

# AMP - Accelerated Mobile Pages

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# 1 Preface

We know the matter about User Experience: Who ever complained about a train late? and who ever complained about a web page loading time and, eventually, left it due to a long wait?

Today we want all "hic et nunc", instantly.

Many big Web Agencies took action to solve this problem and reduce the load time of a web page. Different approaches could be found: low level or high level approach.

## 1.1 Approaches

- Low level
  - Google SPDY  
<https://developers.google.com/speed/spdy/>
  - HTTP/2.0
- High level
  - Polaris (MIT)
  - Facebook Instant Articles (Facebook)
  - Apple News Format (Apple)
  - AMP (Google)

## 1.2 Google AMP

It's a project started in 2016 by Google which promote a fast load of a web page visited on mobile. AMP grows on three base components:

### 1.2.1 AMP HTML

- Some deprecated html tags in AMP
  - `<base >`
  - `<frame >`
  - `<frameset >`
  - `<object >`
  - `<param >`
  - `<applet >`
  - `<embed >`
  - `<form >`Support coming in the future.
  - `<input >`
  - `<script >`
- Replaced html tags in AMP
  - `<img >`->amp-img
  - `<audio >`->amp-audio
  - `<video >`->amp-video
  - `<iframe >`->amp-iframe
- Granted html tags in AMP
  - `<button >`
  - `<style >`
  - `<link >`Support coming in the future.
  - `<meta >`
  - `<a >`
  - `<svg >`

### 1.2.2 AMP JS (AMP core)

AMP allows only asynchronous script. The Idea is not no Javascript, the idea is "Good user experience". Javascript code could have unpredictable behaviour and in such way you avoid late page rendering and do not block DOM construction.

In the next future Javascript will be allowed on AMP pages (announced in February at AMP Conf 2018) through the use of Web Workers (which can't touch the DOM by default).

### 1.2.3 Google AMP Cache

Google AMP employ a proxy system to cache contents and preload pages before their will be queried.

## 1.3 Validation

Another important AMP feature is validation system, which verifies the compliance of an AMP page according to the language specifics.

## 1.4 Some critics about AMP

### 1.4.1 SEO

Many sites which use AMP criticized it due to its behaviour that take away visitors from their environment. The Google AMP Cache serves an AMP page from its proxies, for this reason the content comes from the address `google.com/amp/www.example.com/...`. In this way `example.com` miss visits. Google was named "The Puppet Master of the web", it redirect a user to a different address from the url he/she think is visiting.

### 1.4.2 Security

At the end of the summer in 2017 a Phishing attack was performed to Gmail users through Google AMP Cache. The reason of the attack was AMP cache serves an url in a different look from the real one. The url served has a structure as `https://google.com/amp/www.example.com`. By clicking "Change Password" in a received mail, that alerts the user about his/her password theft, the user is redirected to an AMP page. The user trusts the mail because of its url, that starts by `google.com` without looking for the remaining part of the address: `google.com/amp/www.example.com/steal-password/`

## 2 References

- <https://ampbyexample.com/>
- [https://www.ampproject.org/it/docs/media/amp\\_replacements](https://www.ampproject.org/it/docs/media/amp_replacements)
- <https://www.ampproject.org/it/learn/about-how/>
- <http://www.wired.com/2016/02/googles-amp-speeding-web-changing-works/>
- How AMP pages are cached
- <https://techcrunch.com/2018/03/08/google-promises-publishers-an-alternative-to-amp/>
- [https://www.theregister.co.uk/2017/05/19/open\\_source\\_insider\\_google\\_amp\\_bad\\_bad\\_bad/](https://www.theregister.co.uk/2017/05/19/open_source_insider_google_amp_bad_bad_bad/)
- <https://www.ampproject.org/docs/fundamentals/convert/resolving-errors>
- [https://www.ampproject.org/docs/fundamentals/how\\_cached](https://www.ampproject.org/docs/fundamentals/how_cached)
- AMP Conf 2018

- <https://www.theverge.com/2018/3/8/17095078/google-amp-accelerated-mobile-page-announcement-standard-web-packaging-urls>

### 3 License

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Sources on <https://github.com/esalvucci/AMP-talk>