'
```

<https://www.npmjs.com/package/mime>



# change extension



```
Elements Console Sources >>
<!doctype html>
<html lang="en">
  ><head>...</head>
  ><body>
...   <video src="ezgif-1-00fd10fb737b.csv" style="width:100%;"
      autoplay controls></video> == $0
  </body>
</html>
```

**File**




**Что я за файл? Зачем я был создан? Что во мне есть?  
Стоит ли со мной связываться?**






Что можно делать с файлов до загрузки на сервер?



# Предпросмотр <img />?

preload image preview  A PEN BY egor


Save Fork Settings Change View   

Выбрать файлы Файл не выбран Select some files


```
HTML
1 <input type="file" id="fileElem" multiple accept="image/*"
  class="visually-hidden">
2 <label for="fileElem">Select some files</label>
3
4 <div id="preview"></div>



CSS

JS
1 const filePicker = document.querySelector('[type=file]');
2
3 const preview = document.querySelector('#preview');
4
5 function handleFiles() {
6   console.log('hi', this.files);
7   for (var i = 0; i < this.files.length; i++) {
8     var file = this.files[i];
9
10    if (!file.type.startsWith('image/')){ continue }
11
12    var img = document.createElement("img");
13    img.classList.add("obj");
14    img.file = file;
15    preview.appendChild(img); // Assuming that "preview" is
    the div output where the content will be displayed.
16
17    var reader = new FileReader();
18    reader.onload = (function(aImg) { return function(e) {
19      aImg.src = e.target.result; }; })(img);
20    reader.readAsDataURL(file);
  }
}
```

Console Clear 

> @wegorelax

Console Assets Comments 

Last saved 1 day ago  Delete Share Export Embed Collections 

# Предпросмотр <video />?

preload video example   
A PEN BY egor

Save

Fork

Settings

Change View



Выбрать файлы

Файл не выбран

Select some files

HTML

```
3 <span role="span" id="fileSelect">Select some files</span>
4 </label>
5 <div id="preview"></div>
```

CSS

JS

```
11
12 var video = document.createElement("video");
13 video.classList.add("obj");
14 video.file = file;
15 preview.appendChild(video); // Assuming that "preview" is the div
    output where the content will be displayed.
16
17 var reader = new FileReader();
18 reader.onload = (function(aVideo) { return function(e) {
19     // new part
20     aVideo.src = e.target.result;
21     // important note
22     aVideo.play();
23     window.URL.revokeObjectURL(e.target.result);
24 }; })(video);
25 reader.readAsDataURL(file);
26 }
27 }
28
29 filePicker.addEventListener('change', handleFiles, false);
```

@wegorelax

Console

Assets

Comments



Last saved 1 day ago



Delete

Share

Export

Embed

Collections

# Предпросмотр PDF?

Выбрать файлы

Select some files


```
HTML
1 <script src="//mozilla.github.io/pdf.js/build/pdf.js"></script>
2
3 <div>
4   <input type="file" id="fileElem" multiple class="visually-hidden">
5   <label for="fileElem">Select some files</label>
6 </div>
7
8 <canvas id="the-canvas"></canvas>
```




```
CSS
```

```
JS
```

```
30
31 // Loaded via <script> tag, create shortcut to access PDF.js exports.
32 var pdfjsLib = window['pdfjs-dist/build/pdf'];
33
34 // The workerSrc property shall be specified.
35 pdfjsLib.GlobalWorkerOptions.workerSrc =
  '//mozilla.github.io/pdf.js/build/pdf.worker.js';
36
37 const LoadPDFTask = (pdfData) => {
38   // Using DocumentInitParameters object to load binary data.
39   var loadingTask = pdfjsLib.getDocument(pdfData);
40   loadingTask.promise.then(function(pdf) {
41     console.log('PDF loaded');
42
43     // Fetch the first page
44     var pageNumber = 1;
45     pdf.getPage(pageNumber).then(function(page) {
46       console.log('Page loaded');
47
48     });
49   });
50 }
```

# Предпросмотр PDF?

preload pdf preview   
A PEN BY egor

[Save](#) [Fork](#) [Settings](#) [Change View](#)   

Выбрать файлы egor-presen...on-one.pdf Select some files



```
HTML
1 <script src="//mozilla.github.io/pdf.js/build/pdf.js"></script>
2
3 <div>
4   <input type="file" id="fileElem" multiple class="visually-hidden">
5   <label for="fileElem">Select some files</label>
6 </div>
7
8 <canvas id="the-canvas"></canvas>
```

```
CSS
```

```
JS
57 // Render PDF page into canvas context
58 var renderContext = {
59   canvasContext: context,
60   viewport: viewport
61 };
62 var renderTask = page.render(renderContext);
63 renderTask.then(function () {
64   console.log('Page rendered');
65 });
66 });
67 }, function (reason) {
68   // PDF loading error
69   console.error(reason);
70 });
71 }
72
```

@wegorelax

# Предпросмотр чего угодно?

 preload file to the textarea   
A PEN BY egor

 Save

 Fork

 Settings

 Change View



Выберите файл | Файл не выбран

 HTML

```
1 <form enctype="multipart/form-data">
2   <input id="upload" type="file" name="files[]" size="30">
3 </form>
4
5 <textarea class="form-control" rows="35" cols="120" id="ms_word_filtered_html">
6 </textarea>
```

 CSS

 JS

```
1 const textarea = document.querySelector('#ms_word_filtered_html');
2
3 function handleFileSelect(evt) {
4   var files = evt.target.files; // FileList object
5
6   // use the 1st file from the list
7   f = files[0];
8
9   var reader = new FileReader();
10
11   // Closure to capture the file information.
12   reader.onload = (function(theFile) {
13     return function(e) {
14       console.log(e.target.result);
15       textarea.value = e.target.result;
16     };
17   })(f);
18
```

@wegorelax

Console

Assets

Comments



Last saved less than a minute ago



Delete

Share

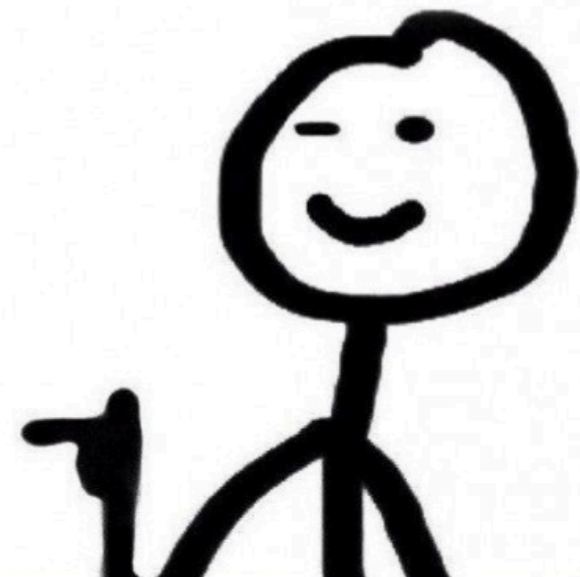
Export

Embed

Collections



Ого мы можем  
**провалидировать содержимое файла!!!**



# Валидация CSV

Choose File demo.csv

**Password is not valid in the 2 row / 4 column**

**First Name is required in the 4 row / 1 column**

**Email is not valid in the 4 row / 3 column**

**Email is not unique**

# Переконвертировать файл

# Try pandoc!

Convert from

to

```
# Notes

This project was bootstrapped with [Create React App]
(https://github.com/facebookincubator/create-react-app).

## Setup and run

``` bash
npm install
npm start
```

for production
```

pandoc

© 2013–2015 John MacFarlane



Compress

Original image

2.92 MB

36% TOGGLE BACKGROUND

Edit

- Resize
- Reduce palette

Compress

MozJPEG

Quality: 75

Show advanced settings

Working...

## TERMINAL DEMO

Imagine that you have installed FFmpeg on your computer. Also imagine that you have files called [input.webm](#) and [input.jpeg](#) in the current directory. Feel free to run whatever commands you want, or **try the sample commands below**:

Help

List Codecs

Vertical Flip Image

Horizontal Flip Image

Video to .mp4

Video to .gif

Video to screenshots

Draw Boxes on Video

H.264

VP9

videoconverter.js

Run Command

Worker has received command

Received command: -help. Processing with 268435456 bits.

ffmpeg version 2.2.1 Copyright (c) 2000-2014 the FFmpeg developers

built on Jun 9 2014 20:24:32 with emcc (Emscripten GCC-like replacement) 1.12.0 (commit 6960d2296299e96d43e694806f5d35799ef8d39c)

configuration: --cc=emcc --prefix=/Users/bgrinstead/Sites/videoconverter.js/build/ffmpeg/./dist --extra-cflags='-I/Users/bgrinstead/Sites/videoconverter.js/build/ffmpeg/./dist/include -v' --enable-cross-compile --target-os=none --arch=x86\_32 --cpu=generic --disable-ffplay --disable-ffprobe --disable-ffserver --disable-asm --disable-doc --disable-devices --disable-pthreads --disable-w32threads --disable-network --disable-hwaccels --disable-parser s --disable-bsfs --disable-debug --disable-protocols --disable-indevs --disable-outdevs --enable-protocol=file --enable-libvpx --enable-gpl --extra-libs='/Users/bgrinstead/Sites/videoconverter.js/build/ffmpeg/./dist/lib/libx264.a /Users/bgrinstead/Sites/videoconverter.js/build/ffmpeg/./dist/lib/libvpx.a'

libavutil 52. 66.100 / 52. 66.100

libavcodec 55. 52.102 / 55. 52.102

libavformat 55. 33.100 / 55. 33.100

libavdevice 55. 10.100 / 55. 10.100

libavfilter 4. 2.100 / 4. 2.100

libswscale 2. 5.102 / 2. 5.102

libswresample 0. 18.100 / 0. 18.100

libpostproc 52. 3.100 / 52. 3.100

Hyper fast Audio and Video encoder

usage: ffmpeg [options] [[infile options] -i infile]... {[outfile options] outfile}...

Getting help:

-h -- print basic options

-h long -- print more options

-h full -- print all options (including all format and codec specific options, very long)



...it can go sideways and slantways and longways and backways and squareways and frontways and any other ways that you can think of.

@wegorelax

# Не все так просто

[https://kripken.github.io/mloc\\_emscripten\\_talk/gindex.html#/](https://kripken.github.io/mloc_emscripten_talk/gindex.html#/)

<https://www.webrtc-experiment.com/ffmpeg/>



# RecordRTC Video Cropping using [ffmpeg-asm.js!](#)

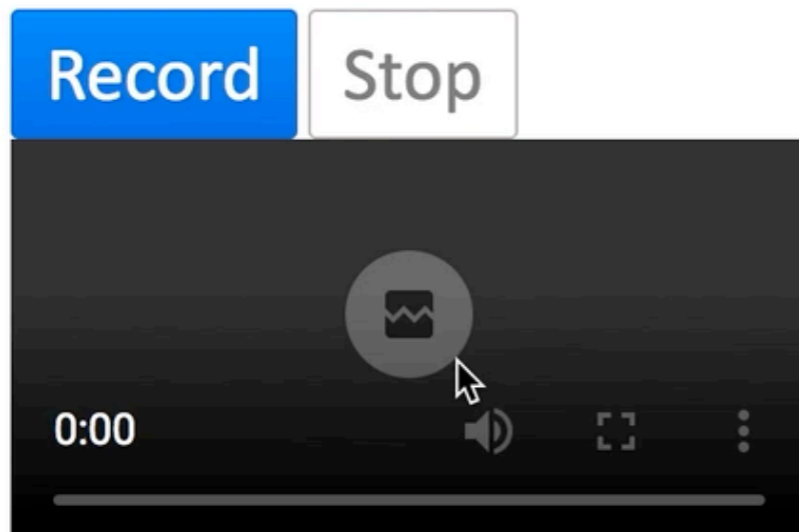
HOME © Muaz Khan . [@WebRTCWeb](#) . [Github](#) . [Latest issues](#) . [What's New?](#)

 Star 131  Fork 44  Follow @muaz-khan 1,918

## Logs

1. [RecordRTC](#) experiment crops video inside the browser!

## Record Video and convert into "mp4" using [ffmpeg-asm.js!](#)



## [Ffmpeg.js Issues](#)

@wegorelax

[MP4 converted file not play on chrome](#)



**File**  
Uploading



**File**



**Stream**



**Server**

# Память и CPU



File



Stream



Server

## Время / Скорость

# Нету такого то способа ограничить скорость на загрузку в браузере

throttle.js

