



光音网络
Goyoo Networks

#NINGJS2016

GUILLAUME VERBAL @DOWEIG

USING NODEJS TO COUNT 30
BILLION REQUESTS PER DAY

WHO WE ARE

- ▶ We are mainly an advertising company
- ▶ Doing many more !
 - ▶ networks, data collection/analysis, web tech, app generation...
- ▶ 250 employees and counting, (100 tech people)
- ▶ Based in the center of the world (Beijing)

- ▶ I am:
 - ▶ french, living in Beijing
 - ▶ a software engineer (5 years) wannabe data scientist
 - ▶ really into the blockchain

ANALYTICS

- 1 - WHY DO WE NEED ANALYTICS?**
- 2 - WHAT IS AGGREGATION**
- 3 - EXISTING SOLUTIONS**
- 4 - DEMO TIME !**

1 - WHY DO WE NEED ANALYTICS?

BECAUSE ANALYTICS
ARE AWESOME!



WE JUST PUSHED
SOMETHING ONLINE

THE WORLD IS FULL OF QUESTIONS

- ▶ Is it crashing?
- ▶ Is it fast?
- ▶ Is our feature awesome yet?
- ▶ Are we famous yet?
- ▶ Are we rich yet?

WE JUST PUSHED SOMETHING ONLINE

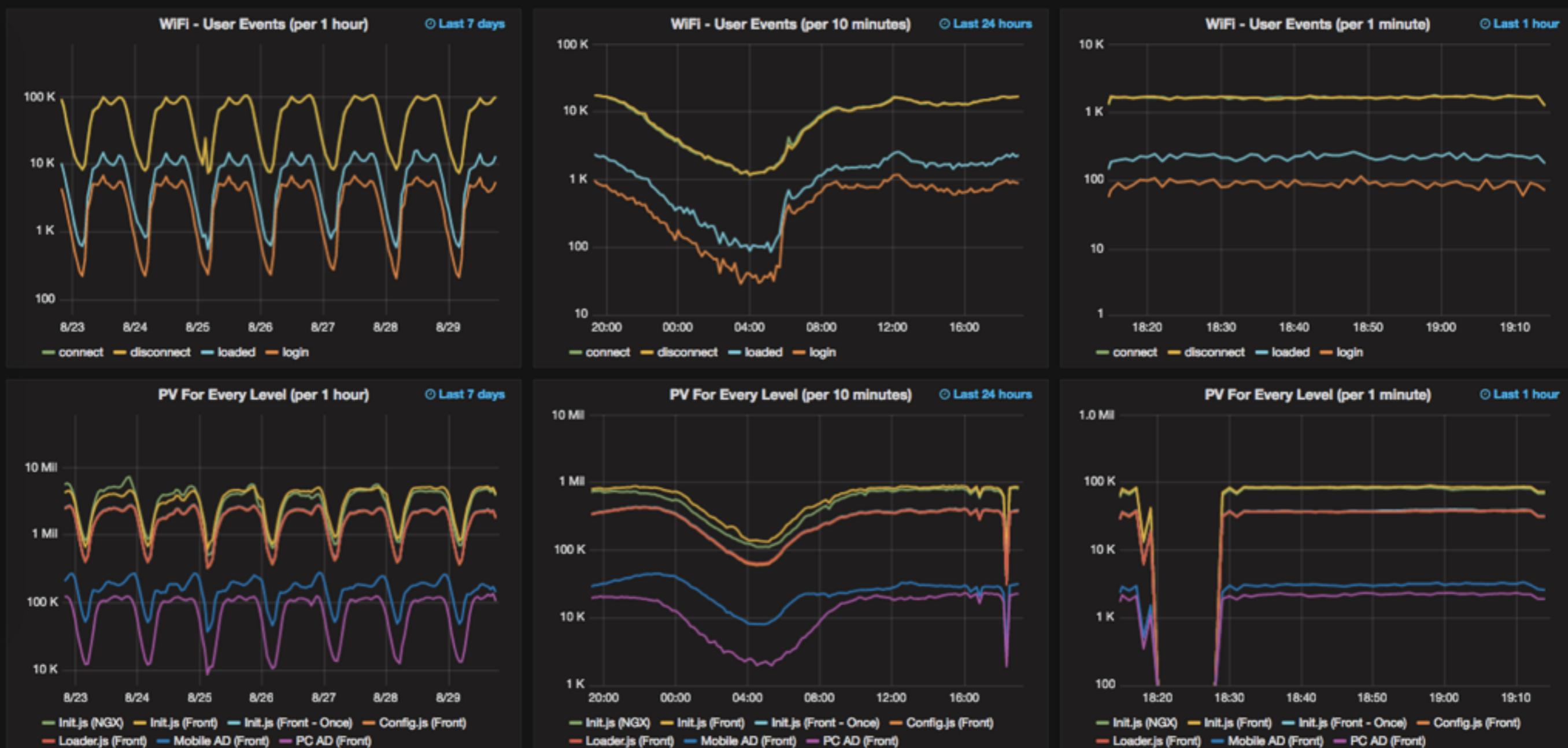
OUR APP THROUGH THE NAKED EYE

```
→ client-stats git:(dev) ✘ ll
total 80
drwxr-xr-x 18 doweig staff 612B Aug  3 16:18 .
drwxr-xr-x 12 doweig staff 408B Apr 13 22:40 ../
-rw-r--r--  1 doweig staff 362B May 19 16:11 .dockerignore
drwxr-xr-x 14 doweig staff 476B Aug 31 11:55 .git/
-rw-r--r--  1 doweig staff 80B Mar 28 12:14 .gitignore
-rw-r--r--  1 doweig staff 1.6K Jul 26 15:32 Dockerfile
-rw-r--r--  1 doweig staff 662B Jun  8 11:42 Makefile
-rw-r--r--  1 doweig staff 1.2K Jun  8 11:29 README.md
-rw-r--r--  1 doweig staff 1.6K Mar 31 19:37 app.js
-rw-r--r--  1 doweig staff 3.2K Aug  3 16:18 app_router.js
drwxr-xr-x  3 doweig staff 102B May 27 14:44 bin/
drwxr-xr-x  8 doweig staff 272B Jul 28 12:20 config/
-rw-r--r--  1 doweig staff 3.2K Jul 26 15:32 docker_rsa
-rw-r--r-x  1 doweig staff 367B Apr 20 20:10 front_test.sh*
drwxr-xr-x  7 doweig staff 238B Jul 26 15:32 lib/
drwxr-xr-x 204 doweig staff 6.8K Aug 12 15:54 node_modules/
-rw-r--r--  1 doweig staff 569B Jul 28 14:26 package.json
drwxr-xr-x  6 doweig staff 204B Aug 12 15:54 scripts/
→ client-stats git:(dev) ✘
```



