

Mengoptimalkan Kecepatan Situs Untuk Google Search

Yohan Totting

Developer Advocate @tyohan





Konten Berkualitas



Search Friendly



Mobile Friendly



Cepat



Aman



Terstruktur

Google & Page speed

Kecepatan laman digunakan dalam peringkat penelusuran seluler



g.co/WebmasterID/speed

The smartphone screen shows a mobile version of the Google Webmaster Central blog. The title of the post is "Menggunakan kecepatan laman dalam peringkat penelusuran seluler". Below the title, it says "Senin, 29 Januari 2018". A note at the bottom left states "Update 9 Juli 2018: Speed Update telah diluncurkan untuk semua pengguna." The main text discusses how page speed has been used in mobile search rankings since July 2018.

Google Blog Resmi Webmaster Google

Blog dan informasi resmi mengenai perayapan dan pengindeksan, alat webmaster Google dan juga tips webmaster lainnya.

Menggunakan kecepatan laman dalam peringkat penelusuran seluler

Senin, 29 Januari 2018

Update 9 Juli 2018: Speed Update telah diluncurkan untuk semua pengguna.

Banyak orang ingin mendapatkan jawaban atas pertanyaan mereka secepat mungkin – studi menunjukkan bahwa banyak orang menyukai halaman yang dimuat dengan cepat. Meskipun kecepatan telah digunakan dalam peringkat selama beberapa waktu, sinyal tersebut berfokus pada penelusuran desktop. Saat ini, kami mengumumkan bahwa mulai Juli 2018, page speed akan menjadi faktor peringkat untuk penelusuran seluler.

"Speed Update", begitulah kami menyebutnya, hanya akan memengaruhi halaman yang dimuat paling lambat bagi pengguna, dan hanya akan memengaruhi sebagian kecil kueri. Perubahan ini memperbaiki standar yang sama untuk semua halaman terlalu

Google

Cepat itu seperti apa?



Ngeload ga sih???

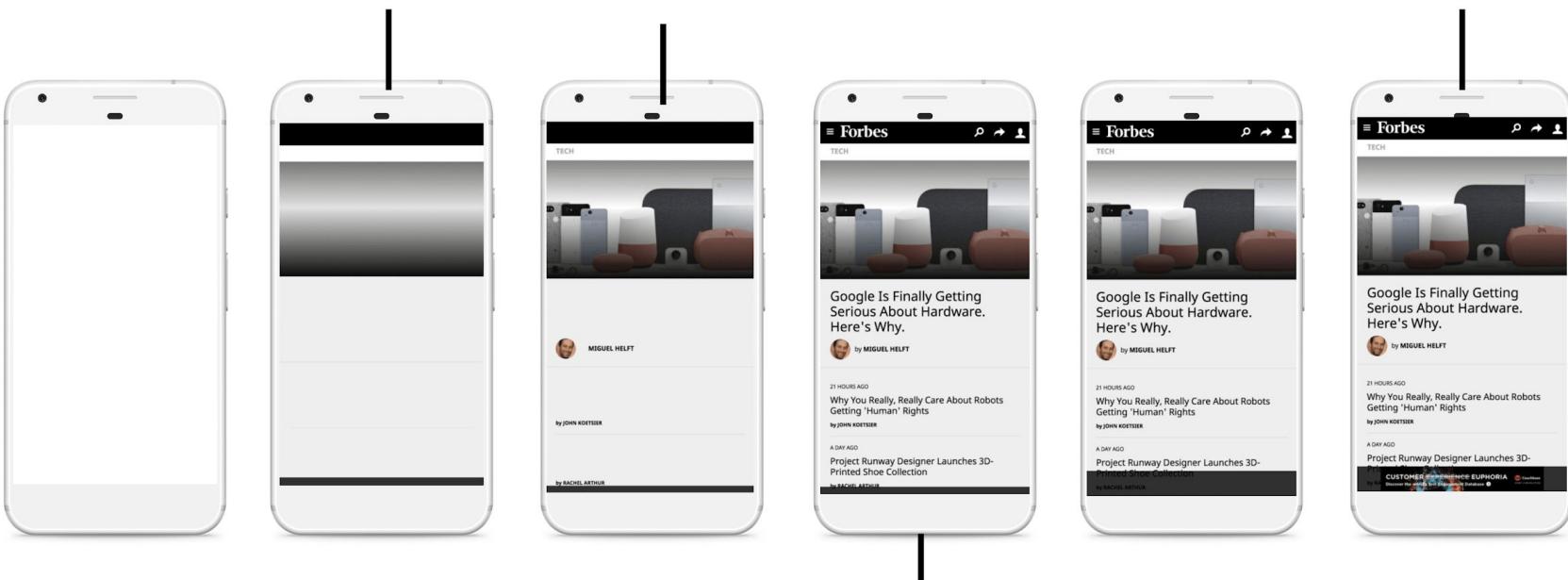
Nah itu dia

Bisa dipakai

First Paint

First Contentful Paint

Time To Interactive



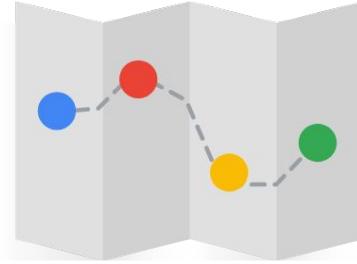
First Meaningful Paint

Bagaimana
mengukurnya?



Field
Data

VS



Lab
Data



PageSpeed Insight

developers.google.com/speed/pagespeed/insights/



<https://edition.cnn.com/>

The [speed score](#) is based on the lab data analyzed by [Lighthouse](#).

Analysis time: 12/13/2018, 10:50:46 AM

Scale: █ 90-100 (fast) █ 50-89 (average) █ 0-49 (slow)



Field Data

Over the last 30 days, the field data shows that this page has a **Slow** speed compared to other pages in the [Chrome User Experience Report](#). We are showing the [90th percentile of FCP](#) and the [95th percentile of FID](#).

First Contentful Paint (FCP)

7.4 s ⚠

1%

32%

67%

First Input Delay (FID)

507 ms ⚠

68%

22%

11%



Show Origin Summary





Field Data — Over the last 30 days, the field data shows that this page has a **Slow** speed compared to other pages in the [Chrome User Experience Report](#). We are showing the **90th percentile of FCP** and the **95th percentile of FID**.

▲ First Contentful Paint (FCP) **6.6 s**

2% 42% 57%

▲ First Input Delay (FID) **891 ms**

58% 23% 20%

Show Origin Summary

Lab Data



▲ First Contentful Paint **8.5 s**

▲ First Meaningful Paint **9.5 s**

▲ Speed Index **21.8 s**

▲ First CPU Idle **35.7 s**

▲ Time to Interactive **38.0 s**

▲ Max Potential First Input Delay **1,460 ms**



The screenshot shows a mobile web browser displaying the CNN website. The main headline reads "Debate winners and losers" with a subtitle "DEMOCRATIC PRESIDENTIAL DEBATE". Below the headline, there's a video player showing a group of people on a stage. To the left of the video, there's a red "ANALYSIS" button. On the right, there are links to "Best and worst performances from the second debate", "5 takeaways from the Democratic debate", "Opinion: Biden got the memo, his challengers didn't", "Kamala Harris accuses Tulsi Gabbard of being Assad 'apologist'", and "Watch the full debate". At the bottom, there's a "Top stories" section.



Field Data — Over the last 30 days, the field data shows that this page has a **Slow** speed compared to other pages in the [Chrome User Experience Report](#). We are showing the **90th percentile of FCP** and the **95th percentile of FID**.

▲ First Contentful Paint (FCP) 6.6 s

2% 42% 57%

▲ First Input Delay (FID) 891 ms

58% 23% 20%

Show Origin Summary

Origin Summary — All pages served from this origin have a **Slow** speed compared to other pages in the [Chrome User Experience Report](#) over the last 30 days. To view suggestions tailored to each page, analyze individual page URLs.

▲ First Contentful Paint (FCP) 6.3 s

13% 40% 47%

▲ First Input Delay (FID) 893 ms

59% 22% 19%





<https://edition.cnn.com/>

The [speed score](#) is based on the lab data analyzed by [Lighthouse](#).

Analysis time: 12/13/2018, 10:50:46 AM

Scale: █ 90-100 (fast) █ 50-89 (average) █ 0-49 (slow)



Field Data

Over the last 30 days, the field data shows that this page has a **Slow** speed compared to other pages in the [Chrome User Experience Report](#). It is in the 3rd percentile of FID.

First Contentful Paint (FCP)

7.4 s ▲



[Show Origin Summary](#)

First Input Delay (FID)

507 ms ▲



First Contentful Paint (FCP)

7.4 s ▲

1%

32%

67%



Cepat (<1 detik)



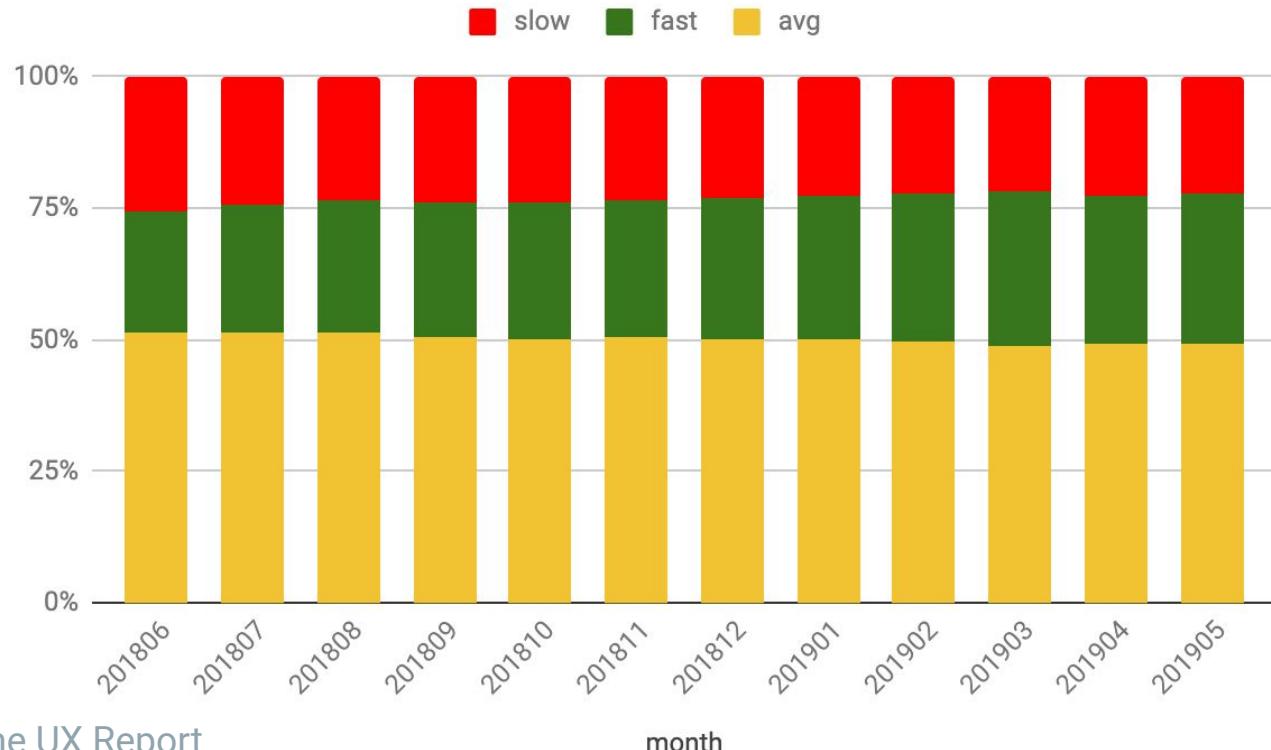
Rata-rata (1-2,5 detik)



