flight

flight

High Performance Web Content

Ben Ward & Aravind Ramanathan

Twitter for Websites | @benward & @indianburger

Twitter is For Telling Stories

We Build Tools to Put Twitter into Your Website

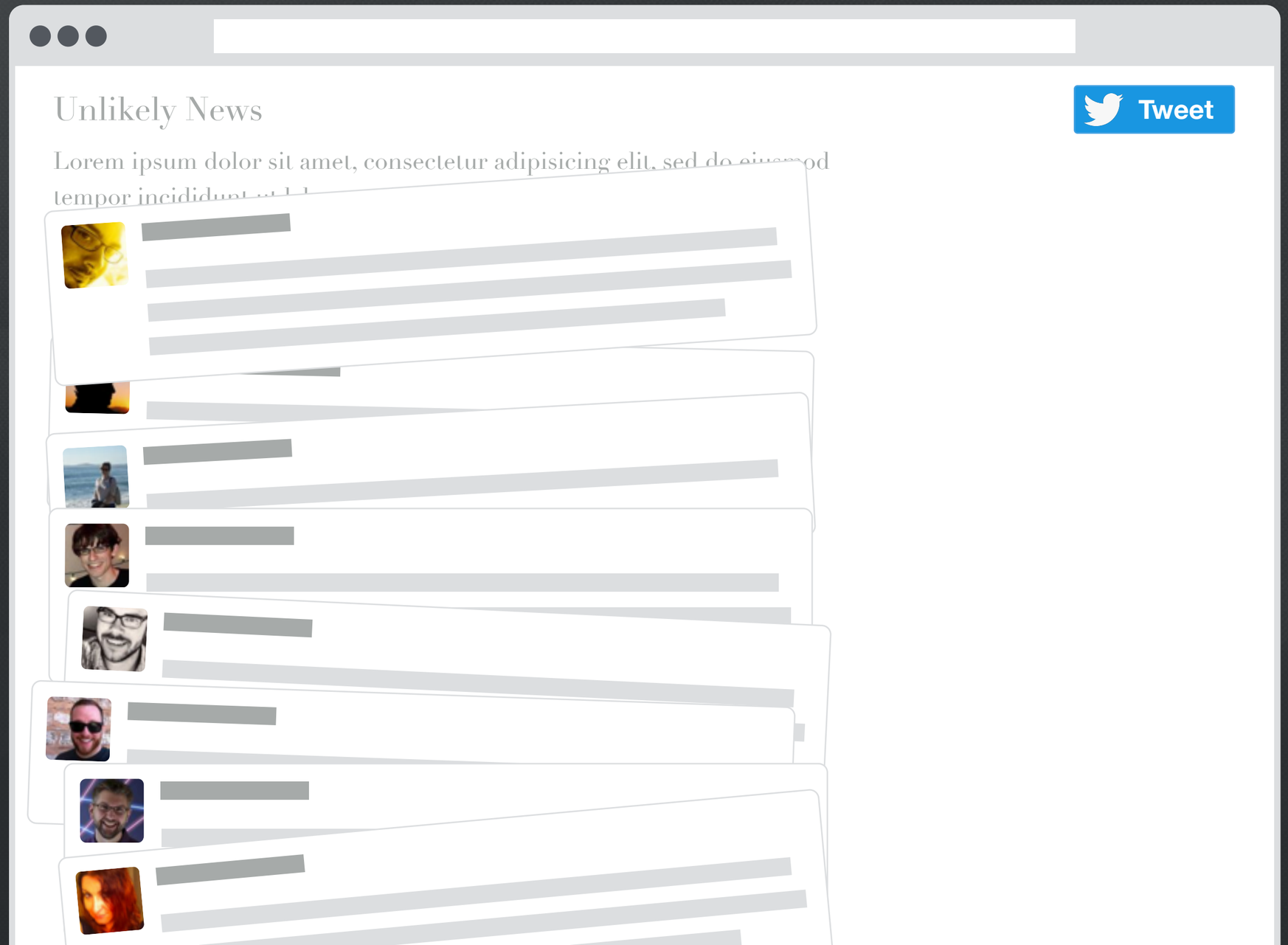
flight

Unlikely News

Tweet

Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

flight


Unlikely News
Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod
tempor incididunt
Tweet

flight

It’s Our Job to Deliver on Twitter’s Promise

theverge.com

THE VERGE

12
NEW ARTICLES

CULTURE TECH WEB

443
COMMENTS

The mobile web sucks

It's going to get worse before it gets better

By Nilay Patel on July 20, 2015 11:32 am

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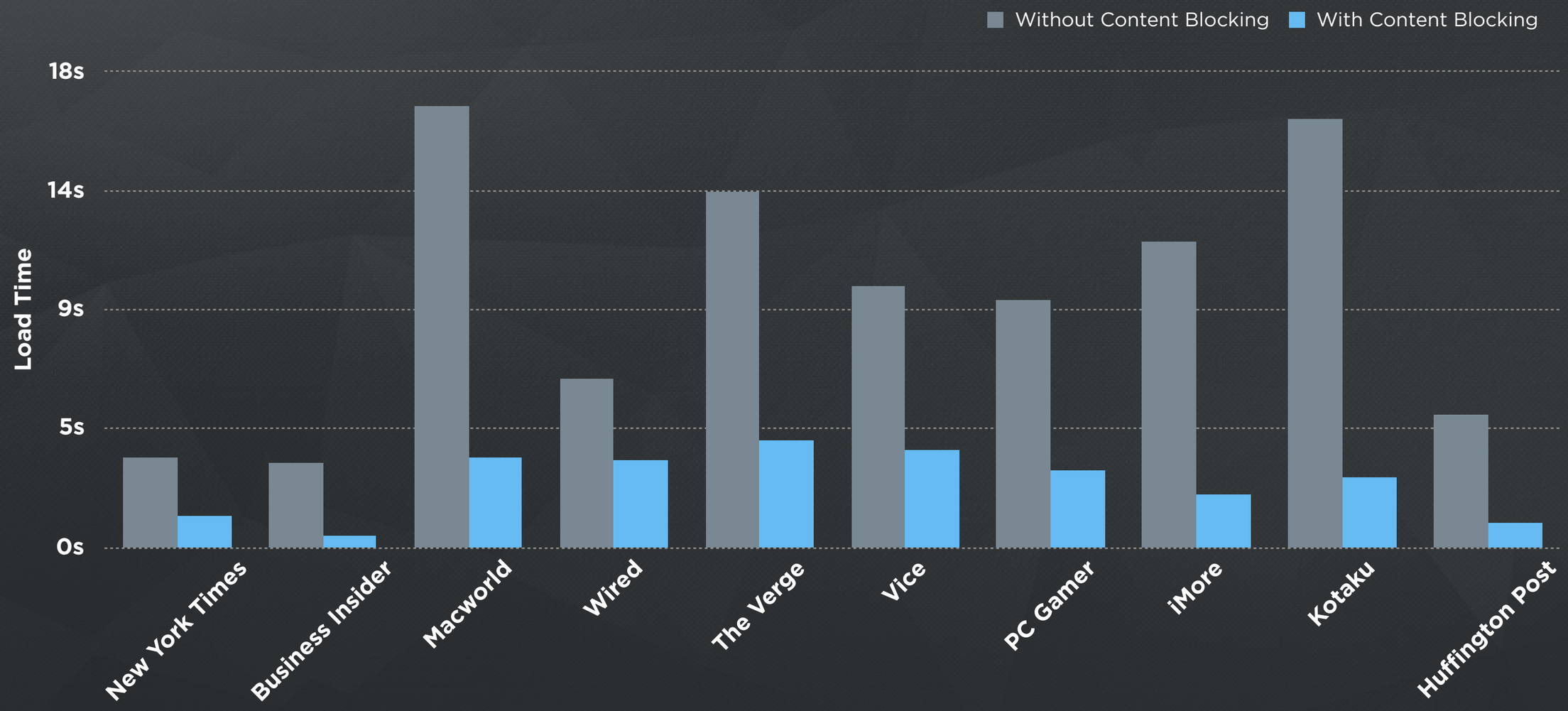
Page Load Time In Seconds



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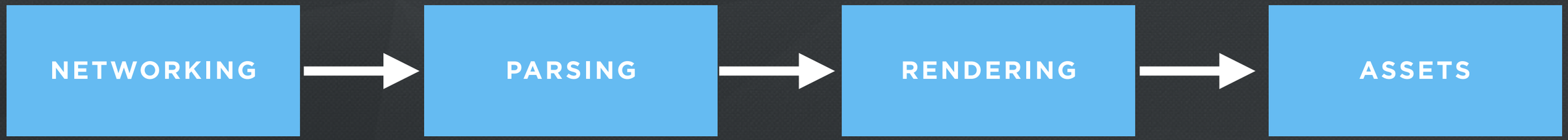
Source | “Crystal Benchmarks” Murphy Apps, Aug 2015 · **http://murphyapps.co/blog/2015/8/22/crystal-benchmarks**

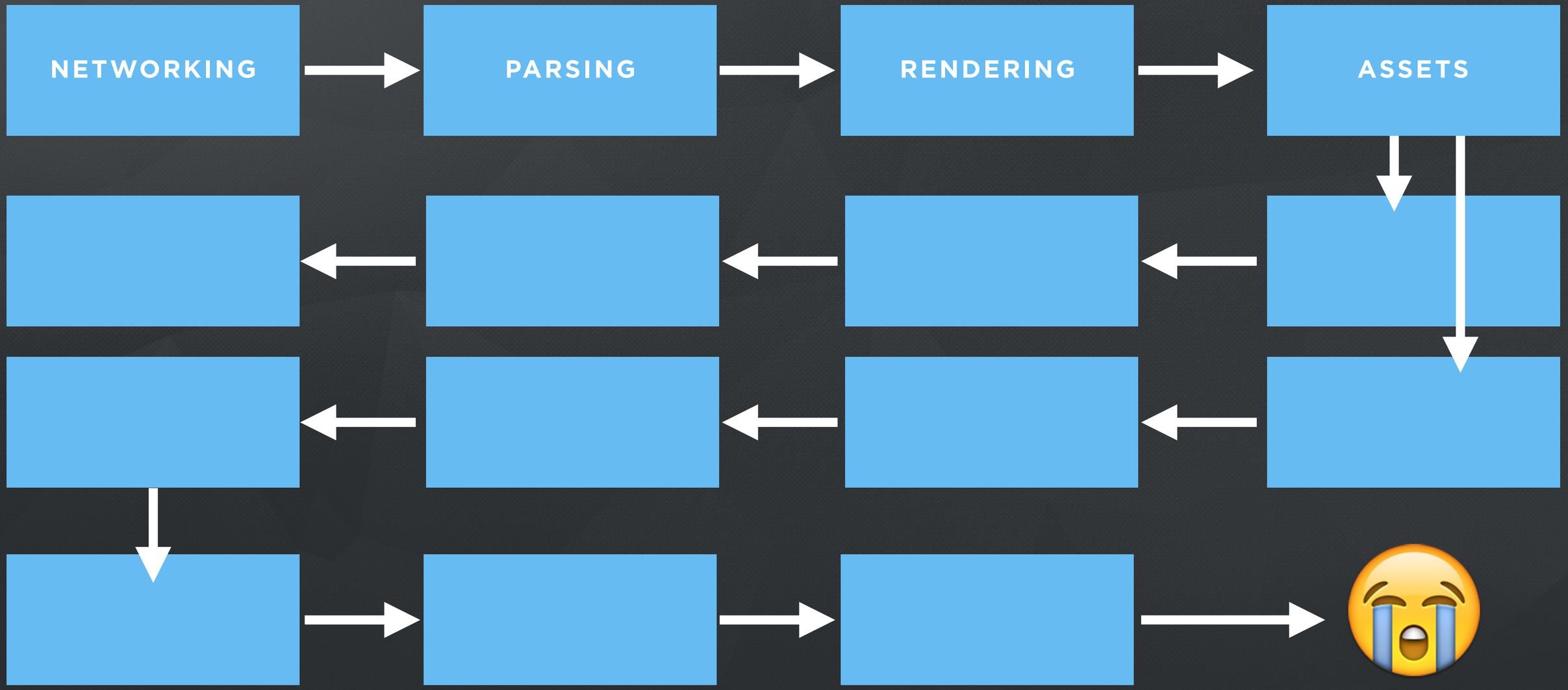
ACCELERATED
MOBILE
PAGES
PROJECT

Source | AMP · https://ampproject.org

Be a Model Citizen



flight



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Usain St. Leo Bolt ✓
@usainbolt

Follow

Always fun running the relays #Beijiing2015 #RelayVictory #TeamJamaica

9:42 AM - 29 Aug 2015

1,792 3,501

flight

USA TODAY Sports
@USATODAYsports

Follow

ICYMI: Usain Bolt got taken out by a Segway after his victory: usat.ly/1EkLk5T

9:07 PM - 27 Aug 2015

11 10

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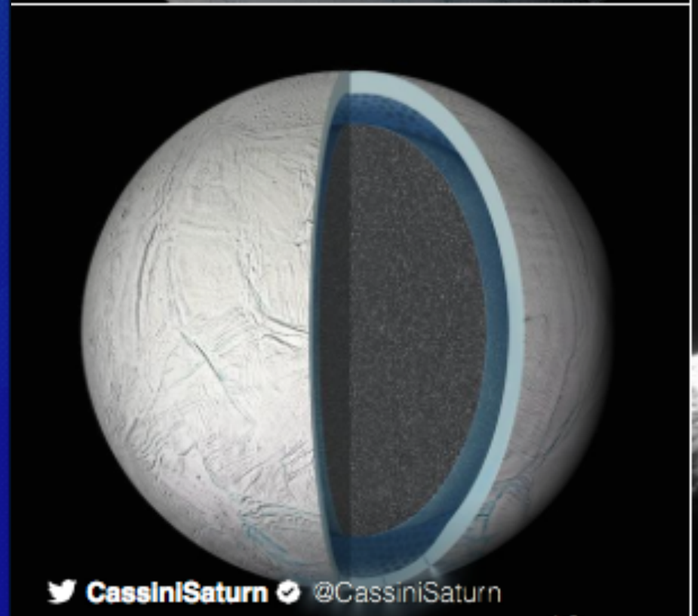
CassiniSaturn @CassiniSaturn
A global ocean lies beneath the icy crust of Satu...


CassiniSaturn @CassiniSaturn

CassiniSaturn @CassiniSaturn
A global ocean lies beneath the icy crust of Saturn's moon Enceladus. go.nasa.gov/1ieXHpR

flight

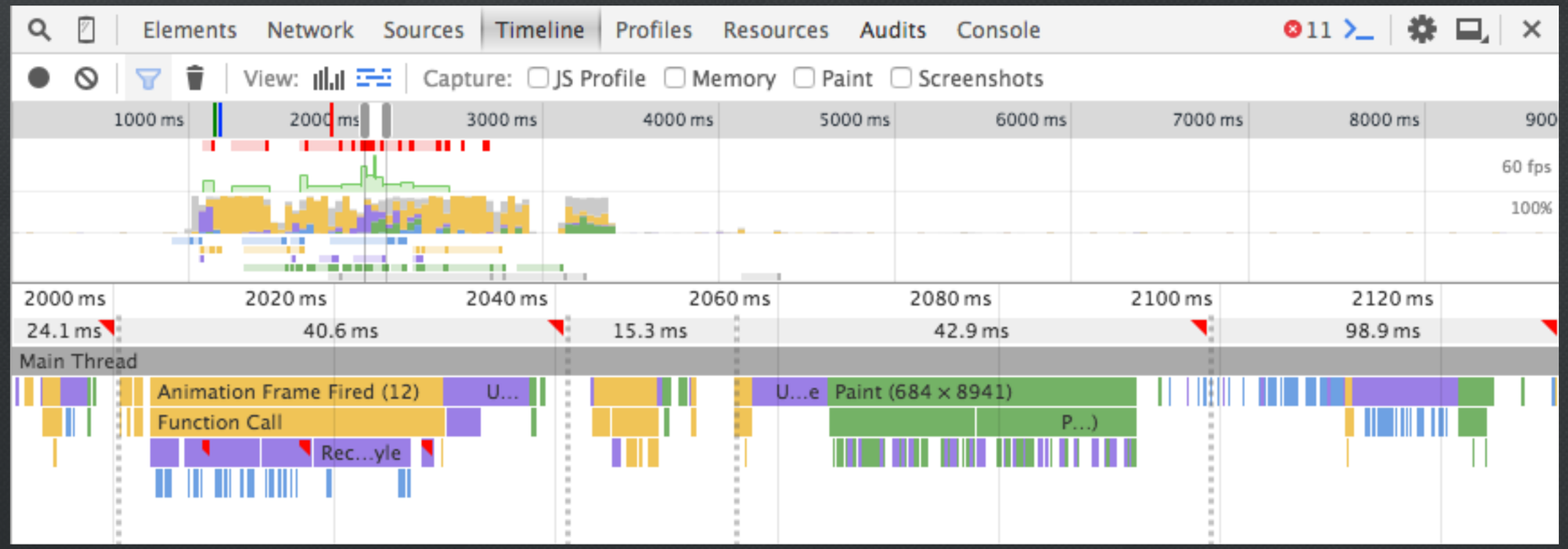
```
<a class=“twitter-grid” href=“https://twitter.com/benward/timelines/12345”>
  A Collection on Twitter
</a>
<script async href=“https://platform.twitter.com/widgets.js"></script>
```

```
<a class=“twitter-grid”
  A Collection on Twitter
</a>
<script
```