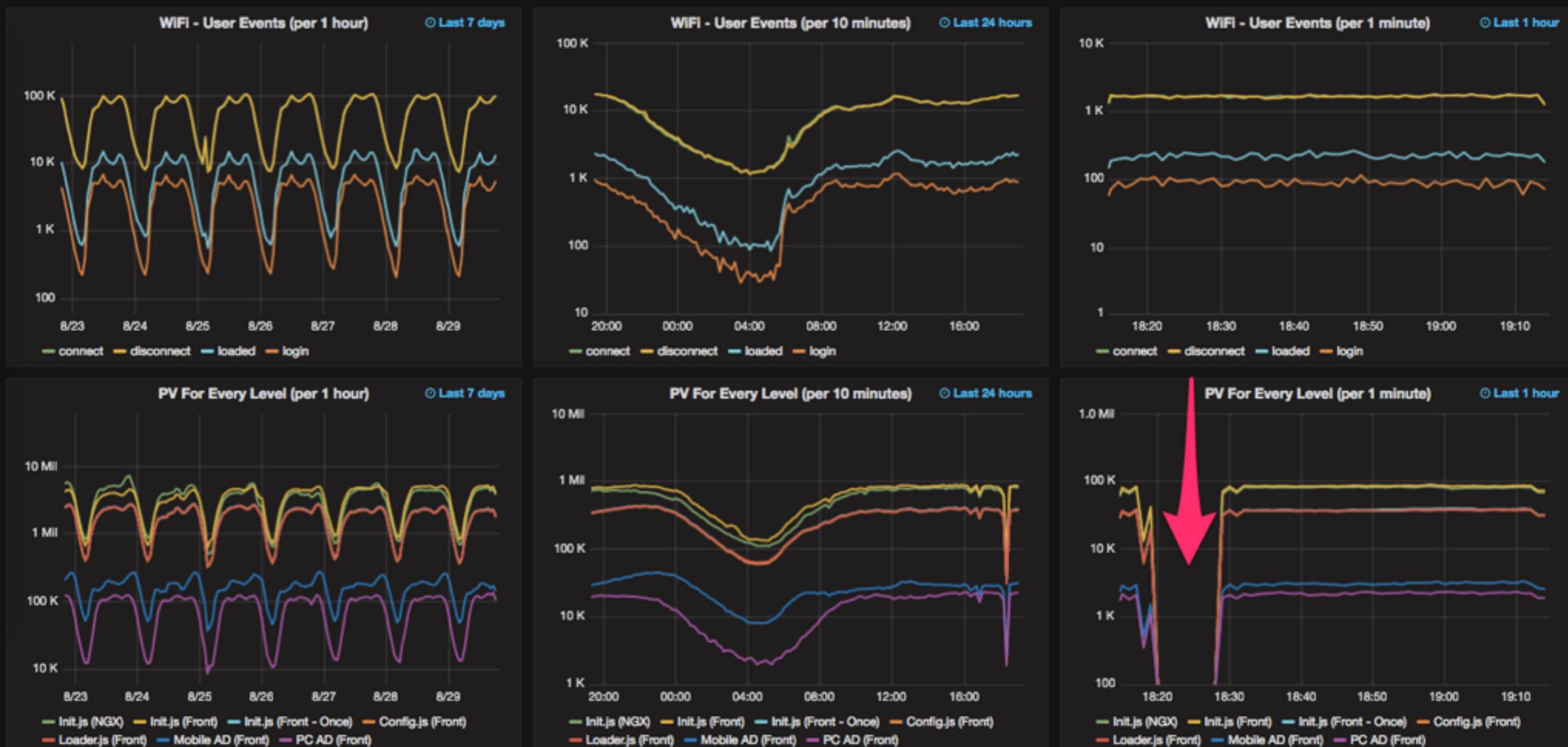
WE JUST PUSHED SOMETHING ONLINE

OUR APP WITH ANALYTICS



WE JUST PUSHED SOMETHING ONLINE

OUR APP WITH ANALYTICS

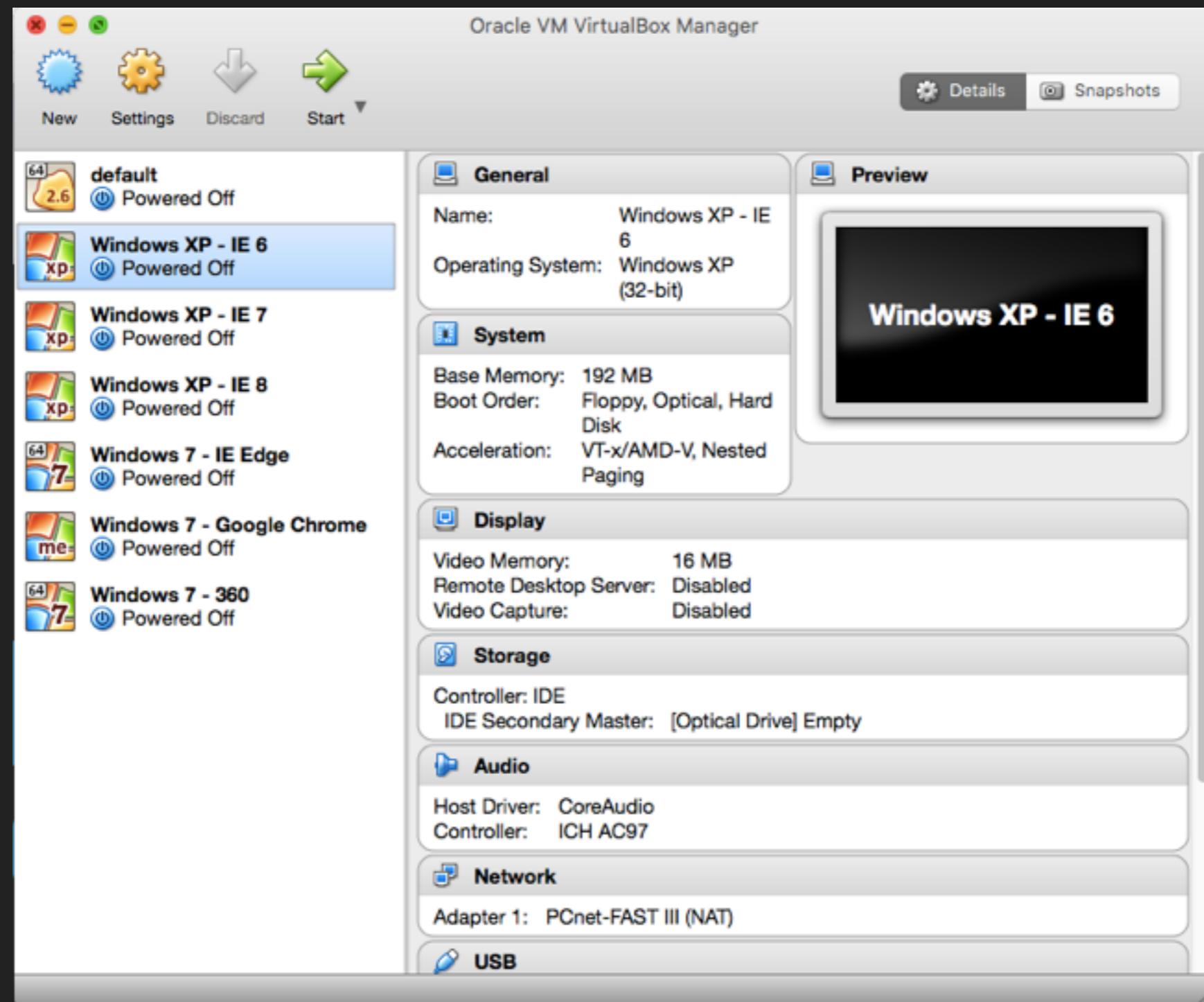


WHY DO WE NEED ANALYTICS?