Lambat (> 2,5 detik)

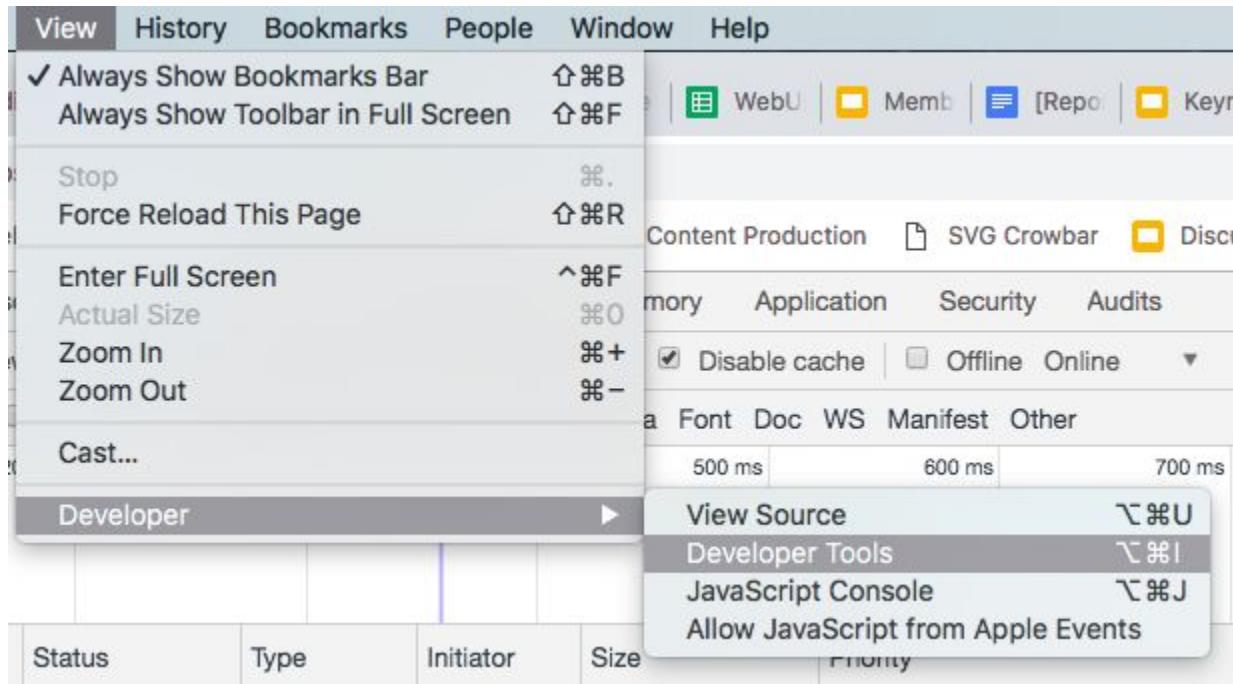
Bagaimana memperbaiki
First Contentful Paint(FCP)

First Contentful Paint (FCP) Situs Indonesia



Sumber: Chrome UX Report

Gunakan Chrome DevTools untuk memeriksa menggunakan Lighthouse



Elements Console Sources Network Performance Memory Application Security **Audits** ⚠ 1 ⋮ X

+ (new audit)



Audits

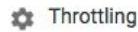
Identify and fix common problems that affect your site's performance, accessibility, and user experience. [Learn more](#)



- Mobile
 Desktop



- Performance
 Progressive Web App
 Best practices
 Accessibility
 SEO



- Simulated Fast 3G, 4x CPU Slowdown
 Applied Fast 3G, 4x CPU Slowdown
 No throttling

- Clear storage

Run audits

2:19:16 PM - webunconfid.ww ▾



Performance



Progressive Web App



Accessibility



Best Practices



SEO

Score scale: 0-44 45-74 75-100

Performance

Metrics

First Contentful Paint

1,850 ms ✓

97

First Meaningful Paint

1,850 ms ✓

Speed Index

2,410 ms ✓

First CPU Idle

1,850 ms ✓

Time to Interactive

3,070 ms ✓

Estimated Input Latency

13 ms ✓

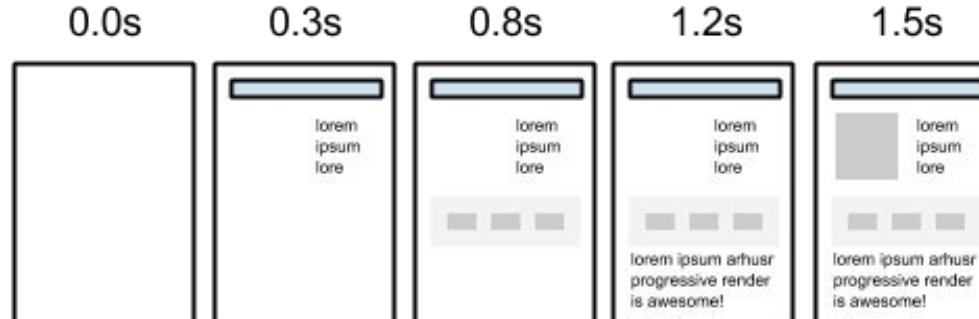
[View Trace](#)

Values are estimated and may vary.



Proses Memuat Halaman Yang Optimal

Optimal (Tampilan dimuat progresif)



Tidak Optimal

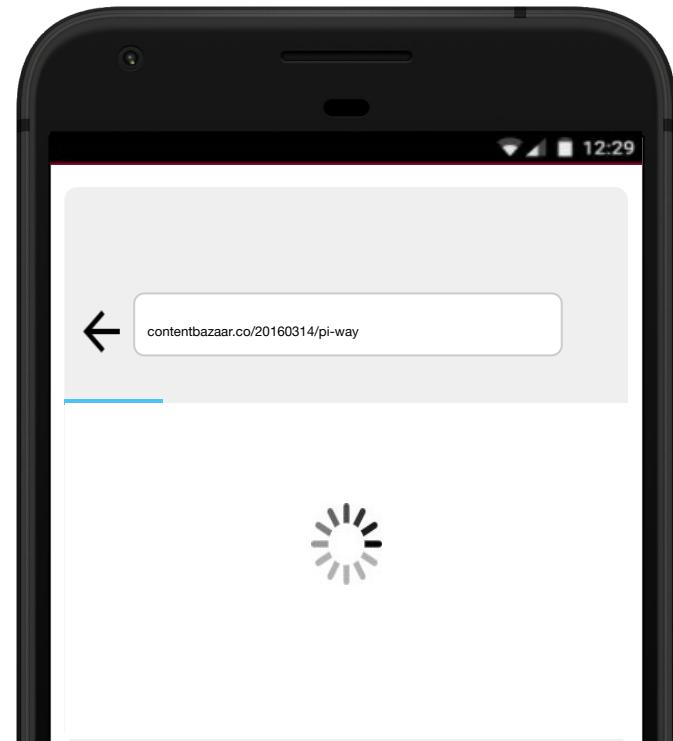


Ngeload ga sih???



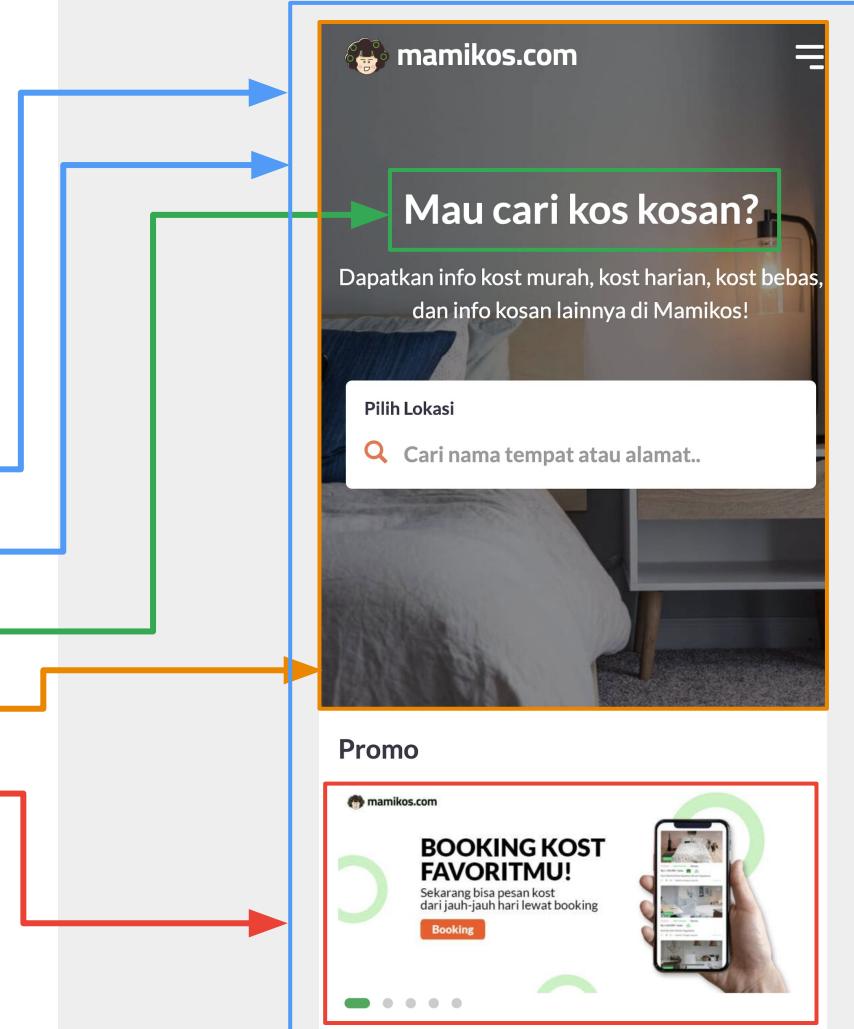
Penyebab Render Blocking

- Ada tag `<script>` di `<head></head>` tanpa atribut **async** atau **defer**
- Ada tag `<link rel="stylesheet">` tanpa atribut **media** sesuai perangkat pengakses
- Ada `<link rel="import">` tanpa atribut **async**