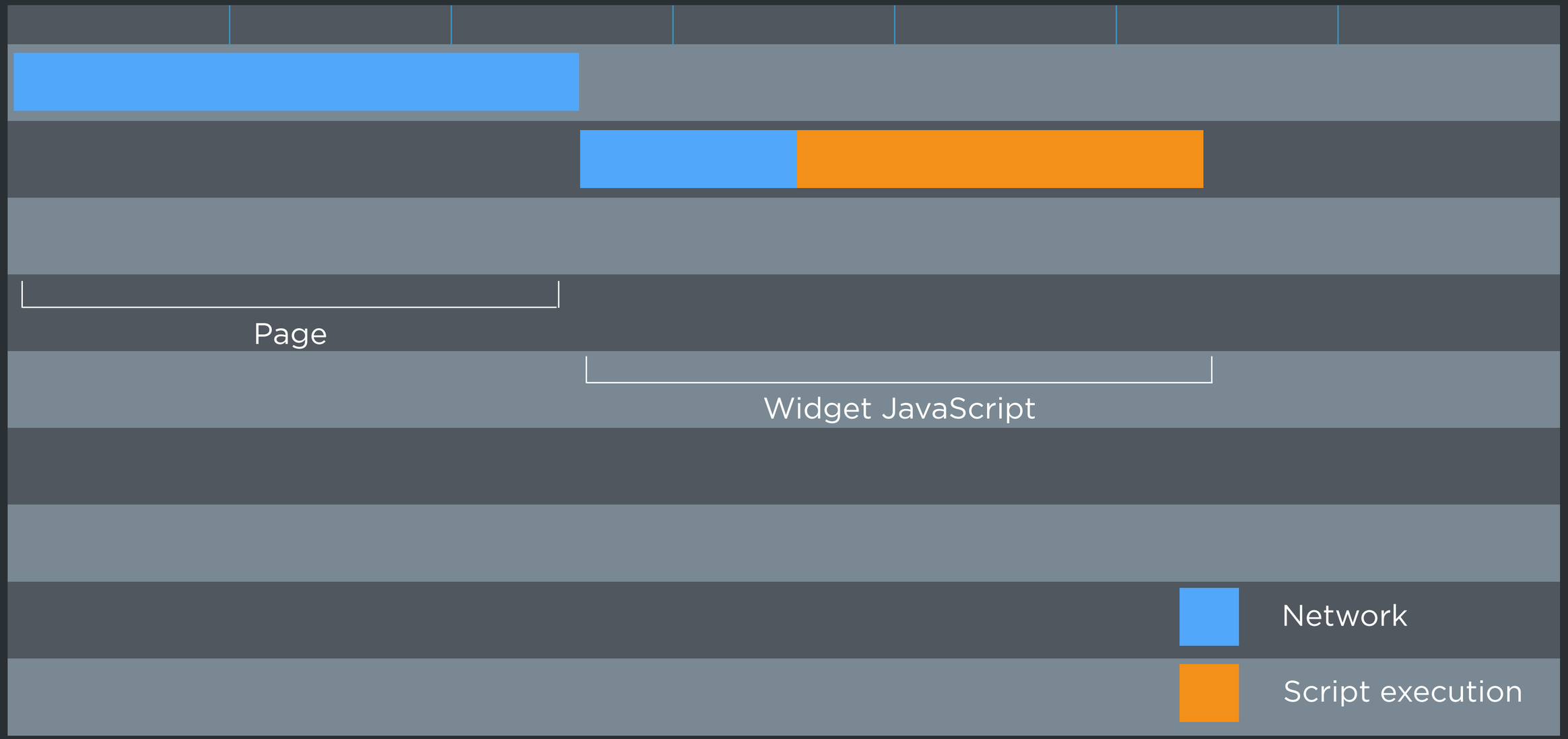
```
<a class=
  A Collection on Twitter
</a>
<script async
```

```
<a class=
  A Collection on Twitter
</a>
<script                https://platform.twitter.com/widgets.js
```

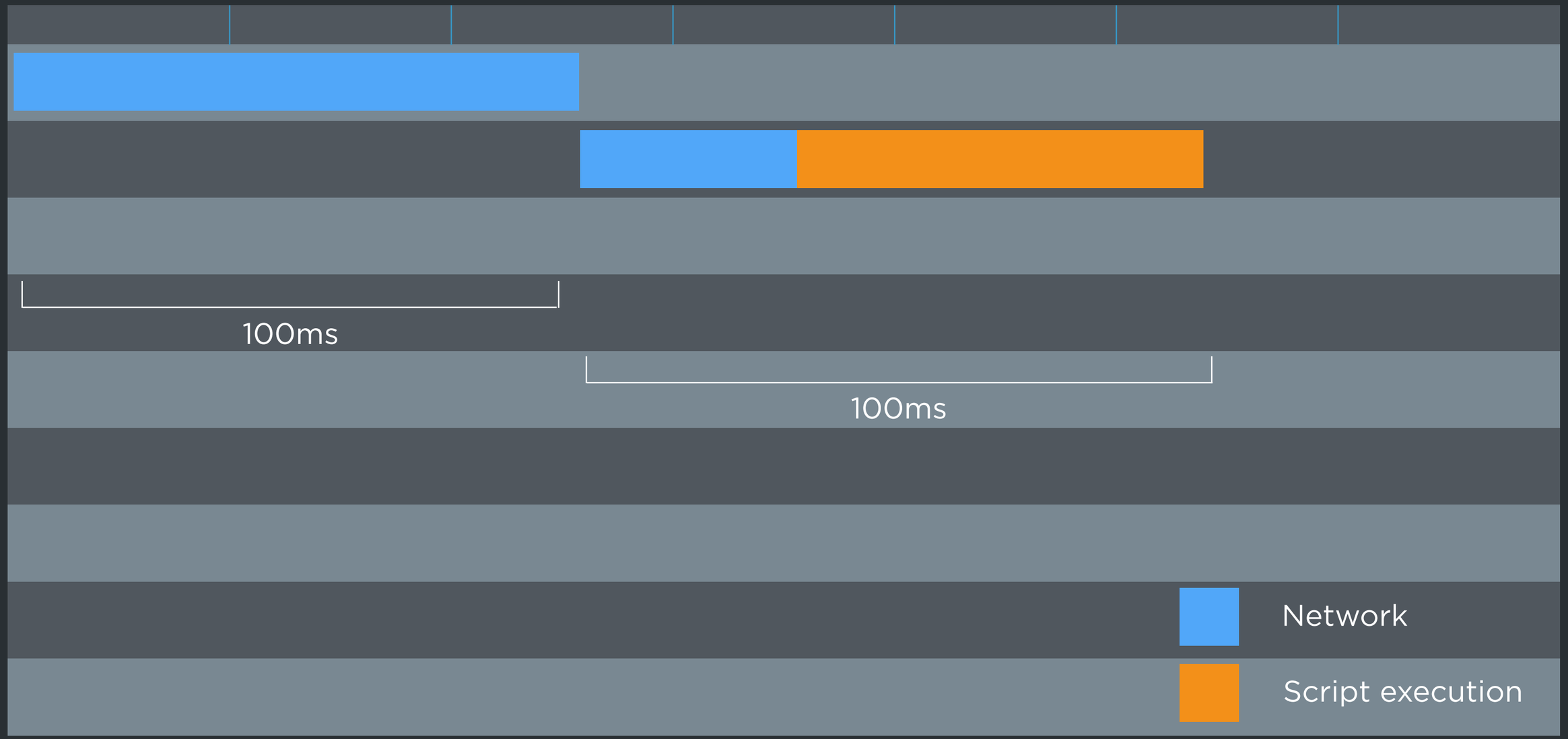
flight


Elements
Network
Sources
Timeline
Profiles
Resources
Audits
Console
11
View:
Capture:
JS Profile
Memory
Paint
Screenshots
1000 ms
2000 ms
3000 ms
4000 ms
5000 ms
6000 ms
7000 ms
8000 ms
900
60 fps
100%
2000 ms
2020 ms
2040 ms
2060 ms
2080 ms
2100 ms
2120 ms
24.1 ms
40.6 ms
15.3 ms
42.9 ms
98.9 ms
Main Thread
Animation Frame Fired (12)
U...
Function Call
Rec...yle
U...e
Paint (684 × 8941)
P...)