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QUALITY ASSURANCE

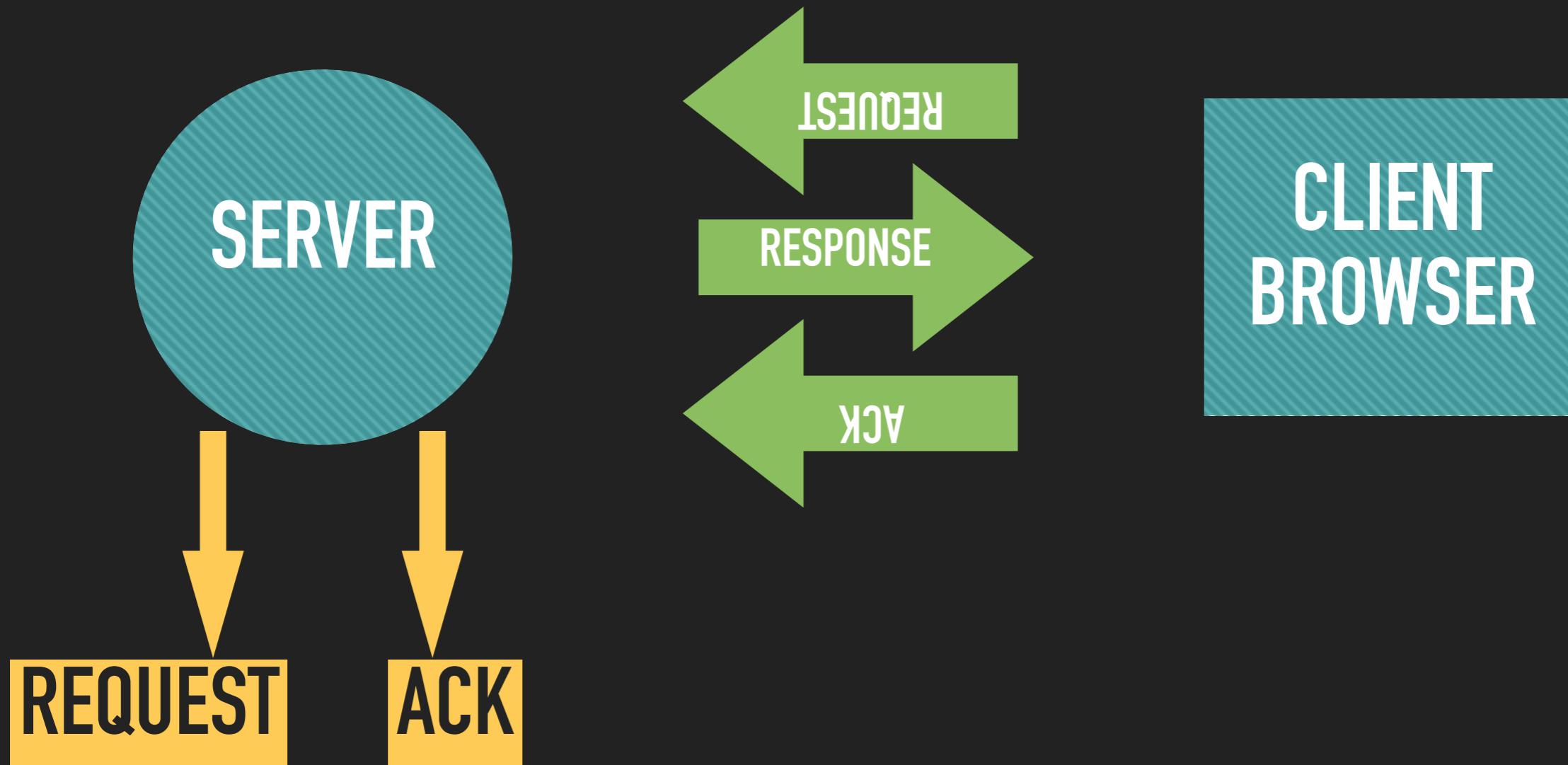
CROSS PLATFORM TESTING



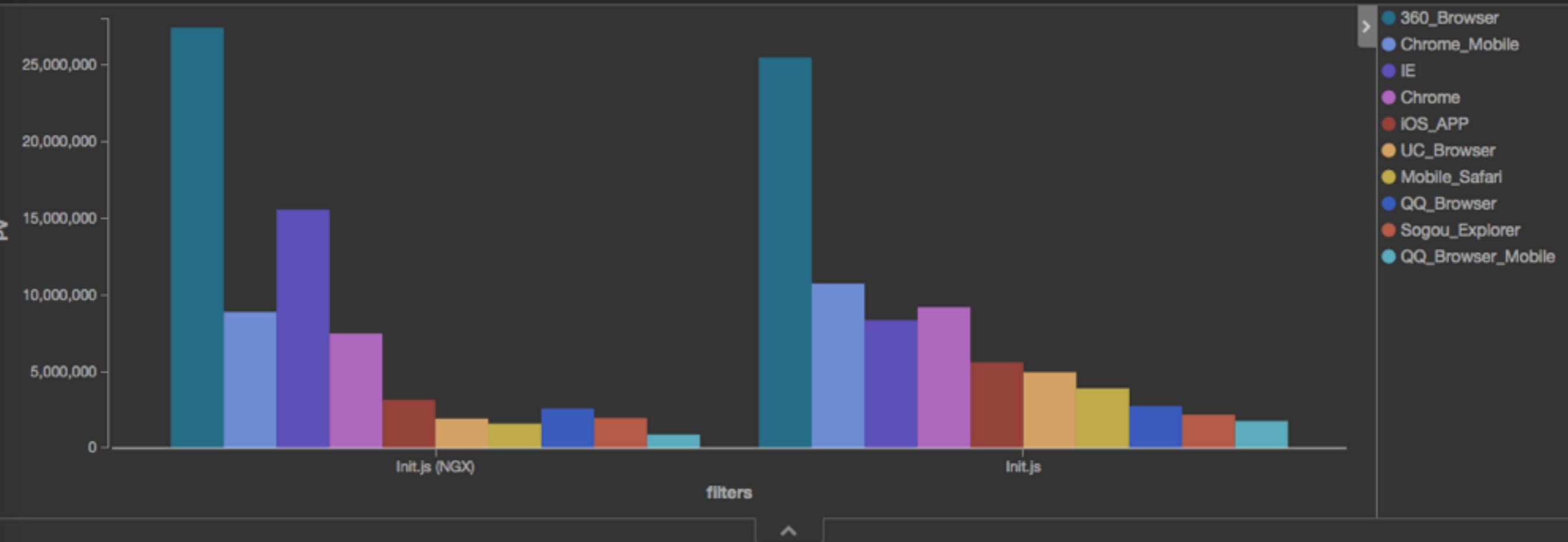


WITH ANALYTICS

WITH ANALYTICS



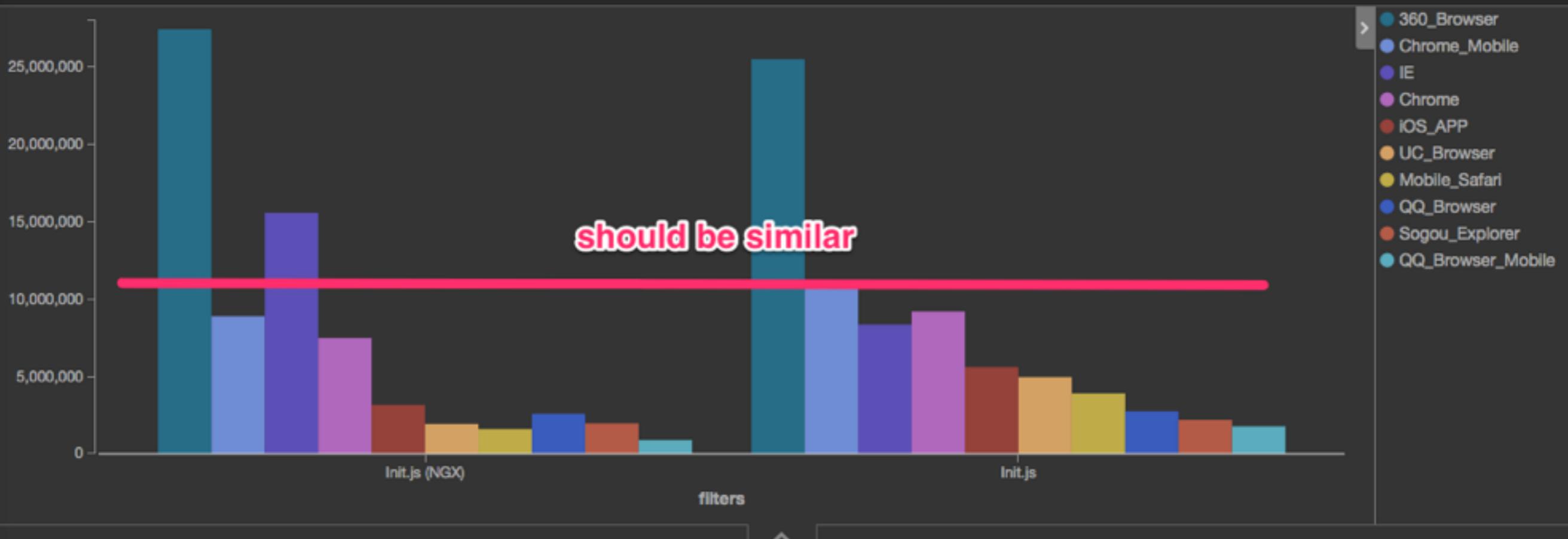
Cohort Analysis - Browser -- Bar -- NingJS 2016-08-26