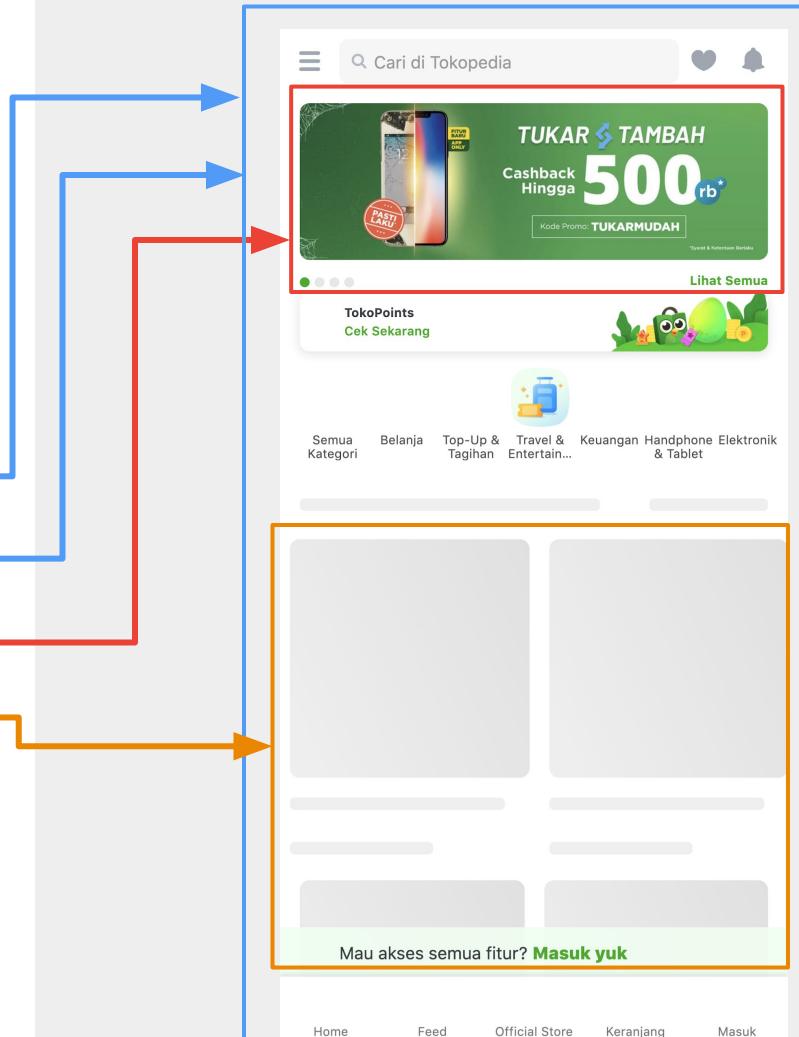
Prioritas asset untuk menampilkan halaman

1. HTML
2. CSS
3. Custom fonts
4. Background image
5. Carousel images



Prioritas aset untuk menampilkan halaman

1. HTML
2. CSS
3. Carousel images
4. Content placeholder



Rekomendasi Lighthouse Untuk Aset Penting

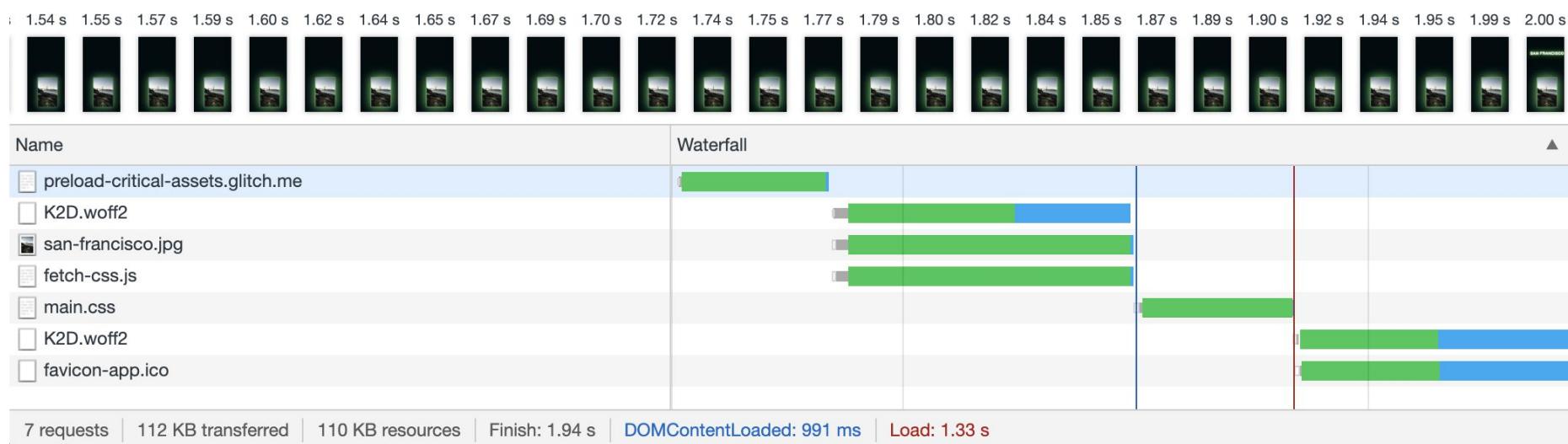
- 1 Preload key requests 0.54 s 

Consider using <link rel=preload> to prioritize fetching late-discovered resources sooner. [Learn more.](#)

URL	Potential Savings
/main.css (preload-critical-assets.glitch.me)	540 ms



Gunakan network panel di Chrome Dev Tool



Periksa bagaimana setiap asset dimuat dan pastikan asset utama bisa dimuat secara paralel.

Hati-hati dengan asset yang memuat asset lain

```
└─ / (initial HTML file)
    └─ fetch-css.js
        └─ main.css
            └─ K2D.woff2
```

Gunakan preload untuk memuat asset secara paralel

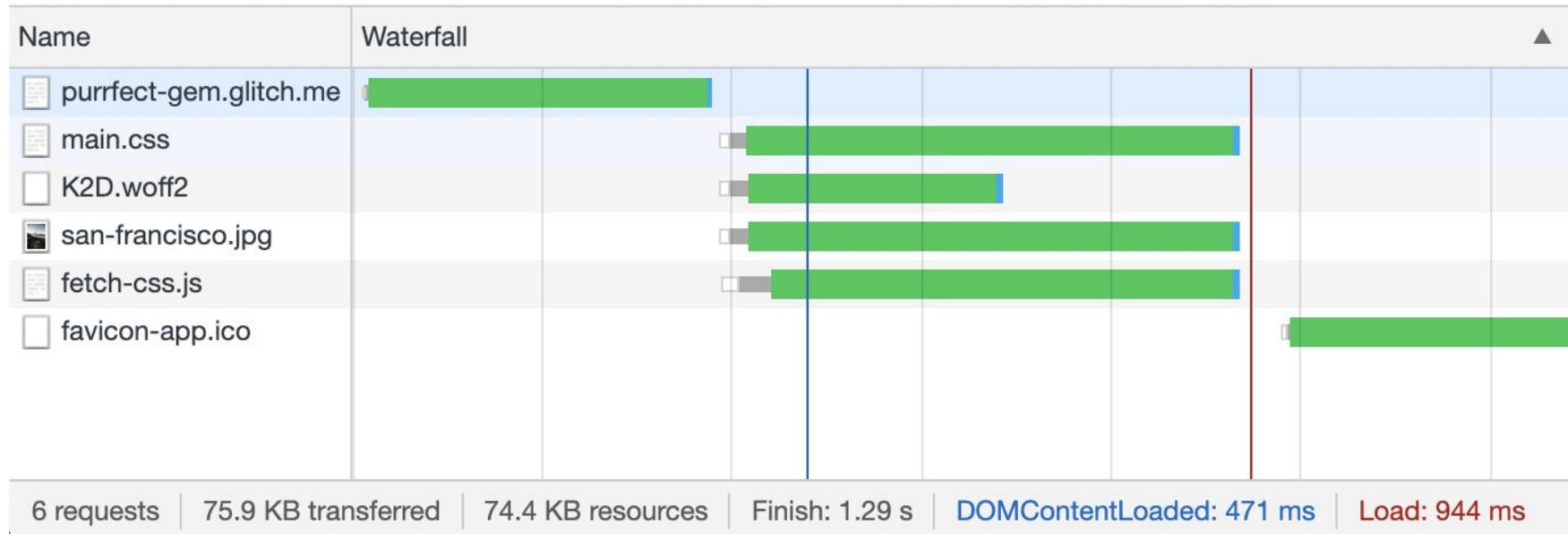
```
<head>
```

```
...|  
<link rel="preload" href="main.css" as="style">  
<link rel="stylesheet" href="main.css">  
<link rel="preload" href="fonts/K2D.woff2" as="font" crossorigin>  
<link rel="preload" href="images/san-francisco.jpg" as="image">  
<script async type="text/javascript" src="fetch-css.js"></script>  
</head>
```

Pastikan gunakan async atau defer di tag script

```
<head>
...
<script async type="text/javascript" src="fetch-css.js"></script>
<script defer type="text/javascript" src="jquery.js"></script>
<script defer type="text/javascript" src="jquery.plugins.js"></script>
</head>
```

Aset dimuat paralel setelah optimasi



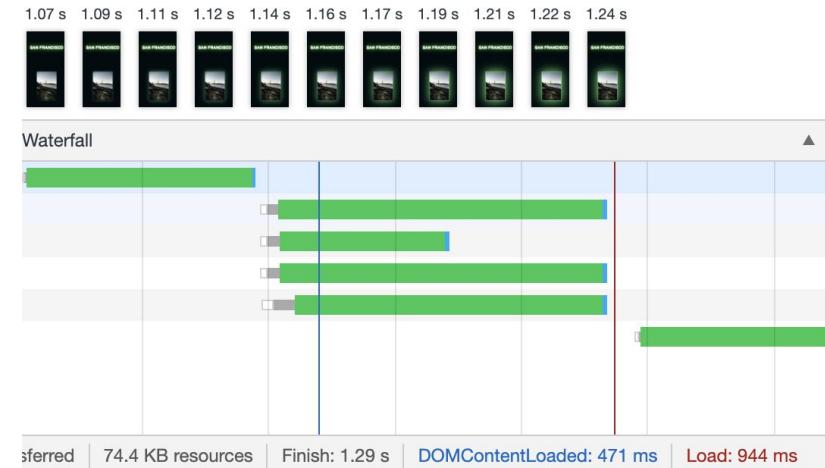
Hasil Optimasi

Sebelum



2 detik

Sesudah



1.2 detik

Rekomendasi Lighthouse untuk fonts



- ▼ Avoid invisible text while webfonts are loading



Leverage the font-display CSS feature to ensure text is user-visible while webfonts are loading. [Learn more.](#)

▼ View Details

Font URL	Font download time
...teko-v7-latin/teko-v7-latin-regular.woff2 (oodle-demo.firebaseio...	947 ms
...montserrat-v12-latin/montserrat-v12-latin-regular.woff2 (oodle-de...	1,128 ms
...teko-v7-latin/teko-v7-latin-300.woff2 (oodle-demo.firebaseio...	786 ms
...montserrat-v12-latin/montserrat-v12-latin-600.woff2 (oodle-de...	859 ms

Hati-hati dengan custom font di CSS

```
@font-face {  
    font-family: 'Arvo';  
    font-display: auto;  
    src: local('Arvo'),  
        url(https://fonts.gstatic.com/s/arvo/v9/rC7kKhY-eUDY-ucISTIf5PesZW2x0Q-xsNq047m55DA.woff2)  
        format('woff2');  
}
```

Bagaimana Browsers Menampilkan Font



Tunggu 3 detik
dan gunakan font
lokal bila belum
siap. Ganti ke
custom font kalau
sudah siap.



Tunggu 3 detik
dan gunakan font
lokal bila belum
siap. Ganti ke
custom font kalau
sudah siap.



Tunggu 3 detik
dan gunakan font
lokal bila belum
siap. Ganti ke
custom font kalau
sudah siap.