```
1  throttle(callback) {
2    this.bitesPerSecond();
3
4    if (this.selectedFolder.bites.perSeconds <= parseInt(this.speedLimit))
5      callback();
6    else
7      setTimeout(callback, this.selectedFolder.bites.perSeconds / parseInt(this.speedLimit) * 1000);
8  }
9
10 uploadFileItem(entryDTO, file, callback) {
11   this.throttle(() => {
12     this.uploadFile.upload(FileDTO.of(file, entryDTO, () => callback()));
13   });
14 }
```

# Can I use Streams

?  Settings

2 results found

Detected your country as "Belarus". Would you like to import usage data for that country?

Import

No thanks

## # Streams - LS

Usage

% of all users

Global

0% + 75.36% = 75.36%

Method of creating, composing, and consuming streams of data, that map efficiently to low-level I/O primitives, and allow easy composition with built-in backpressure and queuing.

Current aligned Usage relative Date relative Apply filters Show all ?

| IE              | Edge               | Firefox              | Chrome             | Safari                 | Opera              | iOS Safari             | Opera Mini | Android Browser | Blackberry Browser | Opera Mobile    | Chrome for Android | Firefox for Android | IE Mobile | UC Browser for Android | Sams Interr      |
|-----------------|--------------------|----------------------|--------------------|------------------------|--------------------|------------------------|------------|-----------------|--------------------|-----------------|--------------------|---------------------|-----------|------------------------|------------------|
|                 | 12-13              |                      | 4-51               |                        | 10-38              | 3.2-9.3                |            |                 |                    |                 |                    |                     |           |                        |                  |
|                 | <sup>2</sup> 14-15 | 2-56                 | <sup>2</sup> 52-58 | 3.1-9.1                | <sup>2</sup> 39-45 | 10.2                   |            |                 |                    |                 |                    |                     |           |                        |                  |
| 6-10            | <sup>4 6</sup> 16  | <sup>3 5</sup> 57-61 | <sup>4</sup> 59-69 | <sup>4 5</sup> 10-11.1 | <sup>4</sup> 46-55 | <sup>4</sup> 10.3-11.2 |            | 2.1-4.4.4       | 7                  | 12-12.1         |                    |                     | 10        |                        | 4-6              |
| <sup>1</sup> 11 | <sup>4 6</sup> 17  | <sup>3 5</sup> 62    | <sup>4</sup> 70    | <sup>4 5</sup> 12      | <sup>4</sup> 56    | <sup>4</sup> 11.4      | all        | <sup>2</sup> 67 | 10                 | <sup>4</sup> 46 | <sup>4</sup> 69    | <sup>3 5</sup> 62   | 11        | 11.8                   | <sup>4</sup> 7.2 |
|                 | <sup>4 6</sup> 18  | <sup>3 5</sup> 63-64 | <sup>4</sup> 71-73 | <sup>4 5</sup> TP      |                    | <sup>4</sup> 12        |            |                 |                    |                 |                    |                     |           |                        |                  |

Notes

Known issues (0)

Resources (9)

Feedback

# # MediaRecorder API -WD

Usage % of all users  
 Global 67.22%

The MediaRecorder API (MediaStream Recording) aims to provide a really simple mechanism by which developers can record media streams from the user's input devices and instantly use them in web apps, rather than having to perform manual encoding operations on raw PCM data, etc.

Current aligned Usage relative Date relative Apply filters Show all ?

| IE   | Edge * | Firefox | Chrome | Safari   | Opera | iOS Safari * | Opera Mini * | Android Browser * | Blackberry Browser | Opera Mobile * | Chrome for Android | Firefox for Android | IE Mobile | UC Browser for Android | Sams Interr |
|------|--------|---------|--------|----------|-------|--------------|--------------|-------------------|--------------------|----------------|--------------------|---------------------|-----------|------------------------|-------------|
|      |        |         | 4-46   |          | 10-33 |              |              |                   |                    |                |                    |                     |           |                        |             |
|      |        | 2-28    | 47-48  |          | 34-35 |              |              |                   |                    |                |                    |                     |           |                        | 4           |
| 6-10 | 12-16  | 29-61   | 49-69  | 3.1-11.1 | 36-55 | 3.2-11.2     |              | 2.1-4.4.4         | 7                  | 12-12.1        |                    |                     | 10        |                        | 5-6         |
| 11   | 17     | 62      | 70     | 12       | 56    | 11.4         | all          | 67                | 10                 | 46             | 69                 | 62                  | 11        | 11.8                   | 7.2         |
|      | 18     | 63-64   | 71-73  | TP       |       | 12           |              |                   |                    |                |                    |                     |           |                        |             |

- Notes
- Known issues (0)
- Resources (5)
- Feedback

MS Edge status: Under Consideration

# Multipart upload request

**POST** <https://www.googleapis.com/upload/drive/v2/files?uploadType=multipart> HTTP/1.1

———— PART 1 ————

Authorization: Bearer [YOUR\_AUTH\_TOKEN]

**Content-Type:** multipart/related; boundary=foo\_bar\_baz

**Content-Length:** [NUMBER\_OF\_BYTES\_IN\_ENTIRE\_REQUEST\_BODY]

--foo\_bar\_baz

Content-Type: application/json; charset=UTF-8

```
{  
  "title": "myObject"  
}
```



# Multipart upload request

**POST** https://www.googleapis.com/upload/drive/v2/files?uploadType=multipart HTTP/1.1

———— PART 1 ————

Authorization: Bearer [YOUR\_AUTH\_TOKEN]

**Content-Type:** multipart/related; boundary=foo\_bar\_baz

**Content-Length:** [NUMBER\_OF\_BYTES\_IN\_ENTIRE\_REQUEST\_BODY]

--foo\_bar\_baz

Content-Type: application/json; charset=UTF-8

```
{  
  "title": "myObject"  
}
```

———— PART 2 ————

--foo\_bar\_baz

**Content-Type:** image/jpeg

[JPEG\_DATA]

--foo\_bar\_baz--

# Multipart upload request

**POST** <https://www.googleapis.com/upload/drive/v2/files?uploadType=multipart> HTTP/1.1

———— PART 1 ————

Authorization: Bearer [YOUR\_AUTH\_TOKEN]

Content-Type: multipart/related; boundary=foo\_bar\_baz

Content-Length: [NUMBER\_OF\_BYTES\_IN\_ENTIRE\_REQUEST\_BODY]

--foo\_bar\_baz

Content-Type: application/json; charset=UTF-8

```
{  
  "title": "myObject"  
}
```

———— PART 2 ————

--foo\_bar\_baz

Content-Type: image/jpeg

[JPEG\_DATA]

--foo\_bar\_baz--

LOREM IPSUM DOLOR SIT AMET ALIQUA  
Lorem ipsum dolor sit amet, consectetur adipiscing  
elit, sed do eiusmod tempor incididunt ut labore et.

01 OPTION



LOREM IPSUM DOLOR SIT AMET ALIQUA  
Lorem ipsum dolor sit amet, consectetur adipiscing  
elit, sed do eiusmod tempor incididunt ut labore et.



03 OPTION



02 OPTION

Шоу ПОЛЬЗОВАТЕЛЬ

**И его непредсказуемые действия**



04 OPTION





# Windows

## No Sleep Mode When Closed







- ▲ Each character is used to represent 6 bits (  $\log_2(64) = 6$  ).
- 49 Therefore 4 chars are used to represent  $4 * 6 = 24$  bits = 3 bytes .
- ▼ So you need  $4*(n/3)$  chars to represent  $n$  bytes, and this needs to be rounded up to a multiple of 4.
- ✓ The number of unused padding chars resulting from the rounding up to a multiple of 4 will obviously be 0, 1, 2 or 3.

В среднем на 30%  
больше

# Resumable upload session

## ———— PART 1 ————

POST [https://www.googleapis.com/upload/drive/v2/files?](https://www.googleapis.com/upload/drive/v2/files?uploadType=resumable)  
uploadType=resumable HTTP/1.1

Content-Length: 38

Content-Type: application/json; charset=UTF-8

X-Upload-Content-Type: image/jpeg

X-Upload-Content-Length: 2000000

```
{  
  "title": «myObject»  
}
```



# Resumable upload session

## PART 1

POST <https://www.googleapis.com/upload/drive/v2/files?uploadType=resumable> HTTP/1.1

Content-Length: 38

Content-Type: application/json; charset=UTF-8

X-Upload-Content-Type: image/jpeg

X-Upload-Content-Length: 2000000

```
{  
  "title": «myObject»  
}
```

## PART 2

**PUT** <https://www.googleapis.com/upload/drive/v2/...>

**Content-Length: 524288**

**Content-Type: image/jpeg**

**Content-Range: bytes 0-524287/2000000**

**[BYTES 0-524287]**

# Resumable upload session

## PART 1

POST <https://www.googleapis.com/upload/drive/v2/files?uploadType=resumable> HTTP/1.1

Content-Length: 38

Content-Type: application/json; charset=UTF-8

X-Upload-Content-Type: image/jpeg

X-Upload-Content-Length: 2000000