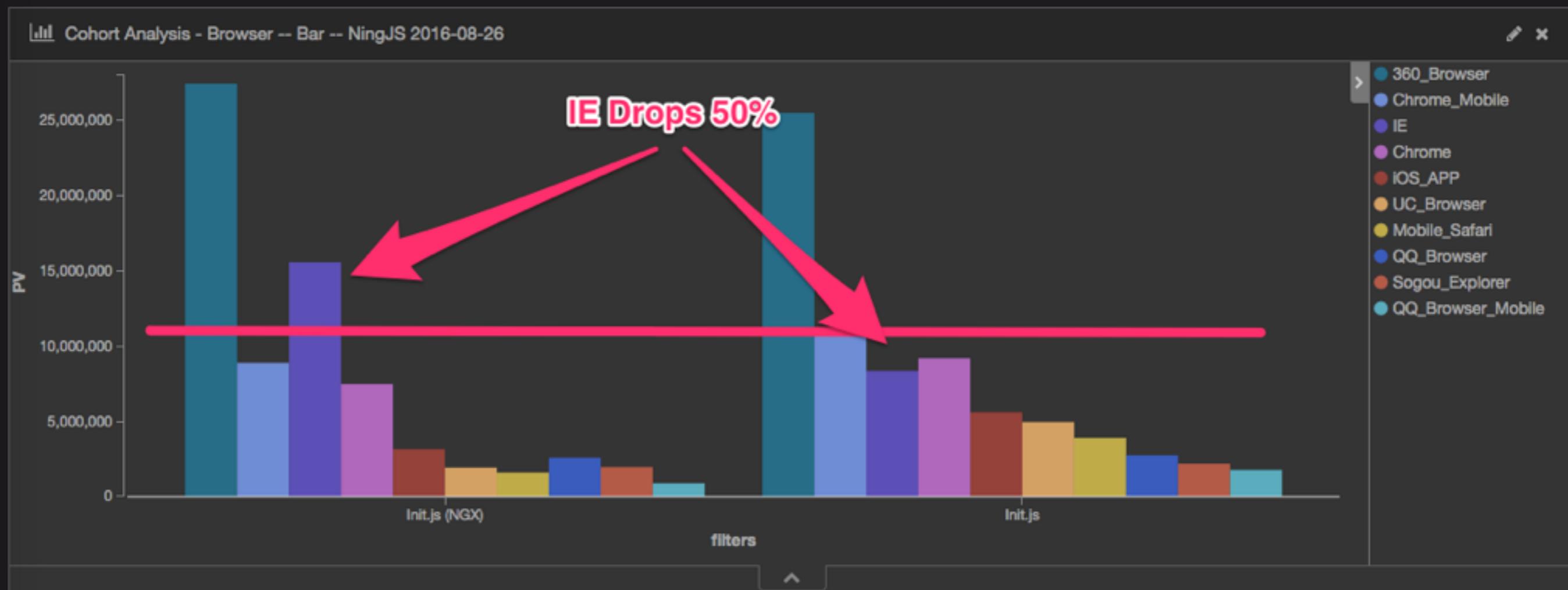
 

Cohort Analysis - Browser -- Bar -- NingJS 2016-08-26

should be similar





WHY DO WE NEED ANALYTICS?

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DATA DRIVEN?

TRACK



ALL THE THINGS









BECAUSE ANALYTICS
ARE AWESOME!