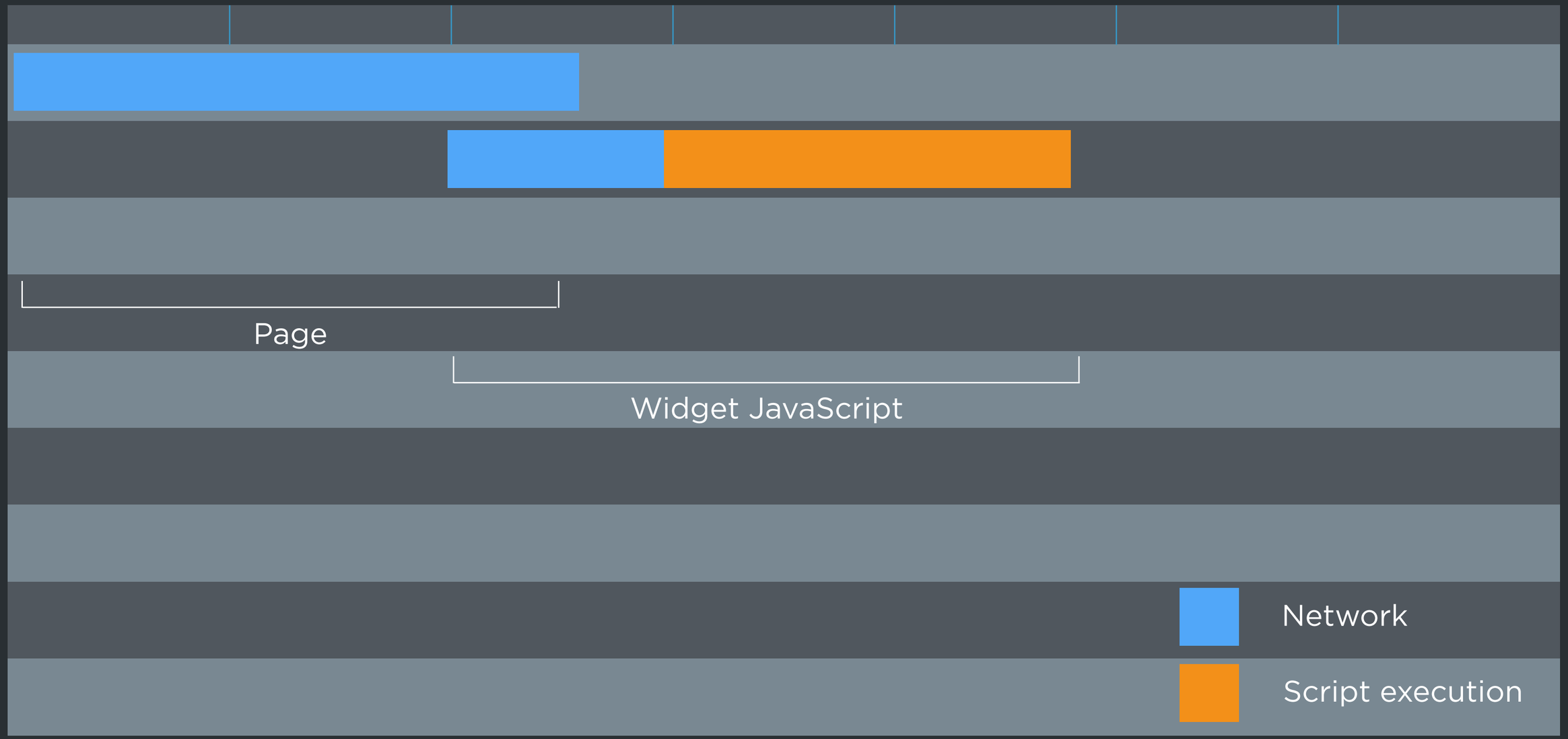
flight



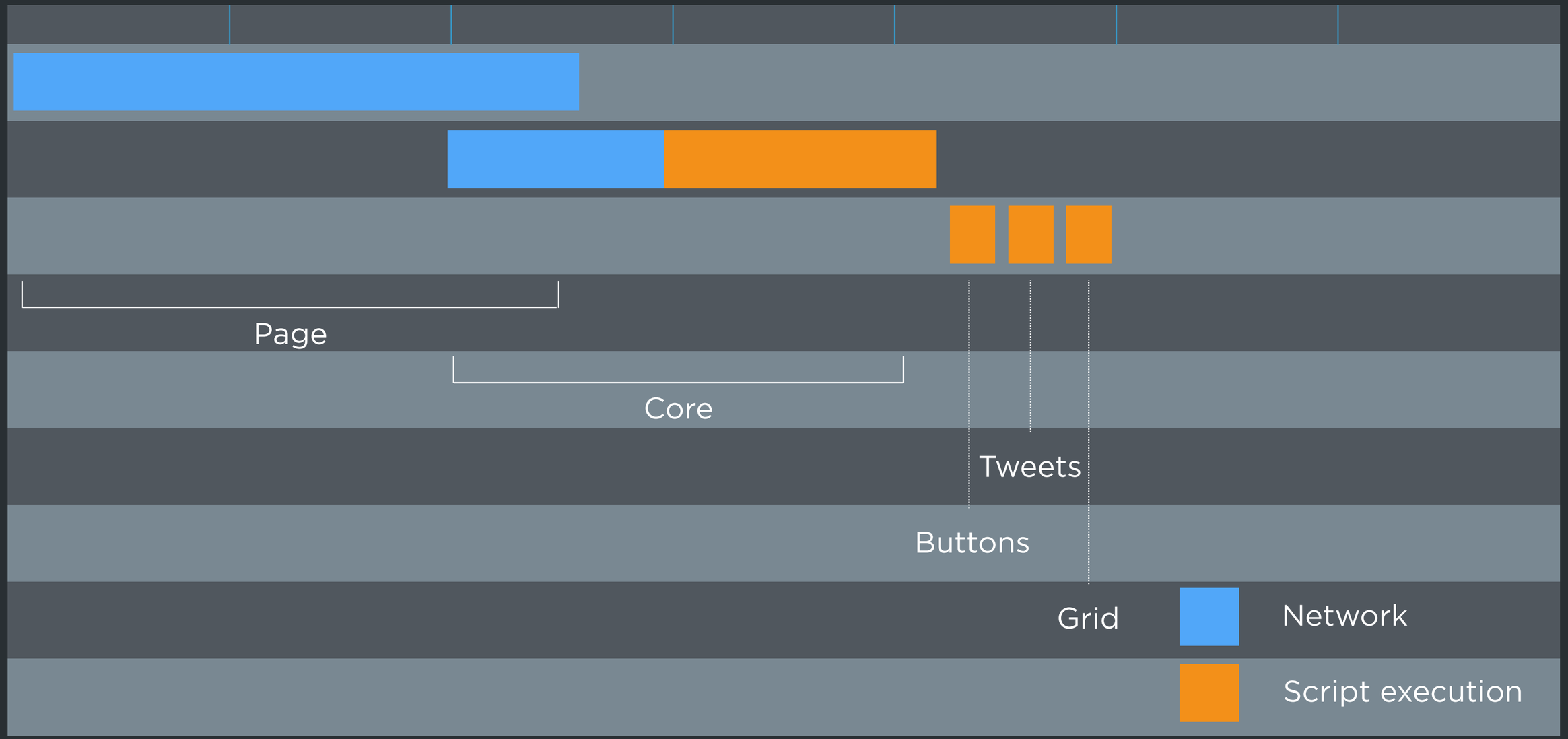
flight



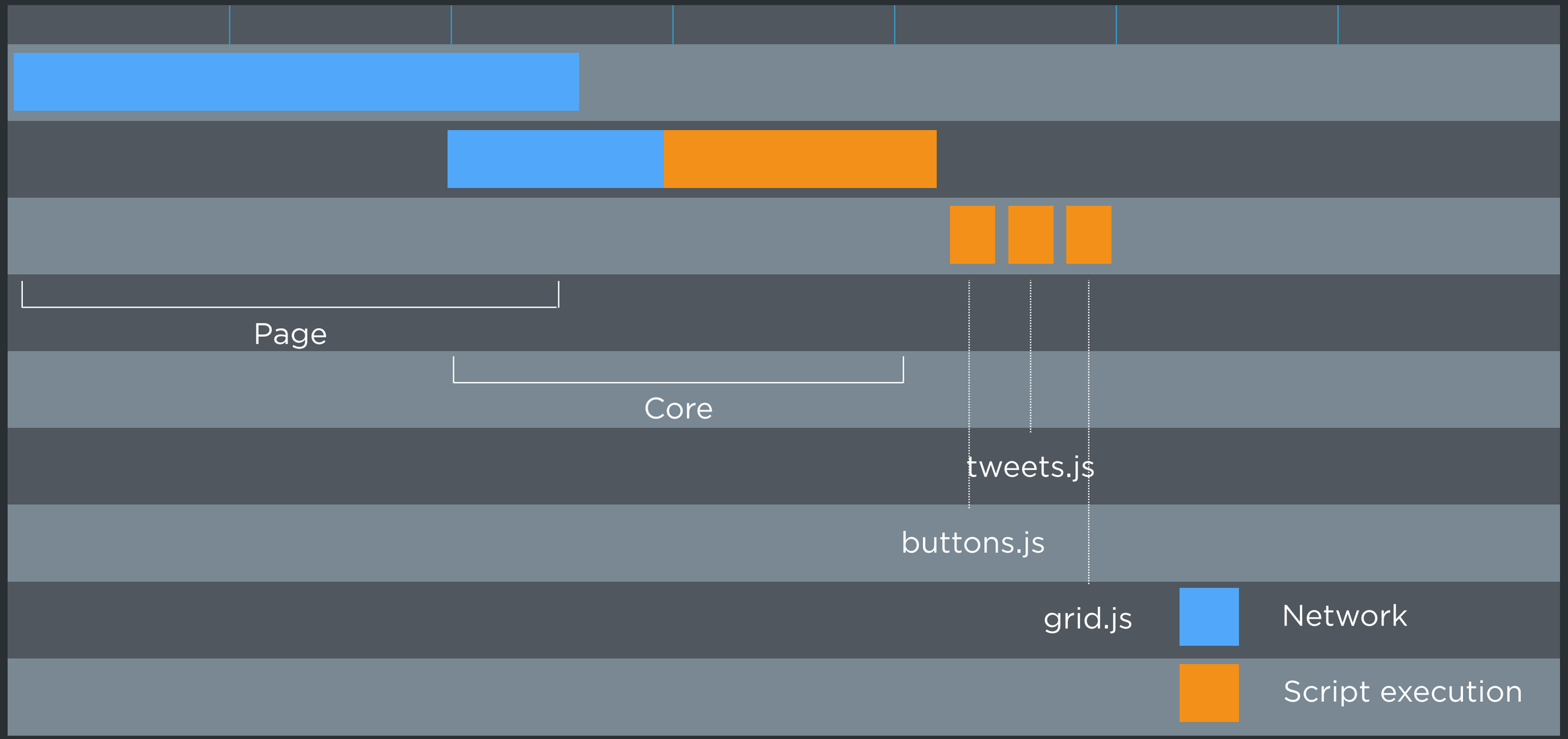
flight



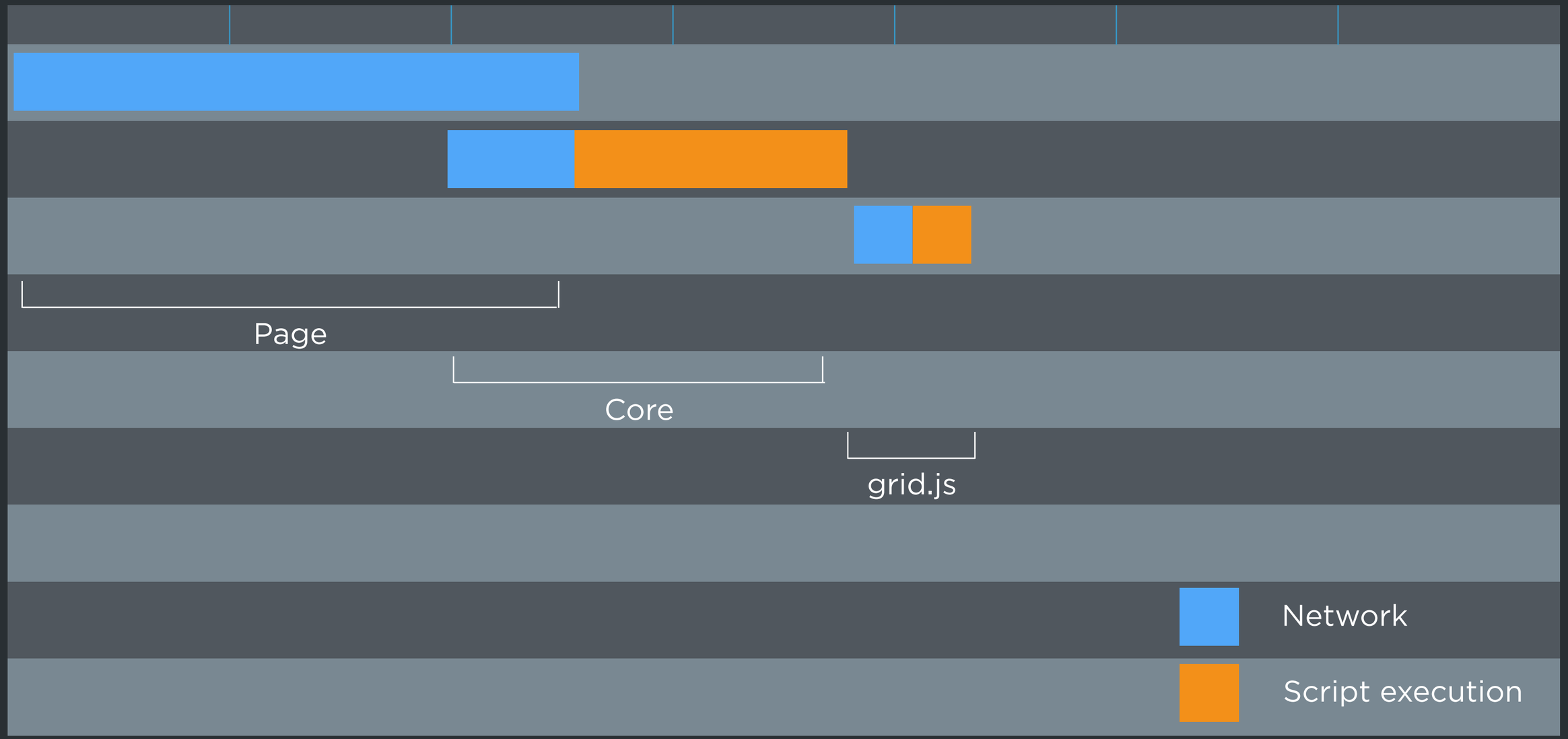
flight



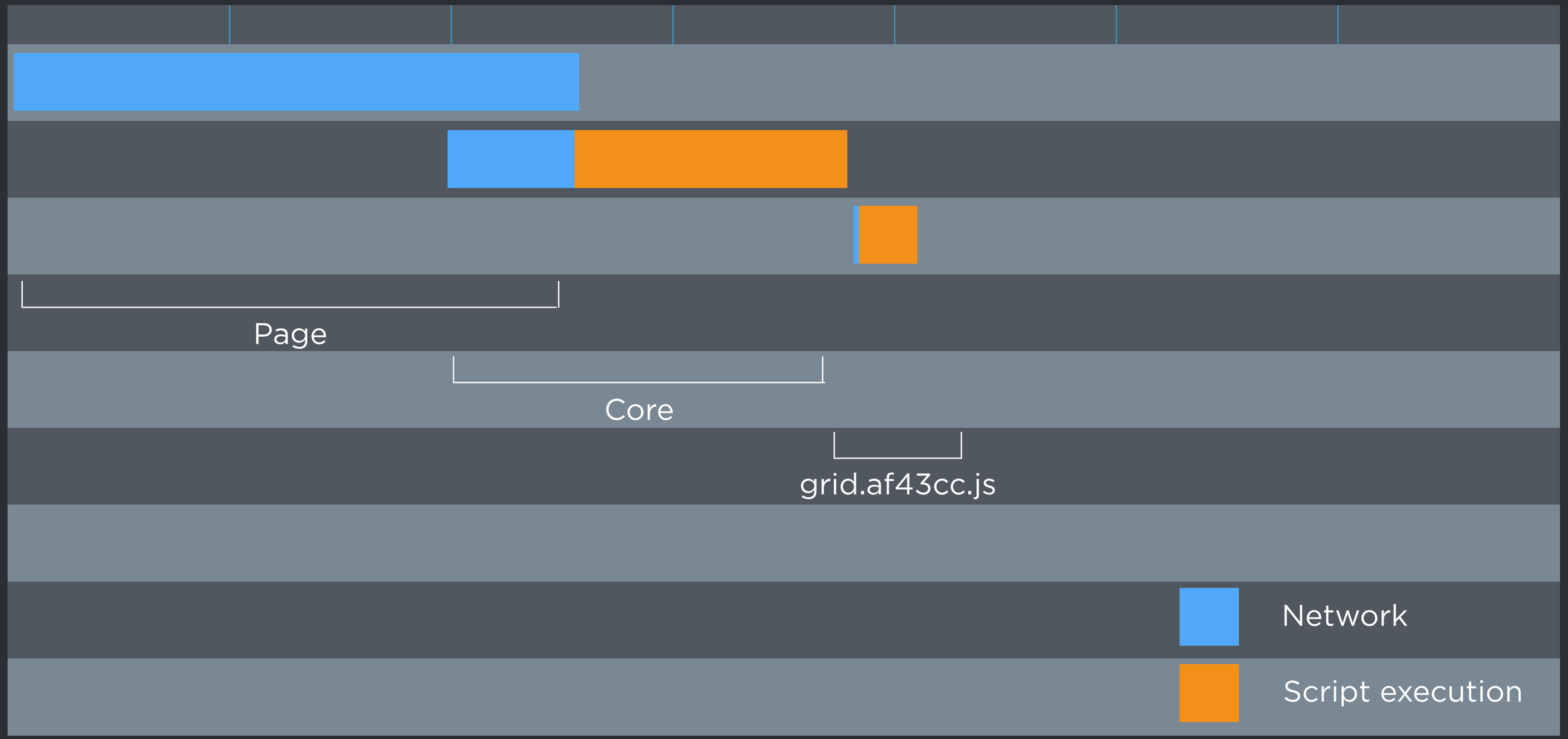
flight


Page
Core
tweets.js
buttons.js
grid.js
Network
Script execution

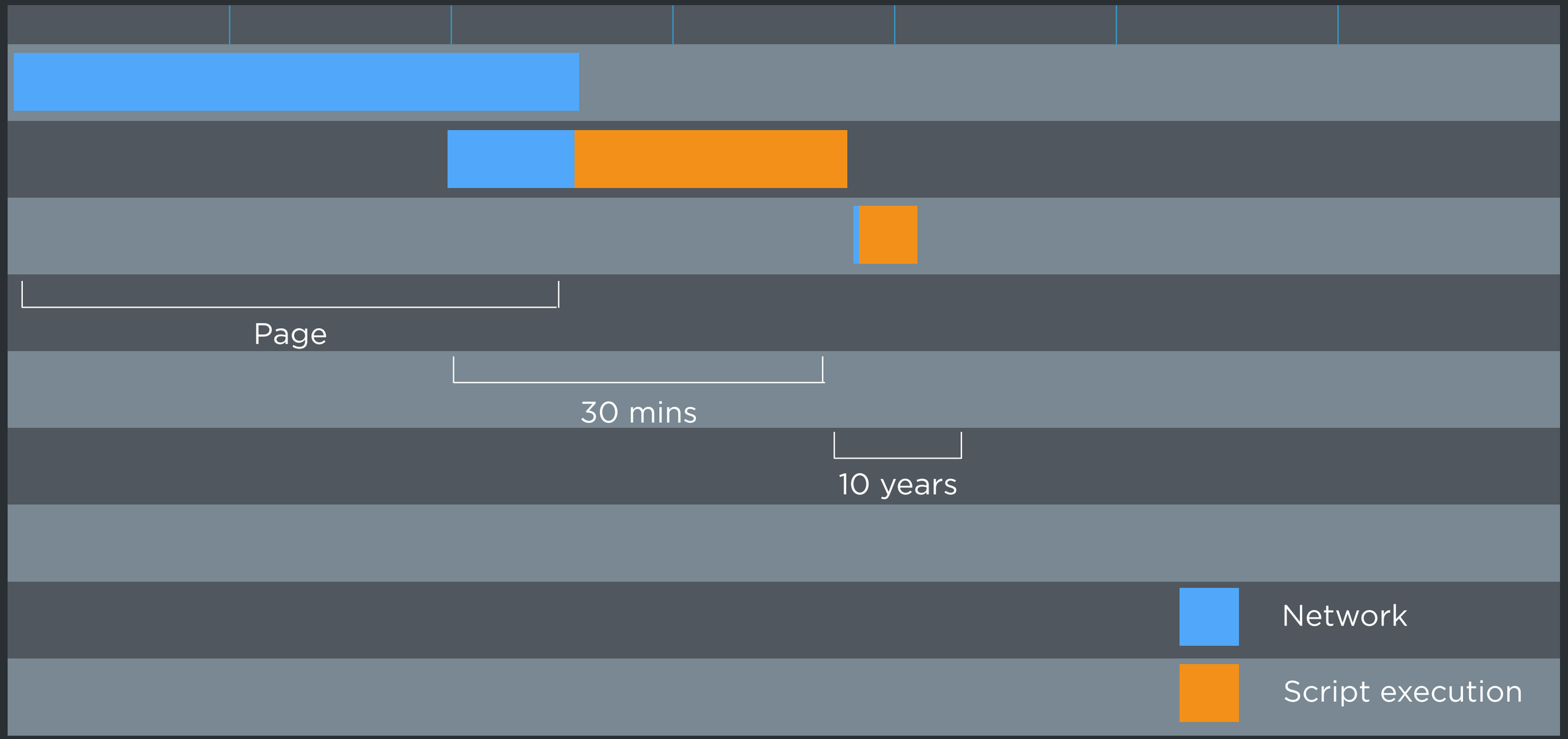
flight



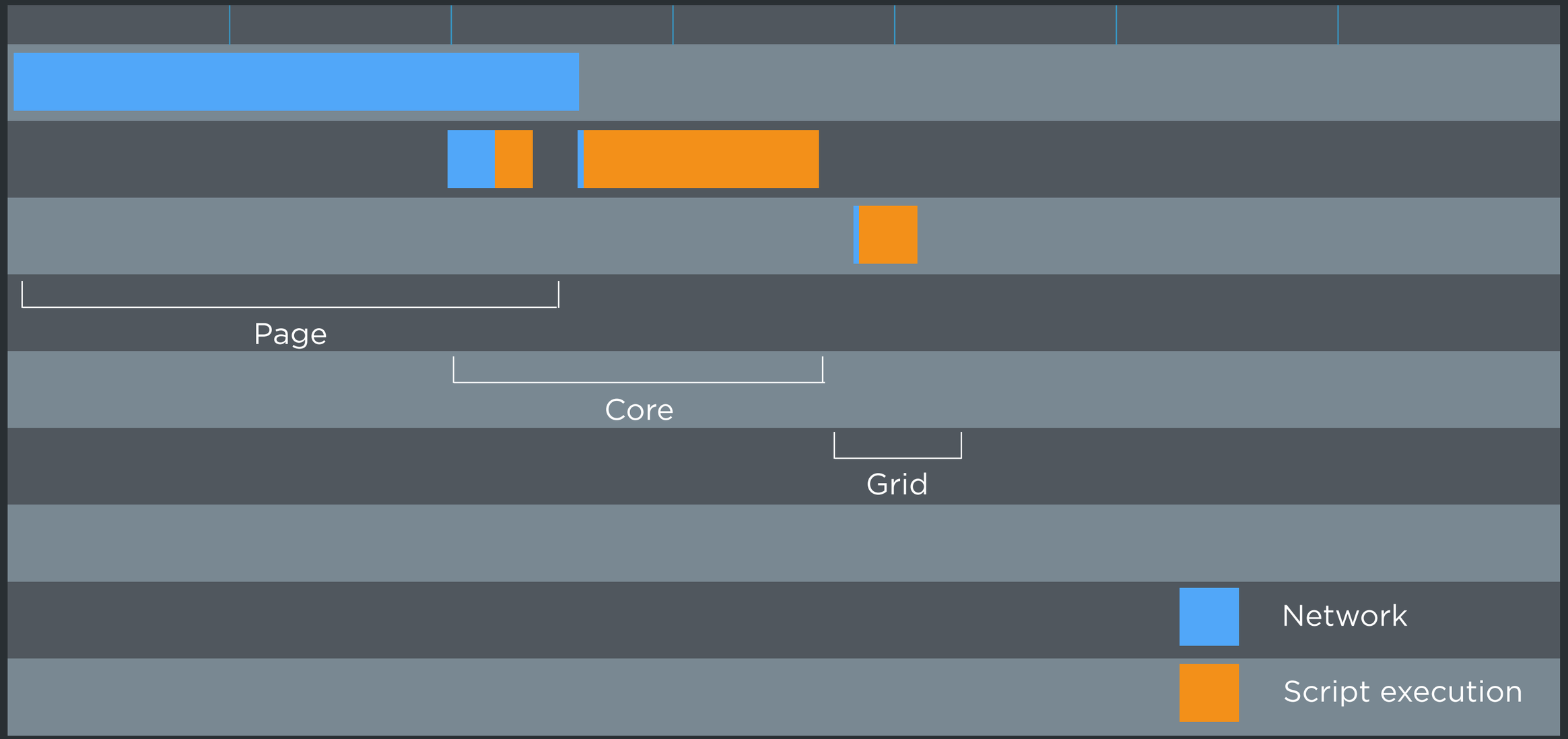
flight



flight

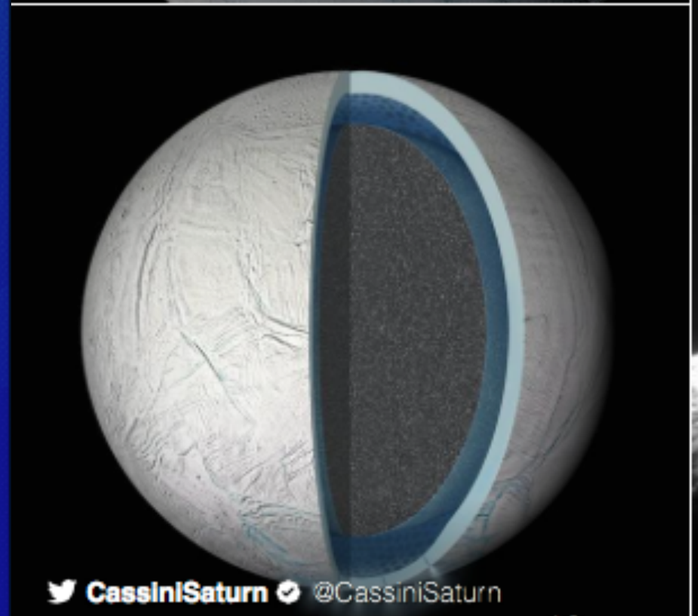


flight



flight

CassiniSaturn @CassiniSaturn
A global ocean lies beneath the icy crust of Satu...


CassiniSaturn @CassiniSaturn

CassiniSaturn @CassiniSaturn
A global ocean lies beneath the icy crust of Saturn's moon Enceladus. go.nasa.gov/1ieXHpR

flight

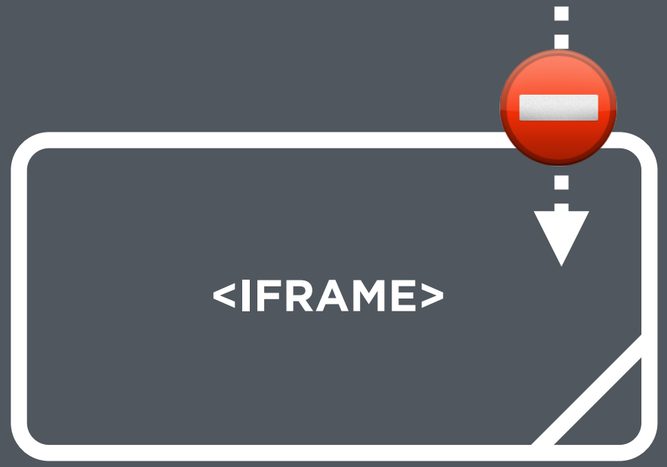
```
var newsContainer = document.querySelector(“#news”);

twttr.widgets.createCollectionGrid(“501449552810225664”, newsContainer)
  .then(function (w) {
    fadeIn(newsContainer);
  });
```

```
var newsContainer = document.querySelector(“#news”);

twttr.widgets.createCollectionGrid(“501449552810225664”, newsContainer)
```

```
  .then(function (w) {
    fadeIn(newsContainer);
  });
```

flight

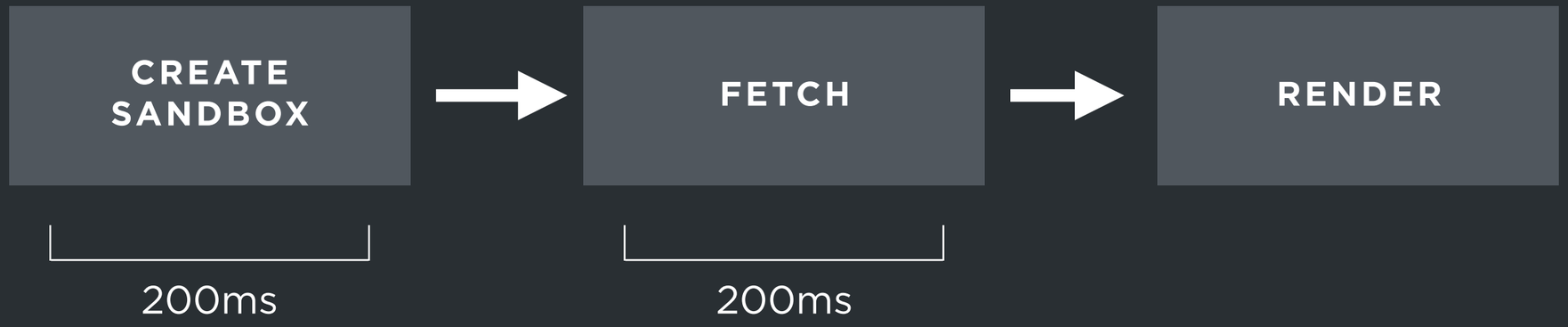
Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamc.

