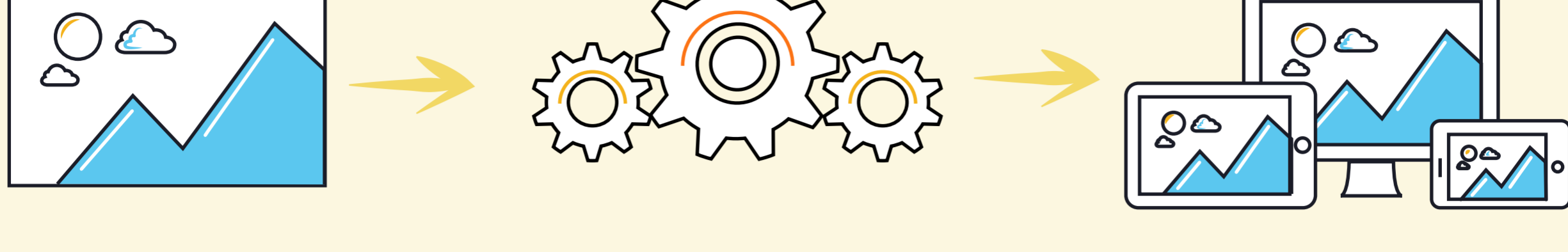


# 2 WAYS TO CREATE OPTIMIZED IMAGES



## WHAT IS IMAGE OPTIMIZATION?

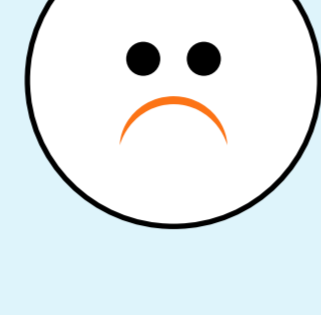
Image optimization means delivering images that maintain visual quality with the smallest possible file size across all channels.



## WHY OPTIMIZATION MATTERS

**Large Image Files Can Take Forever To Load.**

When that happens, poor web page load times negatively impact:



User Engagement



Conversion Rates



SEO Rankings

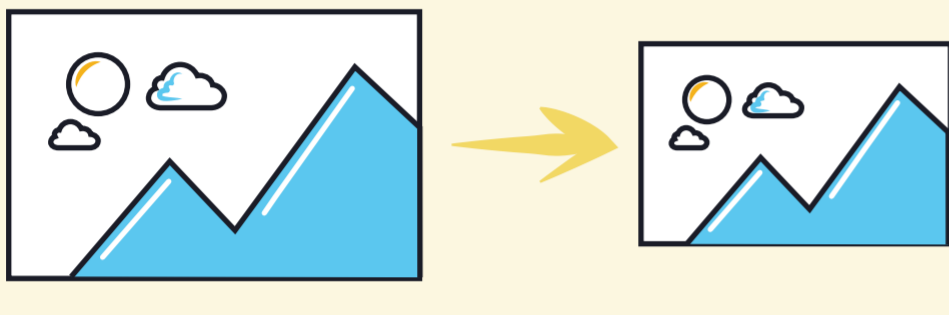
## HOW TO OPTIMIZE IMAGES

**There are two factors to consider when looking to reduce image file size.**

$$\text{File Size} = \text{Pixels} \times \left\{ \frac{\text{Bytes}}{\text{Pixel}} \right\}$$

### Reduce Total Pixels

Reducing the total number of pixels is done by delivering the image at smaller dimensions.



630 x 412

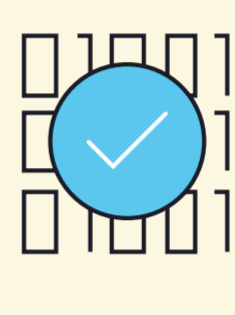
400 x 240

### Reduce Bytes Per Pixel

The number of bytes per pixel can be reduced by making adjustments to:



Quality Settings



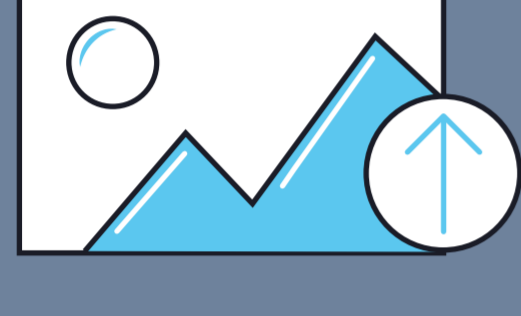
Encoding Settings



Image Formats

## WITH/WITHOUT CLOUDINARY

### Image Optimization WITHOUT Cloudinary



1 Upload Image

2 Manually Resize and Crop Image to Fit Multiple Resolutions



3 Save Each Resized and Cropped Version as Its Own File

4 Transcode Those Multiple Variants into Different Formats



5 Adjust Image Quality to Reduce File Size

6 Implement Backend Logic to Assign the Right Image Version to the Right End User, Based on Device, Screen Size, Browser, etc.



