

# RESPONSIVE IMAGES

## PROBLEMS

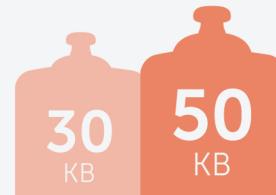
### 1 IMAGE PROPERTIES



IMAGE RESOLUTION



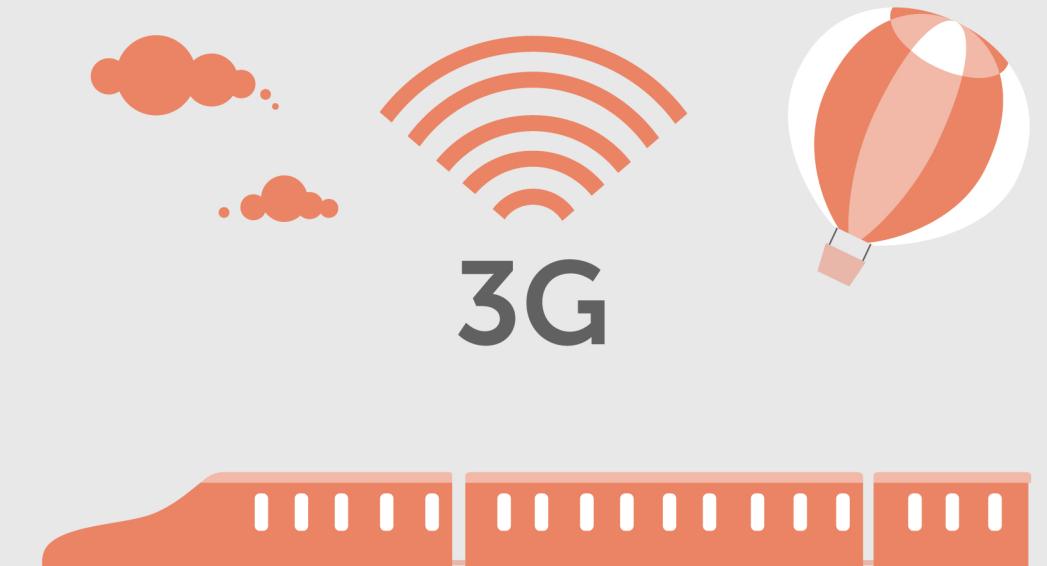
PIXEL DENSITY



FILE SIZE

How to approach the problem

### 2 DIFFERENT SPEED



BROADBAND



UNRELIABLE Wi-Fi

### 3 ARTISTIC CROPPING



## NEEDS

What we need to solve the problem

1x

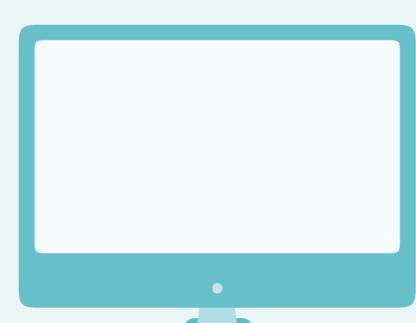
DENSITY



Galaxy Y



Surface



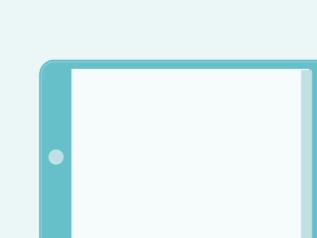
iMac

2x

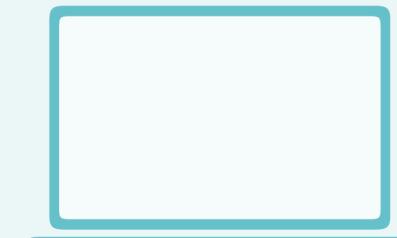
DENSITY



iPhone 5



iPad



MacBook Pro Retina

### CREATE ADAPTABLE IMAGES

A DIFFERENT IMAGES FOR EACH DEVICE

Examples of devices in use today

## SOLUTION

What we need

### CLIENT-SIDE POLIFILLS & SERVER-SIDE SOLUTIONS

THESE ARE TEMPORARY SOLUTIONS

TODAY

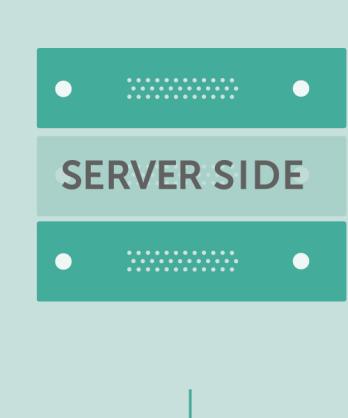


## PICTURE FILL

- PROS**
- You may choose any combination of screen density/viewport to load a specific image.
  - Light and not jQuery dependant.
  - Fallback if JS is not present.
  - Only loads the requested image.
- CONS**
- May be hard for Google to index the image.
  - No bandwidth detection.
  - It requires a lot of markup editing.

## HISRC

- PROS**
- Loads image based on bandwidth.
  - Uses simple ATTR property.
  - Simple to set up.
- CONS**
- Needs jQuery.
  - Bandwidth is not always easy to detect.
  - A speed test is required to detect bandwidth which affects performance.
  - At high speeds it loads an initial image and then the requested image.



## ADAPTIVE IMAGE

- PROS**
- No markup changes needed.
  - Device agnostic.
  - Powerful customizations
- CONS**
- It requires Apache 2 web server, PHP 5.x and the GD library - not an issue with most servers.
  - The setup could be complicated requiring .htaccess editing, adding JS, and changing PHP variables.
  - Artistic direction cropping.
  - Bandwidth detection.
  - Retina support.
  - Image cache system.



## RESPONSIVE.IO / RESRC.IT

- PROS**
- Easy to install.
  - Progressive JPG compression, WebP.
  - Easy to maintain images. Don't rely on pre-defined breakpoints.
  - Artistic direction cropping.
  - Bandwidth detection.
  - Retina support.
  - Image cache system.
- CONS**
- Third-party dependency.
  - Not free.

FUTURE



PICTURE ELEMENT &lt;picture&gt; ↔ SRCSET ATTRIBUTE

responsiveimages.org

MORE INTERESTING SOLUTIONS FOR RESPONSIVE IMAGES

THUMBR.IO / MOBIFY.JS / CLOWN CAR TECHNIQUE / SENCHA.IO 7 FORESIGHT.JS