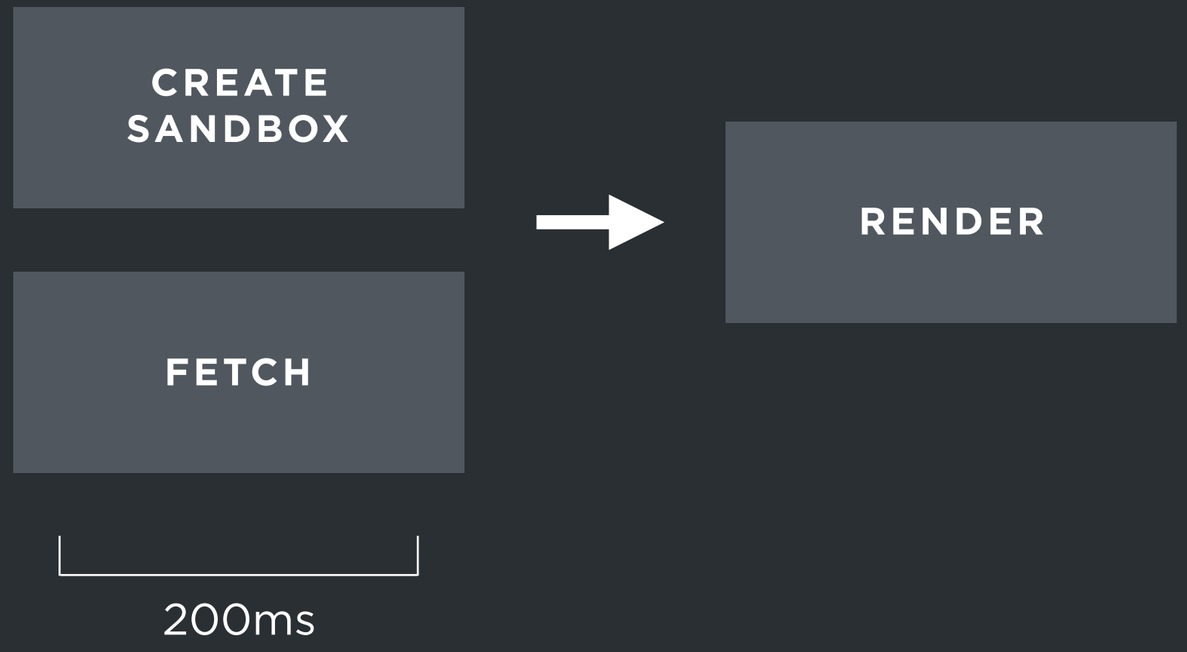


Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

flight

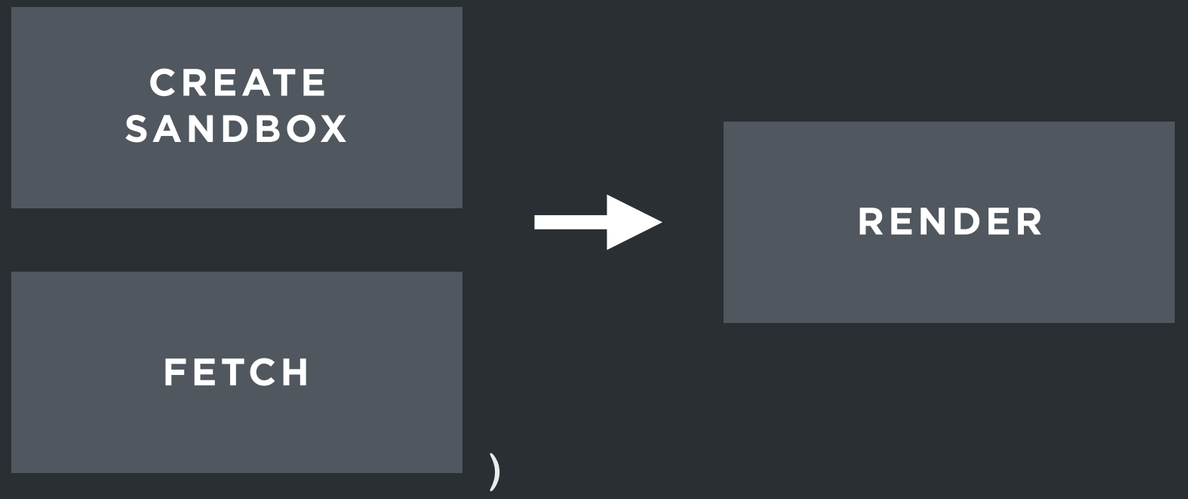
CREATE SANDBOX
FETCH
RENDER


CREATE SANDBOX
FETCH
RENDER
200ms
200ms



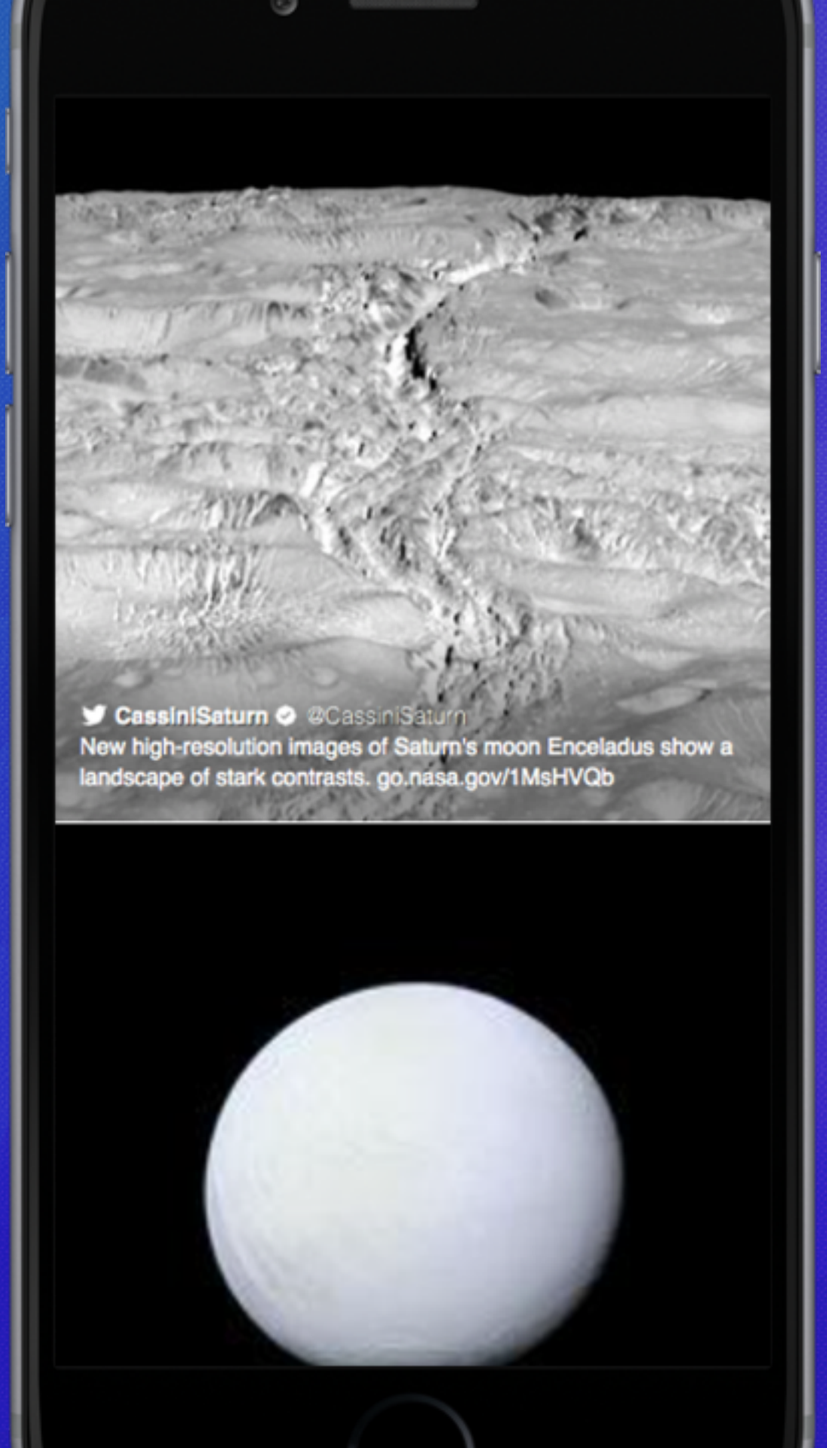
flight

```
Promise.all(
```

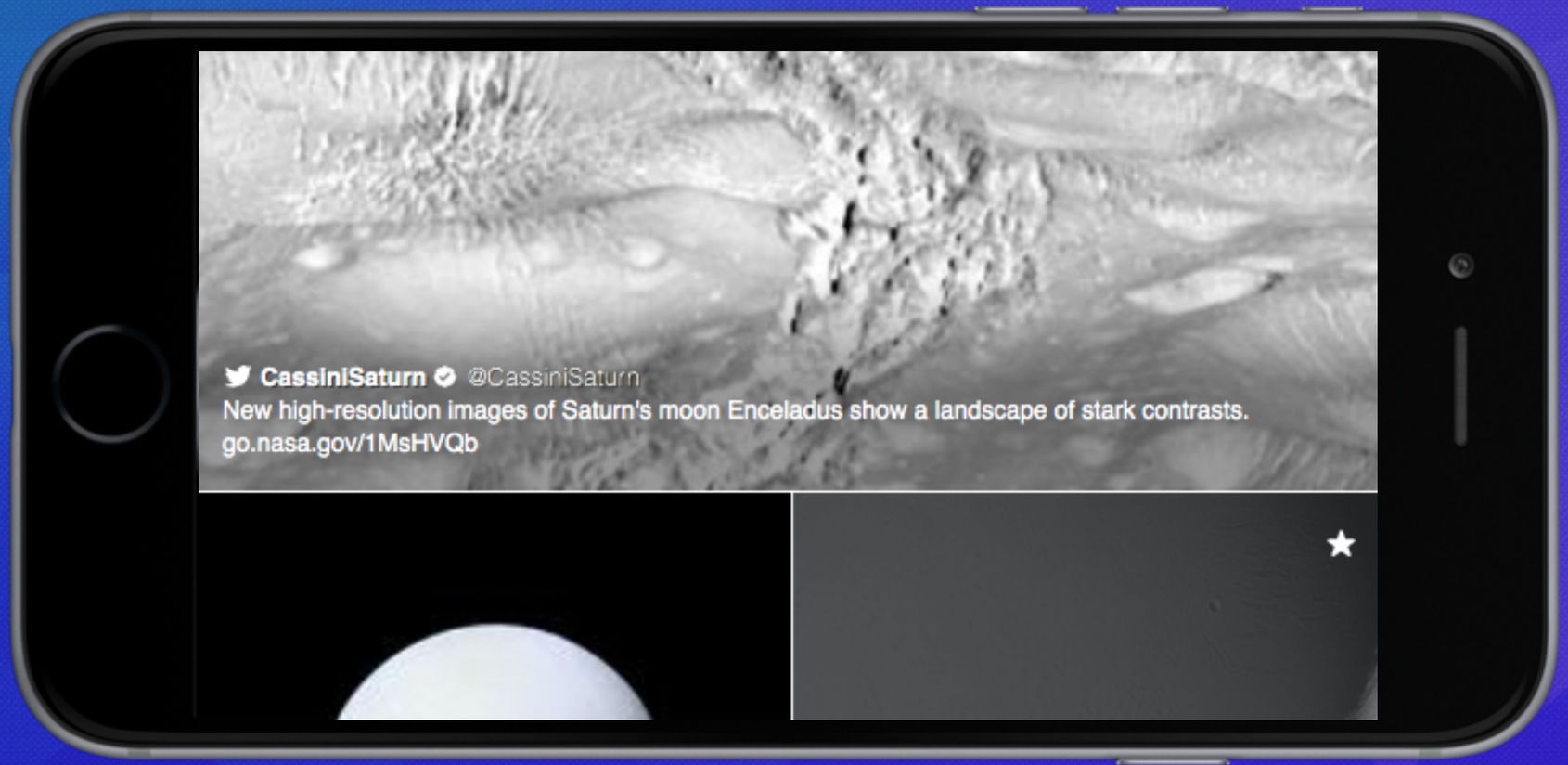



```
)
```

flight


CassiniSaturn @CassiniSaturn
New high-resolution images of Saturn's moon Enceladus show a landscape of stark contrasts. go.nasa.gov/1MsHVQb

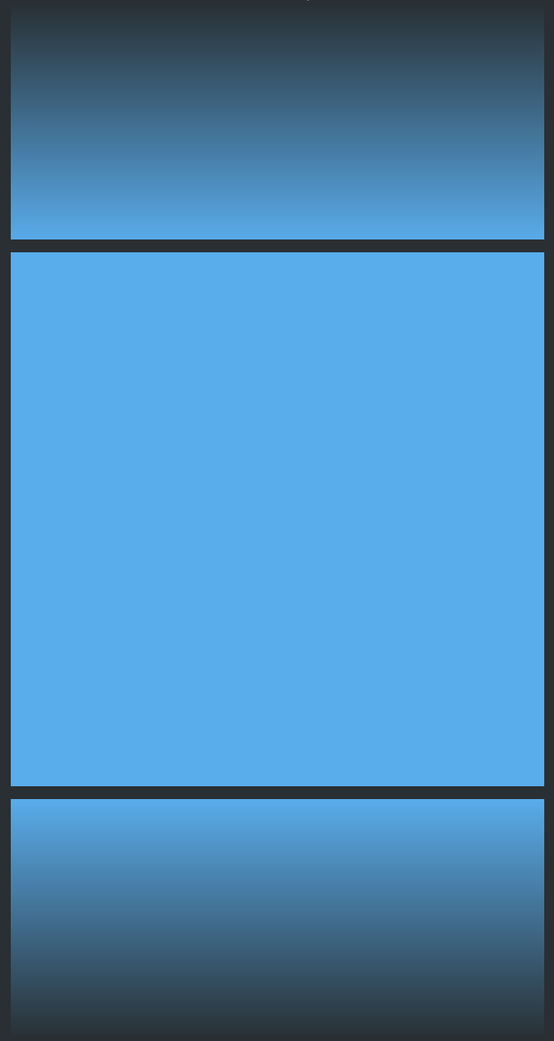
flight


CassiniSaturn @CassiniSaturn
New high-resolution images of Saturn's moon Enceladus show a landscape of stark contrasts.
go.nasa.gov/1MsHVQb

flight

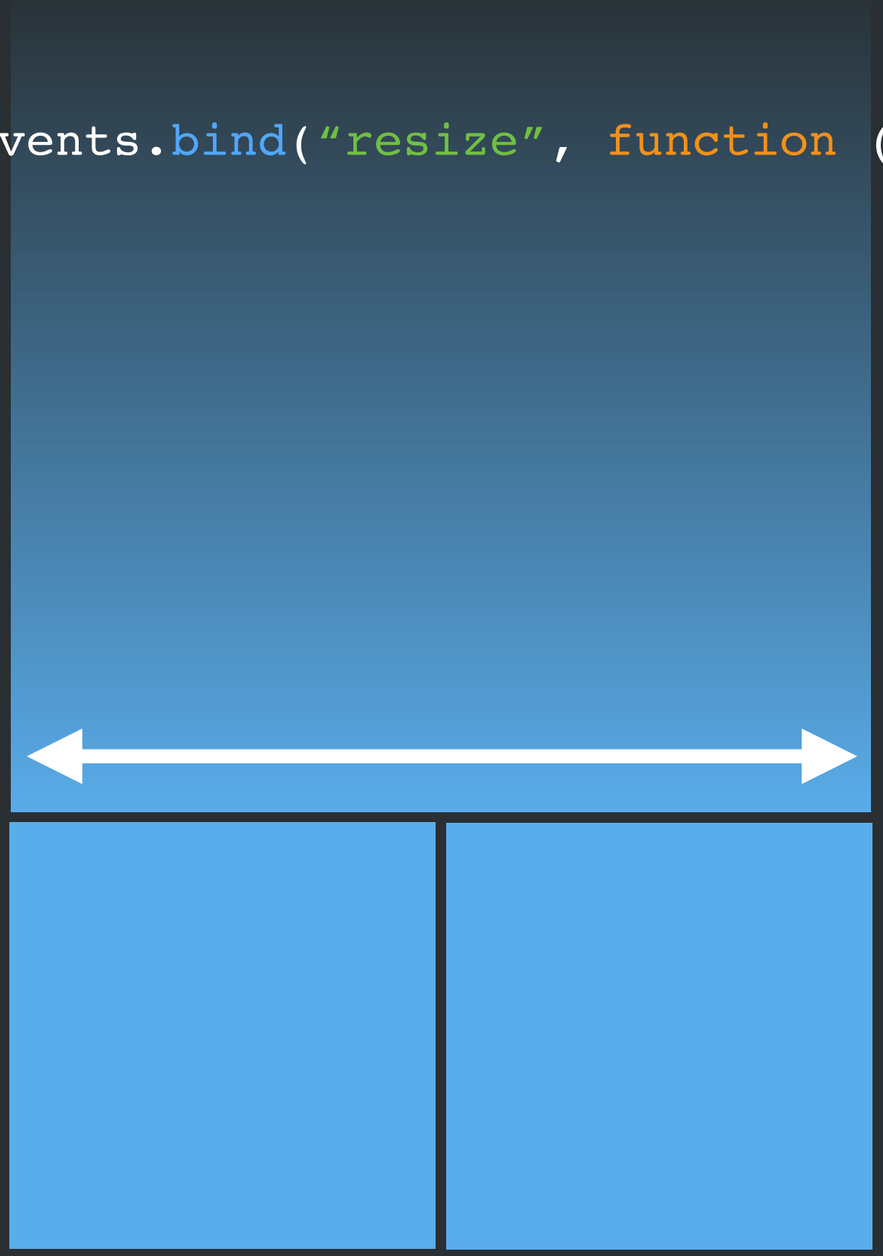
```
twttr.events.bind(“resize”, function () {

});
```

```
twttr.events.bind("resize", function () {

});
```



flight

```
twttr.events.bind(“resize”, function () {

});
```



flight

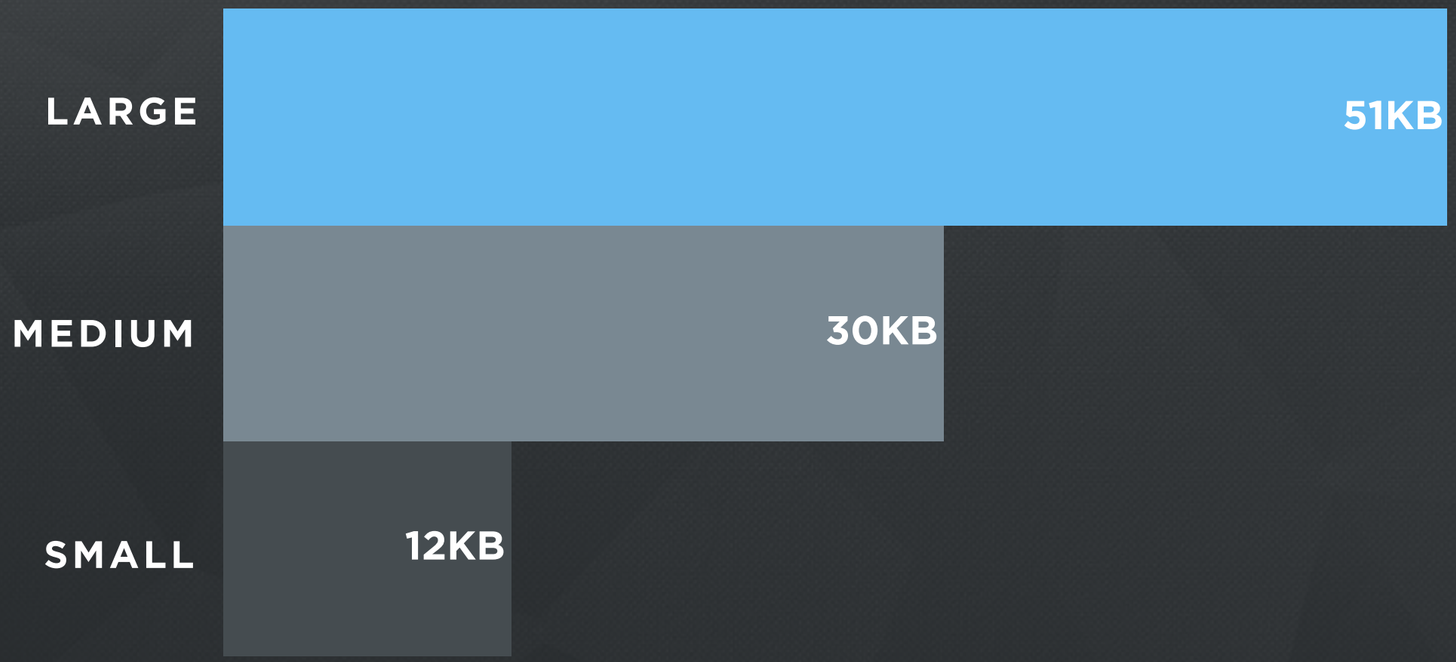
```
<a class=“MediaCard-mediaAsset NaturalImage"
   href="http://twitter.com/thunderlounging/status/502934636402450433">
  <img class=“NaturalImage-image"
       data-srcset=“https://pbs.twimg.com/123/small.jpg 340w,
                    https://pbs.twimg.com/123/medium.jpg 600w,
                    https://pbs.twimg.com/123/large.jpg 900w”
       width=“340"
       height=“295"
       alt="View image on Twitter”
       src=“https://pbs.twimg.com/123/small.jpg”>
</a>
```

```
<img data-srcset="https://pbs.twimg.com/123/small.jpg 340w,
                  https://pbs.twimg.com/123/medium.jpg 600w,
                  https://pbs.twimg.com/123/large.jpg 900w">
```