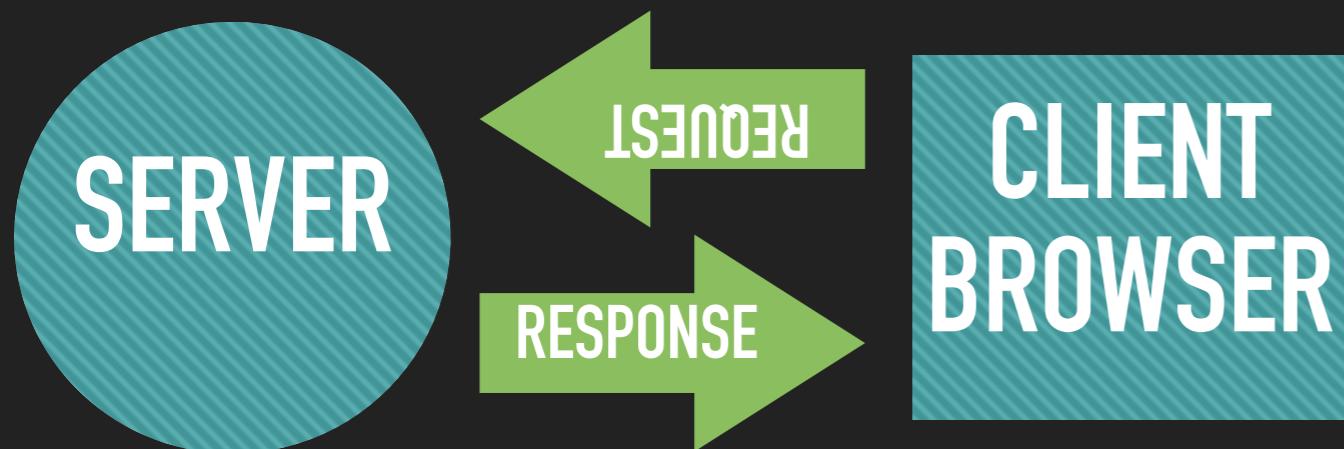
2 - WHAT IS AGGREGATION

WHAT IS AGGREGATION

LEARNING THROUGH EXAMPLE

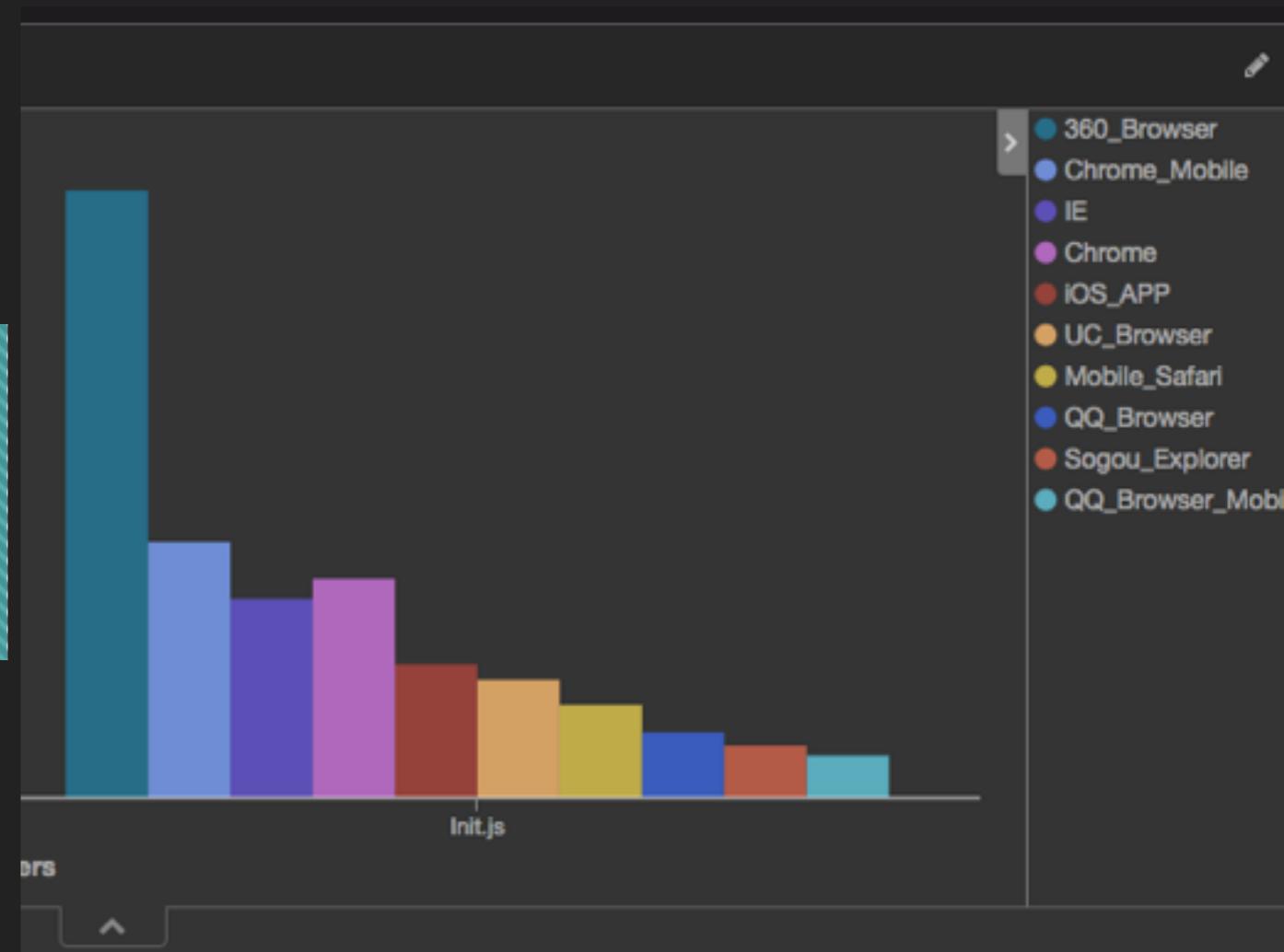
WHAT IS AGGREGATION

LEARNING THROUGH EXAMPLE

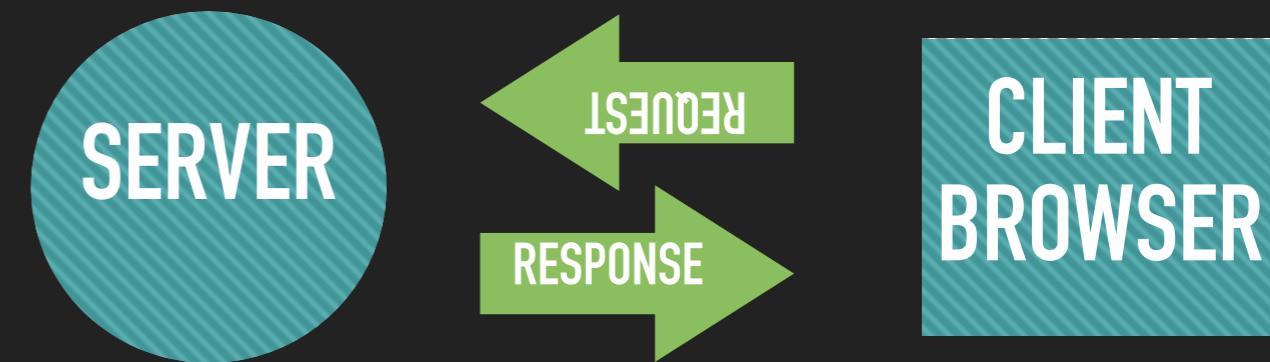


WHAT IS AGGREGATION

LEARNING THROUGH EXAMPLE



LEARNING THROUGH EXAMPLE



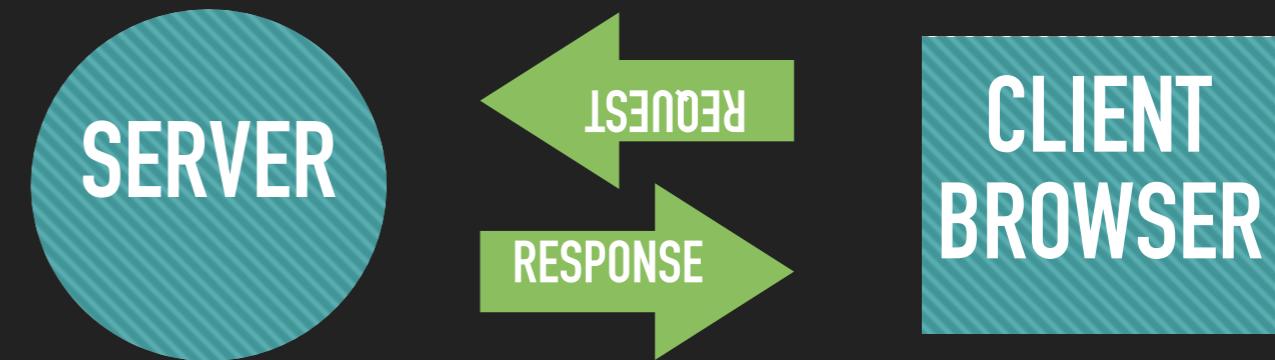
id: 1,
browser: "Safari",
uri: "/",
timestamp: Date