```
{  
  "title": «myObject»  
}
```

## PART 2

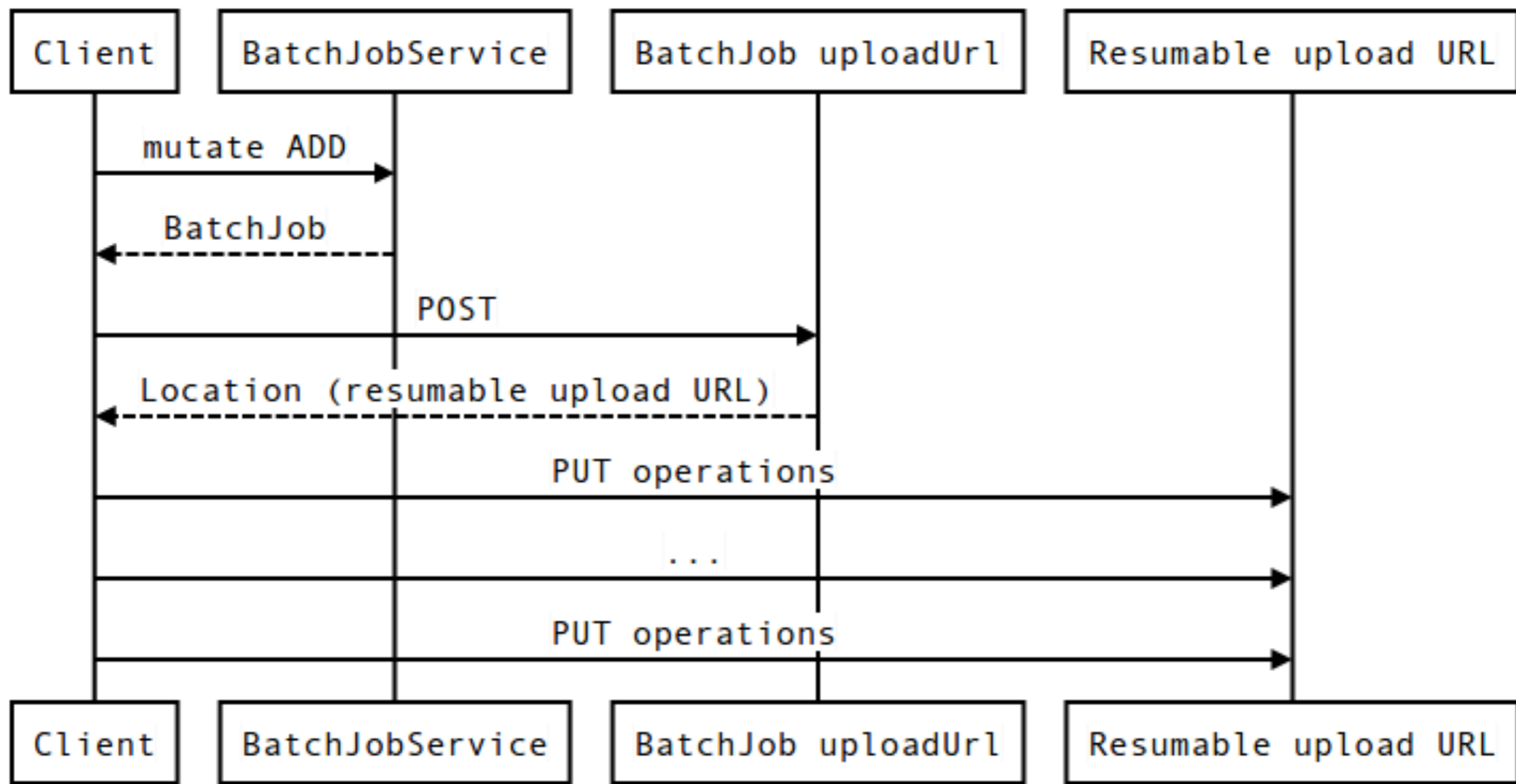
PUT <https://www.googleapis.com/upload/drive/v2/...>

Content-Length: 524288

Content-Type: image/jpeg

Content-Range: bytes 0-524287/2000000

[BYTES 0-524287]





**tus.io**

Open Protocol for Resumable File Uploads

Just to note

# Demo

This demo is a working and production-ready example for resumable file uploads built using the [tus-js-client](#). It sends your files to our public [tusd](#) instance, which is the official reference implementation for the tus protocol, written in the [Go programming language](#).

## Instructions

1. Select a large file.
2. Watch it upload for a bit, then close this tab before it finishes.
3. Come back to the tab, select the same file again, the upload should resume where it left off.

Выберите файл Файл не выбран

**Perform full upload (even if we could resume)**

START UPLOAD

## Uploads

Successful uploads will be listed here. Try one!

The screenshot shows the Network tab of a web browser's developer tools. The top bar includes tabs for Elements, Console, Sources, Network, and Performance. The Network tab is active, showing a filter input, a 'Hide data URLs' checkbox, and a list of request types: All, XHR, JS, CSS, Img, Media, Font, Doc, WS, Manifest, and Other. Below this is a timeline with markers at 200 ms, 400 ms, 600 ms, 800 ms, 1000 ms, 1200 ms, 1400 ms, and 1600 ms. The main area of the network tab displays the message: 'Recording network activity... Perform a request or hit ⌘ R to record the reload.' The bottom of the screenshot shows the bottom bar of the developer tools with tabs for Console, Animations, Performance monitor, and Sensors. The Console tab is active, showing a filter input and a 'Group similar' checkbox.



# RESUMABLE.JS

A JavaScript library providing multiple simultaneous, stable and resumable uploads via the HTML5 File API

Code on Github

Download source

Contribute

23 / resumable.js

Watch

115

Star

2,814

Fork

348

Code

Issues 36

Pull requests 8

Wiki

Pulse

Graphs

A JavaScript library for providing multiple simultaneous, stable, fault-tolerant and resumable/restartable uploads via the HTML5 File API.  
<http://www.resumablejs.com>

343 commits

2 branches

2 releases

55 contributors

Branch: master

New pull request

Create new file

Upload files

Find file

Clone or download



steffentchr Merge pull request #313 from nickdatum/performance-relative

Latest commit 1897f32 6 days ago

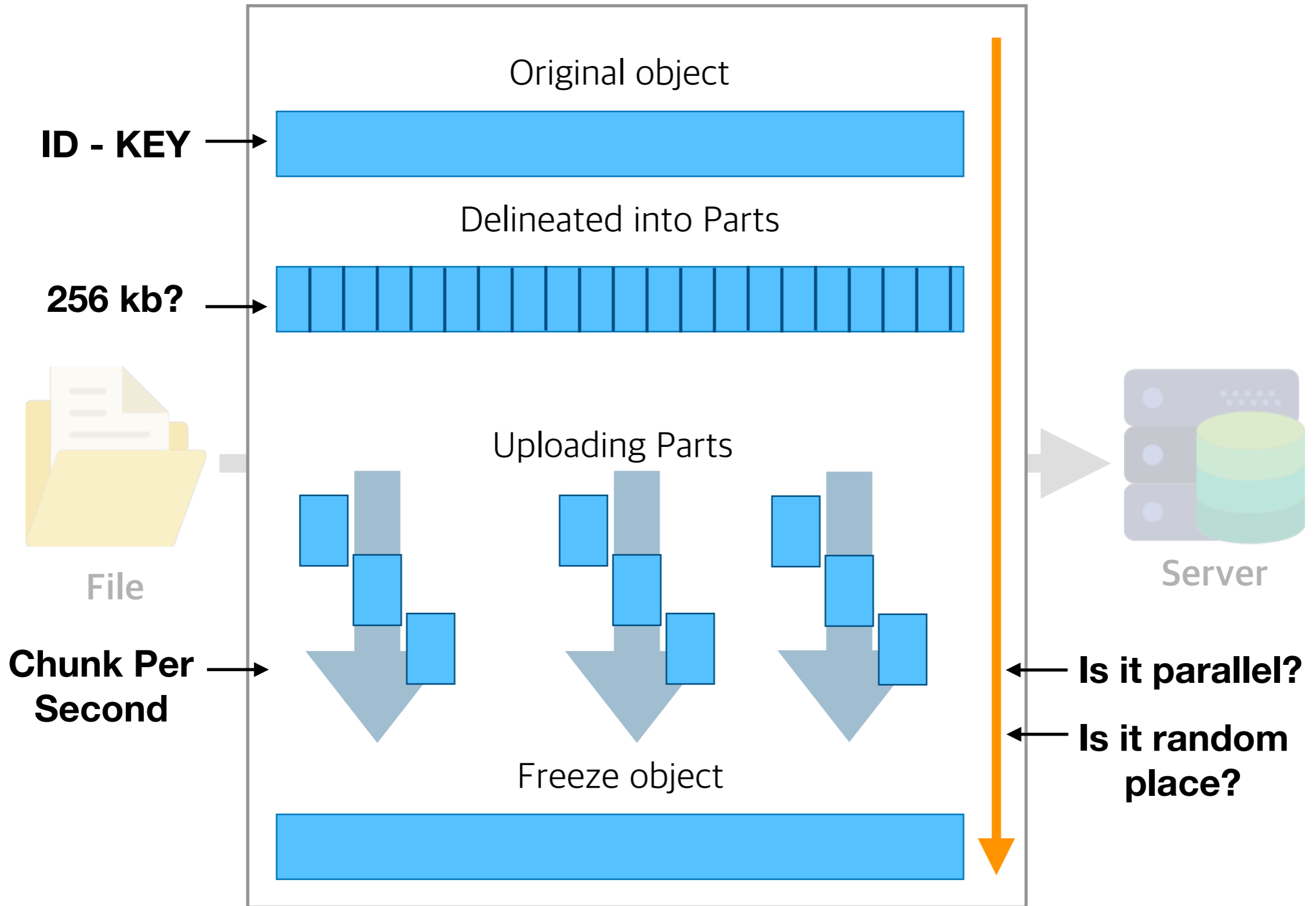
samples

Update node.js sample app to be compatible with newer node.js versions

a month ago

Converted java example to a maven project

a year ago



Как только загружаем несколько файлов







3. **Upload** each part (a contiguous portion of an object's data) accompanied by the upload id and a **part number** (1-10,000 inclusive). The part numbers need not be contiguous but the order of the parts determines the position of the part within the object. S3 will return an ETag in response to each upload.



Folder



File



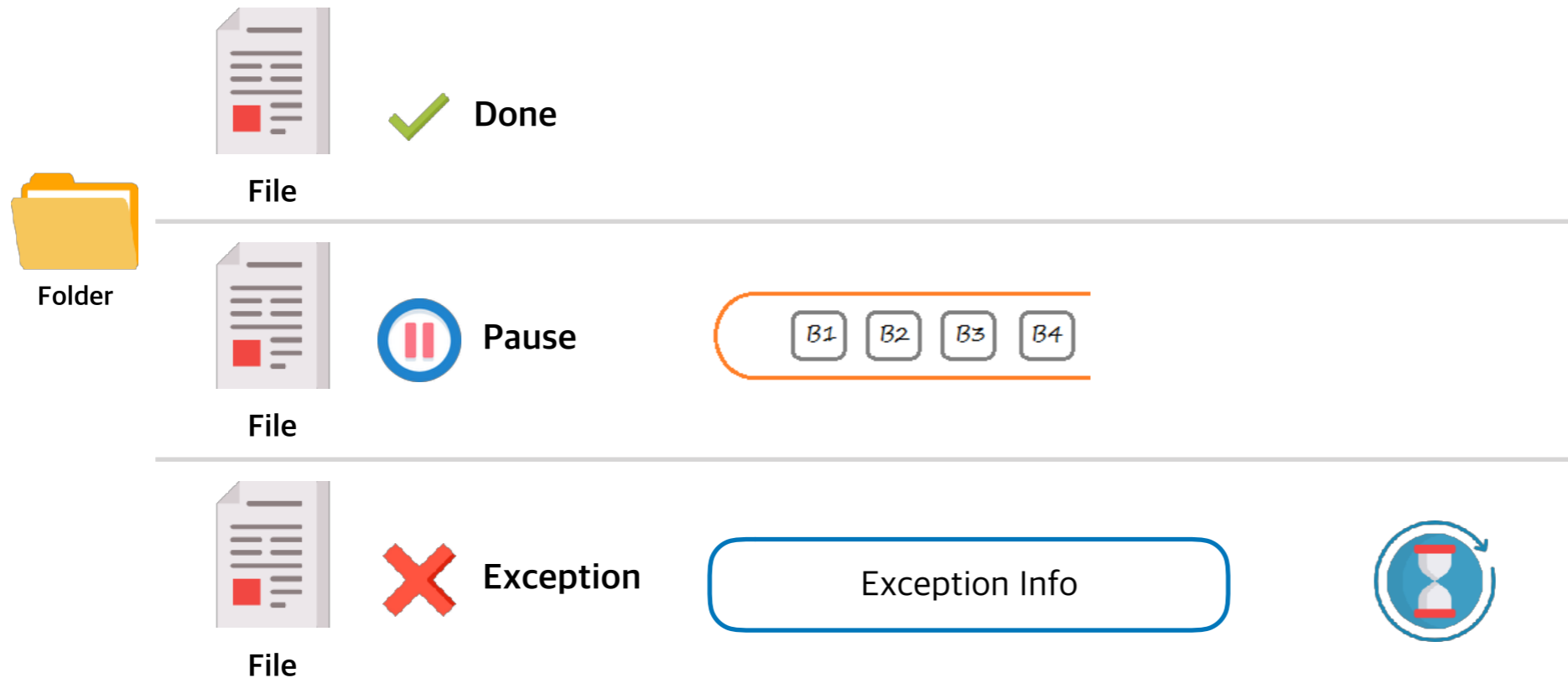
Done

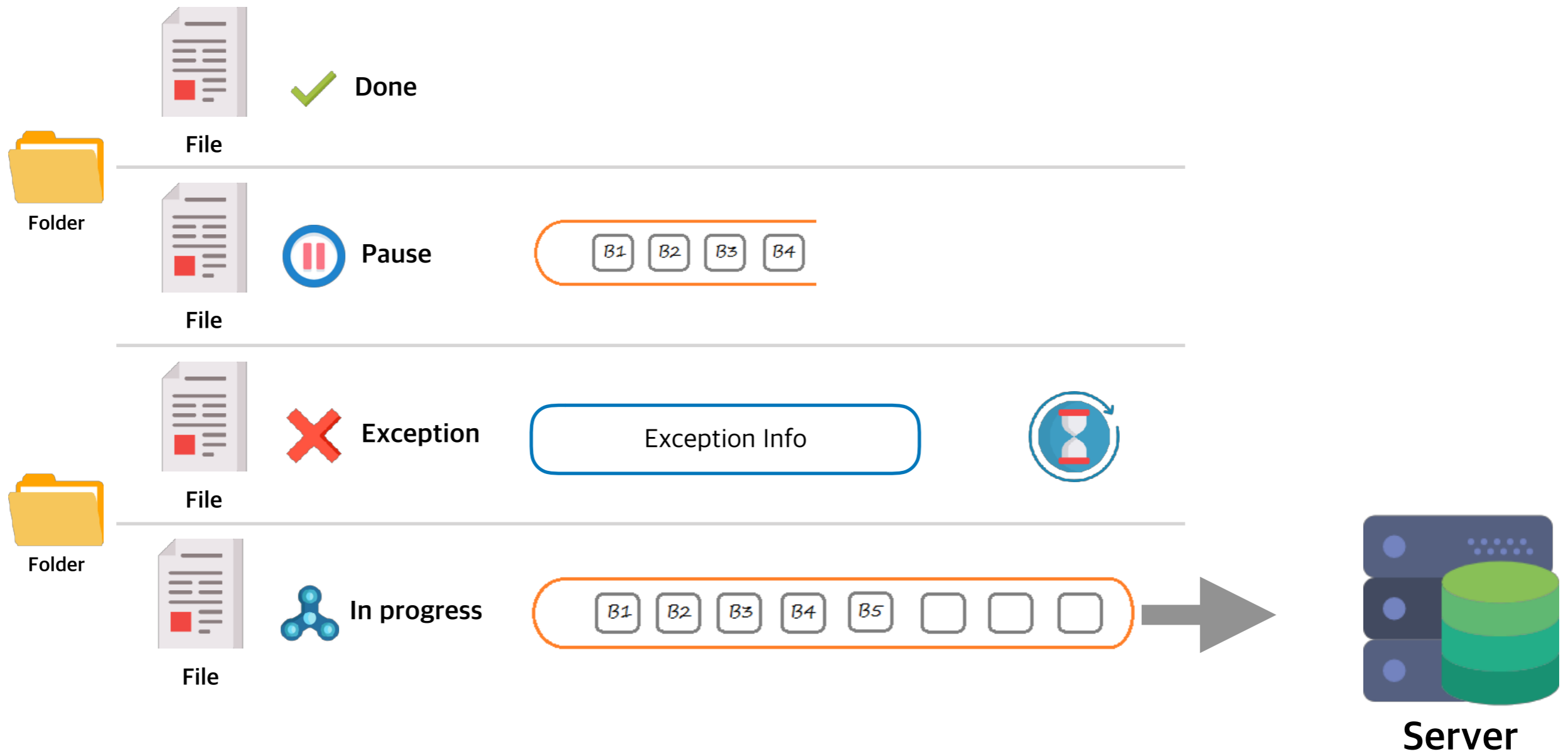


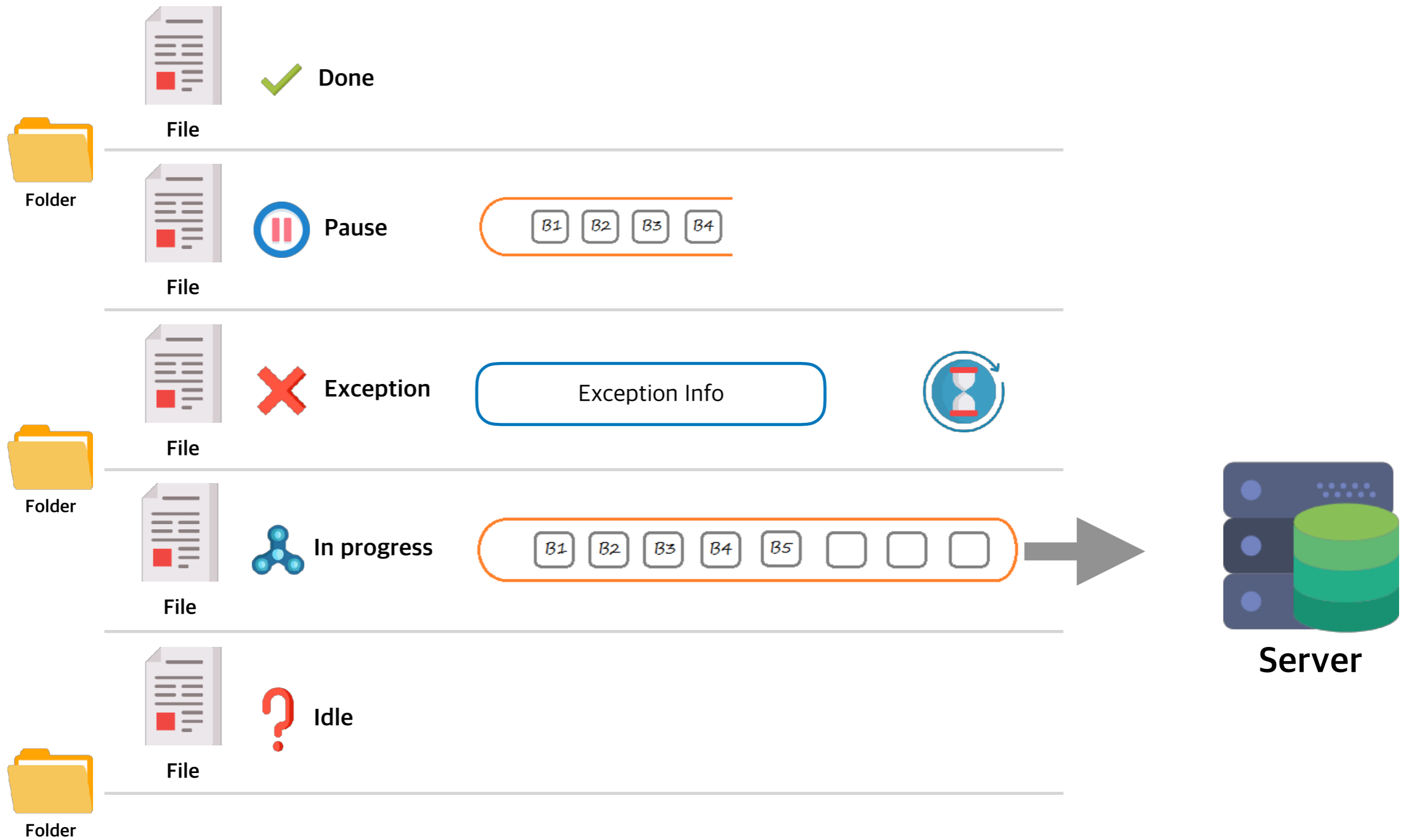
Server

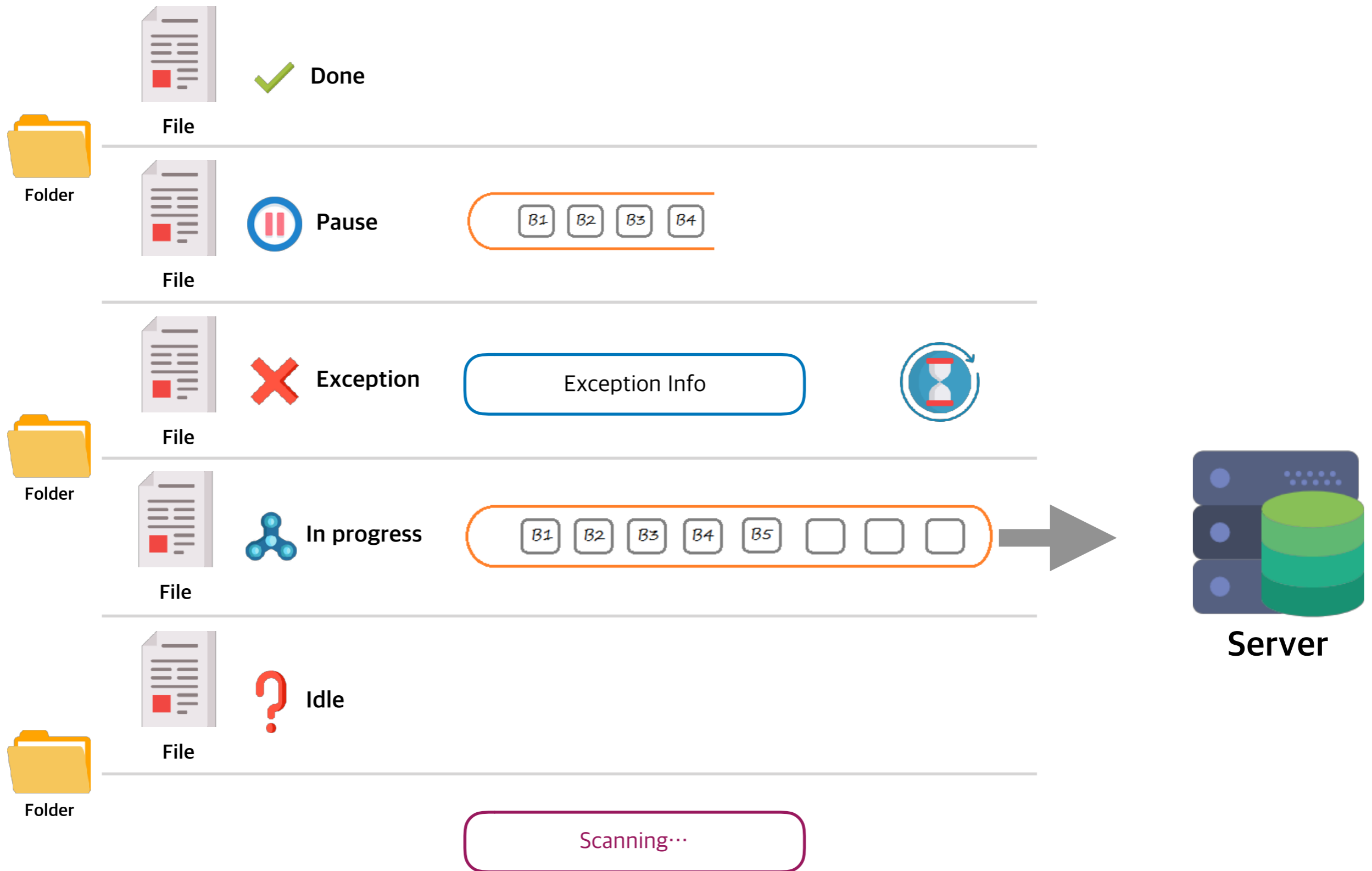


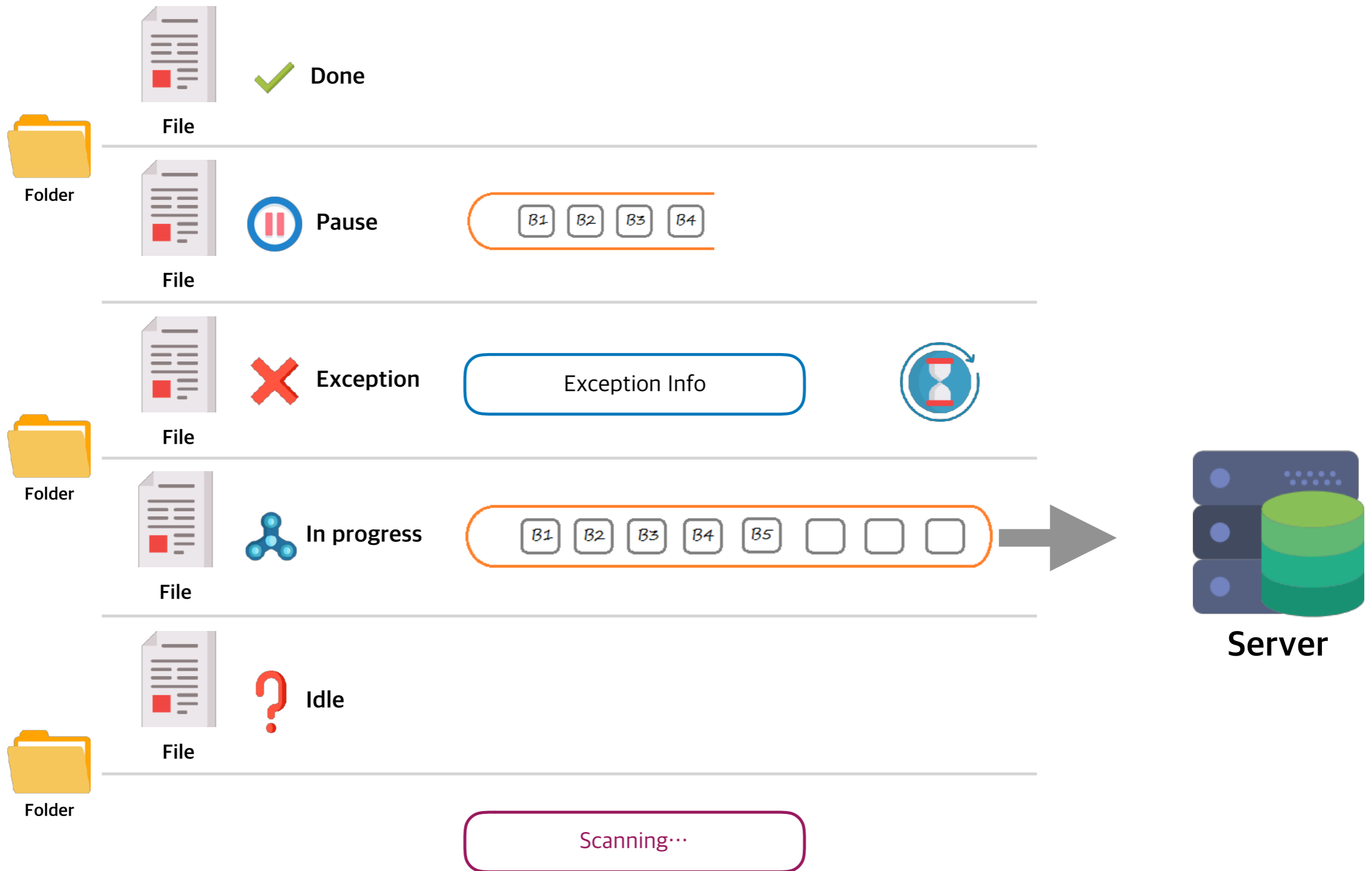
Server



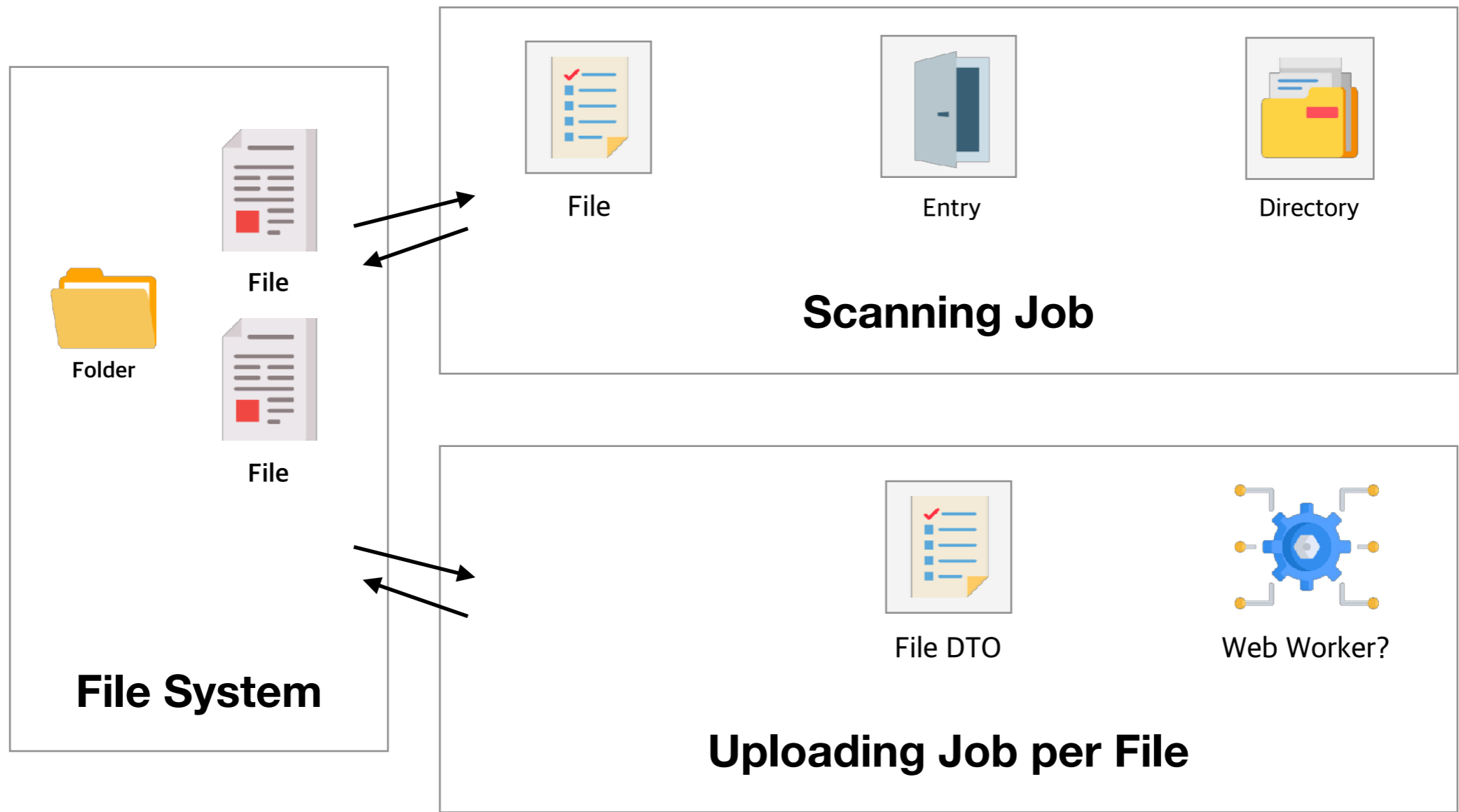












Не стандартный способ

**WebTorrent protocol**



Streaming file transfer over **WebTorrent** (torrents on the web)