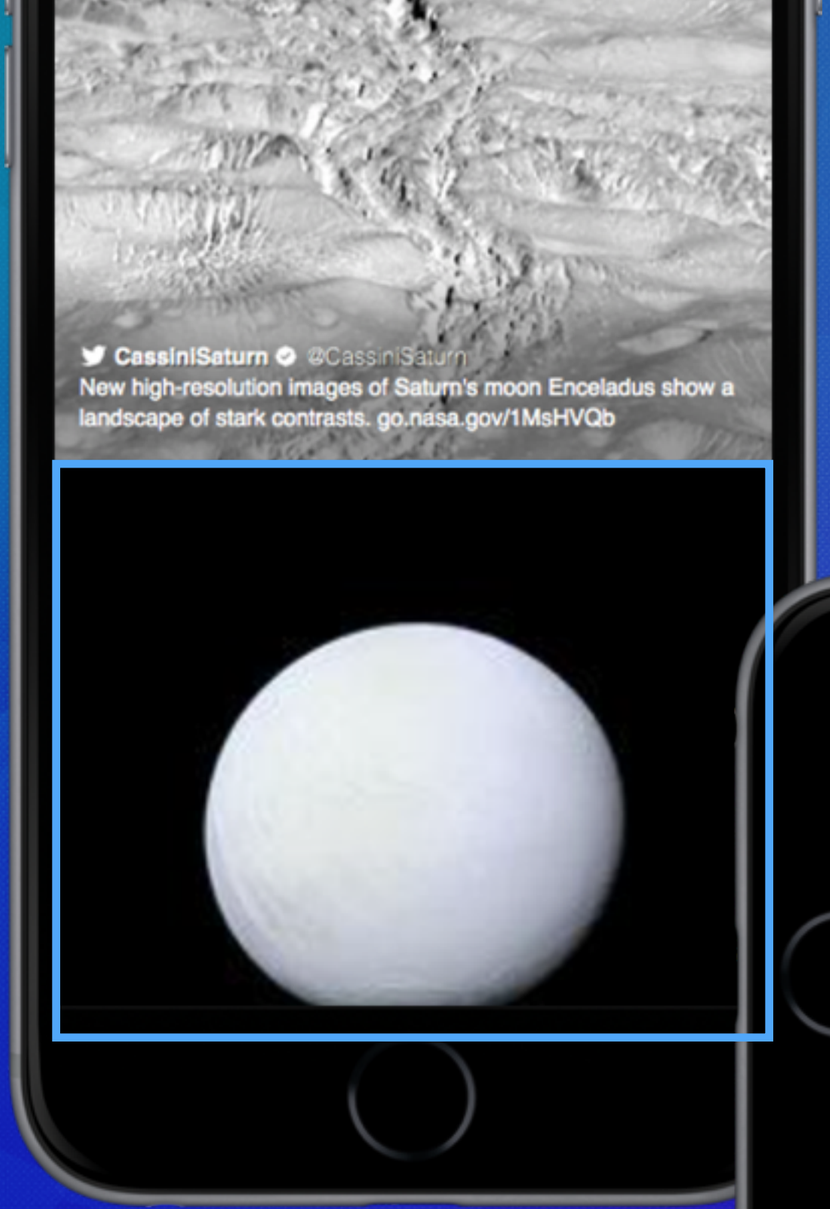
flight

```
<img
                src="https://pbs.twimg.com/123/large.jpg"      >
```

Image Transfer Size



flight


CassiniSaturn @CassiniSaturn
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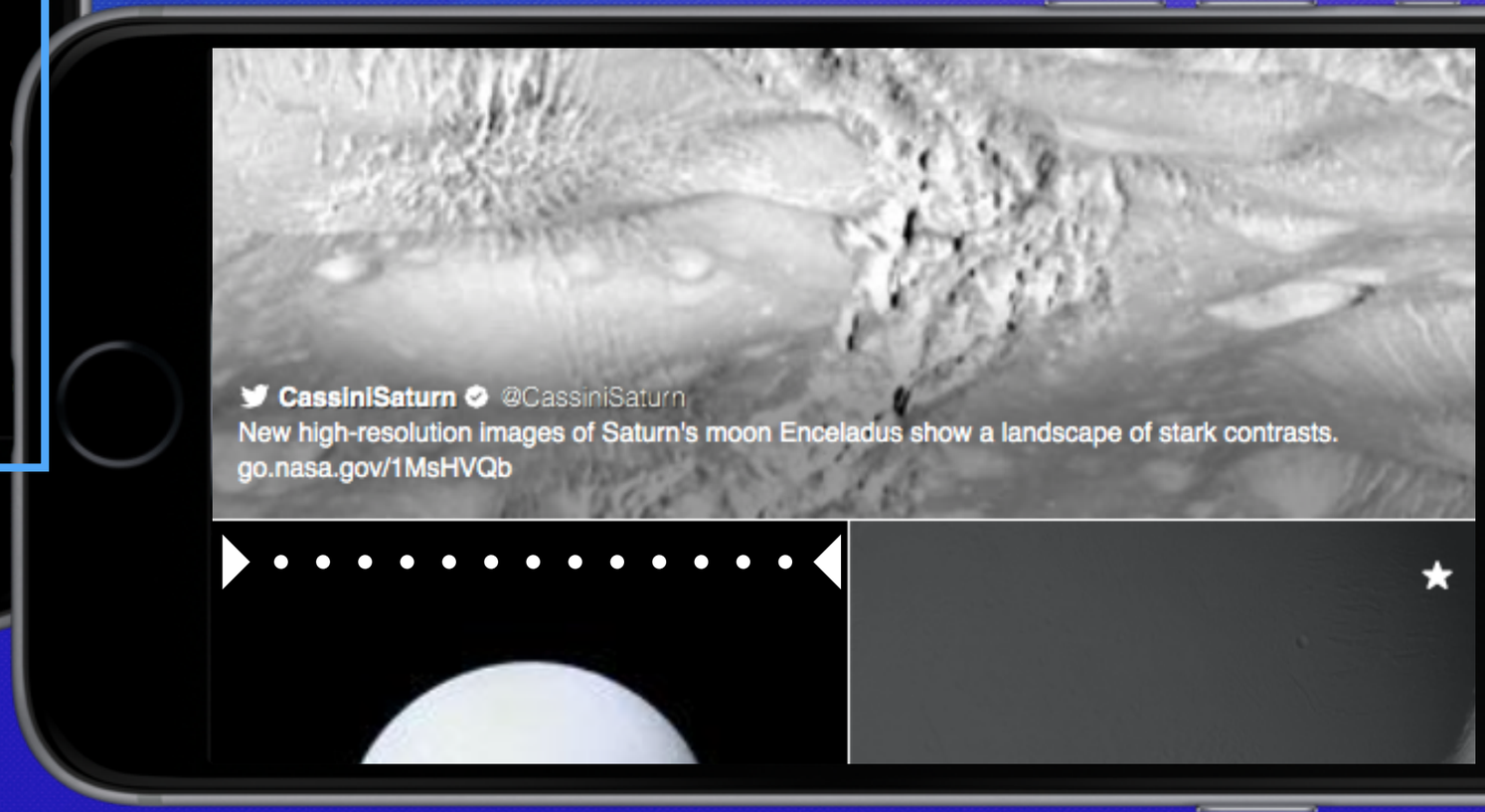
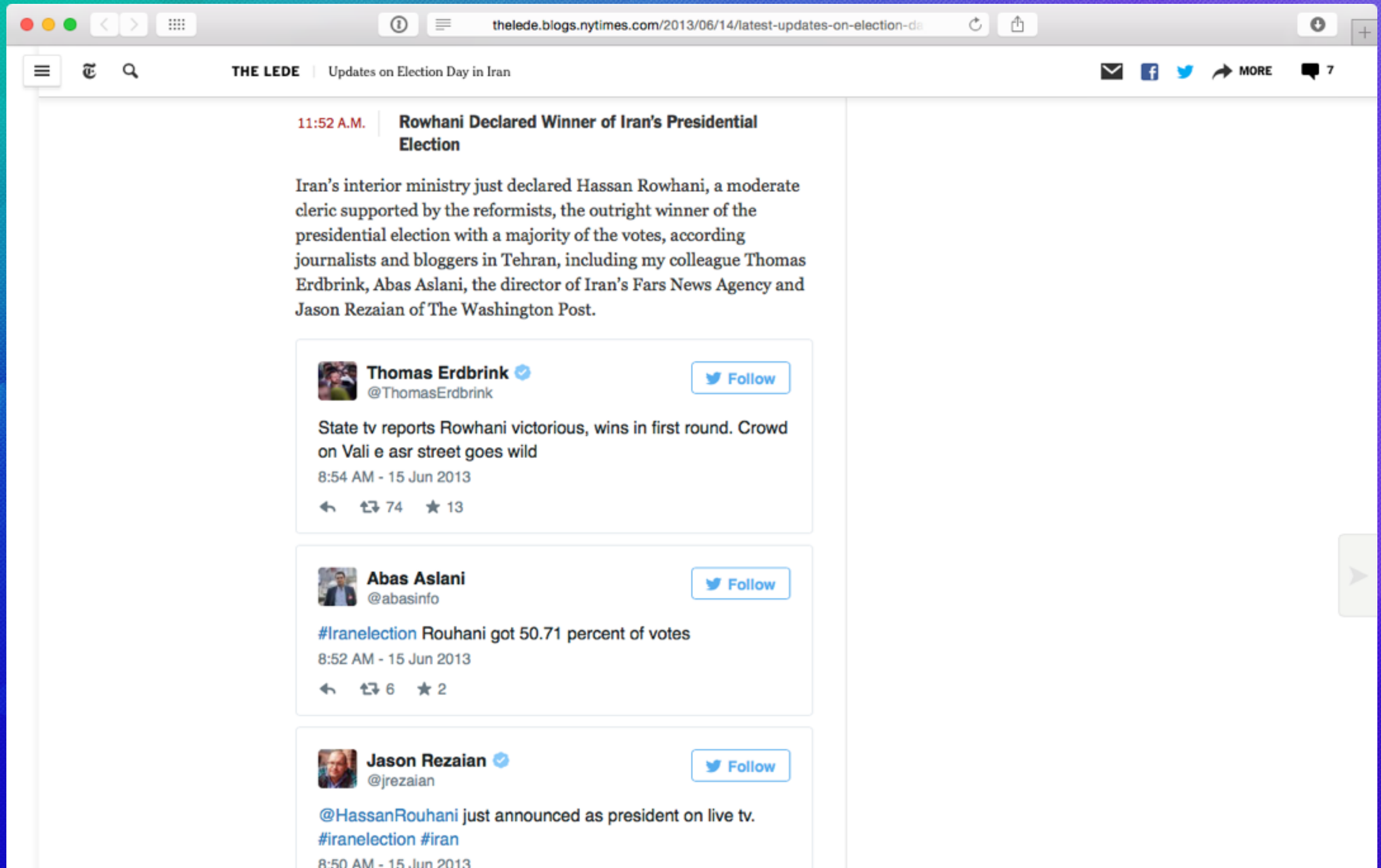
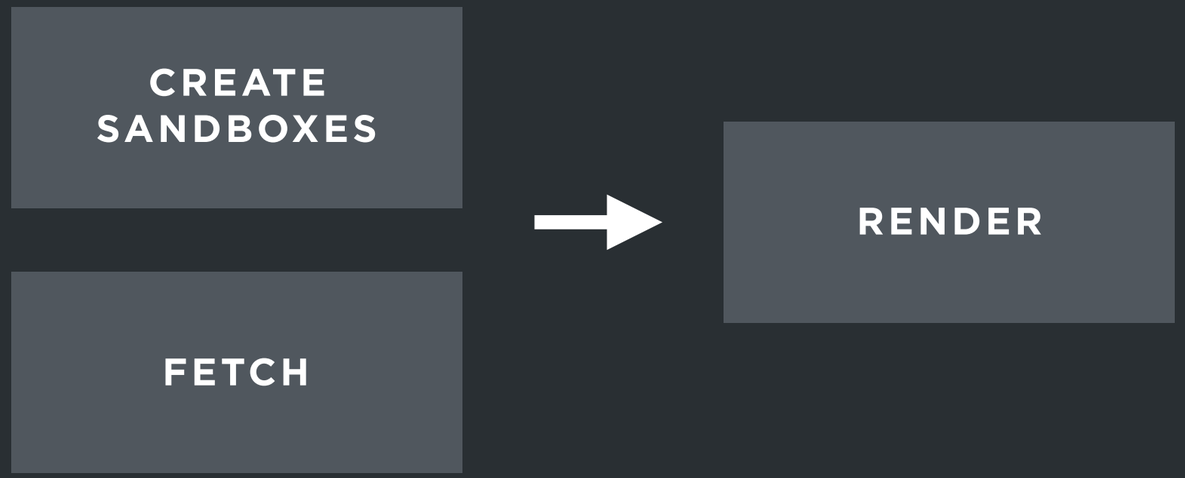
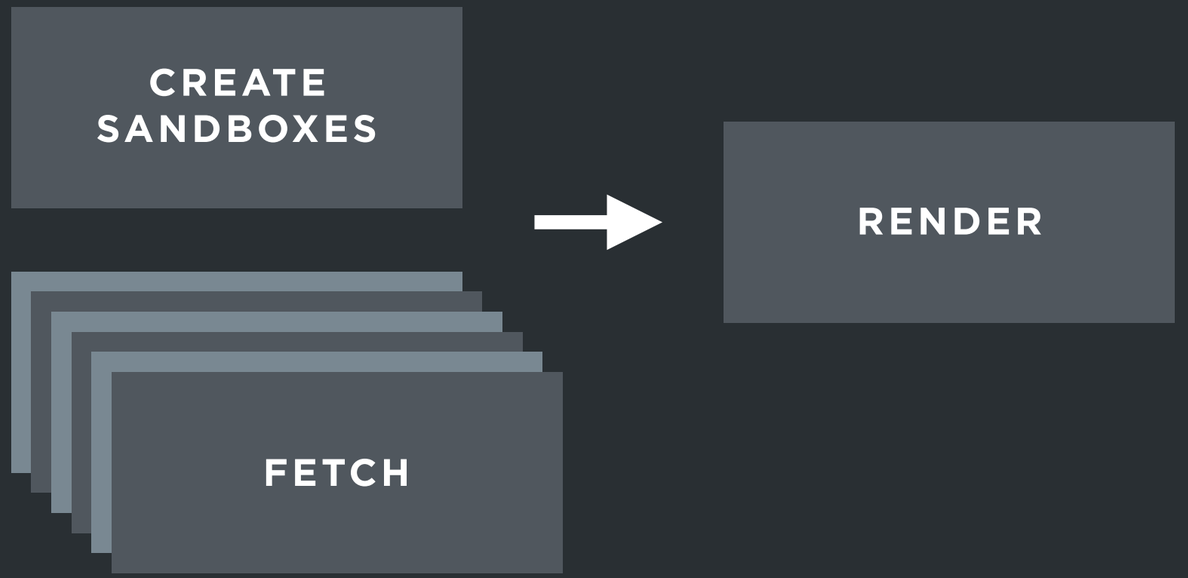

CassiniSaturn @CassiniSaturn
New high-resolution images of Saturn's moon Enceladus show a landscape of stark contrasts.
go.nasa.gov/1MsHVQb

