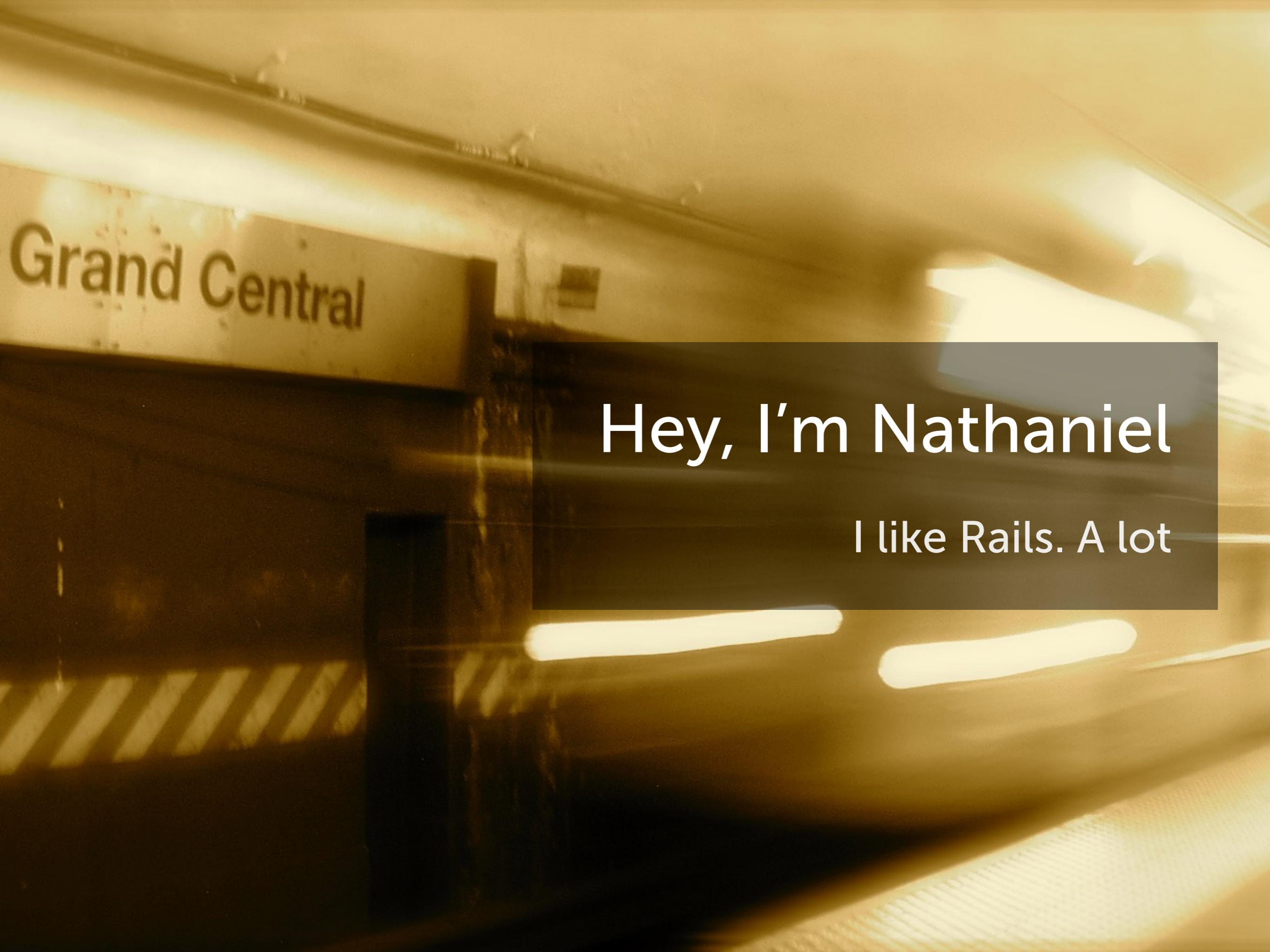




Grand Central

gone in 60 milliseconds

An Introduction to ActionCable



Grand Central

Hey, I'm Nathaniel

I like Rails. A lot

A blurred, sepia-toned photograph of a subway platform. In the upper left, a sign reads "Grand Central". The platform floor has a dark, striped pattern. Several blurred, rectangular lights from overhead fixtures are visible.