## Start sharing

Drag-and-drop files to begin seeding. Or choose a file:  Файл не выбран



## Start downloading

Download from a magnet link or info hash

Powered by **WebTorrent**. 100% open source & free software. Works in Chrome, Firefox, and Opera. Source code available on [GitHub](#). © 2017 WebTorrent, LLC.

# Torrents on the *web*

Open Source Supporters

## Torrents on the *desktop*

The streaming torrent client for Mac, Windows, & Linux

[Get WebTorrent Desktop](#)

WebTorrent Desktop is for streaming torrents. Whether it's video from the [Internet Archive](#), music from [Creative Commons](#), or audiobooks from [Librivox](#), you can play it right away. You don't have to wait for it to finish downloading.

WebTorrent Desktop is free, non-commercial & open source.

# Can I use

# WebRTC

? ⚙ Settings

2 results found

Detected your country as "Belarus". Would you like to import usage data for that country?

Import

No thanks

## # WebRTC Peer-to-peer connections 📄 - WD

Method of allowing two users to communicate directly, browser to browser using the RTCPeerConnection API.

Usage % of all users ▾  
Global 80.25% + 1.83% = 82.09%  
unprefixed: 77.2% + 1.83% = 79.03%

Current aligned Usage relative Date relative Apply filters Show all ?

| Firefox | Chrome | Safari   | Opera | iOS Safari * | Opera Mini * | Android Browser * | BlackBerry Browser | Opera Mobile * | Chrome for Android | Firefox for Android | IE Mobile | UC Browser for Android | Samsung Internet | QQ Browser | Baidu Browser |
|---------|--------|----------|-------|--------------|--------------|-------------------|--------------------|----------------|--------------------|---------------------|-----------|------------------------|------------------|------------|---------------|
| 21      | 4-22   |          | 10-17 |              |              |                   |                    |                |                    |                     |           |                        |                  |            |               |
| -43     | 23-55  | 3.1-10.1 | 18-42 | 3.2-10.3     |              |                   |                    |                |                    |                     |           |                        |                  |            |               |
| -61     | 56-69  | 11-11.1  | 43-55 | 11.2         |              | 2.1-4.4.4         | 7                  | 12-12.1        |                    |                     | 10        |                        | 4-6.2            |            |               |
| 52      | 70     | 12       | 56    | 11.4         | all          | 67                | 10                 | 46             | 69                 | 62                  | 11        | 11.8                   | 7.2              | 1.2        | 7.12          |
| -64     | 71-73  | TP       |       | 12           |              |                   |                    |                |                    |                     |           |                        |                  |            |               |

Notes Known issues (0) Resources (9) Feedback

Microsoft also offers a compatible implementation known as [ObjectRTC](#). See [Object RTC](#) for support details for that API.

<sup>1</sup> BlackBerry 10 recognizes RTCPeerConnection but real support is unconfirmed.

<sup>3</sup> Edge does not support RTCDataChannel. See [API Catalogue](#)





**File**  
Downloading