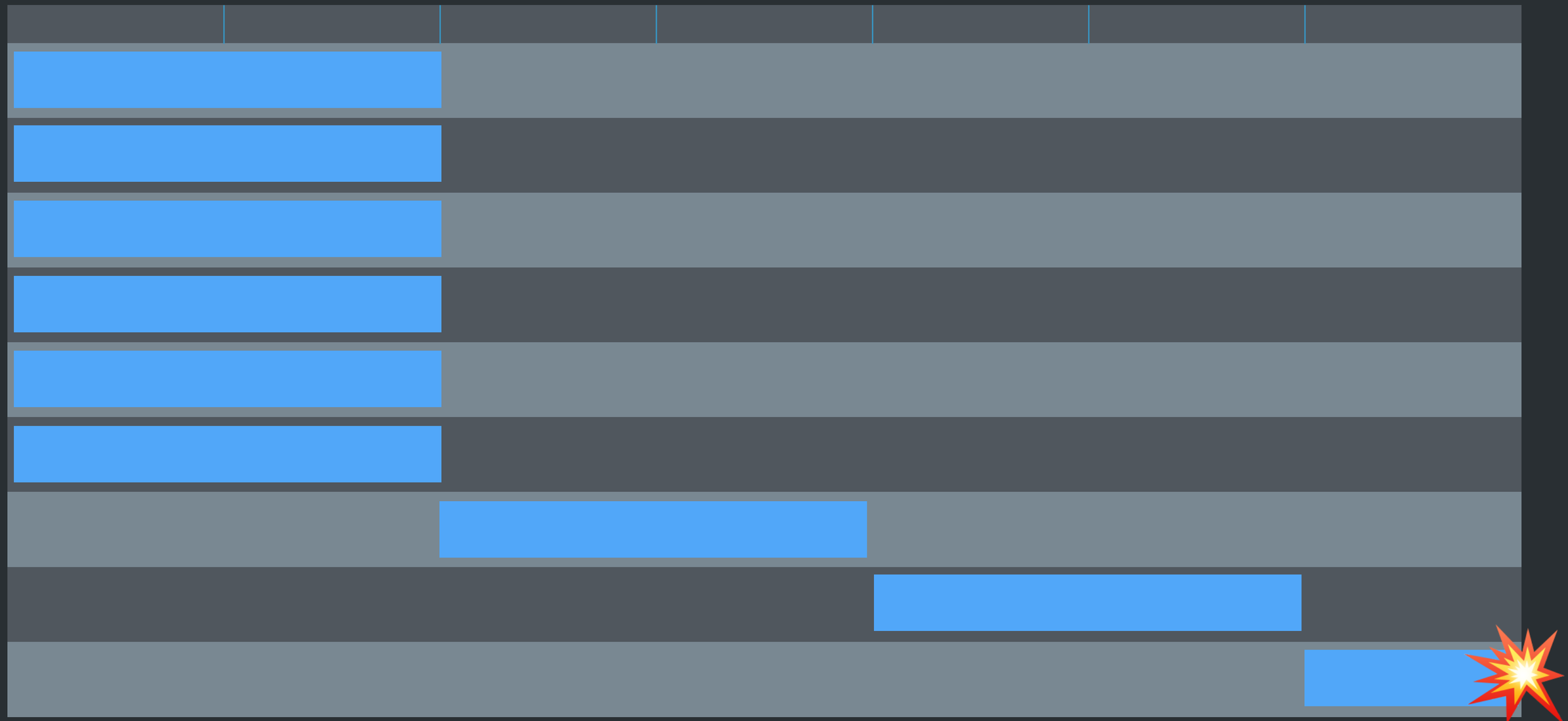
flight


thelede.blogs.nytimes.com/2013/06/14/latest-updates-on-election-da
THE LEDE | Updates on Election Day in Iran
MORE
7
11:52 A.M.
Rowhani Declared Winner of Iran's Presidential Election
Iran's interior ministry just declared Hassan Rowhani, a moderate cleric supported by the reformists, the outright winner of the presidential election with a majority of the votes, according journalists and bloggers in Tehran, including my colleague Thomas Erdbrink, Abas Aslani, the director of Iran's Fars News Agency and Jason Rezaian of The Washington Post.
Thomas Erdbrink
@ThomasErdbrink
Follow
State tv reports Rowhani victorious, wins in first round. Crowd on Vali e asr street goes wild
8:54 AM - 15 Jun 2013
74
13
Abas Aslani
@abasinfo
Follow
#Iranelection Rouhani got 50.71 percent of votes
8:52 AM - 15 Jun 2013
6
2
Jason Rezaian
@jrezaian
Follow
@HassanRouhani just announced as president on live tv. #iranelection #iran
8:50 AM - 15 Jun 2013

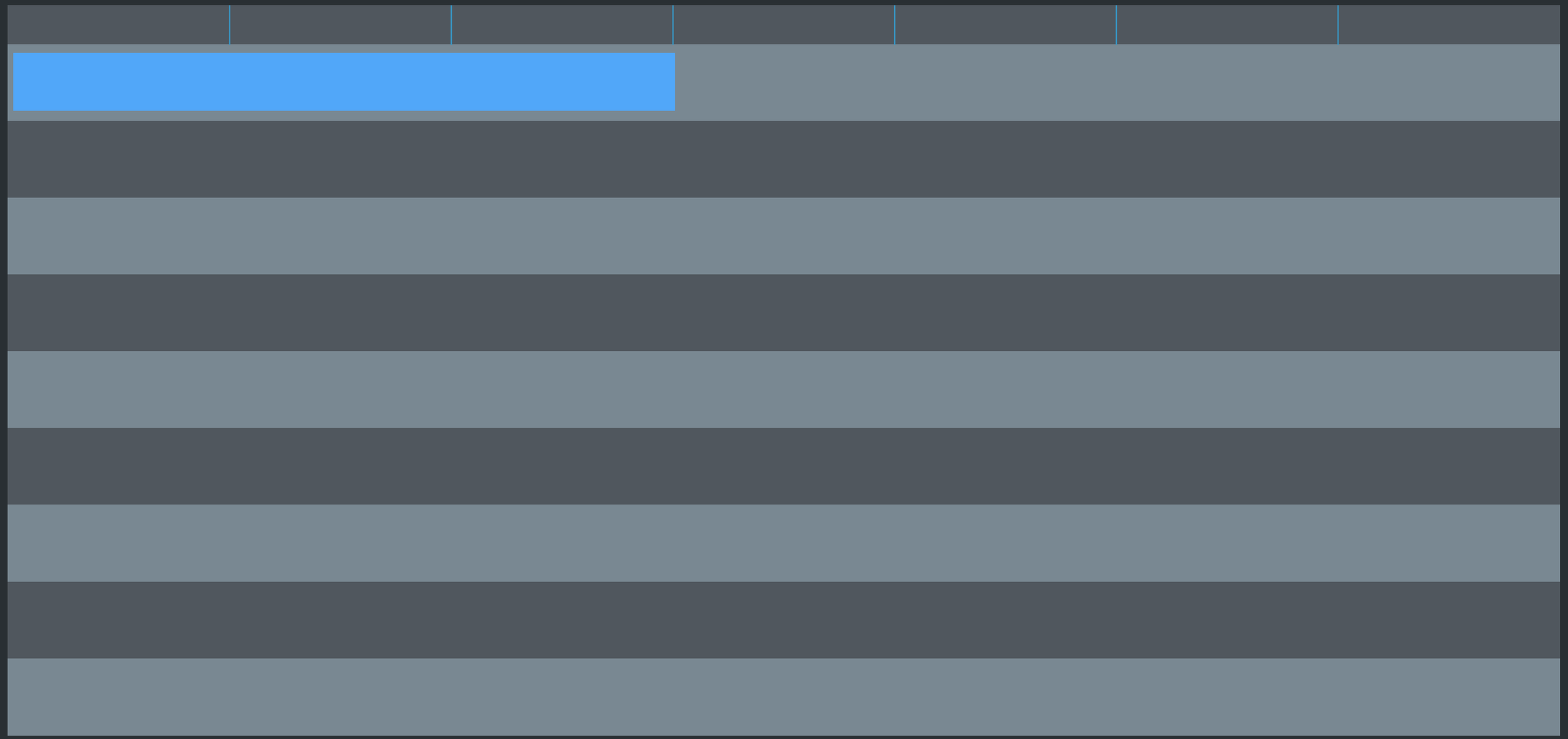
flight


CREATE
SANDBOXES
FETCH
RENDER


CREATE
SANDBOXES
FETCH
RENDER

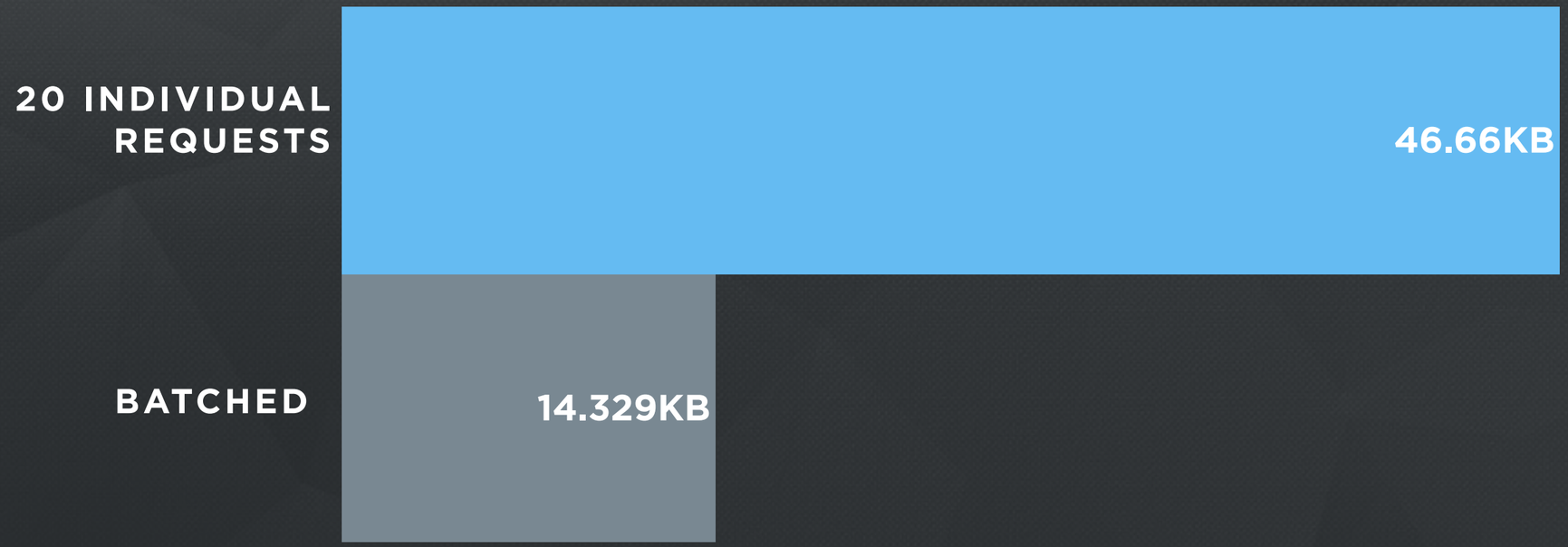


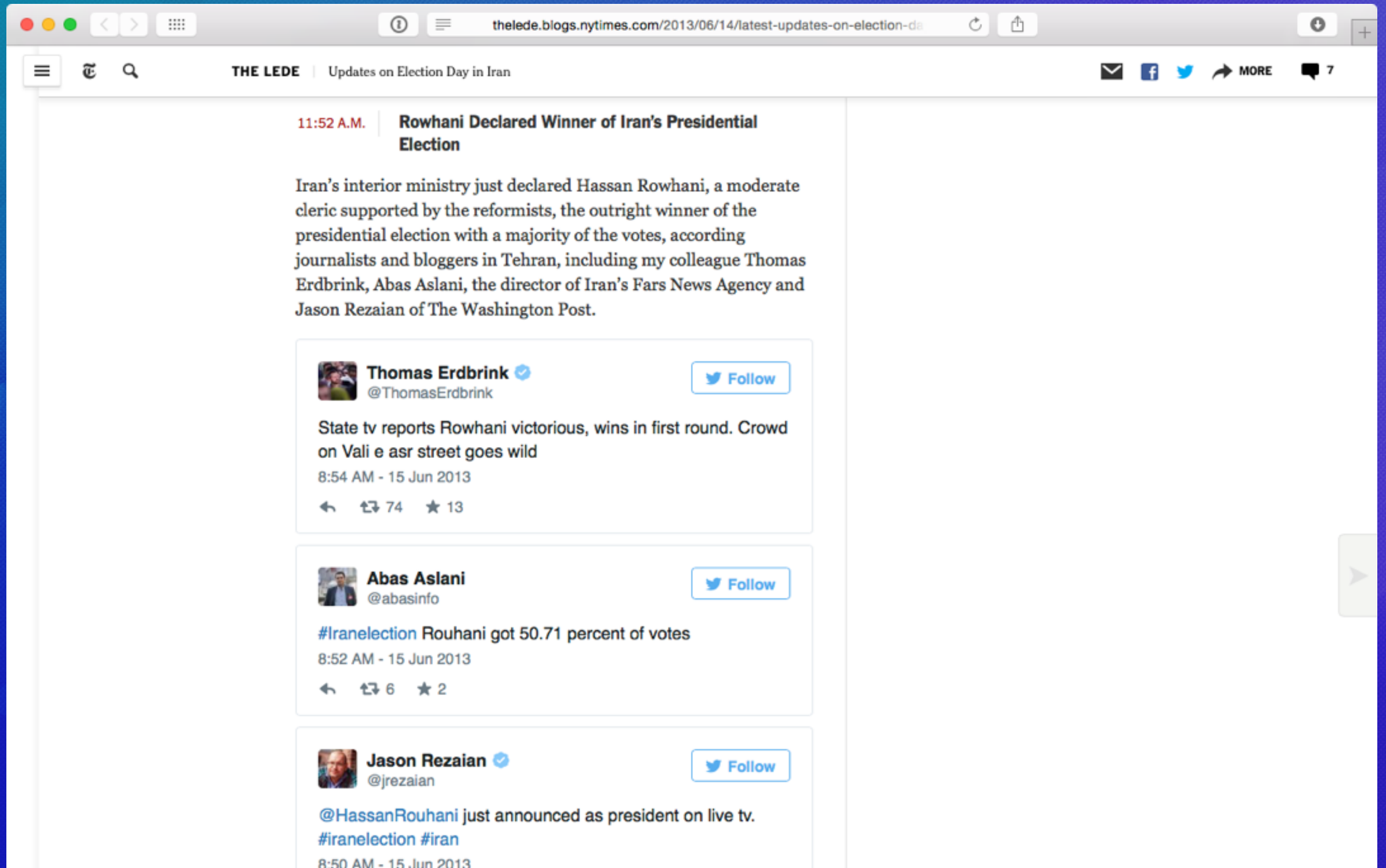
flight



flight

Tweet Transfer Size - Gzipped




thelede.blogs.nytimes.com/2013/06/14/latest-updates-on-election-da
THE LEDE | Updates on Election Day in Iran
MORE
7
11:52 A.M.
Rowhani Declared Winner of Iran's Presidential Election
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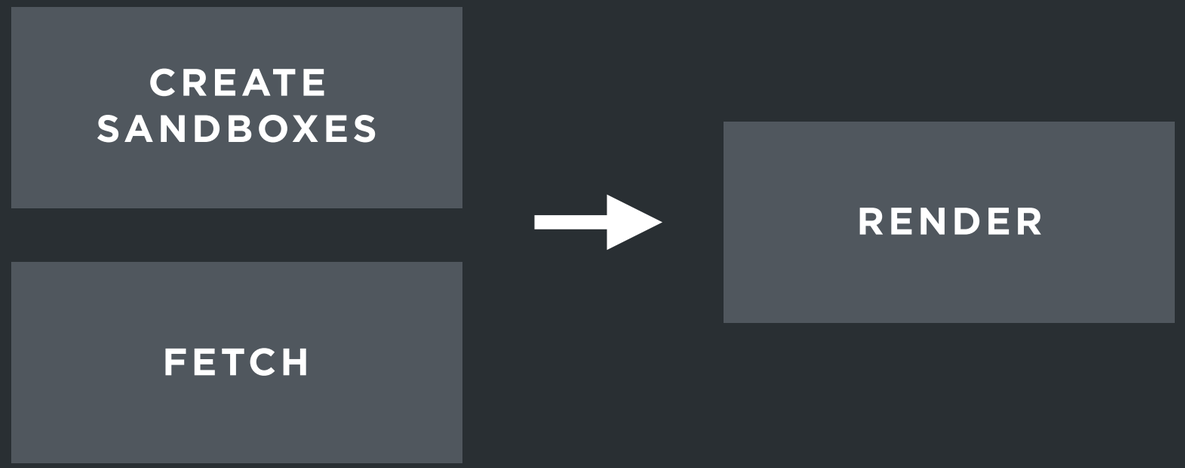
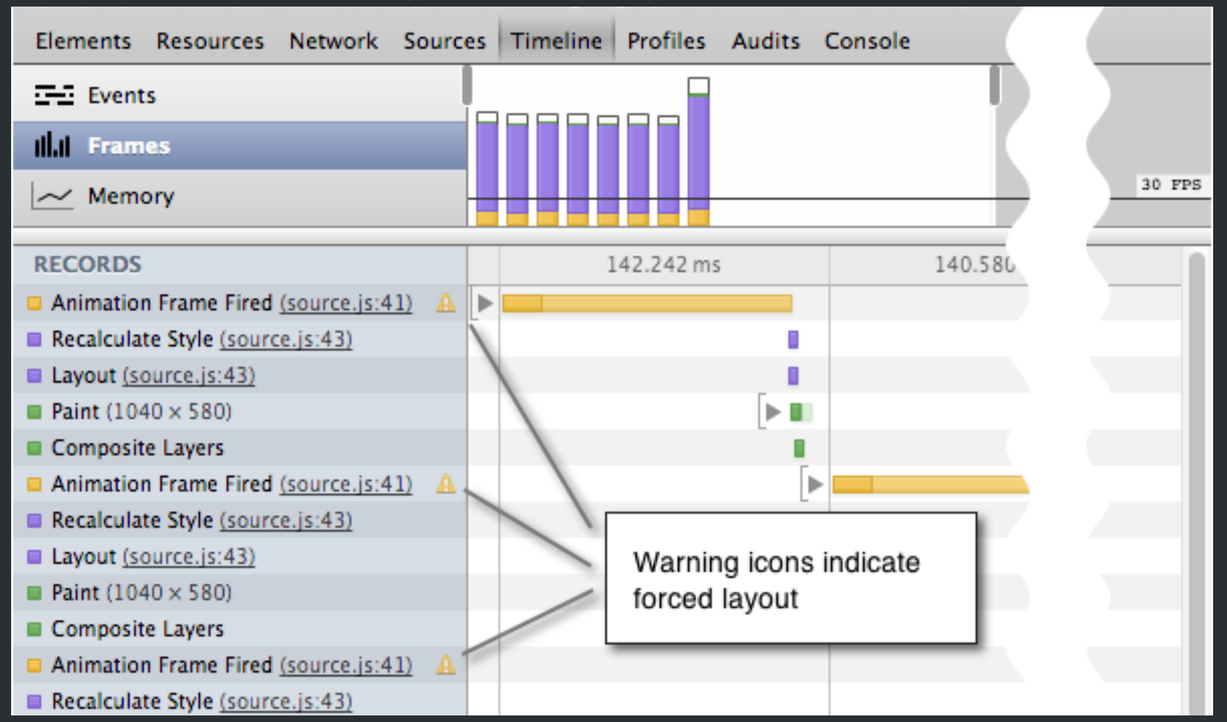
Thomas Erdbrink
@ThomasErdbrink
Follow
State tv reports Rowhani victorious, wins in first round. Crowd on Vali e asr street goes wild
8:54 AM - 15 Jun 2013
74
13
Abas Aslani
@abasinfo
Follow
#Iranelection Rouhani got 50.71 percent of votes
8:52 AM - 15 Jun 2013
6
2
Jason Rezaian
@jrezaian
Follow
@HassanRouhani just announced as president on live tv. #iranelection #iran
8:50 AM - 15 Jun 2013