7 Deliver the Image to the End User

8 Repeat Steps 1-7 for EVERY SINGLE IMAGE.



### WITH Cloudinary

1 Upload Image to Cloudinary®



2 Apply A Few Simple Commands to the URL to Automatically Optimize and Resize Your Images.



**f\_auto** will select the best format based on the most efficient delivery to the end user's browser



**g\_auto** provides automatic content-aware cropping, when combined with w\_auto and dpr\_auto provides responsive images



**q\_auto** will automatically detect and select the most effective quality and encoding settings without effecting visual perception.

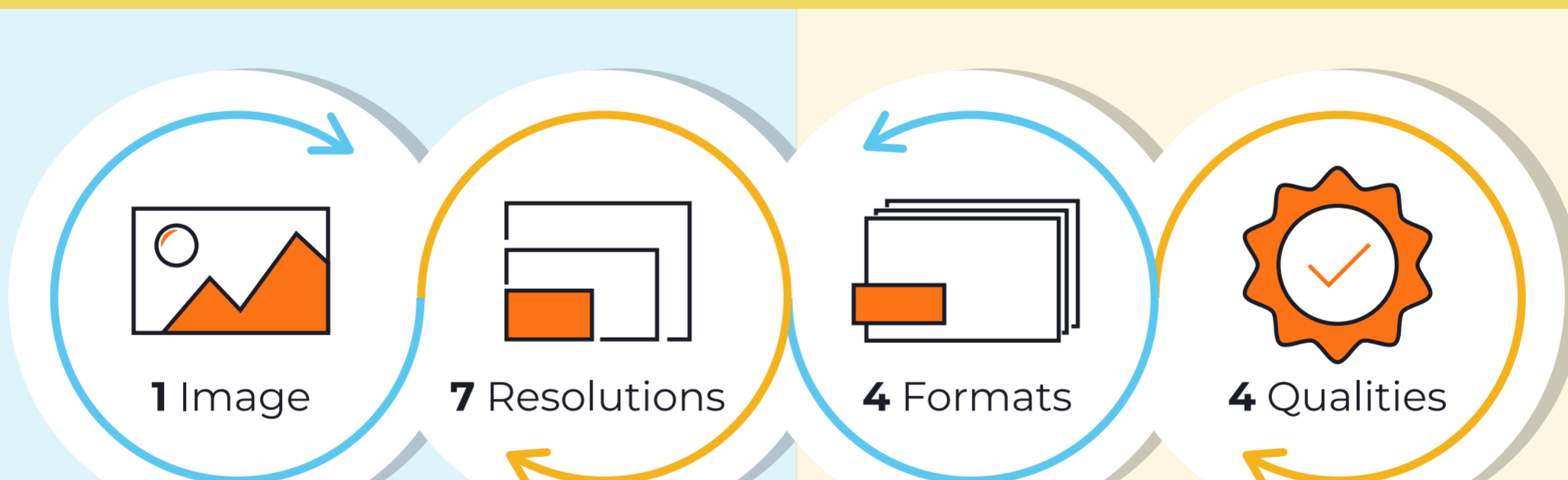
3 Dynamically Deliver the Image to the End User with the Most Efficient Resolution, Format, and Quality via [www.cloudinary.com](http://www.cloudinary.com)



Take a Break! You've Earned it!



## TOTAL TIME REQUIRED TO OPTIMIZE A SINGLE IMAGE



(1 min. per parameter)

$$1 \times 7 \times 4 \times 4 = 112 \text{ min.}$$



300x Faster

$$1 \times 20 = 20 \text{ seconds}$$

All of the optimizations you need, **Created Automatically & Dynamically**, delivered to your end users for an optimal experience.

[www.cloudinary.com](http://www.cloudinary.com)



For even **Greater Speed**, you can leverage Cloudinary's robust APIs to upload high volumes of images in a matter of seconds.

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Over **700M** Weekly Asset Transformations

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