# Стоп стоп а на мобилках как?





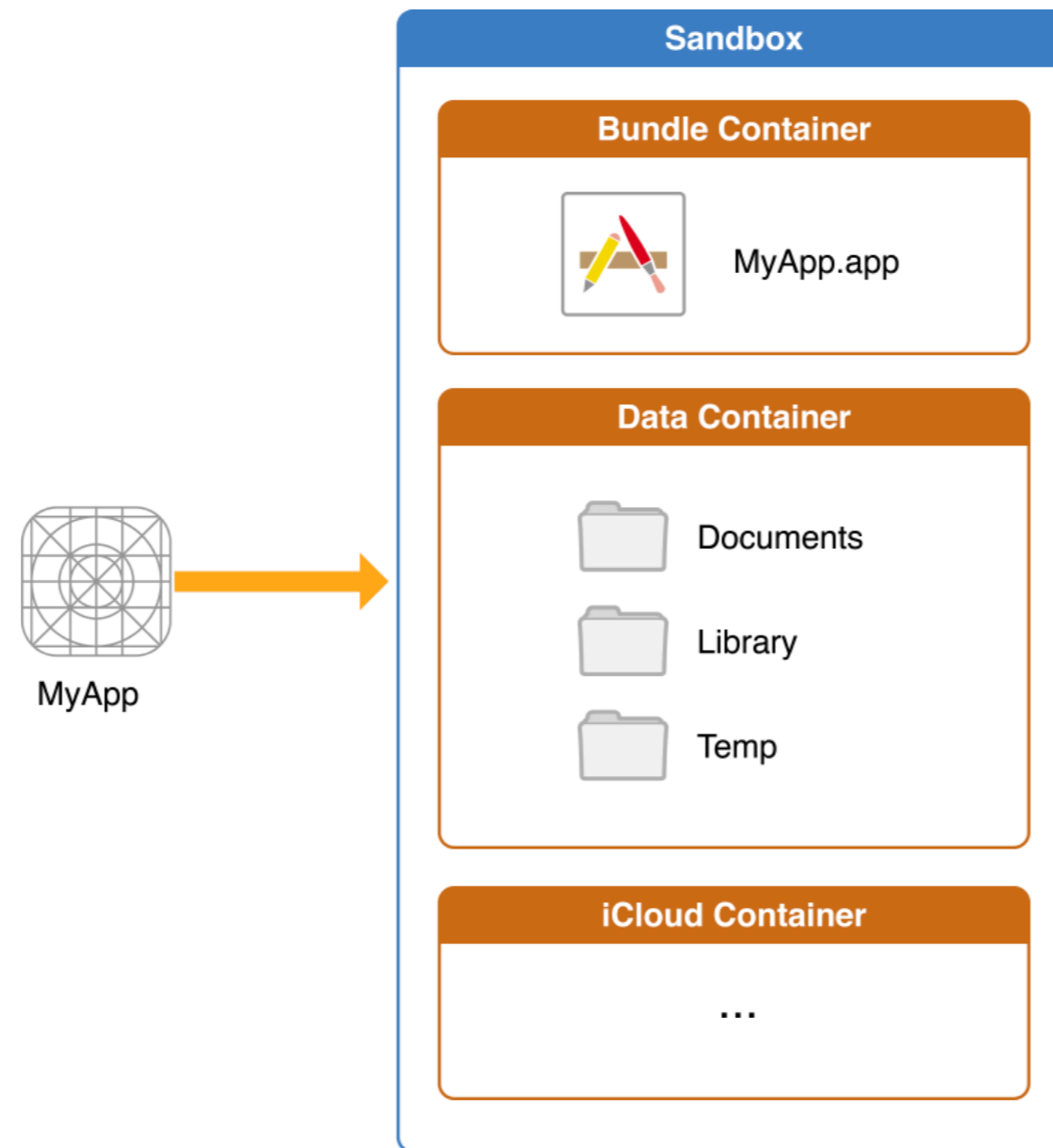


12

# The next step

Performance. Stability. Features.

# An iOS app operating within its own sandbox directory



<https://developer.apple.com/library/archive/documentation/FileManagement/Conceptual/FileSystemProgrammingGuide/FileSystemOverview/FileSystemOverview.html>

Actually the iOS does have a filesystem, and each app gets access to a sandboxed portion of the file system.

The iOS "system" itself has several programs that do access the filesystem directly, but mobile safari acts more like a restricted app purchased from iTunes than say springboard or the app store app itself.

Uploads are basically impossible in iOS. Mobile Safari doesn't read from the address book (which most sandboxed apps can and will do by default). It also doesn't use the photo picker to upload pictures or video.

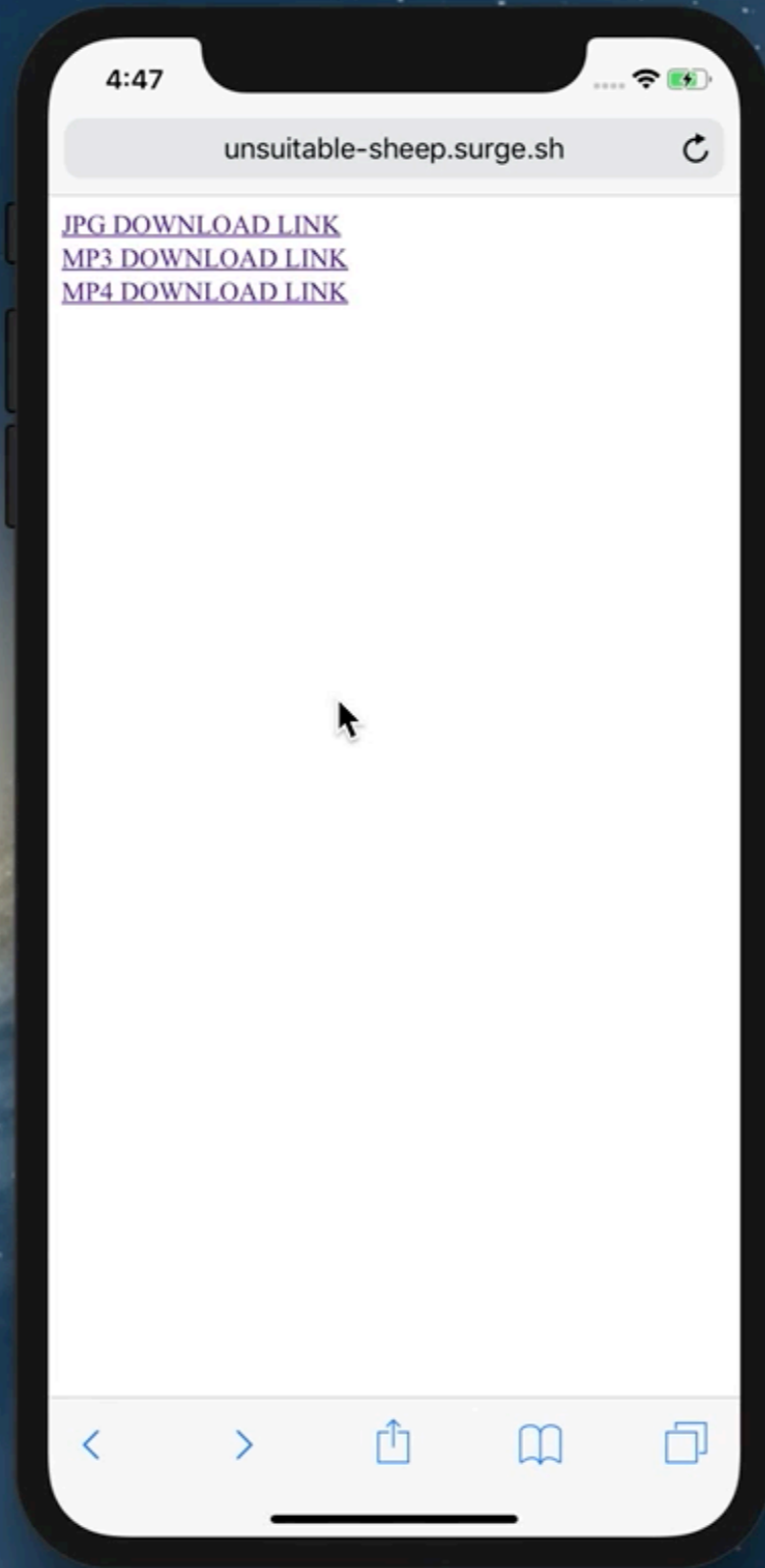
Downloads are possible, but often require a helper app to store and use the download. Safari handles mp3, streams, and other media itself and lets you listen or watch the "download". You can't save it in the way a computer allows, but the web server thinks a download happened and safari actually downloads the file to its cache (where it stays until the cache fills and it ages out and gets deleted). All other file types are handled as the iOS uses [UTI file detectors](#) to see which apps installed can handle a potential download. *(The developer document I linked to has several paragraphs readable by anyone, but it dives into developer minutia very quickly so feel free to bail on that link before the simple idea behind UTI gets confused)*

If safari detects another app has registered for a download, you will see an "open in appstastic" to indicate that mobile safari will download that file but hand it off to another app to store in that app's sandbox.

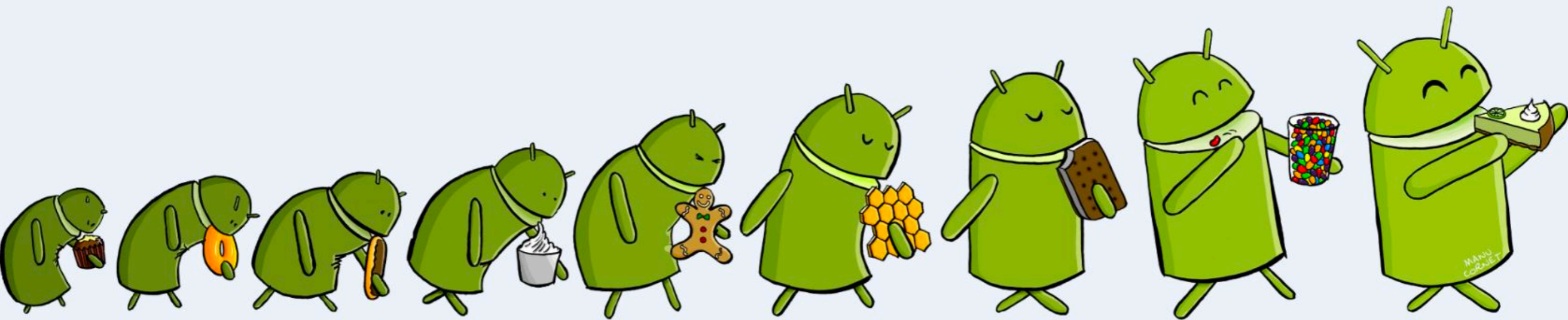
Safari uses a system API call to have the iOS do the writing across sandboxes.

Since you asked about a zip file, all you need on your iPad is to find an app that tells iOS it can handle zip files, and as long as the sourceforge servers send enough data for mobile safari to detect a zip file, you can download it over to your app. The reverse trip is harder, your ZIP app can't really push a file to safari for upload. Your app has to be programmed to log into sourceforge directly and call the upload API itself. (which technically will probably use the mobile safari code / webkit to do a http upload - but that all happens behind the scenes, not in what we see and control as mobile safari with the blue compass icon)

<https://apple.stackexchange.com/questions/25678/downloading-and-uploading-files-through-safari-ios>



iPhone XR - 12.0



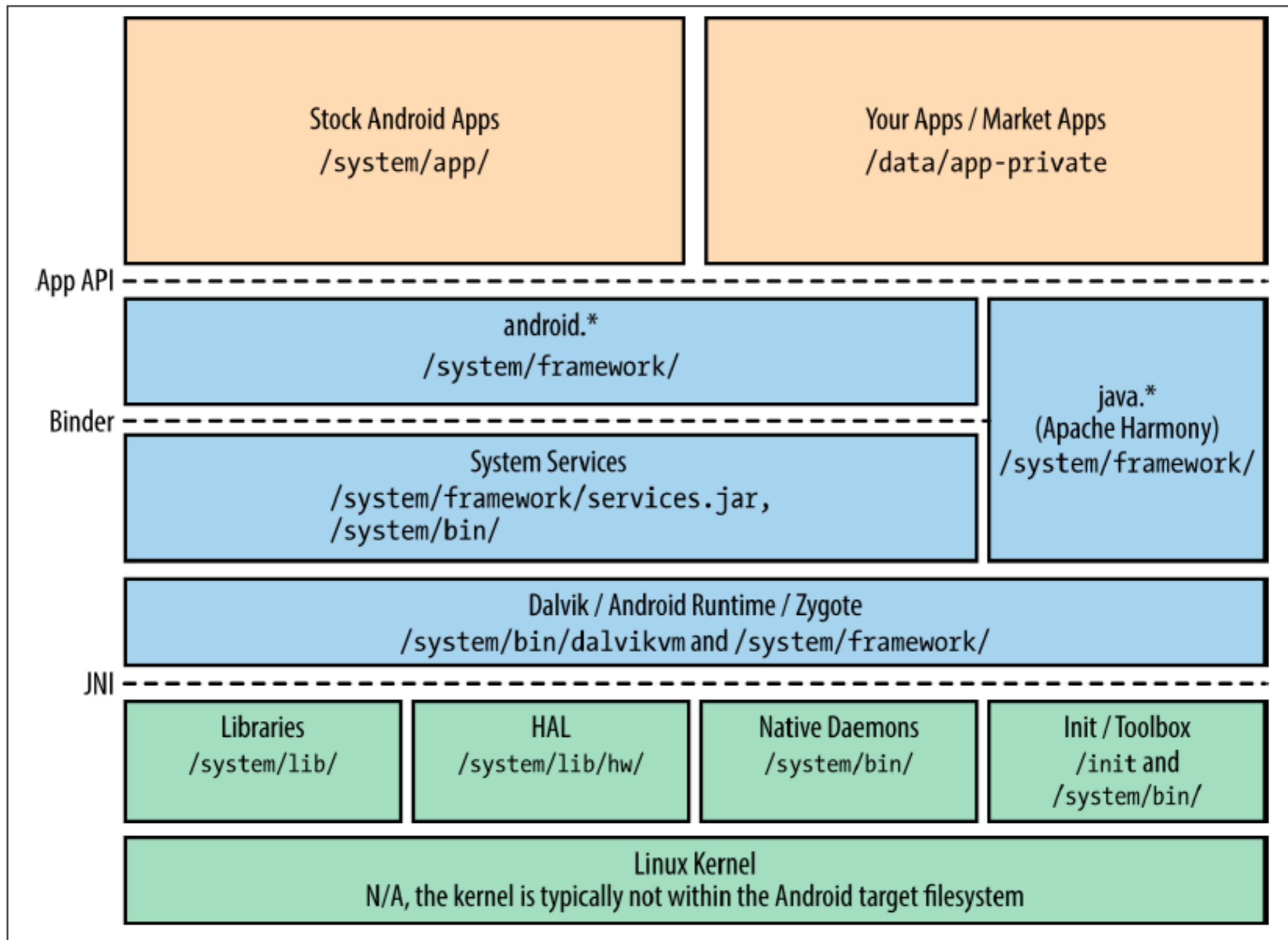
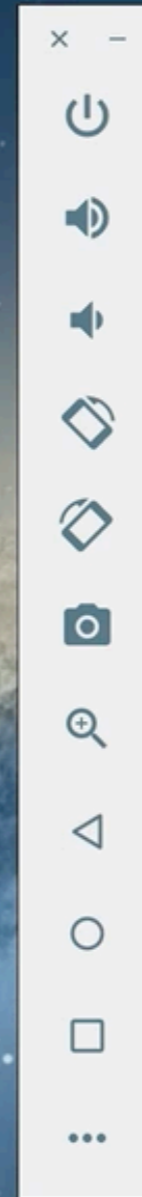
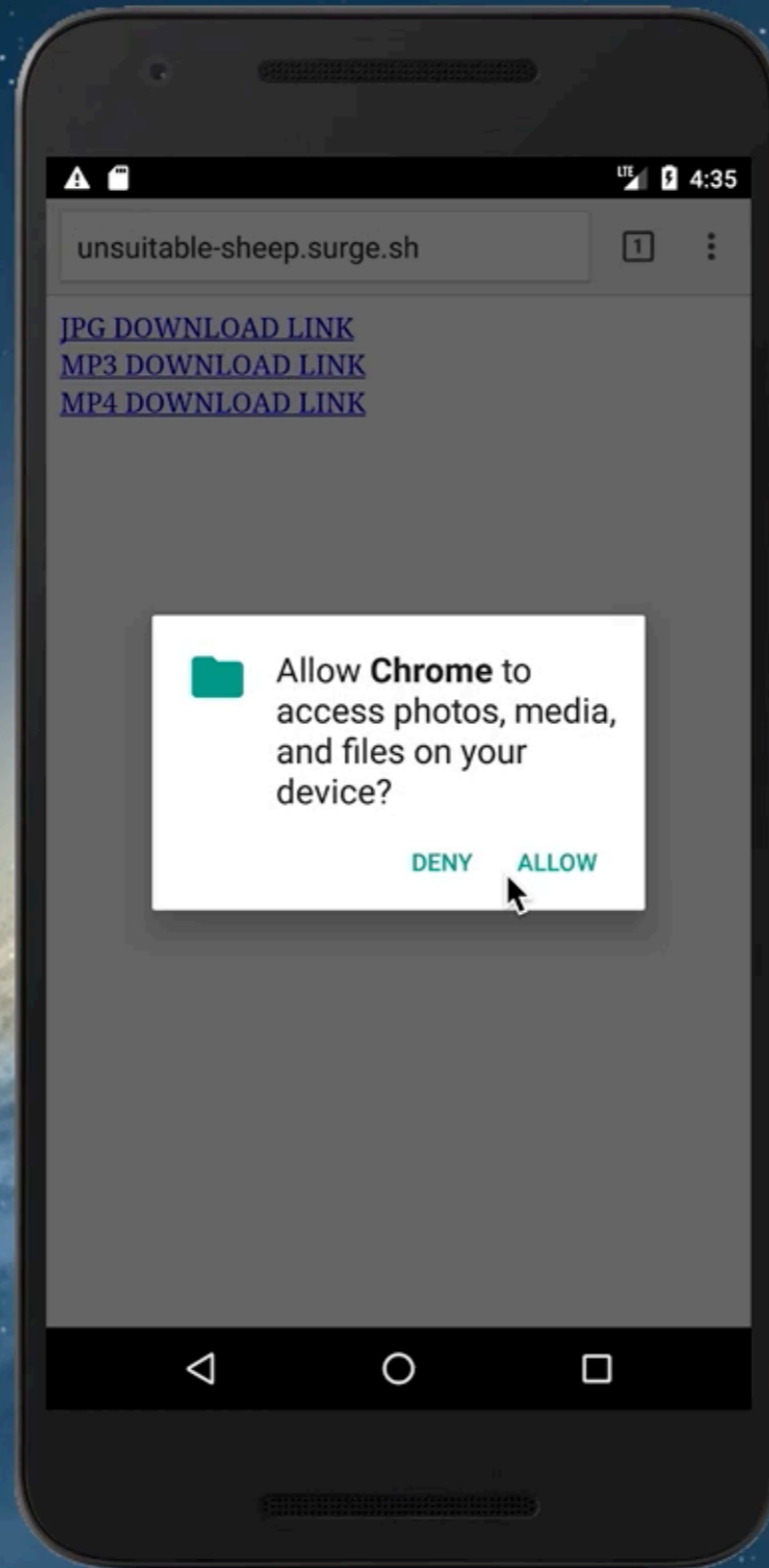
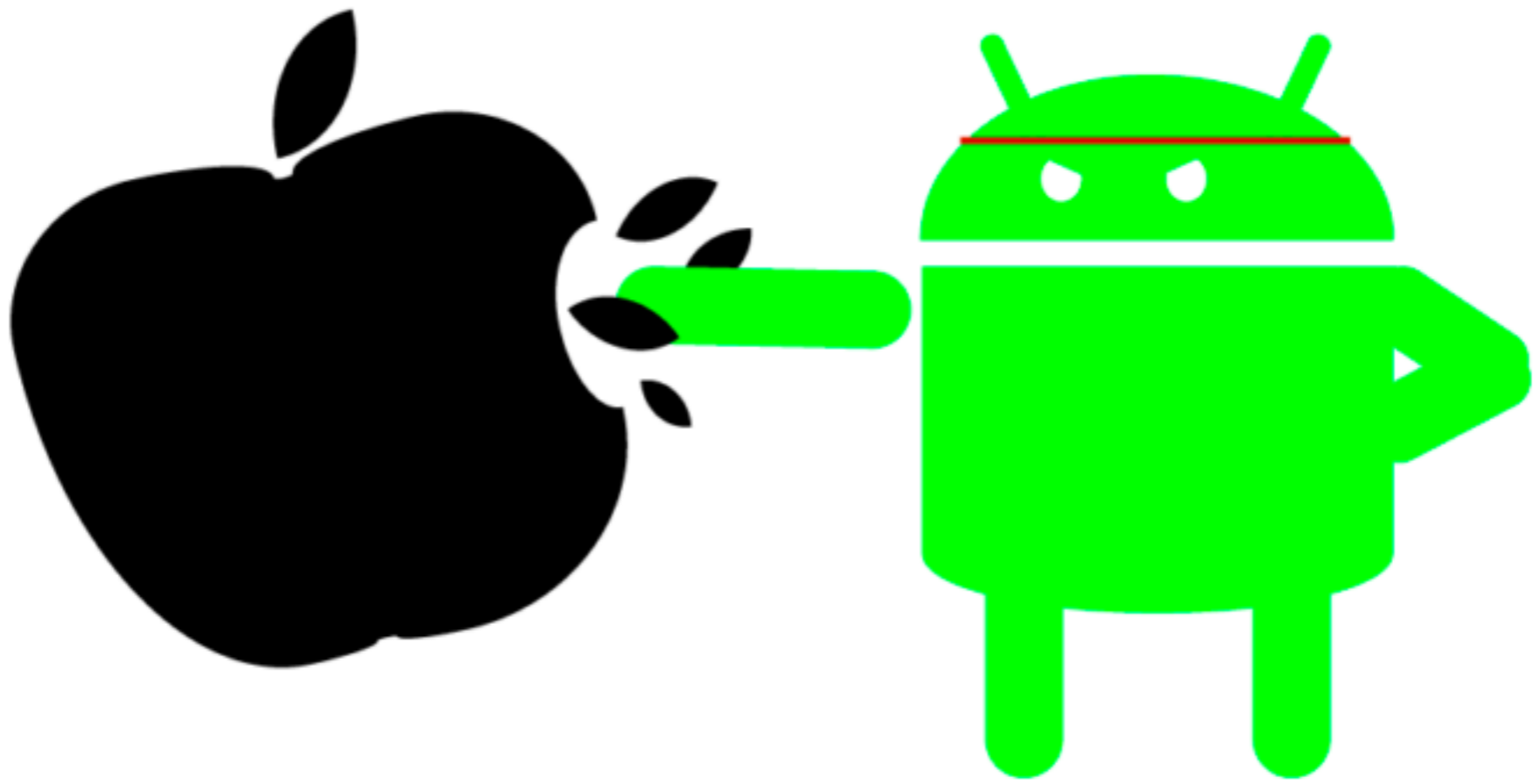


Figure 6-2. Filesystem location of key Android components







U can use **LocalStorage** to  
store file, and play ;)

# Save file ?

On Chrome, you can rely on the FileSystem API (for an intro [take a look here](#)). Probably other browsers will soon add support to it.

But, if your need is just "to store like the some simple integers" I would consider [local storage](#).

Can I use

FileSystem

? Settings

1 result found

Detected your country as "Belarus". Would you like to import usage data for that country?

Import

No thanks