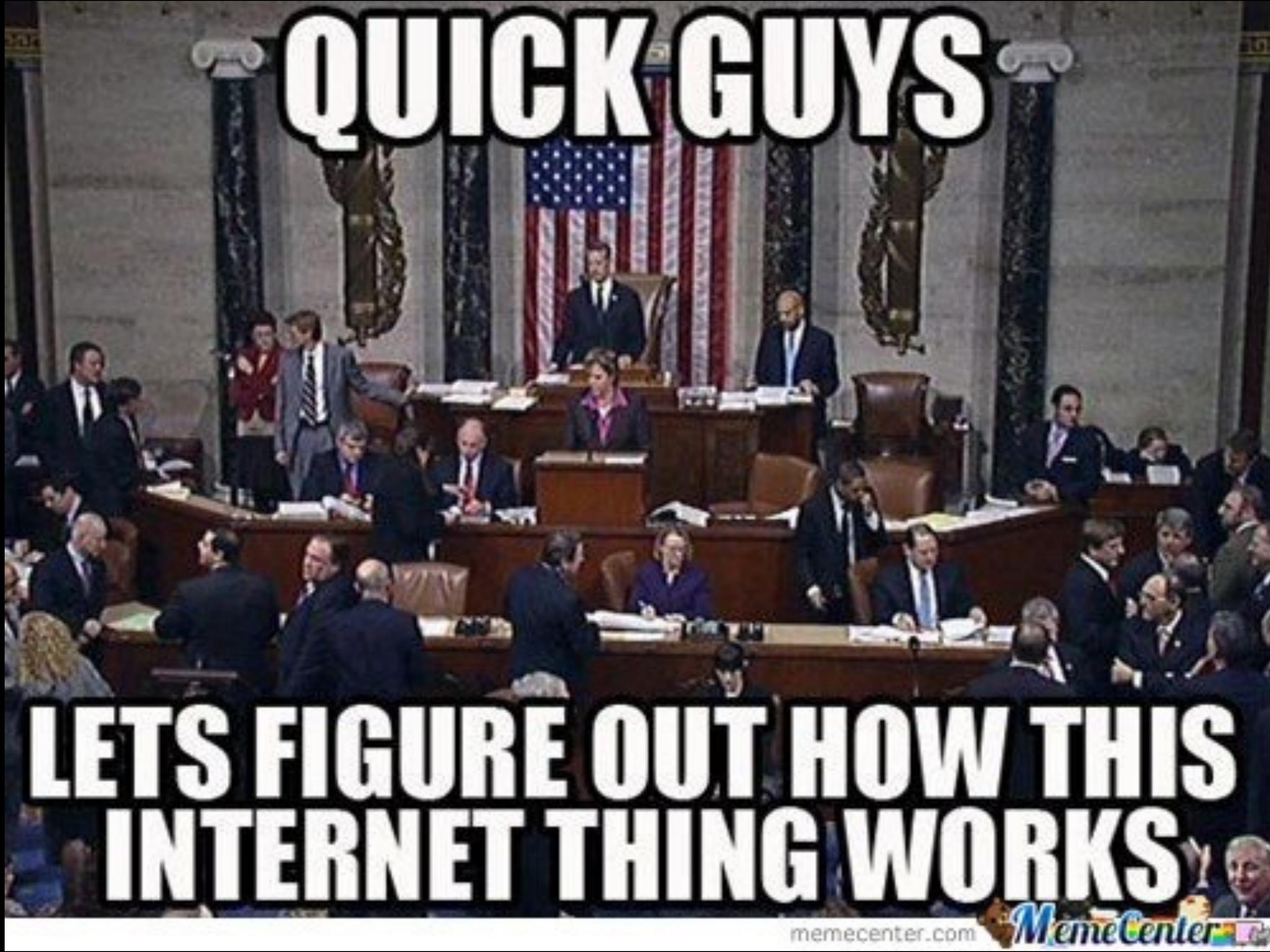
Grand Central

ActionCable?

The background of the image is a blurred photograph of a train station platform. On the left, a sign reads "Grand Central". A train is visible in the background, with its side showing some text and a window. The overall color palette is warm, dominated by yellows and browns.

Websockets?

QUICK GUYS



LETS FIGURE OUT HOW THIS
INTERNET THING WORKS

THE INTERNET IS A SERIES OF TUBES

**LE
AND THEY'RE FULL OF CATS
AND WORKS**

WHAT IF THE INTERNET REALLY IS A
SERIES OF TUBES

AND HE WAS THE ONE MAKING
FUN OF US?

THE INTERNET

LE
I
AND

ATS
KS
emeCenter

WHAT IF THE INTERNET
IS A SERIES OF TUBES?

FALSE.

THE INTERNET IS A GLOBAL SYSTEM OF
INTERCONNECTED COMPUTER NETWORKS

LA

OF US?