Tidak
menampilkan teks
sampai custom
font siap

CSS Font Display di Chrome

font-display: swap

font-display: swap
font-display: optional
font-display: fallback

font-display: auto
font-display: block
font-display: swap
font-display: optional
font-display: fallback

Demo

RUN DEMO

Very slow font (4s server delay)

0.0 s

Medium slow font (2s server delay)

Fast font (0s server delay)



Google Fonts

`fonts.googleapis.com/css?family=Lobster
&font-display=swap`

Gunakan font-display swap untuk fonts

```
@font-face {  
    font-family: 'Arvo';  
    font-display: swap;  
    src: local('Arvo'),  
    url(https://fonts.gstatic.com/s/arvo/v9/rC7kKhY-eUDY-ucISTIf5PesZW2x0Q-xsNq047m55DA.woff2)  
    format('woff2');  
}
```

Audit Gambar Lighthouse



▼ Optimize images

 700 ms
127 KB

Optimized images load faster and consume less cellular data. [Learn more.](#)

▼ Properly size images

 2,850 ms
522 KB

Serve images that are appropriately-sized to save cellular data and improve load time. [Learn more.](#)

▼ Serve images in next-gen formats

 4,340 ms
794 KB

Image formats like JPEG 2000, JPEG XR, and WebP often provide better compression than PNG or JPEG, which means faster downloads and less data consumption. [Learn more.](#)

Audit Gambar Lighthouse

▼ Optimize images

Optimized images load faster and consume less cellular data. [Learn more.](#)

700 ms
127 KB

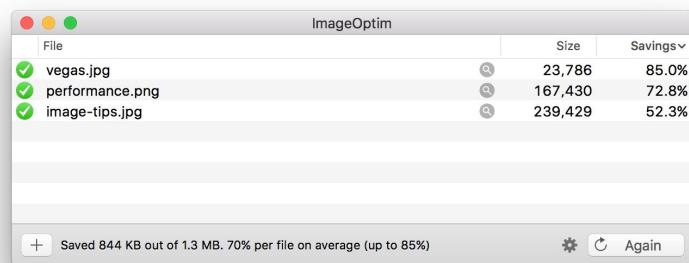


▼ Properly size images

2,850 ms
522 KB

Serve images that are appropriately-sized to save cellular data and improve load time. [Learn more.](#)

Tool Optimasi Gambar



GUI

ImageOptim (Mac)
XNConvert (Cross-platform)

CDN
Cloudinary
Imgix
Fastly
Akamai

Bikin sendiri
CDN
Thumbror
ImageFlow

Gunakan
dalam proses
build

imagemin
libvips

Carousels Sering Memuat Gambar Yang Tidak Perlu



► Offscreen images

1,970 ms
357 KB

Gambar di-load
walaupun tidak terlihat
di layar



► Offscreen images



Lazy-loading dengan JS

Common

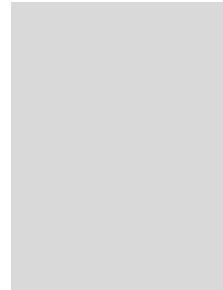
```
  

```

Progressive image loading



Solid Color



LQIP (Low-quality placeholder)



1KB



13KB



Ukuran gambar melebihi ukuran layar



▼ Properly size images

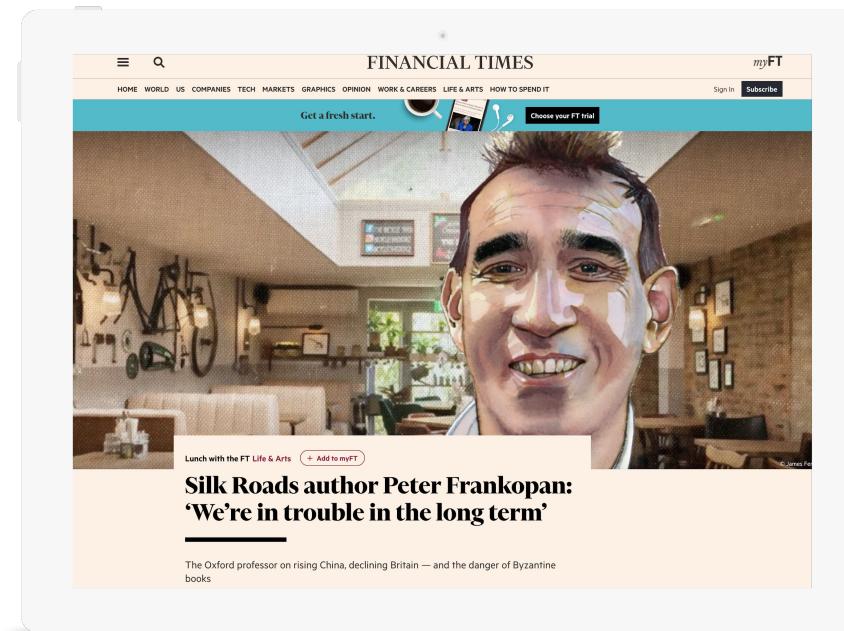
Serve images that are appropriately-sized to save cellular data and improve load time. [Learn more.](#)

2,850 ms
522 KB

File gambar desktop bisa ~2-4x lebih besar dari versi mobile



VS.



101 KB

299 KB

Responsive Images

By width

```

```

Width descriptor

w ≈ px

By density

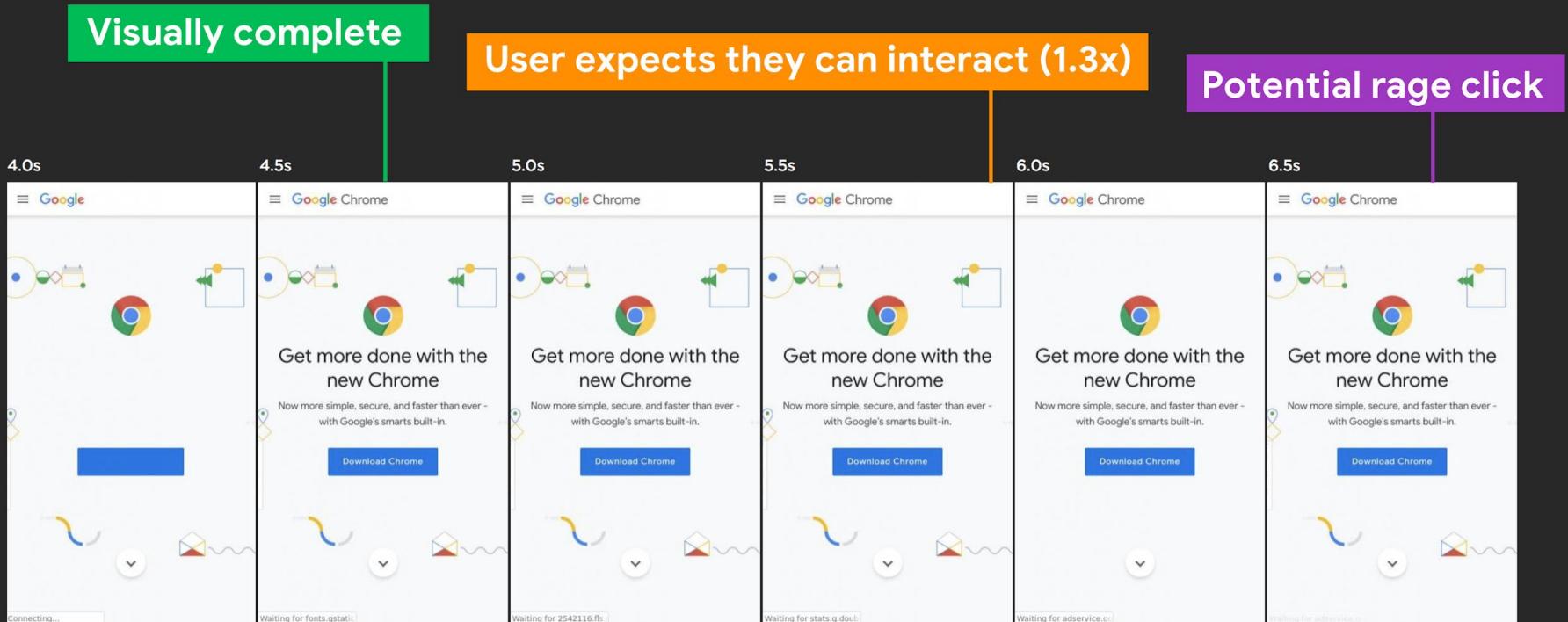
```

```

window.devicePixelRatio

Defines the relationship between device pixels and CSS pixels for a particular device.

Terlihat ≠ bisa diklik



Based on Akamai's 2018 research into UX & Metrics that matter

Gunakan PageSpeed Insight untuk memeriksa apakah ada interaksi pengguna yang terhambat

PageSpeed Insights HOME GUIDES REFERENCE

https://edition.cnn.com/

The speed score is based on the lab data analyzed by Lighthouse.

Analysis time: 12/13/2018, 10:50:46 AM

Scale: █ 90-100 (fast) █ 50-89 (average) █ 0-49 (slow)

3

info Field Data

Over the last 30 days, the field data shows that this page has a **Slow** speed compared to other pages in the Chrome User Experience Report. We are showing the 90th percentile of FCP and the 95th percentile of FID.

Metric	Value	Status
First Contentful Paint (FCP)	7.4 s	⚠️
First Input Delay (FID)	507 ms	⚠️

First Contentful Paint (FCP) 7.4 s ⚠️

First Input Delay (FID) 507 ms ⚠️

1% 32% 67%

68% 22% 11%

info Show Origin Summary

CNN Home

US, China set to take action against each other

late as senior US officials identify most serious national security

ad lines on DOJ's Huawei case

worked by Huawei CFO's arrest is

How China could retaliate against the US and Canada

Trump vowed China would buy more soybeans; US farmers are still waiting

Top stories

First Input Delay (FID)

507 ms 

68%

22%

11%



Cepat (<50 mili detik)



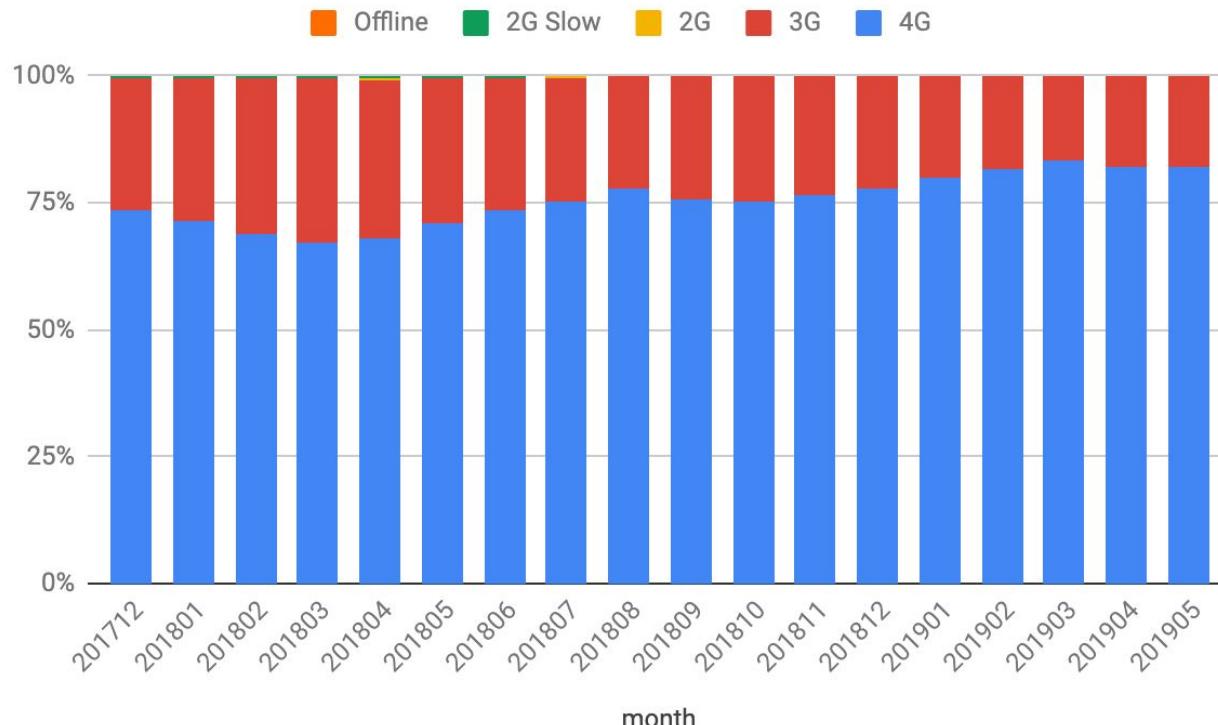
Rata-rata (50-250 mili detik)