## # Filesystem & FileWriter API - UNOFF

Usage % of all users

Global 63.41% + 0.03% = 63.45%

unprefixed: 0%

Method of reading and writing files to a sandboxed file system.

Current aligned | Usage relative | Date relative | Show all | ?

| IE | Edge * | Firefox | Chrome | Safari | iOS Safari * | Opera Mini * | Chrome for Android | UC Browser for Android | Samsung Internet |
|----|--------|---------|--------|--------|--------------|--------------|--------------------|------------------------|------------------|
|    |        |         | 49     |        |              |              |                    |                        |                  |
|    |        |         | 63     |        |              |              |                    |                        |                  |
|    |        |         | 67     |        |              |              |                    |                        |                  |
|    |        | 61      | 68     | 11.1   | 11.2         |              |                    |                        | 4                |
| 11 | 17     | 62      | 69     | 12     | 11.4         | all          | 69                 | 11.8                   | 7.2              |
|    | 18     | 63      | 70     | TP     | 12           |              |                    |                        |                  |
|    |        | 64      | 71     |        |              |              |                    |                        |                  |
|    |        |         | 72     |        |              |              |                    |                        |                  |

Notes | Known issues (0) | Resources (6) | Feedback

The File API: Directories and System specification is no longer being maintained and support may be dropped in future versions.

MS Edge status: **Under Consideration**

[https://github.com/ebidel/  
idb.filesystem.js/](https://github.com/ebidel/idb.filesystem.js/)


9 results found

Detected your country as "Belarus". Would you like to import usage data for that country?














[Import](#)[No thanks](#)

## # IndexedDB - REC

Method of storing data client-side, allows indexed database queries.

Usage % of all users   
Global 87.46% + 5.39% = 92.85%  
unprefixed: 87.42% + 5.24% = 92.66%

[Current aligned](#) [Usage relative](#) [Date relative](#) [Apply filters](#) [Show all](#) [?](#)

| IE   | Edge *  | Firefox   | Chrome  | Safari  | Opera   | iOS Safari *  | Opera Mini * | Android Browser * | Blackberry Browser | Opera Mobile * | Chrome for Android | Firefox for Android | IE Mobile  | UC Browser for Android | Samsu Interr |
|--|---|---|---|---|---------|---|--------------|-------------------|--------------------|----------------|--------------------|---------------------|--|------------------------|--------------|
|  |   | 2-3.6   | 4-10  |   |         |   |              |                   |                    |                |                    |                     |  |                        |              |
|  |   | 4-9    | 11-22  | 3.1-7   |         | 3.2-7.1   |              |                   |                    |                |                    |                     |  |                        |              |
| 6-9  |   | 10-15  | 23     | 7.1-9.1  | 10-12.1 | 8-9.3  |              | 2.1-4.3           |                    |                |                    |                     |  |                        |              |