id: 2,
browser: "IE",
uri: "/login",
timestamp: Date

id: 3,
browser: "Chrome",
uri: "/home",
timestamp: Date

id: 4,
browser: "IE",
uri: "/",
timestamp: Date

LEARNING THROUGH EXAMPLE



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AGGREGATION BUCKETS

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WHAT IS AGGREGATION

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1

AGGREGATION BUCKETS

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2

AGGREGATION BUCKETS

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```
id: 4,  
browser: "IE",  
uri: "/",  
timestamp: Date
```

1

2

1

AGGREGATION RESPONSE

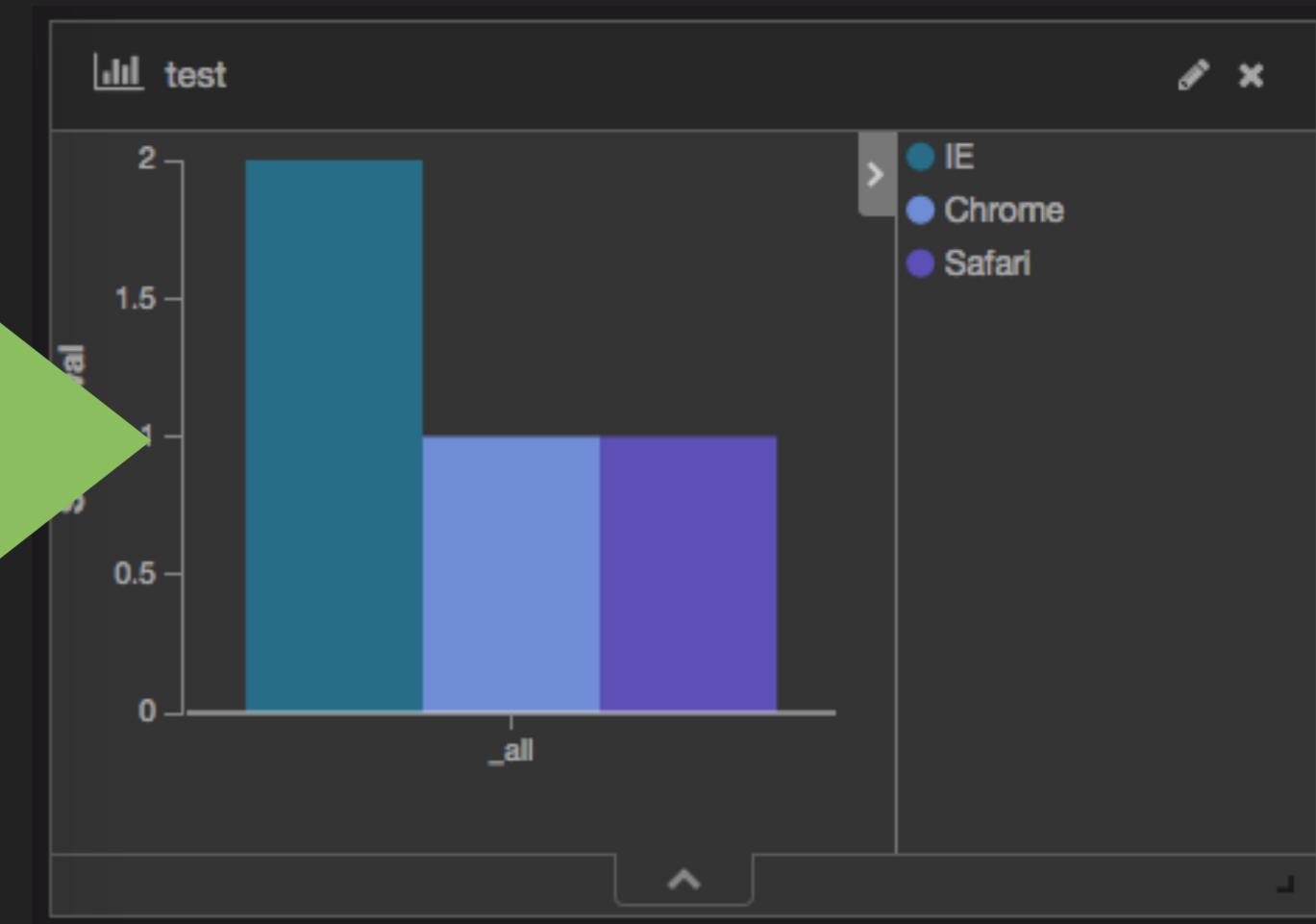
“Safari”: 1,

“IE”: 2,

“Chrome”: 1

AGGREGATION RESPONSE

“Safari”: 1,
“IE”: 2,
“Chrome”: 1



3 - EXISTING SOLUTIONS



**STATSD
ELK
GOYOO STACK (SEK)**

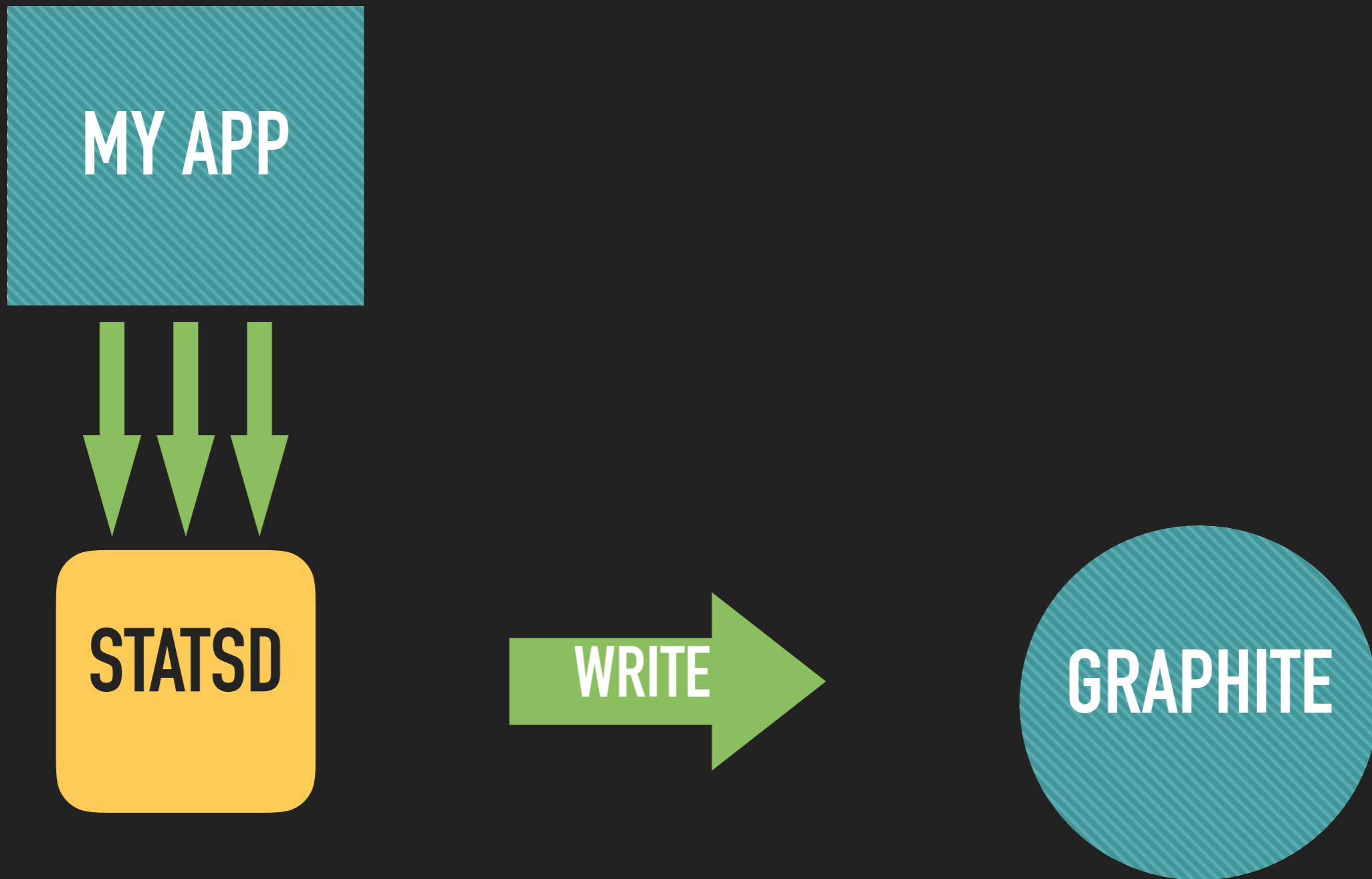


STATSD

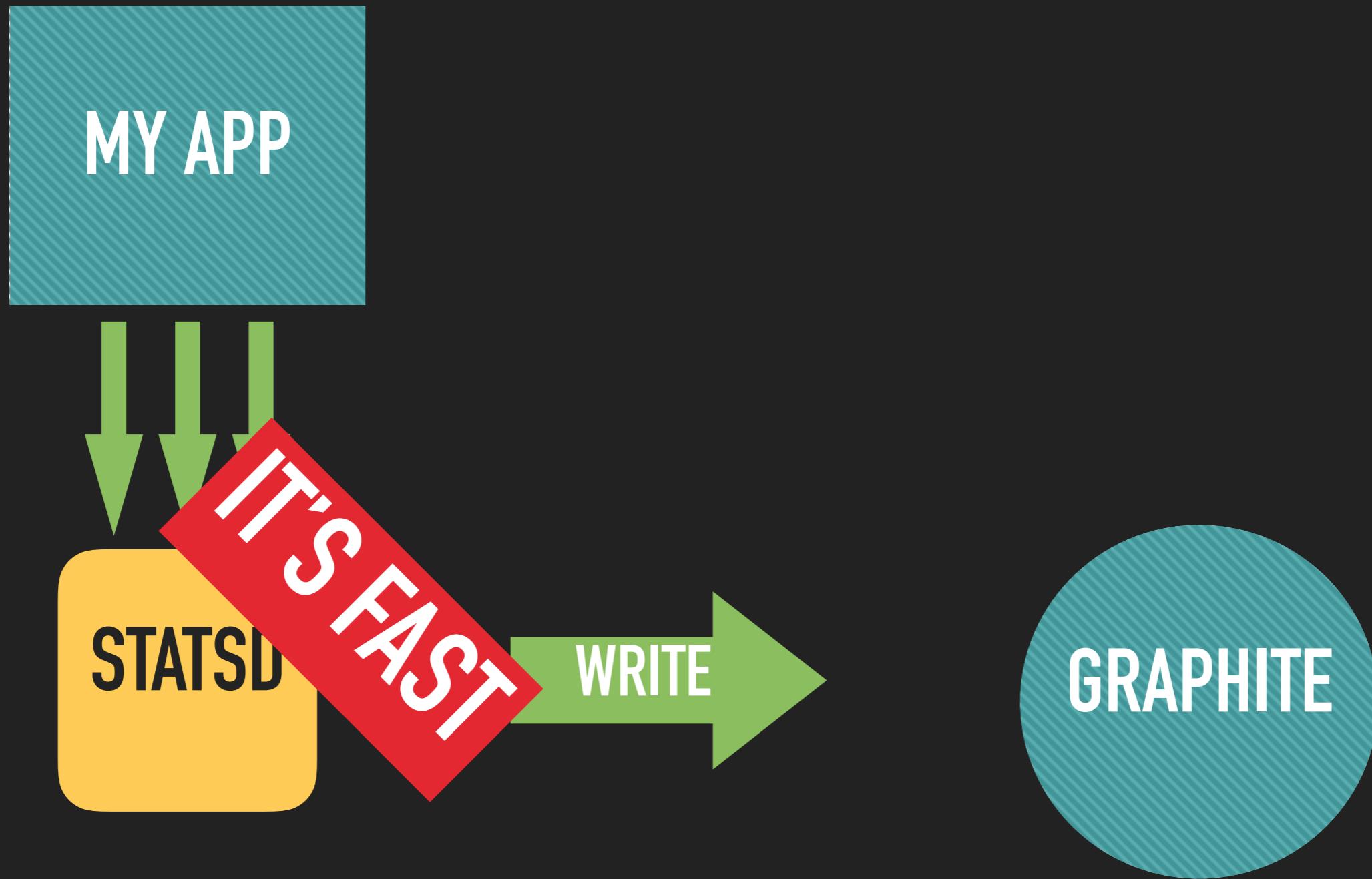
BASIC CONCEPTS

- ▶ Our app will send some **specialized logs** to **statsd**
- ▶ Statsd will **aggregate** the logs and send them to the **database** regularly