flight

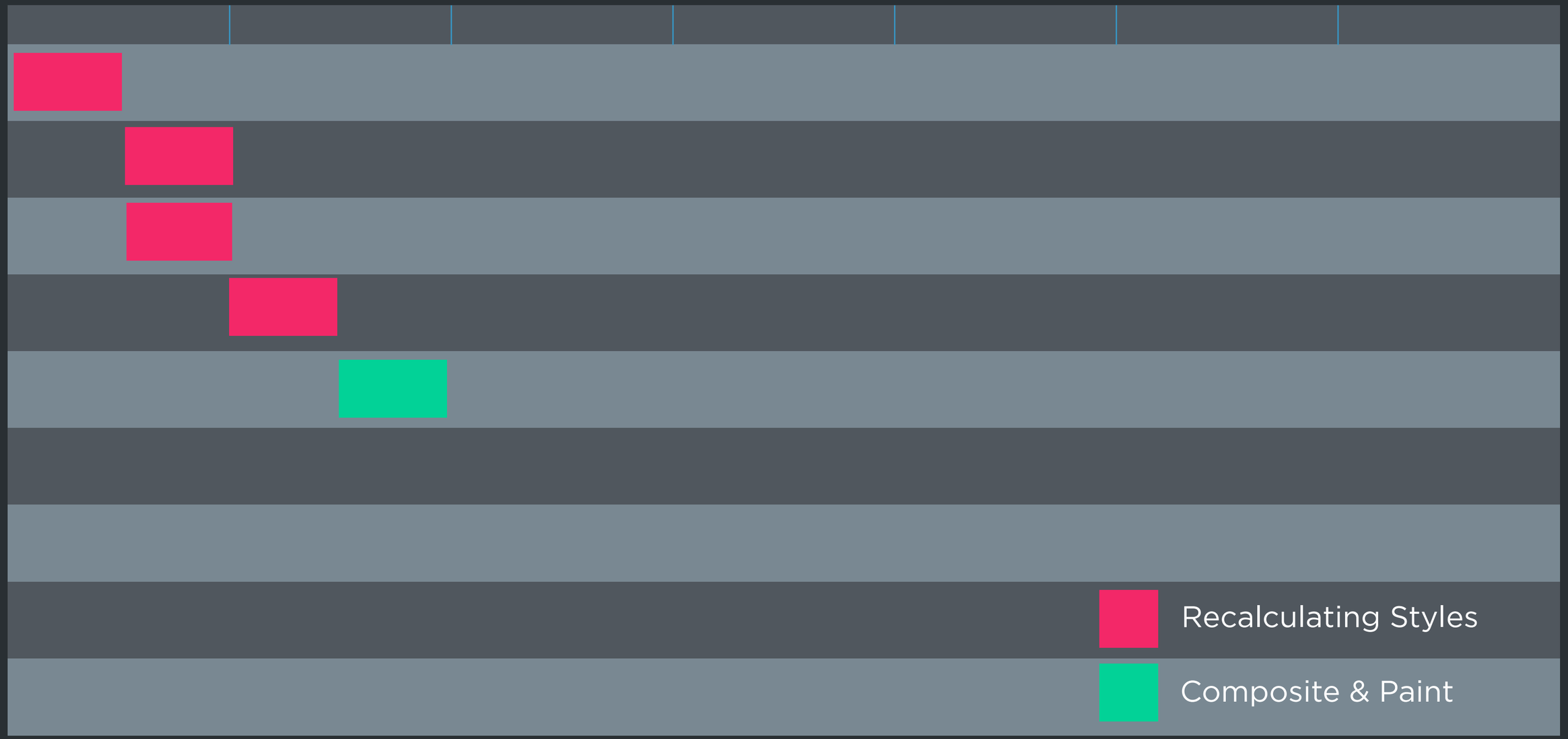
```
> document.querySelectorAll(".twitter-tweet").length
< 168
```

```
> document.querySelectorAll(".twitter-tweet").length
< 168
> window.navigator.areYouOK()
< [😟, 😣, 😫]
```

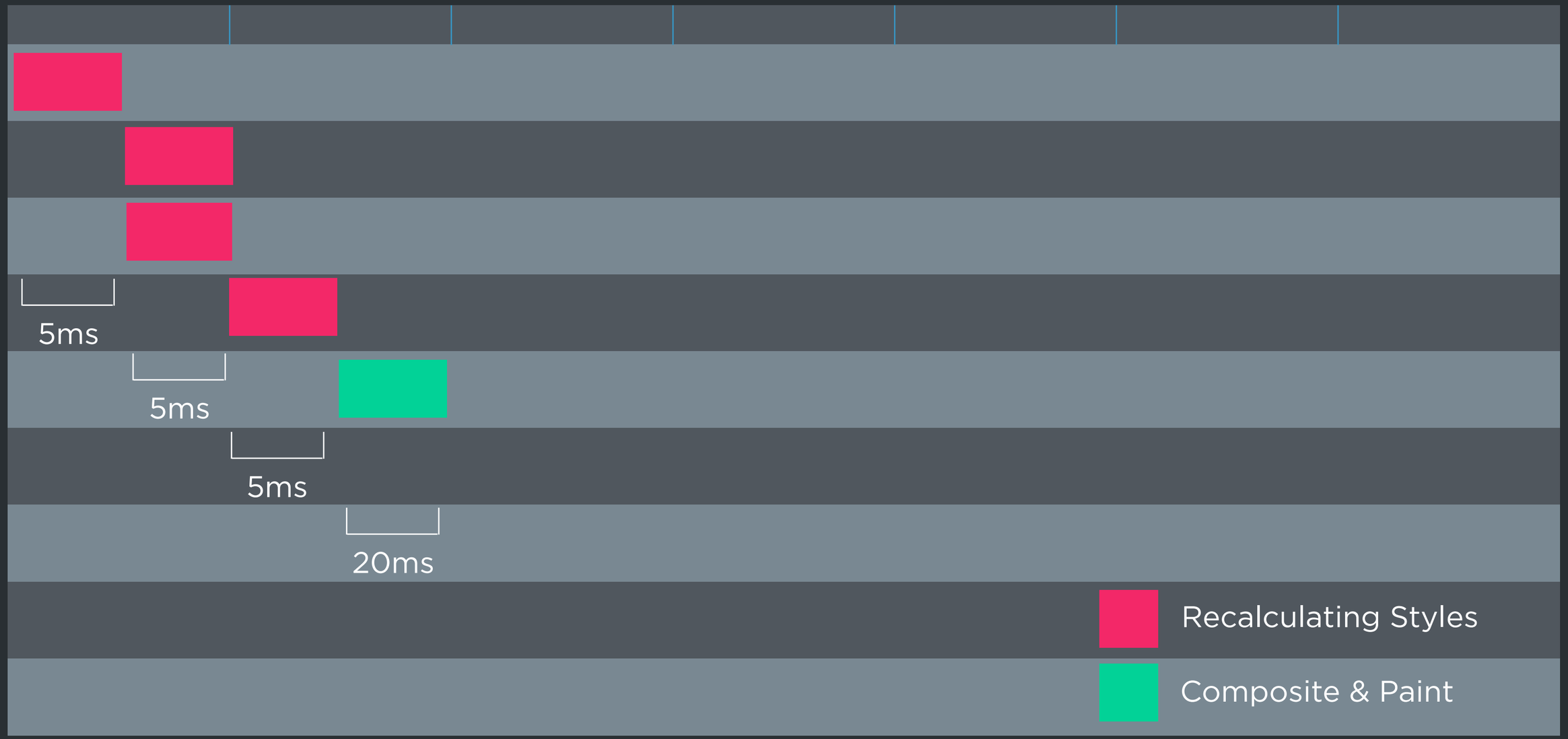

CREATE
SANDBOXES
FETCH
RENDER



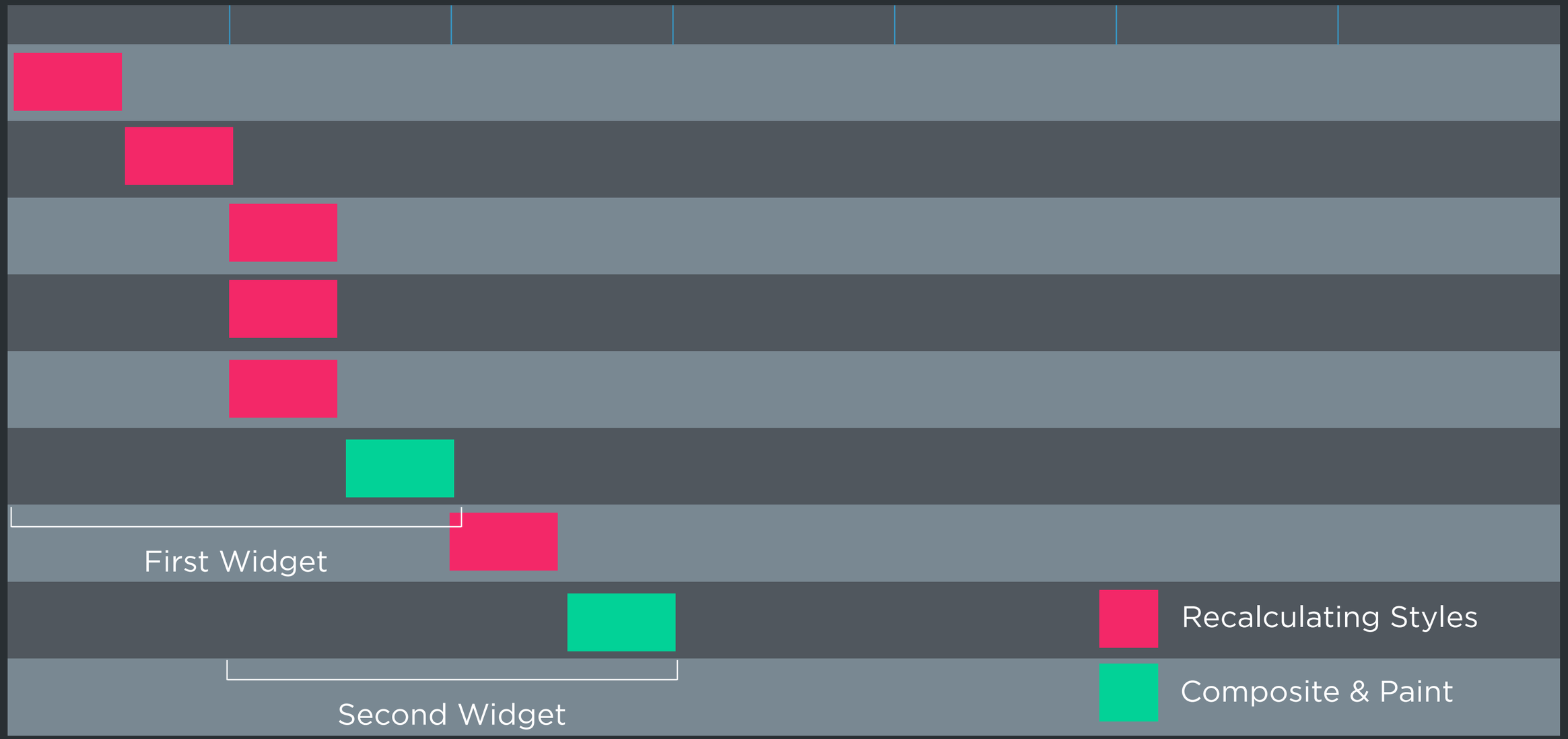
Source | “Timeline demo: Diagnosing forced synchronous layouts” Google Developer Tools
https://developer.chrome.com/devtools/docs/demos/too-much-layout



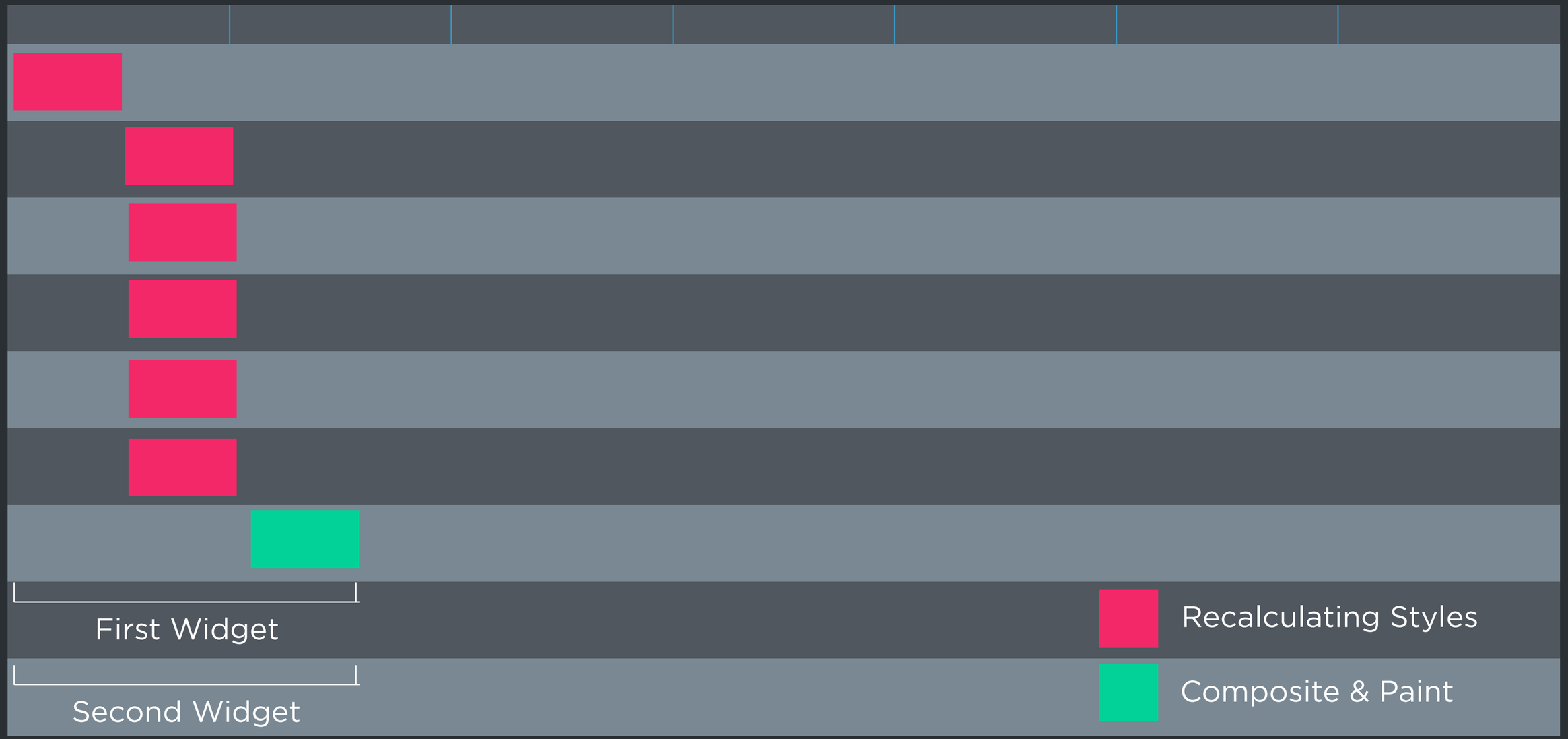
flight



flight


First Widget
Second Widget
Recalculating Styles
Composite & Paint

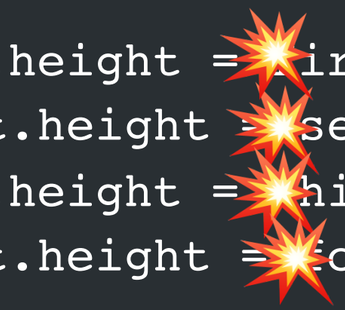
flight


First Widget
Second Widget
Recalculating Styles
Composite & Paint

flight

```
firstWidget.height = firstWidget.content.offsetHeight;
secondWidget.height = secondWidget.content.offsetHeight;
thirdWidget.height = thirdWidget.content.offsetHeight;
fourthWidget.height = fourthWidget.content.offsetHeight;
```

```
firstWidget.height = firstWidget.content.offsetHeight;
secondWidget.height = secondWidget.content.offsetHeight;
thirdWidget.height = thirdWidget.content.offsetHeight;
fourthWidget.height = fourthWidget.content.offsetHeight;
```



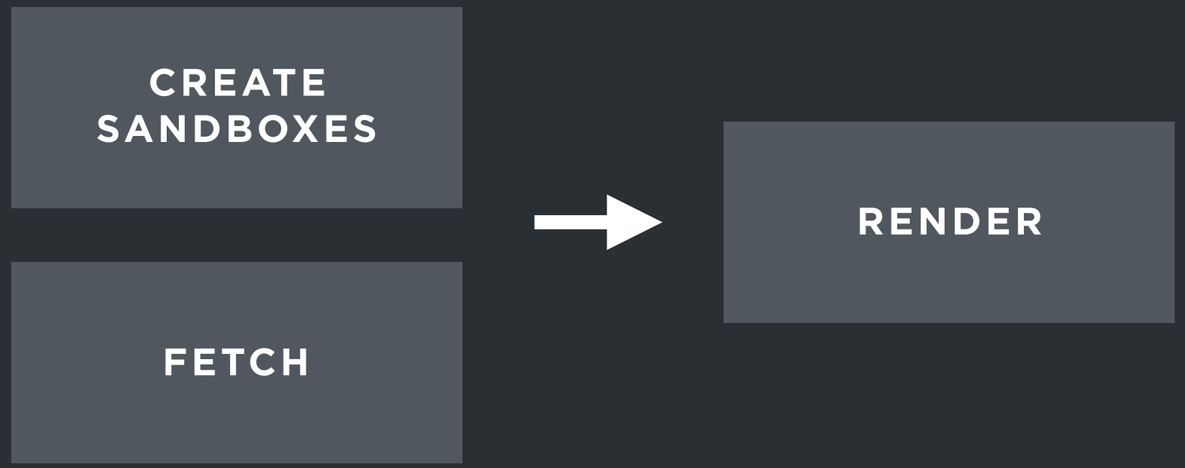
flight

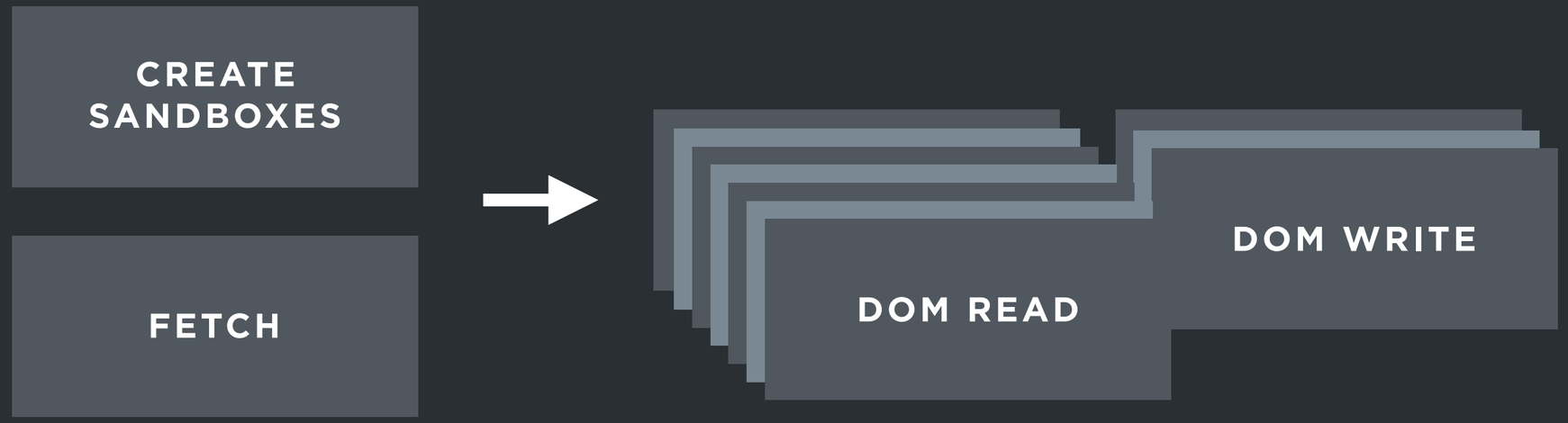
```
var firstHeight = firstWidget.content.offsetHeight;
var secondHeight = secondWidget.content.offsetHeight;
var thirdHeight = thirdWidget.content.offsetHeight;
var fourthHeight = fourthWidget.content.offsetHeight;

firstWidget.height = firstHeight;
secondWidget.height = secondHeight;
thirdWidget.height = thirdHeight;
fourthWidget.height = fourthHeight;
```