Lambat (> 250 mili detik)

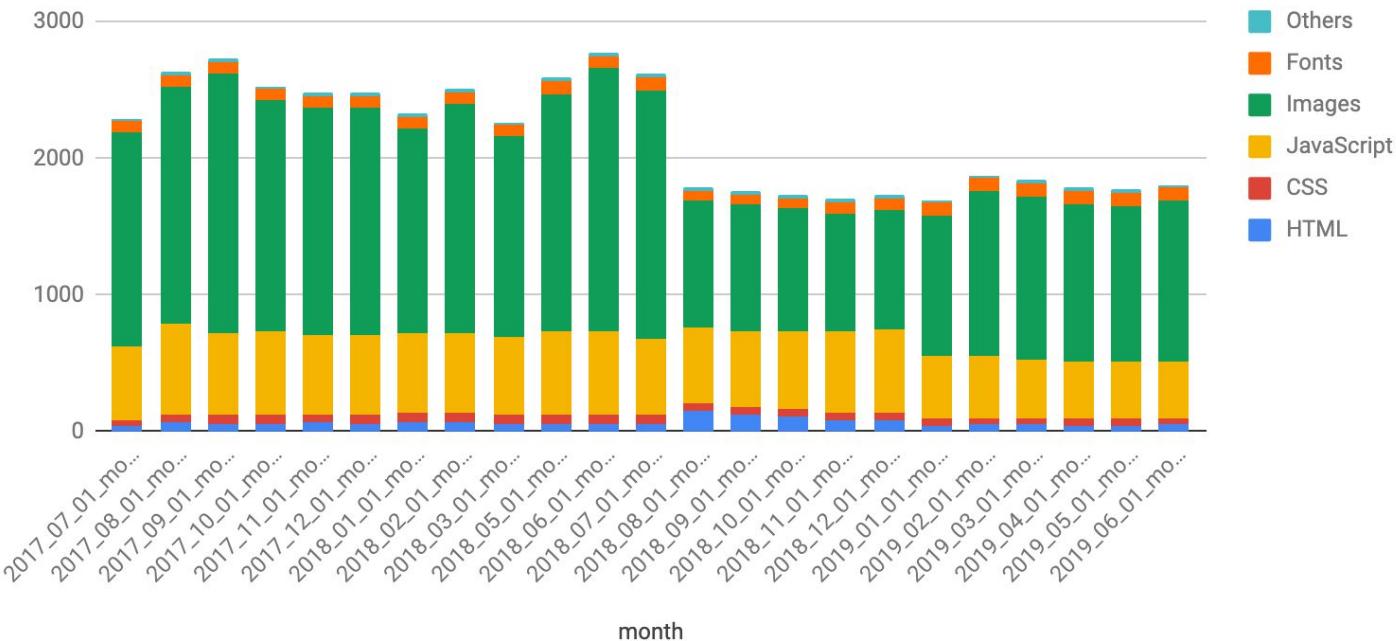
Bagaimana
mengurangi
First Input Delay(FID)?

Koneksi Efektif Pengguna Chrome di Indonesia



Sumber: Chrome UX Report

Berat Halaman Situs Indonesia (75th percentile)

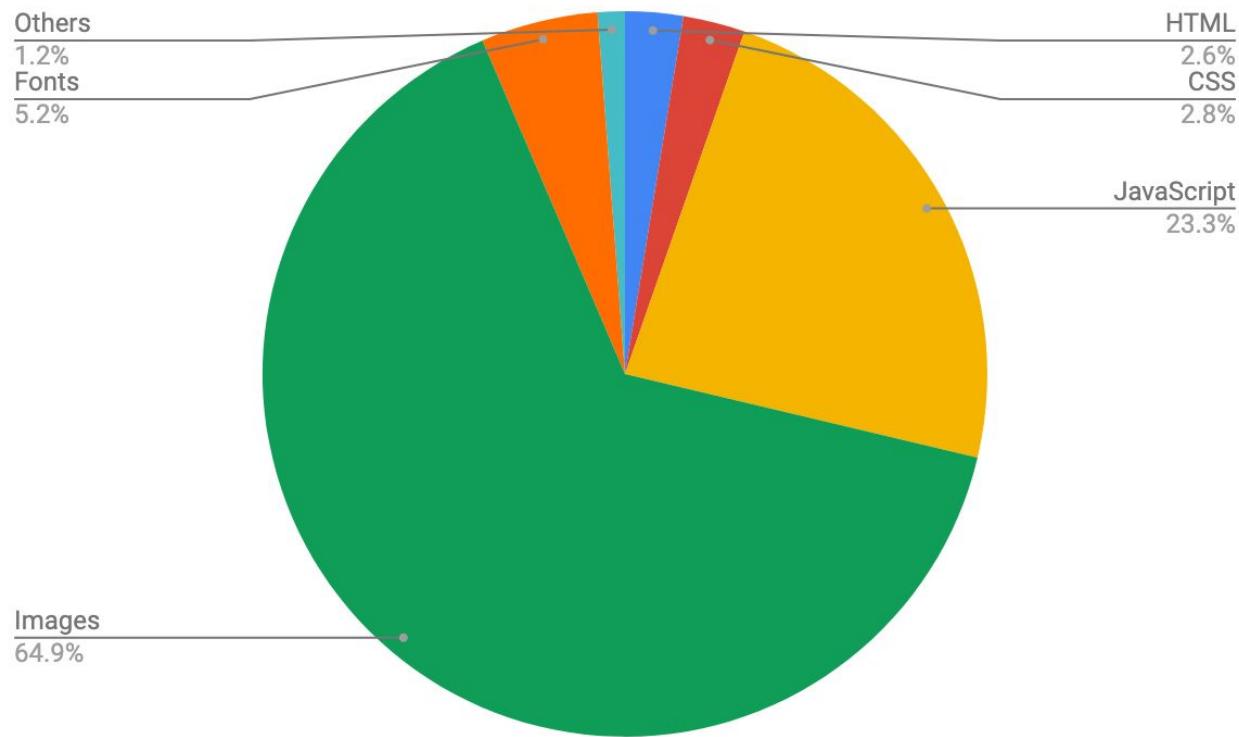


Sumber: Chrome UX Report

Berat Halaman Situs Indonesia Juni 2019 (75th pct)

Total **1,8MB**

1. Images 64.9%
2. JavaScript 23.3%
3. Fonts 5.2%



Sumber: Chrome UX Report

bit.ly/perf-budget-calculator

11.6s Estimated Time to Interactive

Median TTI for similar mobile sites.

8.9 - 13.8s Time to Interactive Range

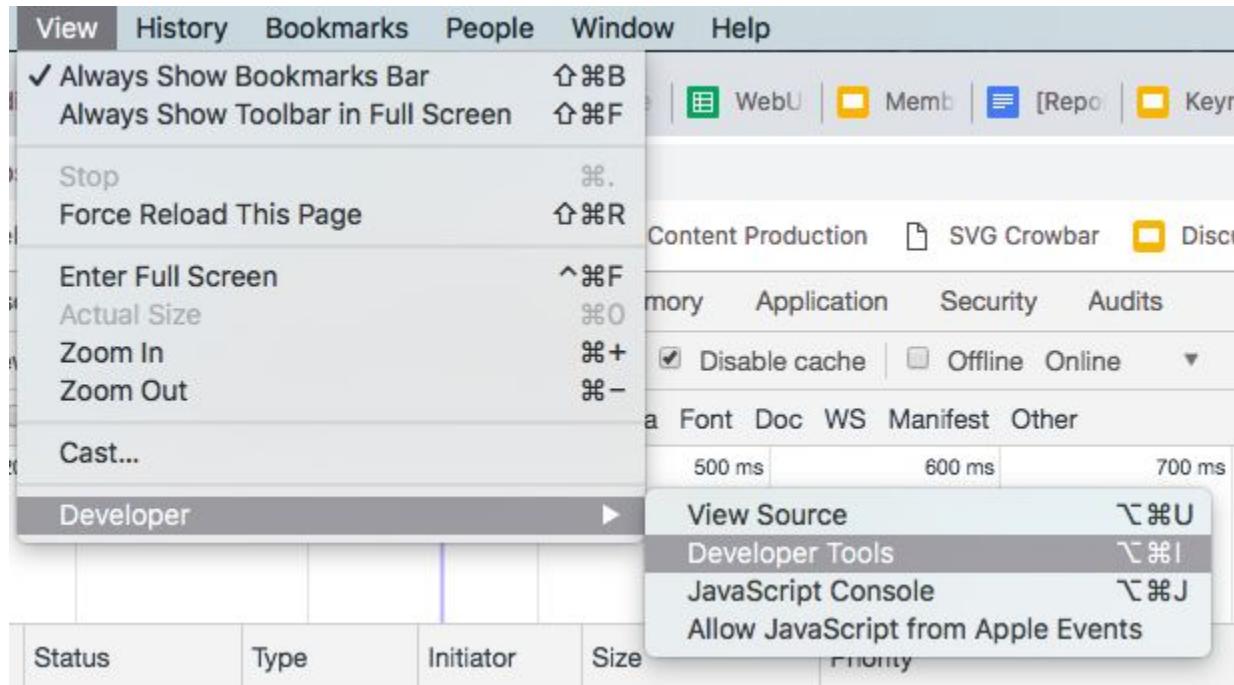
25th - 75th percentile TTI for similar mobile sites.



* Measurements represent transferred file size.

Bagaimana untuk
mengetahui seberapa
berat situs saya?

Gunakan developer tools untuk mengecek jumlah data terkirim



Periksa jumlah network request dan ukuran file di tab network

Screenshot of the Network tab in the Chrome DevTools developer console showing network requests for a mobile application. The table lists 15 requests, including files like home, milligram.min.css, and featured.jpg, along with their status, type, initiator, size, priority, and waterfall chart.

Name	Status	Type	Initiator	Size	Priority	Waterfall
home	200	document	Other	1.9 KB 3.9 KB	Highest	
milligram.min.css /node_modules/milligra...	200	stylesheet	home Parser	1.6 KB 3.9 KB	Highest	
webcomponents-loader.js unpkg.com/@webcomp...	200	script	home Parser	1.9 KB 6.0 KB	High	
intersection-observer unpkg.com/Intersection...	200	script	home Parser	5.9 KB 21.5 KB	High	
t-shell.js /src	200	script	home Parser	6.8 KB 23.5 KB	High	
css?family=Nunito fonts.googleapis.com	200	stylesheet	home Parser	664 B 1.1 KB	Highest	
t-app.js /src	200	script	t-shell.js:...	9.9 KB 39.4 KB	High	
XPXV3i6Ll01BKof!NeaB... fonts.gstatic.com/s/nuni...	200	font	home Parser	13.5 KB 13.3 KB	Highest	
communities.json /data	200	fetch	VM150:1	845 B 2.0 KB	High	
participants.json /data	200	fetch	VM150:1	8.3 KB 23.4 KB	High	
featured.jpg /img	200	jpeg	home Parser	455 KB 454 KB	High	

15 requests | 515 KB transferred | Finish: 3.2 min | DOMContentLoaded: 352 ms | Load: 661 ms



Periksa jumlah network request dan ukuran file di tab network

Screenshot of the Network tab in the Chrome DevTools developer console. The tab is selected, showing a list of network requests. A black box highlights the 'All' button in the toolbar above the list.