|  10 |  12-16 | 16-61   | 24-69   | 10-11.1   | 15-55   | 10-11.2   |              | 4.4-4.4.4         | 7                  | 12-12.1        |                    |                     |  10 |                        | 4-6          |
|  11 |  17    | 62  | 70  | 12  | 56      | 11.4  | all          | 67                | 10                 | 46             | 69                 | 62                  |  11 | 11.8                   | 7.2          |
|  |  18    | 63-64   | 71-73   | TP  |         | 12  |              |                   |                    |                |                    |                     |  |                        |              |

[Notes](#)[Known issues \(4\)](#)[Resources \(9\)](#)[Feedback](#)

<sup>1</sup> Partial support in IE 10 & 11 refers to a number of subfeatures **not being supported**. Edge does not support IndexedDB inside blob web workers. [See issue](#)

# # IndexedDB 2.0 - CR

Usage % of all users   
 Global 77.56% + 1.62% = 79.17%

Improvements to Indexed DB, including getAll(), renaming stores and indexes, and binary keys.

Current aligned
Usage relative
Date relative
Apply filters
Show all
?

| IE   | Edge * | Firefox            | Chrome             | Safari    | Opera              | iOS Safari * | Opera Mini * | Android Browser * | Blackberry Browser | Opera Mobile * | Chrome for Android | Firefox for Android | IE Mobile | UC Browser for Android | Samsu Interr     |
|------|--------|--------------------|--------------------|-----------|--------------------|--------------|--------------|-------------------|--------------------|----------------|--------------------|---------------------|-----------|------------------------|------------------|
|      |        | 2-43               | 4-47               |           | 10-34              |              |              |                   |                    |                |                    |                     |           |                        |                  |
|      |        | <sup>1</sup> 44-46 | <sup>1</sup> 48-51 |           | <sup>1</sup> 35-38 | 3.2-9.3      |              |                   |                    |                |                    |                     |           |                        |                  |
|      |        | <sup>2</sup> 47-50 | <sup>2</sup> 52-57 | 3.1-10    | <sup>2</sup> 39-44 | 10.2         |              |                   |                    |                |                    |                     |           |                        | 4                |
| 6-10 | 12-16  | 51-61              | 58-69              | 10.1-11.1 | 45-55              | 10.3-11.2    |              | 2.1-4.4.4         | 7                  | 12-12.1        |                    |                     | 10        |                        | <sup>2</sup> 5-6 |
| 11   | 17     | 62                 | 70                 | 12        | 56                 | 11.4         | all          | 67                | 10                 | 46             | 69                 | 62                  | 11        | 11.8                   | 7.2              |
|      | 18     | 63-64              | 71-73              | TP        |                    | 12           |              |                   |                    |                |                    |                     |           |                        |                  |

- Notes
- Known issues (0)
- Resources (7)
- Feedback

# WebTorrent protocol

HTML CSS