THINKING

KS

quickmeme.com

memecenter.com



Grand Central

Quickly sprinkle in Websockets
Into Rails. Like a boss

WEBSOCKET



ALL THE THINGS



Grand Central

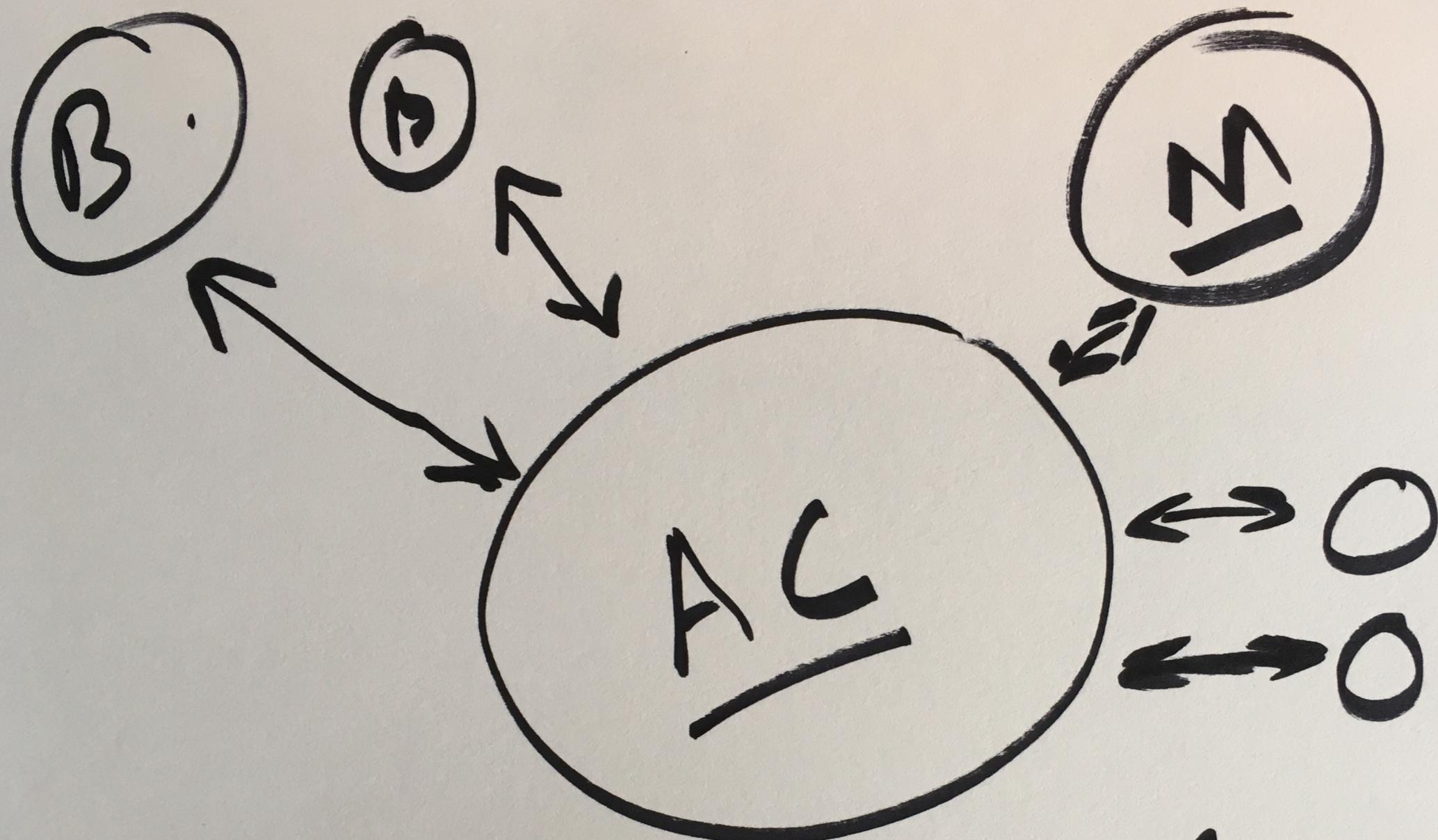
Caching

Routing

GZIP

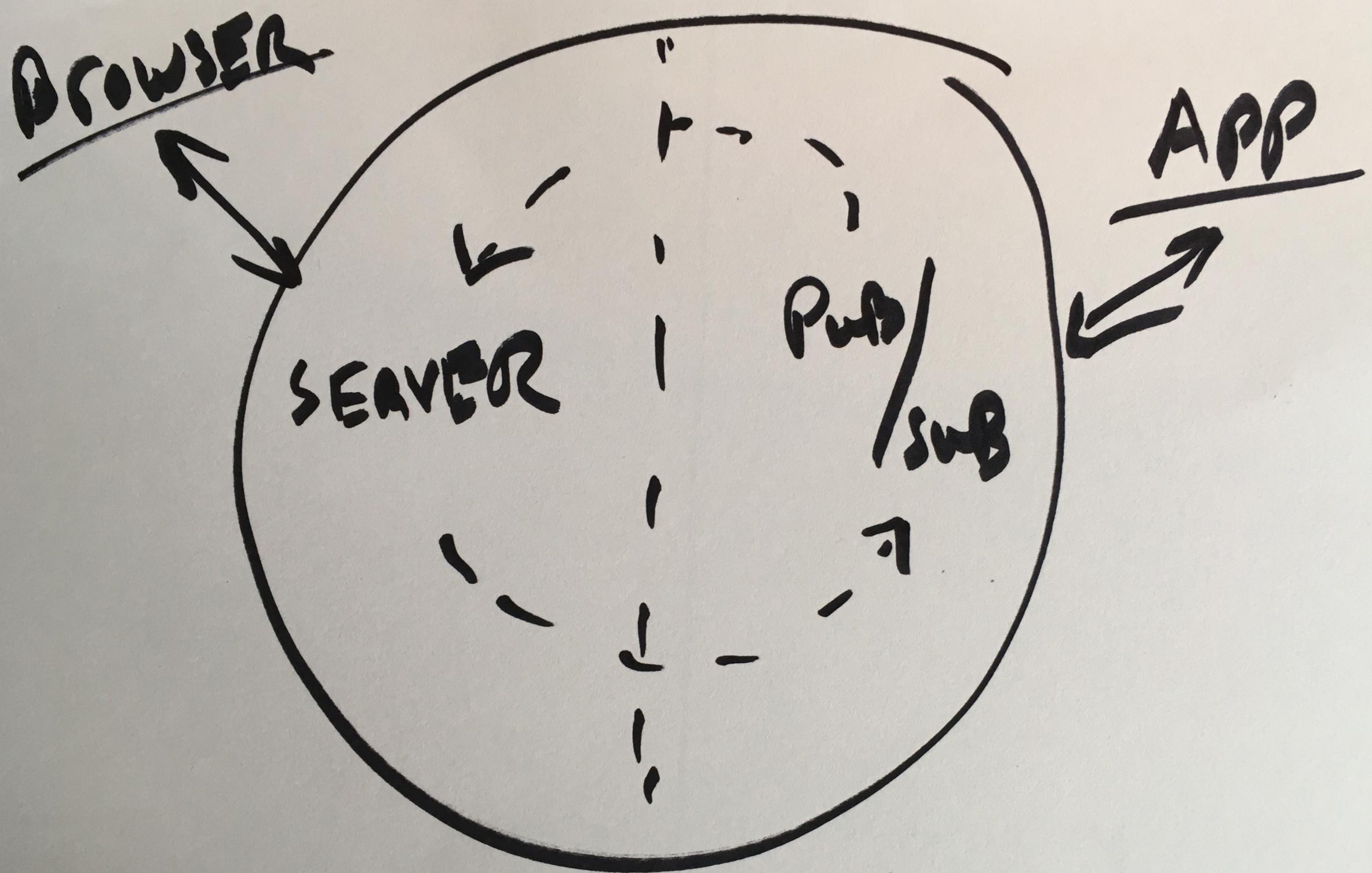


Components.



ActionCable
Server

(microservices)



Action Cable

Grand Central

Don't like the frontend?

npm install actionable-js

<https://github.com/mwalsher/actionable-js>



Dependencies.



Dependencies.

tl;dr:

Redis or PostgreSQL

(async or inline adapters available also)



PostgreSQL is kinda cool

Grand Central

A blurred photograph of a train station platform. In the upper left, a sign reads "Grand Central". A train is visible in the background, blurred horizontally to suggest motion. The overall color palette is warm, dominated by yellows and browns.

Grand Central

Development.



Grand Central

Development.

Auto-reloading.



Grand Central

Development.

Auto-reloading.



Grand Central

Development.

Auto-reloading.

Webrick.



Grand Central

Development.

Auto-reloading.

Webrick.

A blurred background image of a train station platform. On the left, a sign reads "Grand Central". The rest of the image is out of focus, showing the curved platform and some structural elements.

Development.

Auto-reloading.

Webrick.

Periodically



Grand Central

Development.

Auto-reloading.

~~Webrick.~~

Periodically ✓



Grand Central

Development.

Auto-reloading.