Name	Type	Status	Document	Parser	Size	Priority
home	document	200		Other	1.9 KB 3.9 KB	Highest
milligram.min.css	stylesheet	200	home	Parser	1.6 KB 3.9 KB	Highest
/node_modules/milligra...						
webcomponents-loader.js	script	200	home	Parser	1.9 KB 6.0 KB	High
intersection-observer	script	200	home	Parser	5.9 KB 21.5 KB	High
t-shell.js	script	200	home	Parser	6.8 KB 23.5 KB	High
/src						
css?family=Nunito	stylesheet	200	home	Parser	664 B 1.1 KB	Highest
fonts.googleapis.com						
t-app.js	script	200	t-shell.js:...	Script	9.9 KB 39.4 KB	High
/src						
XRJV3I6L101BKoflNeaB...	font	200	home	Parser	13.5 KB 13.3 KB	Highest
fonts.gstatic.com/s/nuni...						
communities.json		200	VM150:1		845 B	
/data	fetch	200		Script	23.4 KB	
featured.jpg	jpeg	200	home	Parser	455 KB	
time						

15 requests | 515 KB transferred | Finish: 3.2 min | DOMContentLoaded: 352 ms | Load: 681 ms

Screenshot of a mobile browser displaying the 'WebUnconfID' website. The page features a banner with the text 'Web Community Leaders Bootcamp' and 'Yogyakarta, 29-30 September 2018'. Below the banner, it says 'Ethes Coworking & Coliving Space' and provides the address 'Jl. Umbul Permai No.88, Lojajar, Kabupaten Sleman, Daerah Istimewa Yogyakarta'. The browser status bar at the top shows 'Nexus 5' with dimensions '360 x 640' and a zoom level of '97%'. The time '7:01' is also visible.

Periksa jumlah network request dan ukuran file di tab network

The screenshot shows the Chrome DevTools Network tab for a mobile device (Nexus 5) with dimensions 360 x 640 and a 97% zoom level. The Network tab is selected, highlighted by a red circle. The table lists 15 network requests, including files like 'home' (document), 'milligram.min.css' (stylesheet), and various scripts and fonts. The bottom status bar indicates 15 requests, 515 KB transferred, a finish time of 3.2 min, and load times of 352 ms and 681 ms.

Name	Type	Status	Size	Priority
home	document	200	1.9 KB	Highest
milligram.min.css	stylesheet	200	1.6 KB	Highest
/node_modules/milligra...			3.9 KB	
webcomponents-loader.js	script	200	1.9 KB	High
unpkg.com/@webcomp...			6.0 KB	
intersection-observer	script	200	5.9 KB	High
unpkg.com/Intersection...			21.5 KB	
t-shell.js	script	200	6.8 KB	High
/src			23.5 KB	
css?family=Nunito	stylesheet	200	664 B	Highest
fonts.googleapis.com			1.1 KB	
t-app.js	script	200	9.9 KB	High
/src			39.4 KB	
XRXV3I6Ll01BKoflNeaB...	font	200	13.5 KB	Highest
fonts.gstatic.com/s/nuni...			13.3 KB	
communities.json		200	845 B	
/data	fetch	200	Script	23.4 KB
featured.jpg	jpeg	200	home	453 KB

15 requests | 515 KB transferred | Finish: 3.2 min | DOMContentLoaded: 352 ms | Load: 681 ms

The mobile website 'WebUnconfID' is shown on a Nexus 5 phone. The screen displays the event details: 'Web Community Leaders Bootcamp' in Yogyakarta from September 29-30, 2018, at Ethes Coworking & Coliving Space, located at Jl. Umbul Permai No.88, Lojajar, Kabupaten Sleman, Daerah Istimewa Yogyakarta.

Gunakan Webpagetest bila website sudah online

Test a website's performance

The screenshot shows the Webpagetest interface with the following elements:

- Top navigation tabs:** Advanced Testing, Simple Testing (selected), Visual Comparison, Traceroute.
- Input field:** Enter a Website URL.
- Test Configuration dropdown:** Mobile - Regular 3G. Below it, a detailed description: Chrome on a Motorola G (gen 4) tested from Dulles, Virginia on a 1.6 Mbps 3G connection with 300ms of latency.
- Include Repeat View checkbox:** (Loads the page, closes the browser and then loads the page again)
- Run Lighthouse Audit checkbox:** (checked)
- Start Test button:** A large yellow button on the right.

webpagetest.org/easy.php

Content breakdown by MIME type (First View)

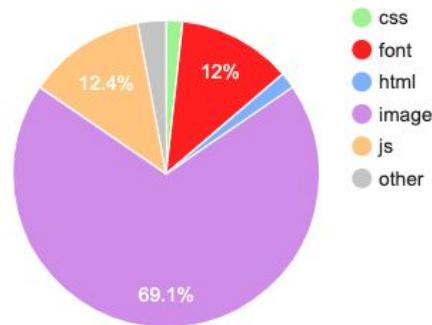
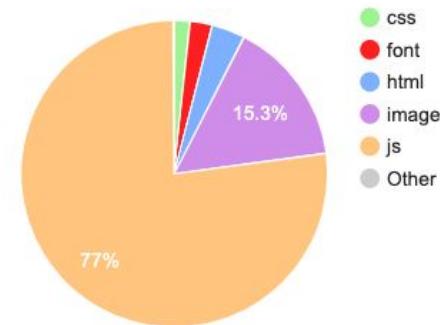
Requests**Bytes****MIME Type Requests**

image	161
js	29
font	28
other	7
css	4
html	4

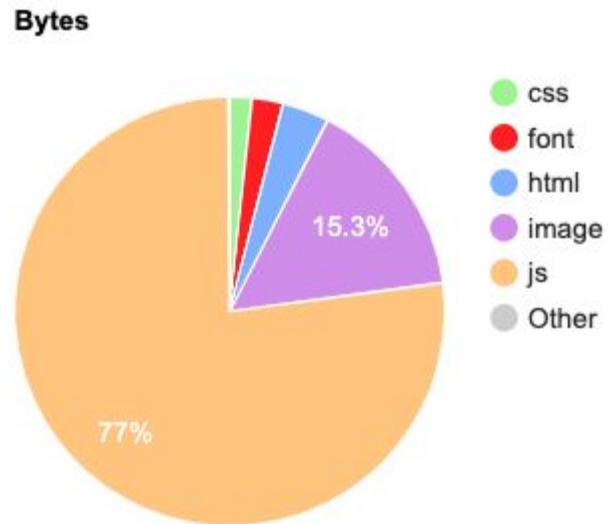
MIME Type Bytes

MIME Type	Bytes	Uncompressed
js	2,002,012	2,752,498
image	398,804	337,390
html	91,175	378,182
font	61,112	61,112
css	42,914	137,886
other	2,815	7,290

Apa pentingnya
mengetahui seberapa
berat sebuah situs?

Pengaruh jenis aset situs ke waktu loading

1. HTML+ CSS = First Paint(FP) & First Contentful Paint (FCP).
2. JavaScript = Time To Interactive(TTI) & First Input Delay (FID)
3. Fonts = Text Rendering
4. Images = Layout stability



2:19:16 PM - webunconfid.ww ▾



Performance



Progressive Web App



Accessibility



Best Practices



SEO

Score scale: 0-44 45-74 75-100

Performance

Metrics

First Contentful Paint

1,850 ms ✓

Speed Index

2.410 ms ✓

Time to Interactive

3,070 ms ✓

97

First Meaningful Paint

1,850 ms ✓

First CPU Idle

1,850 ms ✓

Estimated Input Latency

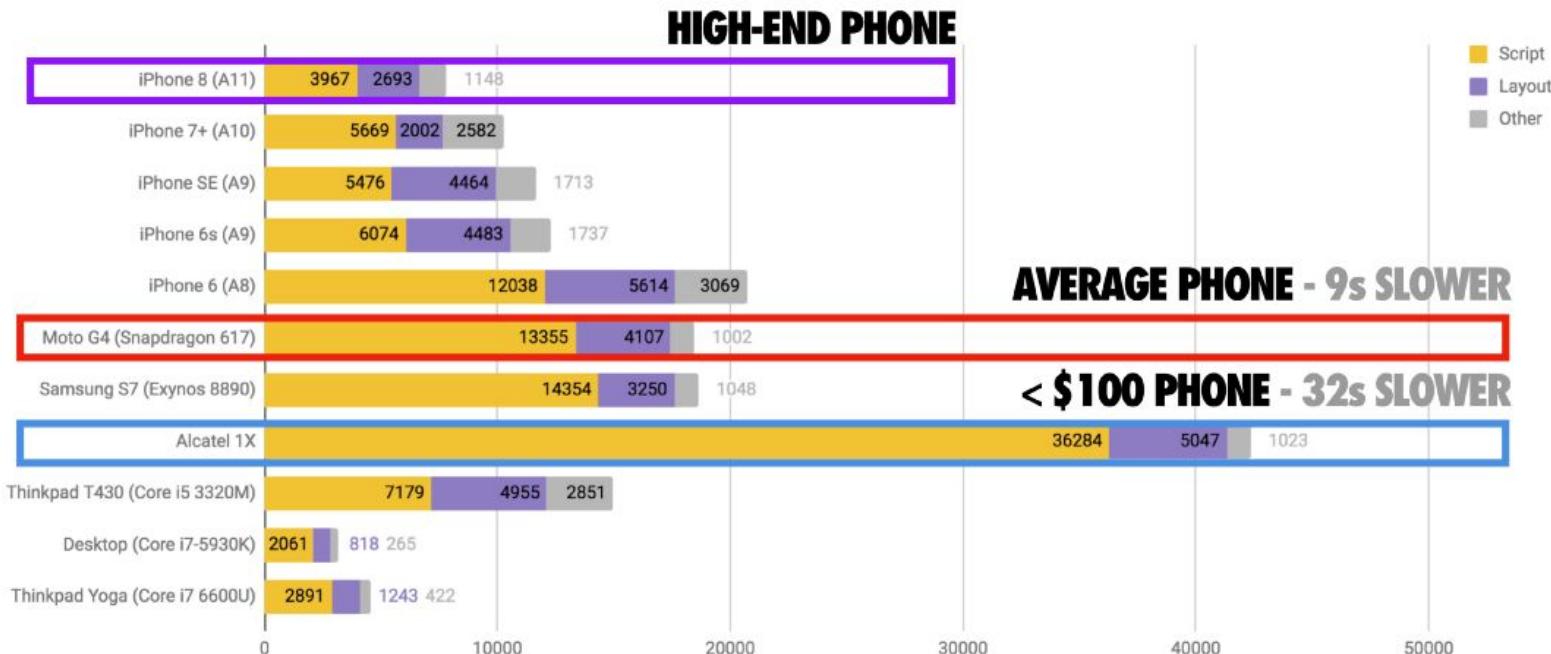
13 ms ✓

[View Trace](#)

Values are estimated and may vary.