```
1 <script
  src="https://cdn
  oudflare.com/aja
  s/webtorrent/0.1
  webtorrent.min.j
  </script>
```

JS

```
1 var client = new WebTorrent()
2
3 var torrentId = 'magnet:?
  xt=urn:btih:08ada5a7a6183aae1e09d831df6748d566095a10&dn=Sintel&tr=udp%3
  A%2F%2Fexplodie.org%3A6969&tr=udp%3A%2F%2Ftracker.coppersurfer.tk%3A696
  9&tr=udp%3A%2F%2Ftracker.empire-
  js.us%3A1337&tr=udp%3A%2F%2Ftracker.leechers-
  paradise.org%3A6969&tr=udp%3A%2F%2Ftracker.opentrackr.org%3A1337&tr=wss
  %3A%2F%2Ftracker.btorrent.xyz&tr=wss%3A%2F%2Ftracker.fastcast.nz&tr=wss
  %3A%2F%2Ftracker.openwebtorrent.com&ws=https%3A%2F%2Fwebtorrent.io%2Fto
  rrents%2F&xs=https%3A%2F%2Fwebtorrent.io%2Ftorrents%2Fsintel.torrent'
4
5 client.add(torrentId, function (torrent) {
6   // Torrents can contain many files. Let's use the .mp4 file
7   var file = torrent.files.find(function (file) {
8     return file.name.endsWith('.mp4')
9   })
10
11   // Display the file by adding it to the DOM. Supports video, audio,
  image, etc. files
12   file.appendTo('body')
13 })
```

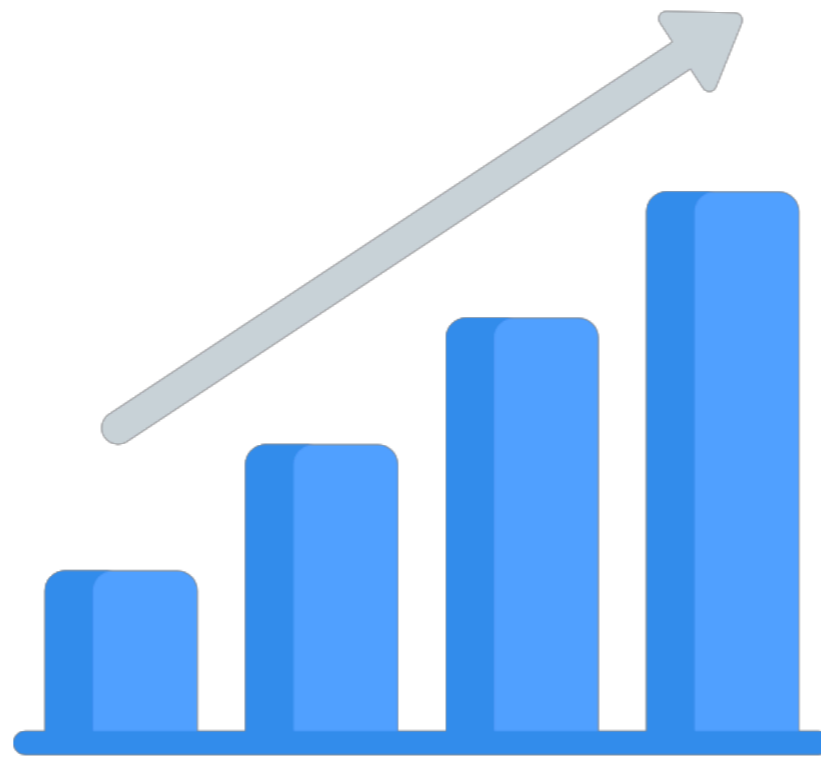


Disallow  
**to download file**  
manage files inside your app like streams



@wegorelax

Avoid  
**large files (> 500mb)**  
on client side



# > 500mb StreamSaver and ... on client side

jimmywaring / StreamSaver.js

Watch 40

Star 728

Fork 81

Code

Issues 9

Pull requests 0

Projects 0

Wiki

Insights

StreamSaver writes stream to the filesystem directly asynchronous <https://jimmywaring.github.io/Stream...>

stream

service-worker

filesaver

ram

html5

128 commits

4 branches

1 release

8 contributors

MIT

Branch: master

New pull request

Create new file

Upload files

Find file

Clone or download



petethomas and jimmywaring Replace referenceis to myFile with writer so Fetch stream example wor...

Latest commit c3ec892 on 27 Oct 2017

.editorconfig

Rename .editorconfig.js to .editorconfig

2 years ago

LICENSE

Initial commit

2 years ago

README.md

Update README.md (#56)

a year ago

StreamSaver.js

check support sw & writable

2 years ago

example.html

Replace referenceis to myFile with writer so Fetch stream example wor...

a year ago

# ID3 Writer demo with streams

Build on top of [Browser ID3 Writer](#) and [StreamSaver.js](#). Also take a look at [a demo with local files](#).

MP3 file url

Result filename

Song

Album

Other

Song title

Song artists (use char ; to separate artists)

Song composers (use char ; to separate composers)

Song genres (use char ; to separate genres)

All done

Reset form

The screenshot shows the Network tab of a browser's developer tools. The 'XHR' filter is selected, and a single request is visible in the waterfall chart. The chart shows the request starting at approximately 10000 ms and ending at 50000 ms. The status bar at the bottom indicates '0 / 13 requests | 0 B / 102 B transferred | Finish: 51.79 s | DOMContentLoaded: ...'.

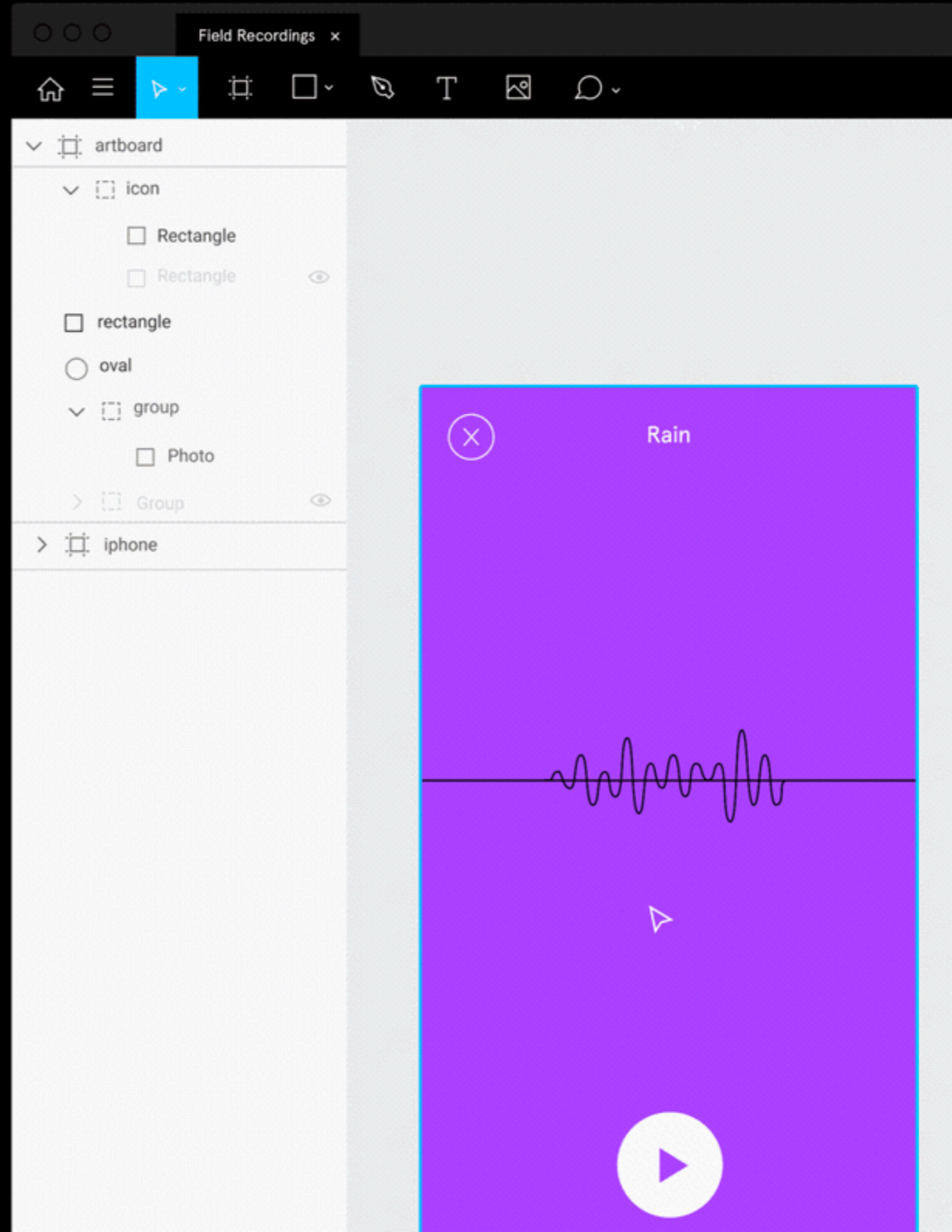
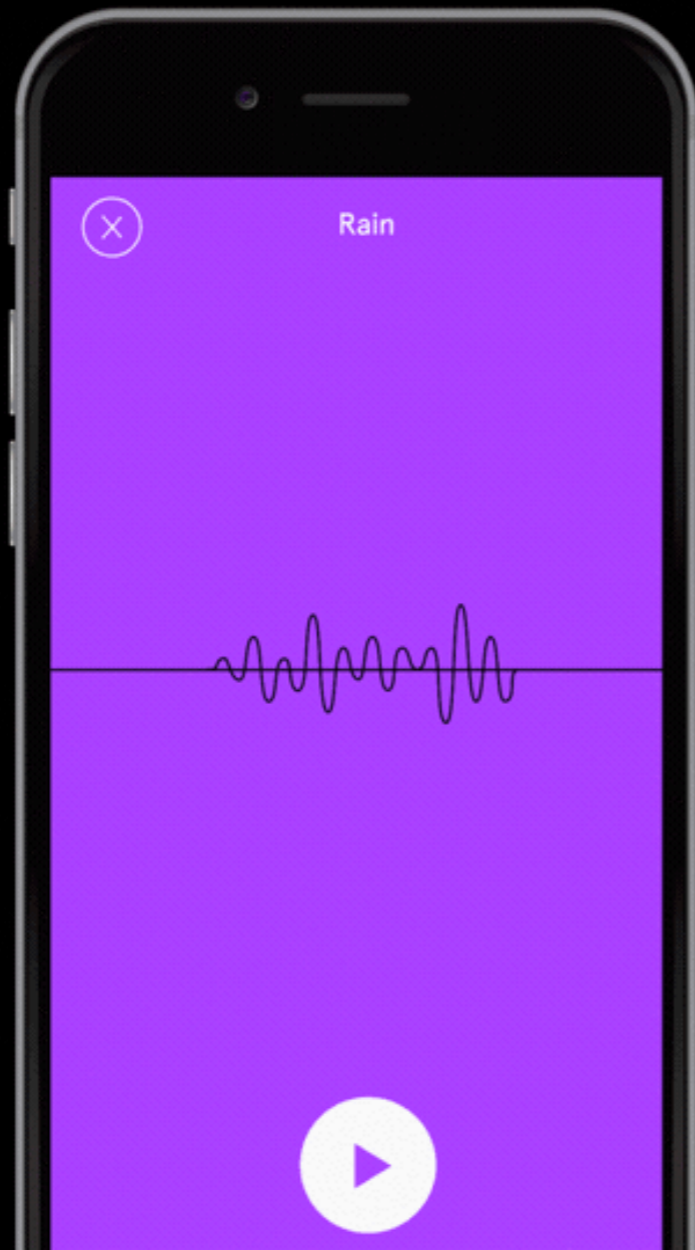
| Name | St... | Type | Ini... | Size | Ti | Waterfall |
|------|-------|------|--------|------|----|-----------|
|      |       |      |        |      |    |           |

Открывается .mp3...

Показать все

Missing

# Где и как использовать **FileSystem API?**



Can I use

File system

? Settings

1 result found

Detected your country as "Belarus". Would you like to import usage data for that country?

Import

No thanks

### # Filesystem & FileWriter API - UNOFF

Usage % of all users

Global 62.45% + 0.03% = 62.48%

unprefixed: 0%

Method of reading and writing files to a sandboxed file system.

Current aligned Usage relative Date relative Show all ?

| IE | Edge * | Firefox | Chrome | Safari | iOS Safari * | Opera Mini * | Chrome for Android | UC Browser for Android | Samsung Internet |
|----|--------|---------|--------|--------|--------------|--------------|--------------------|------------------------|------------------|
|    |        |         | 49     |        |              |              |                    |                        |                  |
|    |        |         | 63     |        |              |              |                    |                        |                  |
|    |        |         | 67     |        | 10.3         |              |                    |                        |                  |
|    |        | 61      | 68     |        | 11.2         |              |                    |                        | 4                |
| 11 | 17     | 62      | 69     | 11.1   | 11.4         | all          | 67                 | 11.8                   | 7.2              |
|    | 18     | 63      | 70     | 12     | 12           |              |                    |                        |                  |
|    |        | 64      | 71     | TP     |              |              |                    |                        |                  |
|    |        |         | 72     |        |              |              |                    |                        |                  |

Notes Known issues (0) Resources (6) Feedback

The File API: Directories and System specification is no longer being maintained and support may be dropped in future versions.



MS Edge status: Under Consideration



Как сделать свой онлайн  
конвертер?




# convert svg to png

 Select Files 



## Rasterize vector to PNG

Automatically convert scalable vector images (**EPS, SVG, and PDF**) to PNG with CloudConvert! Our conversion technology **preserves transparency** and allows to **scale lossless** the vector to any specify size. Therefore use the advanced options () and set the output resolution for the PNG file.



## Scalable Vector Graphics svg

SVG is a vector graphic image file extension that contains scalable images. This XML based file extension supports animation that can contains vector graphics, raster graphics, and text. It uses lossless data compression algorithm to contain data. It can be edited drawing software as well as text editors also.



## Portable Network Graphic png

PNG or Portable Network Graphic format is a graphic file format that uses lossless compression algorithm to store raster images. It uses 2 stage compression methods. It is frequently used as web site images rather than printing as it supports only the RGB color model. So CMYK color images cannot be saved as PNG image.

Какие сложности нас  
преследуют на сервере?

# Вообще для файлового сервера МОЖНО ИСПОЛЬЗОВАТЬ

<https://firebase.google.com/>

<https://backendless.com/pricing/backendless-cloud-pricing/>

## BACKENDLESS CLOUD FUNCTIONAL LIMITS

| Free Limit                         | Extension (Function Pack)             | Extension Price |
|------------------------------------|---------------------------------------|-----------------|
| 50 API calls/second                | additional 10 API calls/second        | \$50/month      |
| 5 custom roles                     | unlimited custom roles                | \$20/month      |
| 20 gb file storage                 | additional 20 gb                      | \$1/month       |
| 1,000,000 pub/sub messages         | additional 100,000 messages           | \$10/month      |
| 1,000,000 push notifications       | additional 100,000 push notifications | \$10/month      |
| 1 developer on the team            | unlimited team size                   | \$10/month      |
| 200 data tables                    | additional 100 tables                 | \$5/month       |
| 200,000 data objects per table     | additional 1,000,000 data objects     | \$20/month      |
| 100,000 geopoints                  | additional 100,000 geopoints          | \$1/month       |
| Location monitoring for 1 geofence | additional 5 geofences                | \$5/month       |
| 2 media streams                    | additional 10 media streams           | \$5/month       |

# Как неплохую файлопомойку МОЖНО ИСПОЛЬЗОВАТЬ



Telegram

```
const teleapi = require('teleapi');
const fs = require('fs');

const api = teleapi('telegram_bot_token');

/** Send request where `document` is stream.Readable */
api.sendDocument({
  chat_id: 0000,
  document: fs.readFile('book_from_tpb.pdf'),
});
```

**Егор Малькевич**  
@wegorelax

<https://malkevich.com>



Все ссылки тут:

<https://github.com/pirateminds/nucked-truth-of-files/blob/master/README.md>