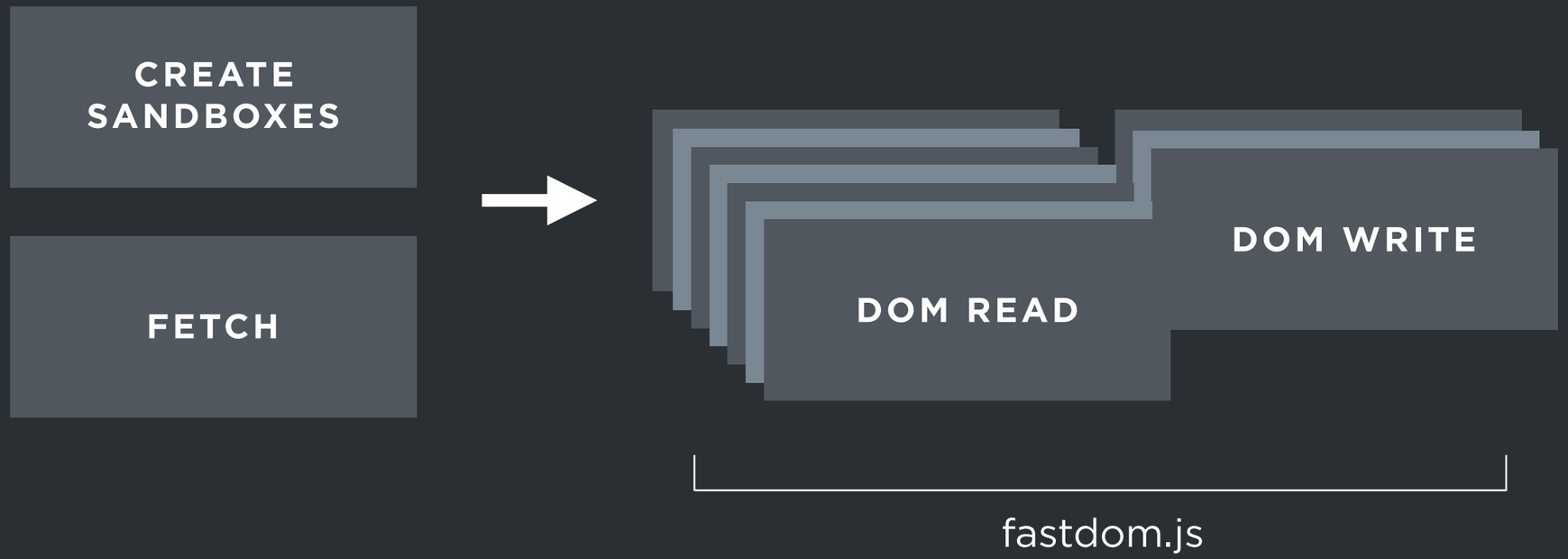
```
var firstHeight = firstWidget.content.offsetHeight;
var secondHeight = secondWidget.content.offsetHeight;
var thirdHeight = thirdWidget.content.offsetHeight;
var fourthHeight = fourthWidget.content.offsetHeight;

firstWidget.height = firstHeight;
secondWidget.height = secondHeight;
thirdWidget.height = thirdHeight;
fourthWidget.height = fourthHeight;
```


CREATE
SANDBOXES
FETCH
RENDER



flight

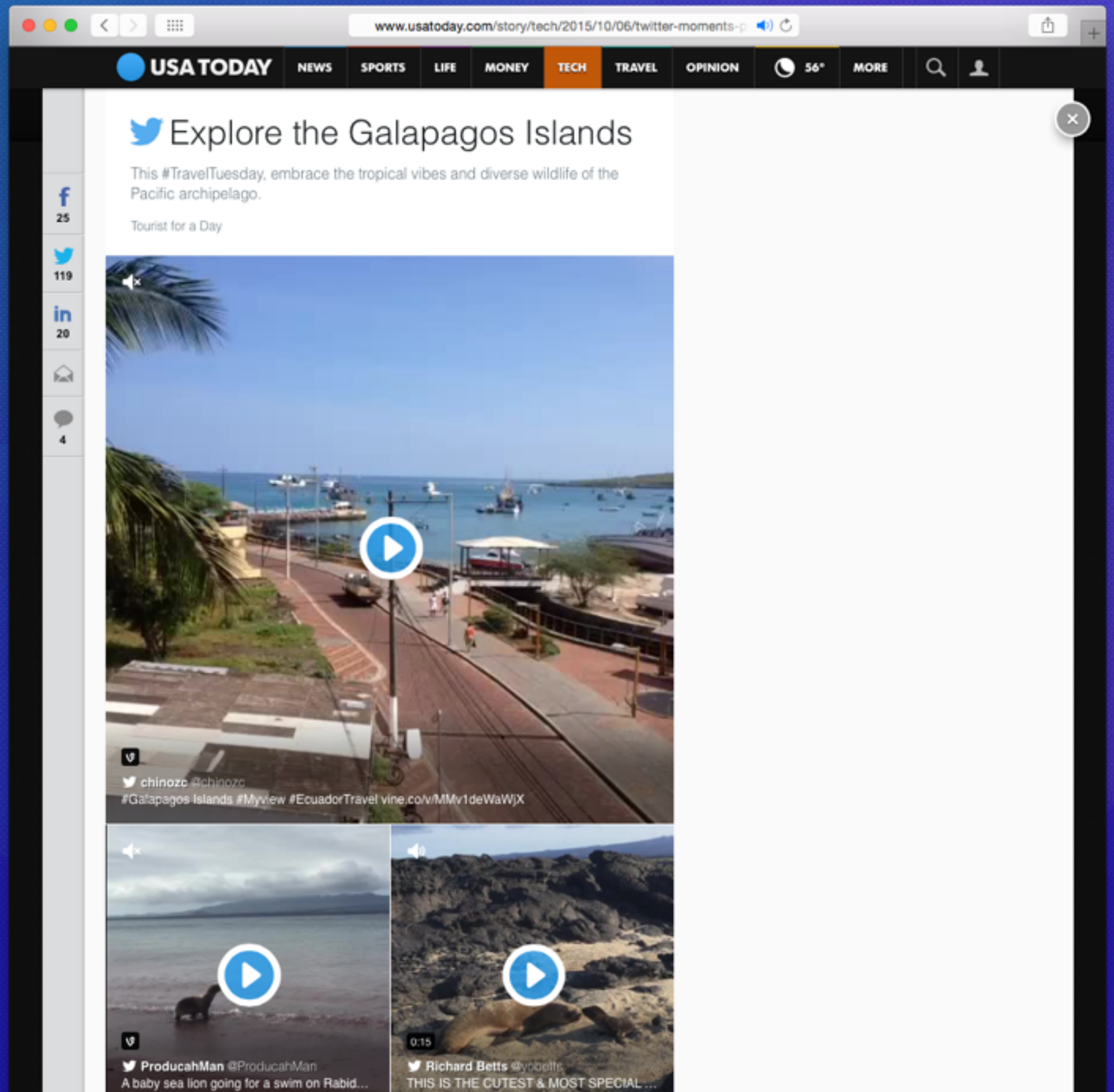

CREATE SANDBOXES
FETCH
DOM READ
DOM WRITE
fastdom.js

Controlling Rendering

```
<meta name="twitter:widgets:autoload" content="off">
```

```
<meta name="twitter:widgets:autoload" content="#social-buttons,#footer">
```

```
var updates = document.querySelectorAll(“.live-blog-update”)
twttr.widgets.load(updates);
```


www.usatoday.com/story/tech/2015/10/06/twitter-moments-p
USA TODAY
NEWS
SPORTS
LIFE
MONEY
TECH
TRAVEL
OPINION
56°
MORE
Explore the Galapagos Islands
This #TravelTuesday, embrace the tropical vibes and diverse wildlife of the Pacific archipelago.
Tourist for a Day
25
119
20
4
chinozc @chinozc
#Galapagos Islands #MyView #EcuadorTravel vine.co/v/MMv1deWaWjX
ProducahMan @ProducahMan
A baby sea lion going for a swim on Rabid...
0:15
Richard Betts @yobetts
THIS IS THE CUTEST & MOST SPECIAL ...

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blogs.wsj.com/metropolis/2014/12/03/icantbreathe-t

5:54 pm ET
Dec 3, 2014 COURTS

#ICantBreathe: Twitter Reactions to No Indictment Decision in Eric Garner Death

ARTICLE | COMMENTS (1)

ERIC GARNER | GRAND JURY DECISION | NYPD | PROTESTS | STATEN ISLAND

Email | Print

By ELANA ZAK

Eric Garner. #ICantBreathe. #BlackLivesMatter. #WeHearYou. These were some of the words and hashtags that started trending on Twitter TWTR +1.12% after a grand jury declined to indict a police officer in the death of Eric Garner.

Garner died in July after being restrained in an alleged police chokehold. The white officer, Daniel Pantaleo, was seen in a widely circulated video recording of the July 17 encounter with his arm wrapped around Mr. Garner's neck as Mr. Garner, an African American, cried "I can't breathe."

Below is a sample of what was tweeted.

"Eric Garner" started trending on Twitter worldwide after the grand jury's decision came in.

Antonio French @AntonioFrench — Follow

This must end. We cannot continue to have an entire group of Americans who can be killed without consequence or legal recourse. #EricGarner

11:44 AM - 3 Dec 2014

8,619 6,337

Shaun King @ShaunKing — Follow

Not hyperbole.

The ONLY way the murder of Eric Garner is justified is because he is not truly valued as fully human.

PREVIOUS Poll: Should Horse-Drawn Carriages Be Banned?

NEXT New York City Police Arrest At Least 83 People During Eric Garner Protests

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About Metropolis

A blog of reporting and news from New York City, Metropolis is produced by **Carrie Melago** and **Sarah Crichton** with contributions from the Wall Street Journal staff. Send tips and comments to **metropolis@wsj.com**.

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5 The Indian Engineers Who Sued Apple and Won

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www.buzzfeed.com/buzzfeednews/democrats-face-off-in-first-de

BuzzFeedNEWS

Everyone had to name the biggest national security threat:

Miriam Elder Follow
@MiriamElder

Biggest nat sec threat:
Chaffee — MidEast chaos
O'Malley — Iran
Clinton — nukes
Sanders — climate change
Webb — China/cyber
6:41 PM - 13 Oct 2015
282 190

Posted at 6:44 p.m., Oct. 13

Here's what Bill Clinton is up to tonight:

Bill Clinton Follow
@billclinton

What happens in Vegas...is I watch @HillaryClinton prove she's the most qualified candidate for POTUS. #ImWithHer
6:11 PM - 13 Oct 2015

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mashable.com/2015/10/06/south-carolina-flood-death-toll/#_OK_WbvBNc

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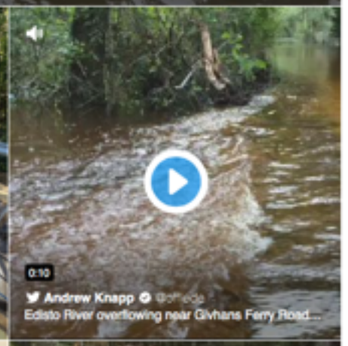
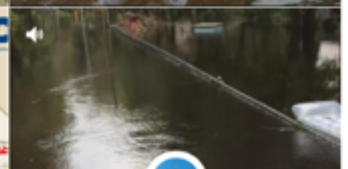
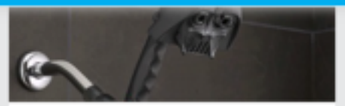
South Carolina Flooding

South Carolina is recovering from a historic flood event

Mashable News







WATERCOOLER

Forget the force, check out the pressure on these 'Star Wars' showerheads

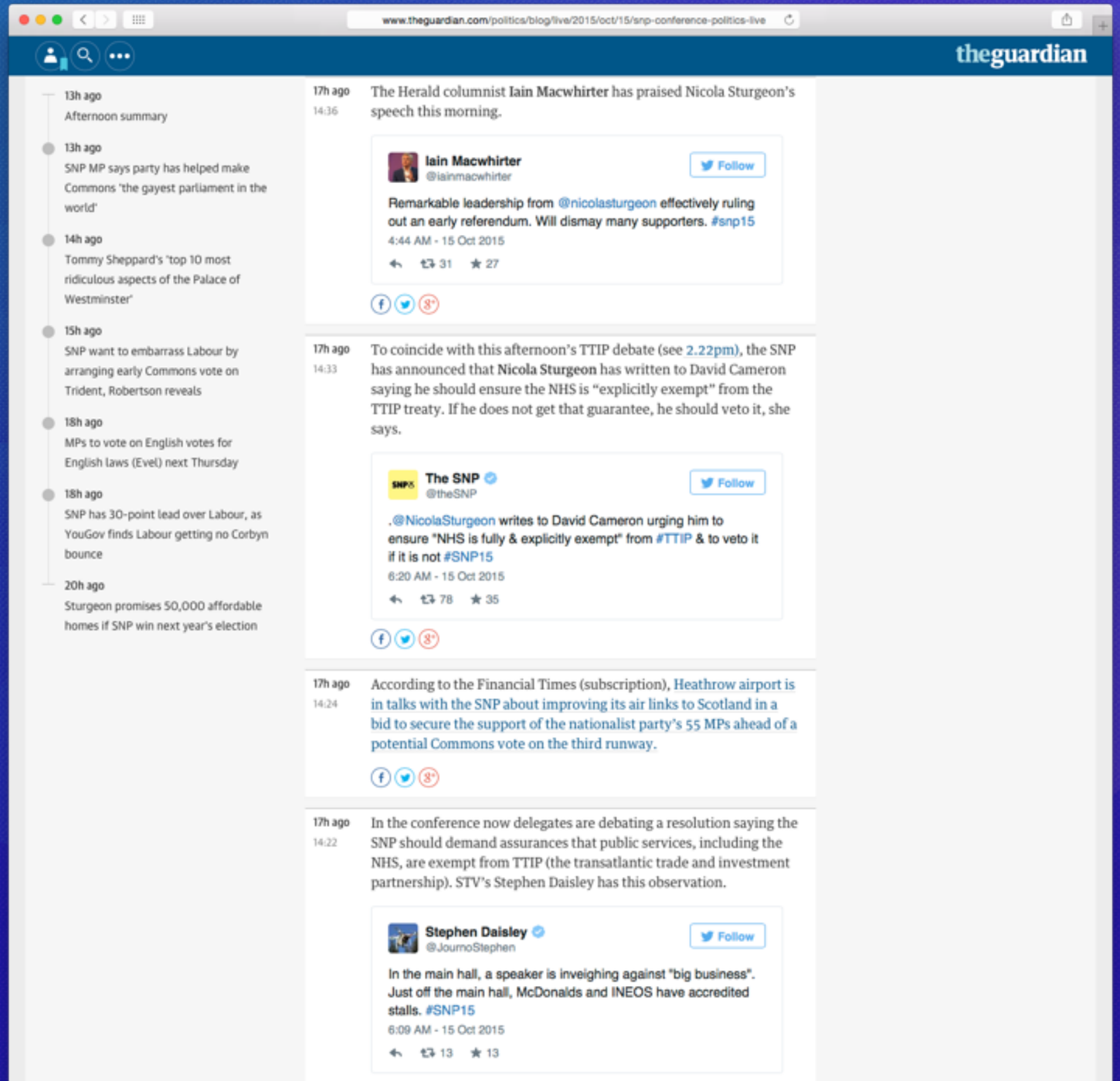
7K SHARES

BUSINESS

Netflix can't collect its money because everyone has new credit cards

2.1K SHARES

WATERCOOLER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theguardian
13h ago
Afternoon summary
13h ago
SNP MP says party has helped make Commons 'the gayest parliament in the world'
14h ago
Tommy Sheppard's 'top 10 most ridiculous aspects of the Palace of Westminster'
15h ago
SNP want to embarrass Labour by arranging early Commons vote on Trident, Robertson reveals
18h ago
MPs to vote on English votes for English laws (Evel) next Thursday
18h ago
SNP has 30-point lead over Labour, as YouGov finds Labour getting no Corbyn bounce
20h ago
Sturgeon promises 50,000 affordable homes if SNP win next year's election
17h ago
14:36
The Herald columnist Iain Macwhirter has praised Nicola Sturgeon's speech this morning.
Iain Macwhirter
@iainmacwhirter
Follow
Remarkable leadership from @nicolasturgeon effectively ruling out an early referendum. Will dismay many supporters. #snp15
4:44 AM - 15 Oct 2015
31
27
17h ago
14:33
To coincide with this afternoon's TTIP debate (see 2.22pm), the SNP has announced that Nicola Sturgeon has written to David Cameron saying he should ensure the NHS is "explicitly exempt" from the TTIP treaty. If he does not get that guarantee, he should veto it, she says.
The SNP
@theSNP
Follow
.@NicolaSturgeon writes to David Cameron urging him to ensure "NHS is fully & explicitly exempt" from #TTIP & to veto it if it is not #SNP15
6:20 AM - 15 Oct 2015
78
35
17h ago
14:24
According to the Financial Times (subscription), Heathrow airport is in talks with the SNP about improving its air links to Scotland in a bid to secure the support of the nationalist party's 55 MPs ahead of a potential Commons vote on the third runway.
17h ago
14:22
In the conference now delegates are debating a resolution saying the SNP should demand assurances that public services, including the NHS, are exempt from TTIP (the transatlantic trade and investment partnership). STV's Stephen Daisley has this observation.
Stephen Daisley
@JournoStephen
Follow
In the main hall, a speaker is inveighing against "big business". Just off the main hall, McDonalds and INEOS have accredited stalls. #SNP15
6:09 AM - 15 Oct 2015
13
13

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