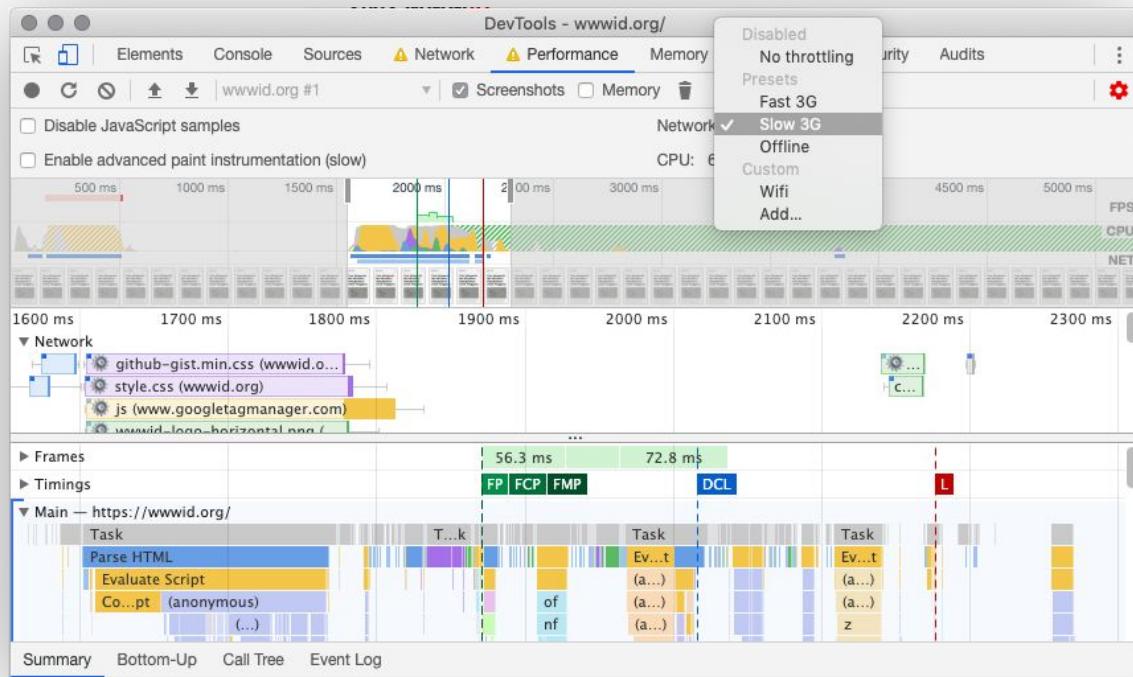


Time To Interactive(TTI) bergantung pada seberapa besar JavaScript dan seberapa cepat perangkat mobile. Contoh cnn.com



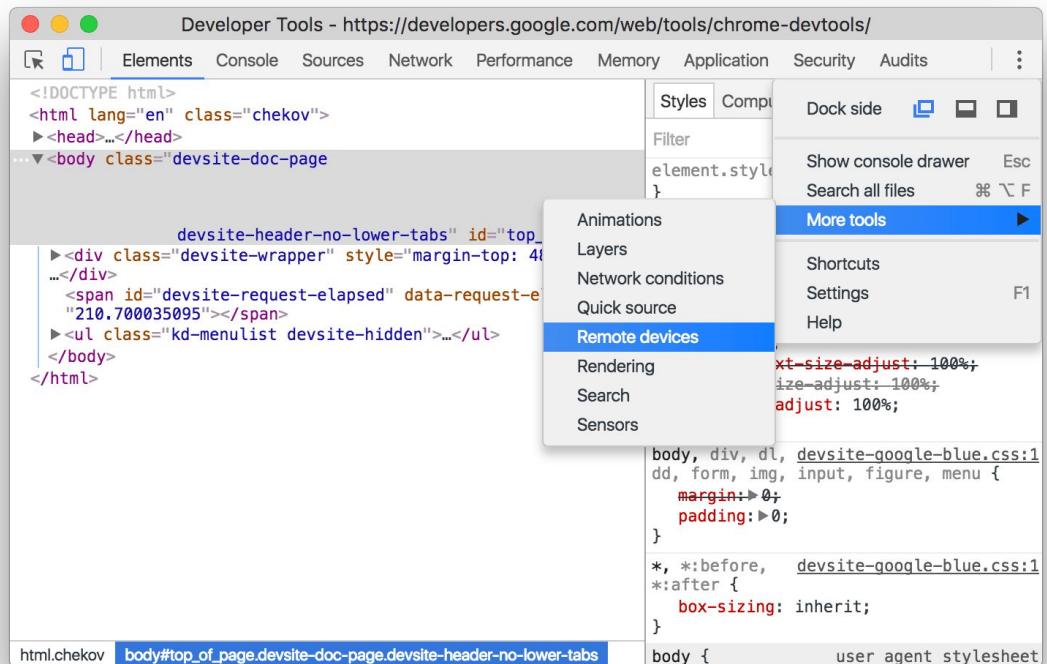
Lakukan simulasi kecepatan jaringan dan CPU di Chrome DevTools

Untuk melihat seberapa cepat situs dimuat dan bisa digunakan di jaringan lambat dan perangkat mobile spesifikasi rendah.



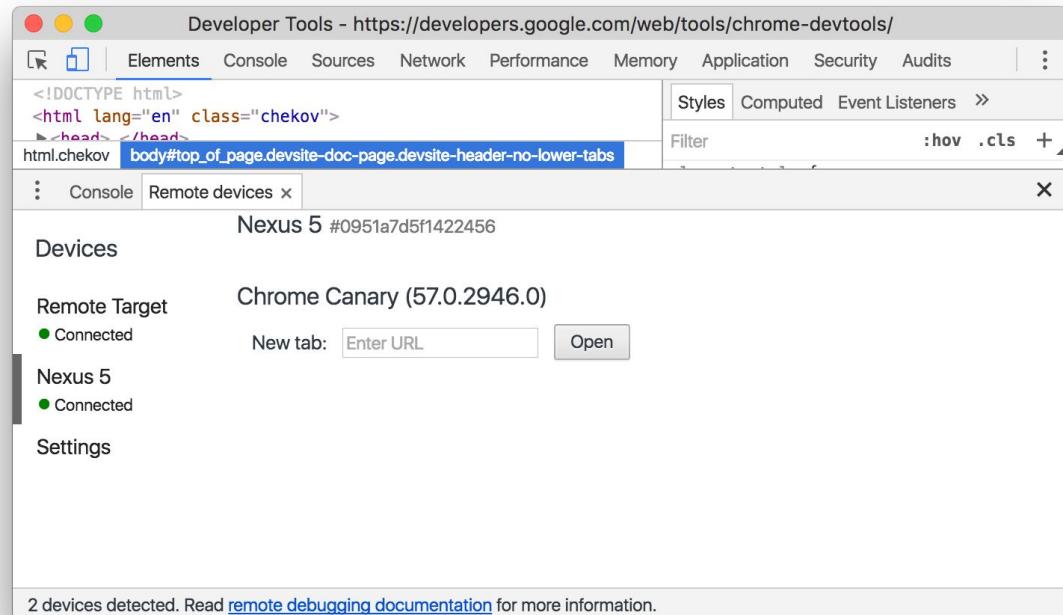
Uji di perangkat langsung dengan Remote Debugging

Remote debugging berguna untuk menguji coba langsung seberapa cepat sebuah situs berjalan di perangkat sebenarnya.



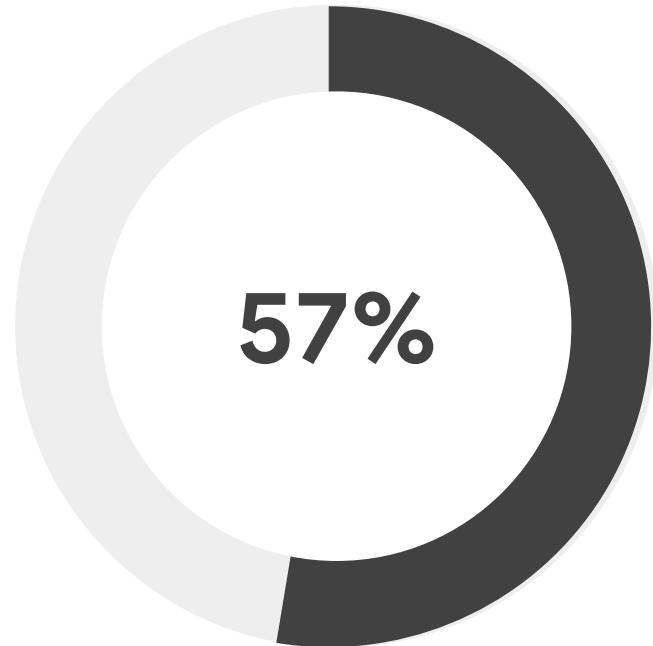
Uji di perangkat langsung dengan Remote Debugging

Uji Lighthouse dan Performance audit langsung dari perangkat tanpa melakukan simulasi CPU dan jaringan.



57%

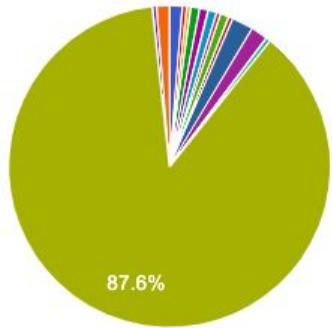
Waktu eksekusi JavaScript di web
adalah kode milik **pihak ketiga**



Patrick Hulce, thirdpartyweb.today. Data from across top 4M sites.

Content breakdown by domain (First View)

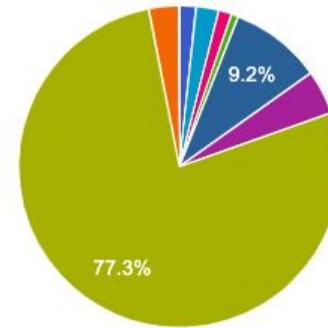
Requests



- fonts.gstatic.com
- v1.addthis.com
- www.google-analytics.com
- sessions.bu...
- www.facebook.com
- cdn.onesignal.com
- www.google...
- www.google...
- v1.addthis.c...