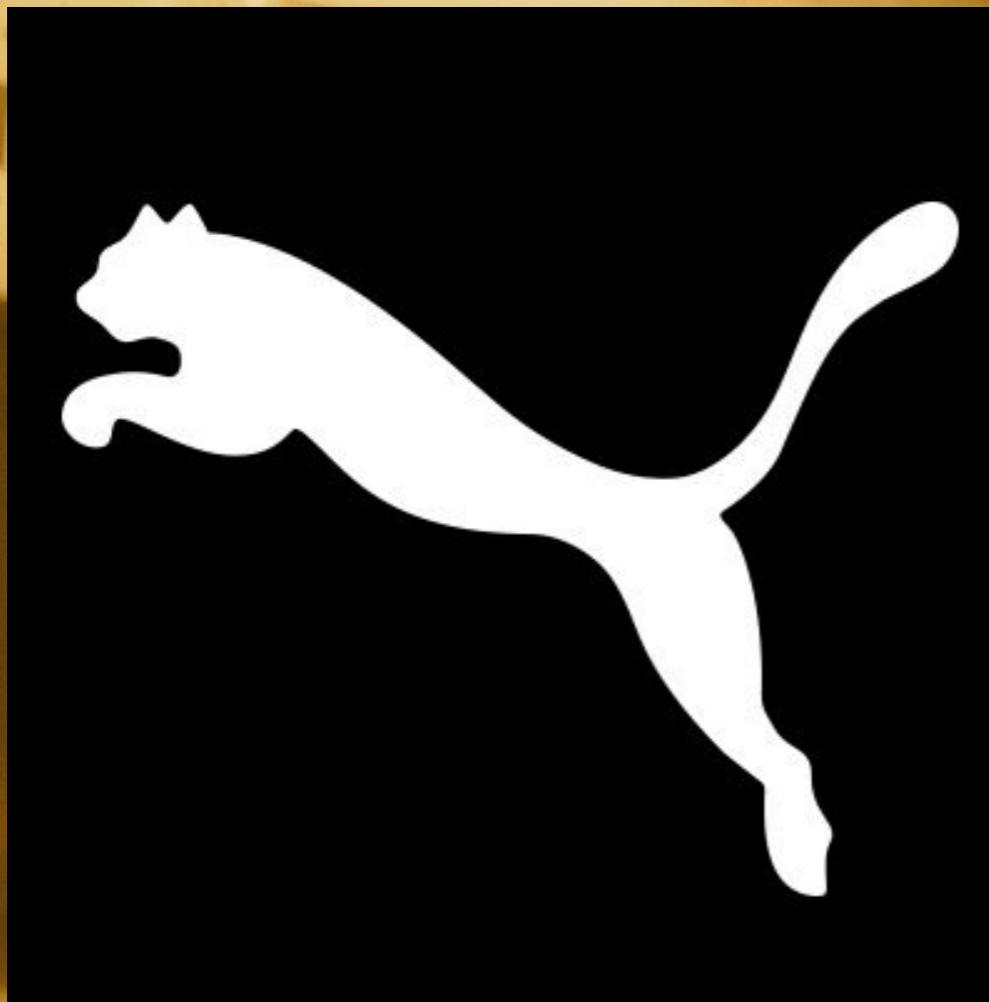
Webrick.

Periodically ✓



Grand Central

Deployment.



Deployment.



A blurred photograph of a train station platform. On the left, a sign reads "Grand Central". A train is visible in the background, blurred horizontally to suggest speed. The overall color palette is warm, dominated by yellows and browns.

Grand Central

Performance.



Grand Central

Latency.



Nate Berkoperc:

“For now, the I/O performance looks at least comparable to Node. ”

<https://www.nateberkopec.com/2015/09/30/action-cable.html>

Puma: 16 threads, 4 workers

Simultaneous WebSocket connections	Mean connection time
3	9ms
30	89ms
300	855 ms

(Thanks, Nate Berkoperc)

Grand Central

Scale Pub/Sub Horizontally

Grand Central

// NOTE to self guided tour time

Why Use ActionCable?

- Authentication
- Swappable
- Easy deployment
- Horizontally scalable

Gotchas

- Multiple changes to API
- No auto-reloading
- spring + ActionCable => :(
- 1 connection per tab
- Don't broadcast images (?)

The background of the slide is a blurred photograph of a subway platform at Grand Central Station. The word "Grand Central" is visible on a sign above, and the blurred lights of moving trains create streaks of light across the scene.

Deploy a Demo to Heroku
(if you like)



Questions, discussion
and/or heckling

A blurred photograph of the interior of a train car. On the left, a sign reads "Grand Central". The background is dark and out of focus.

Grand Central

Thank you.

@thenthj