▲ 1/2 ▼

Bytes



- fonts.gstatic.com
- cdn.onesignal.com
- www.google.com
- www.google-analytics.com
- s7.addthis.com
- maps.googleapis.com
- mamikos.com
- connect.facebook.net
- Other

Domain

Requests

mamikos.com	204
s7.addthis.com	5
maps.googleapis.com	4
fonts.gstatic.com	3
connect.facebook.net	3

Domain

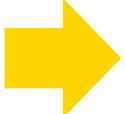
Bytes

mamikos.com	2,009,445
s7.addthis.com	239,340
maps.googleapis.com	115,588
connect.facebook.net	78,306
cdn.onesignal.com	59,065



Hindari round trip berulang

- ▼ Avoid multiple, costly round trips to any origin 300 ms



Origin	Potential Savings
https://fonts.googleapis.com	300 ms
https://fonts.gstatic.com	300 ms



Google Fonts stylesheets + Web Fonts

Kurangi latensi jaringan with rel=preconnect

```
<link rel="preconnect" href="https://fonts.googleapis.com/" crossorigin>
<link rel="preconnect" href="https://fonts.gstatic.com/" crossorigin>
```



**0.3d
Lebih
cepat**

Defer Third-party JS

The Telegraph

 bit.ly/telegraph-3p

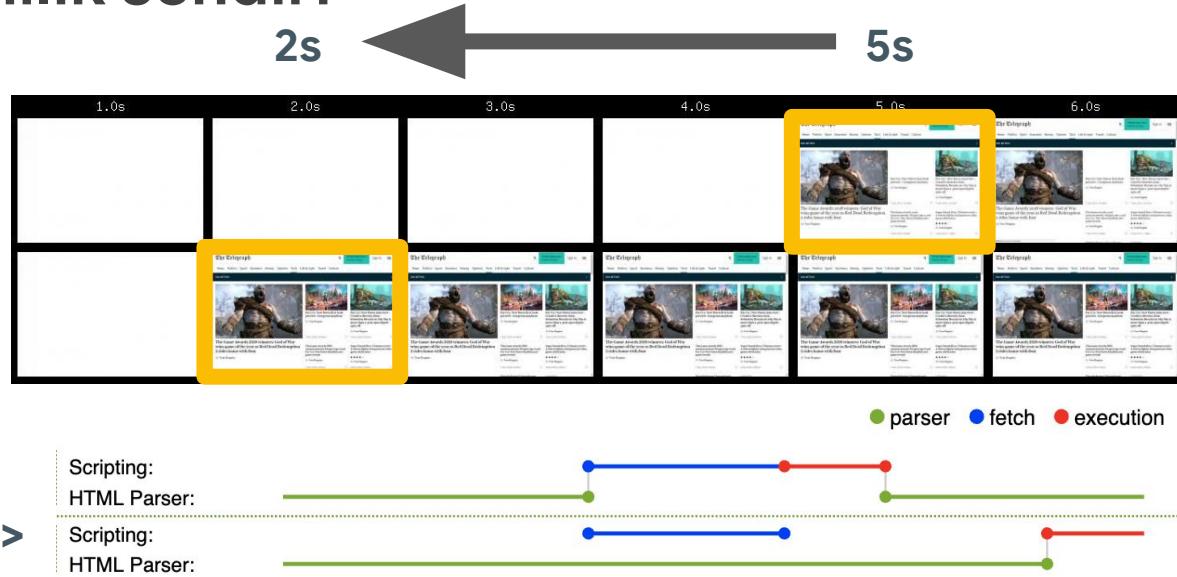
<script>

<script defer>

Other optimizations

1MB reduction 1st & 3p JS
4s faster “first ad” loading
6s faster Time-to-Interactive

“Peningkatan paling besar adalah dengan menunda scripts termasuk milik sendiri”



“Ini tidak mempengaruhi ads dan tracking. Lighthouse Perf +47”

Membangun mental berorientasi kecepatan

Semua orang ingin “tag” tersebut ada di halaman situs yang bisa memberikan pemasukan pada perusahaan.

Sangat penting memiliki orang yang paham apa dampak sebuah tag kalau dimasukkan pada halaman situs, dan mau untuk bereksperimen untuk kenyamanan situs.

Gareth Clubb

The Telegraph

Mengapa layout halaman tidak stabil?



Perubahan isi konten dan elemen layout

Iklan yang dimuat belakangan,
social buttons third party yang
digunakan, atau library
JavaScript yang tidak
memperhatikan layout konten
bisa berdampak pada kesalahan
klik pada user..



Olah Data Chrome UX di BigQuery Untuk Melihat Kestabilan Layout Halaman

<http://bit.ly/chromeuxbq>

The screenshot shows the Google Cloud Platform BigQuery interface. On the left, there's a sidebar with 'Query history', 'Saved queries', 'Job history', 'Transfers', and a 'Resources' section where 'chrome-ux-report' is selected, showing datasets 'all', '201710', '201711', and '201712'. The main area is the 'Query editor' with the following query:

```
1 SELECT COUNT(DISTINCT origin) FROM `chrome-ux-report.all.201809`
```

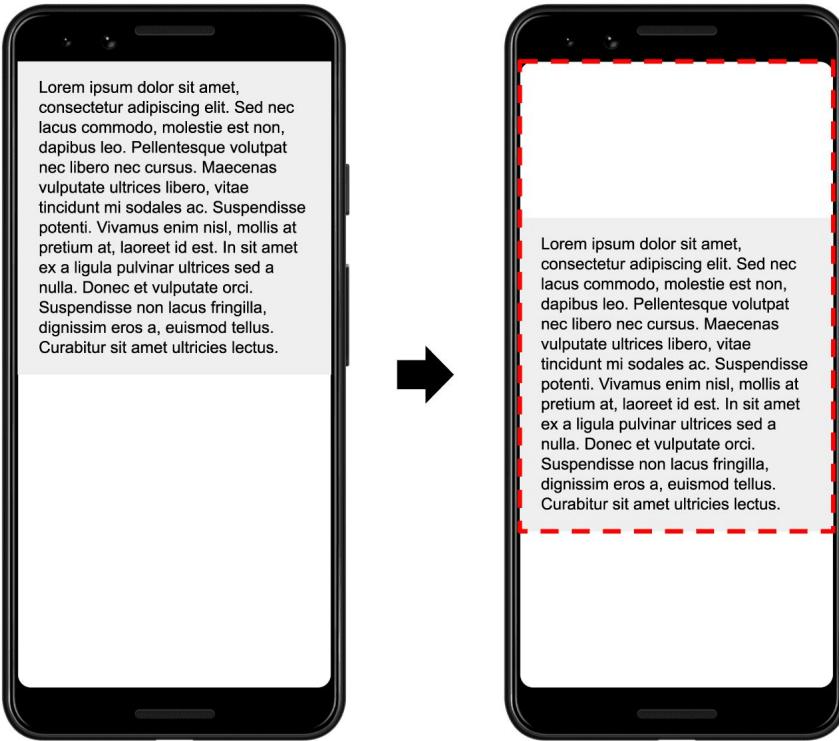
Below the query are buttons for 'Run query', 'Save query', 'Save view', and 'More'. A note says 'This query will process 283.64 MB when run.' The 'Query results' section shows the output:

Query complete (0.022 sec elapsed, cached)

| Row | f0_ |
|-----|---------|
| 1 | 4375805 |

Olah Data Chrome UX di BigQuery Untuk Melihat Kestabilan Layout Halaman

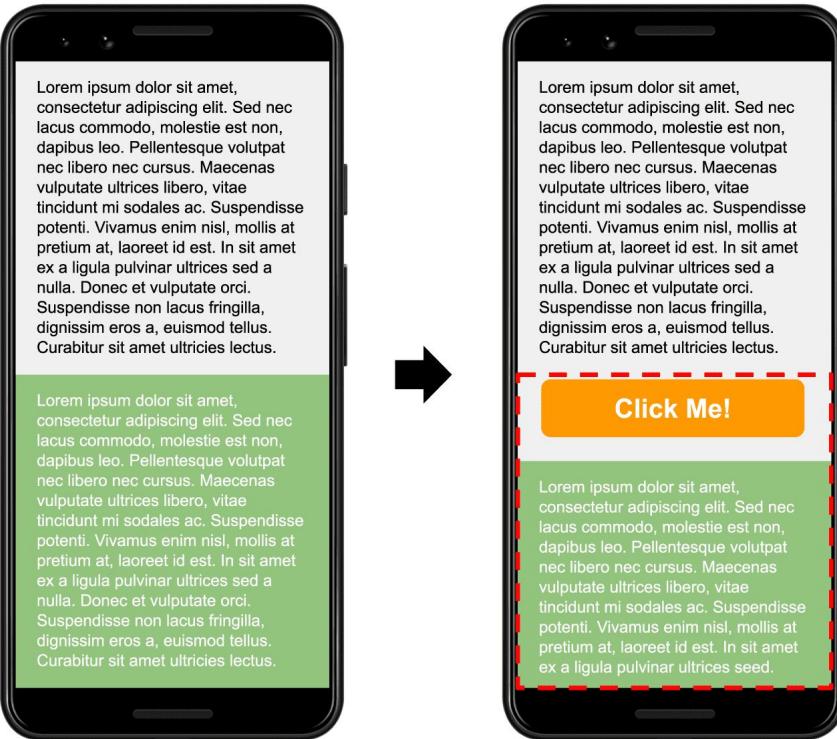
<http://bit.ly/chromeuxbq>



Perubahan layout 75% layar = layout score 0.75

Olah Data Chrome UX di BigQuery Untuk Melihat Kestabilan Layout Halaman

<http://bit.ly/chromeuxbq>



Perubahan layout 50% layar = layout score 0.5

Bagaimana agar pengguna nyaman dengan perubahan layout?

Pastikan gambar memiliki tinggi dan lebar

Baseline JPEG - Loads from top-to-bottom



Gunakan progressive JPEG untuk loading lebih baik

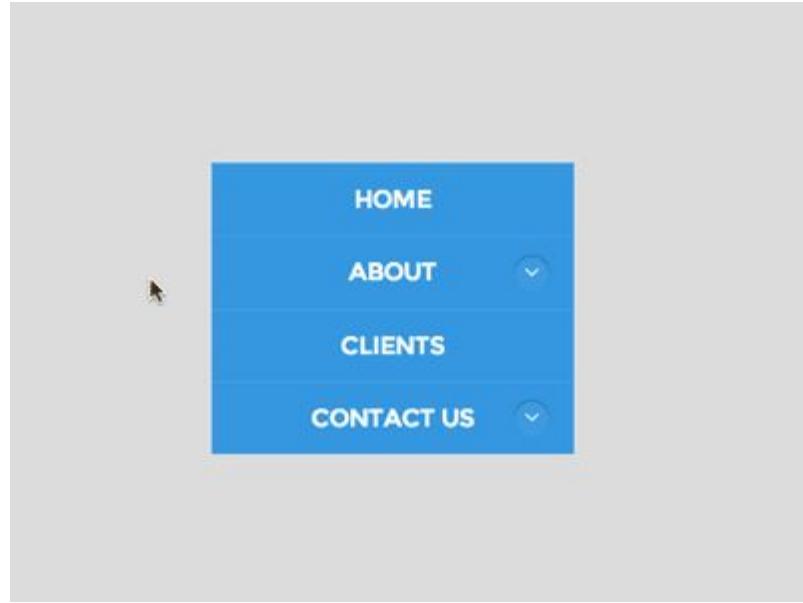
Progressive JPEG - Loads from low-quality to high-quality



Jangan memasukkan
elemen tampilan tanpa
interaksi pengguna



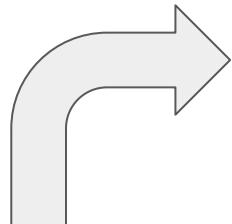
Gunakan animasi
untuk bila ingin
mengubah layout
tampilan



Rekap

1. Gunakan Lighthouse(LH) di Chrome DevTools bila sedang membangun sebuah situs dan memastikan situs bisa memberikan kenyamanan bagi pengguna.
2. Gunakan WebPageTest(WPT) bila ingin memperbaiki situs yang sudah online dan menemukan penyebab sebuah situs kurang nyaman.
3. Gunakan Chrome DevTools dengan remote debugging untuk menguji langsung situs di perangkat sebenarnya.
4. Gunakan performance budget bersama Lighthouse untuk menjaga website selalu nyaman, dan pastikan webmaster adalah orang yang punya perhatian bagi performance dan kenyamanan pengguna.
5. Gunakan Chrome UX Report(CrUX) untuk monitoring kenyamanan pengguna sebenarnya baik via Chrome UX Dashboard atau Big Query

Referensi



Check!!!

t.me/wwwid_pwa

wwwid.org

web.dev

Terima kasih!