BASIC ARCHITECTURE



BASIC ARCHITECTURE





ELK

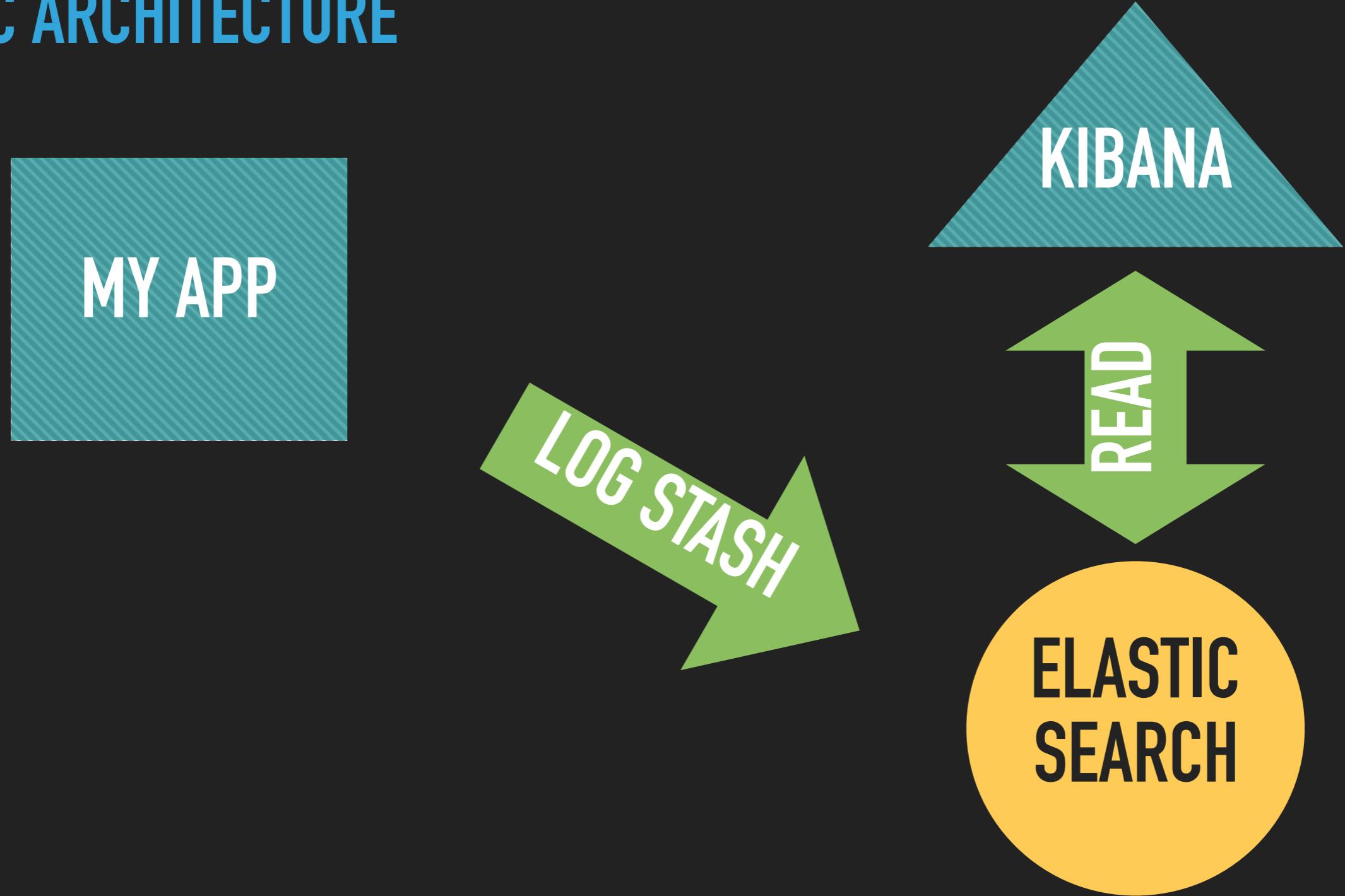


ELK
ELASTICSEARCH
LOGSTASH
KIBANA

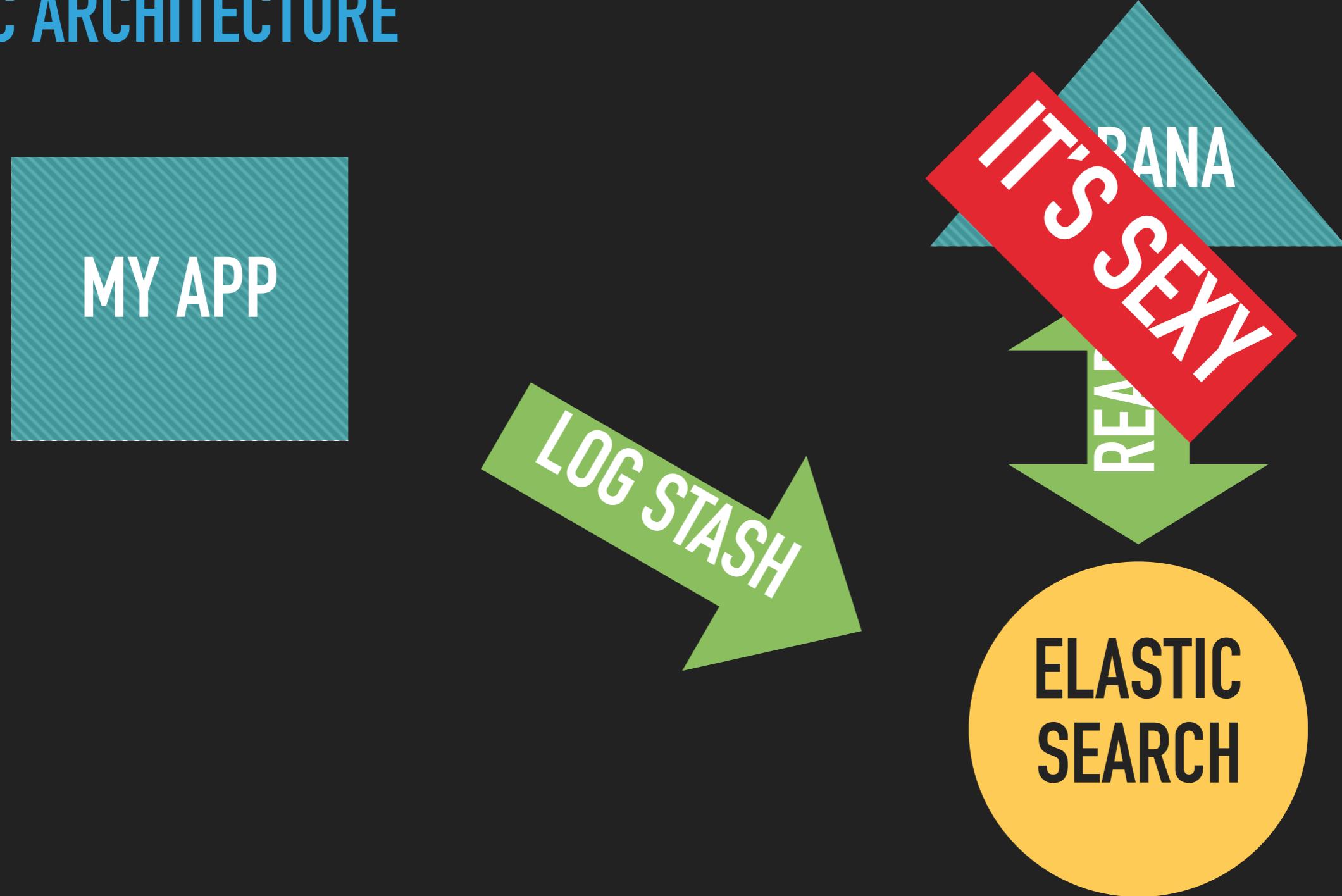
BASIC CONCEPTS

- ▶ Our app will send **every log** to **elastic search** (using **logstash**)
- ▶ We will use **kibana** to send **aggregation queries** to **elastic search**.
- ▶ **Kibana** will make the **aggregation response** very **visual**

BASIC ARCHITECTURE



BASIC ARCHITECTURE





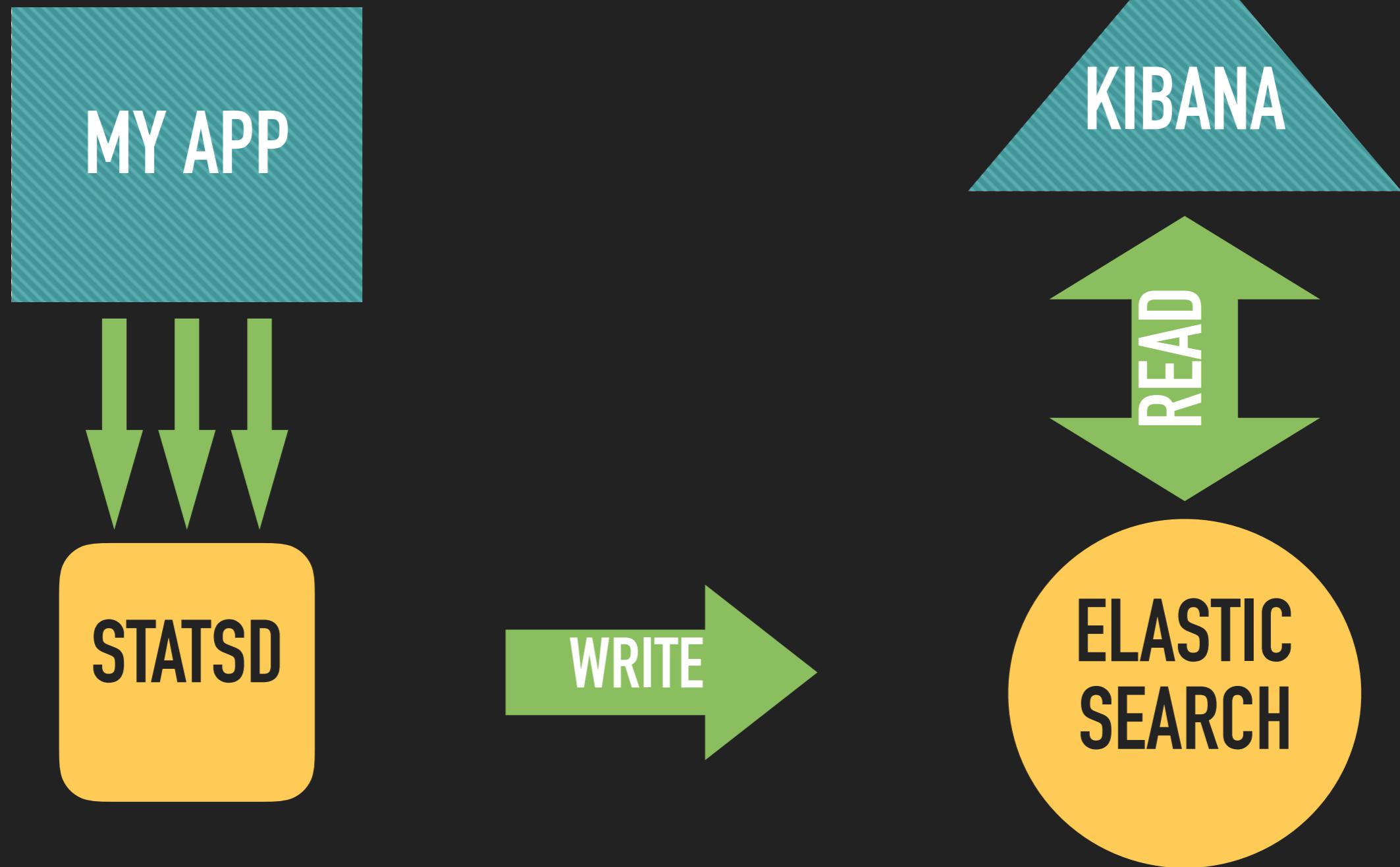
GOYOO STACK



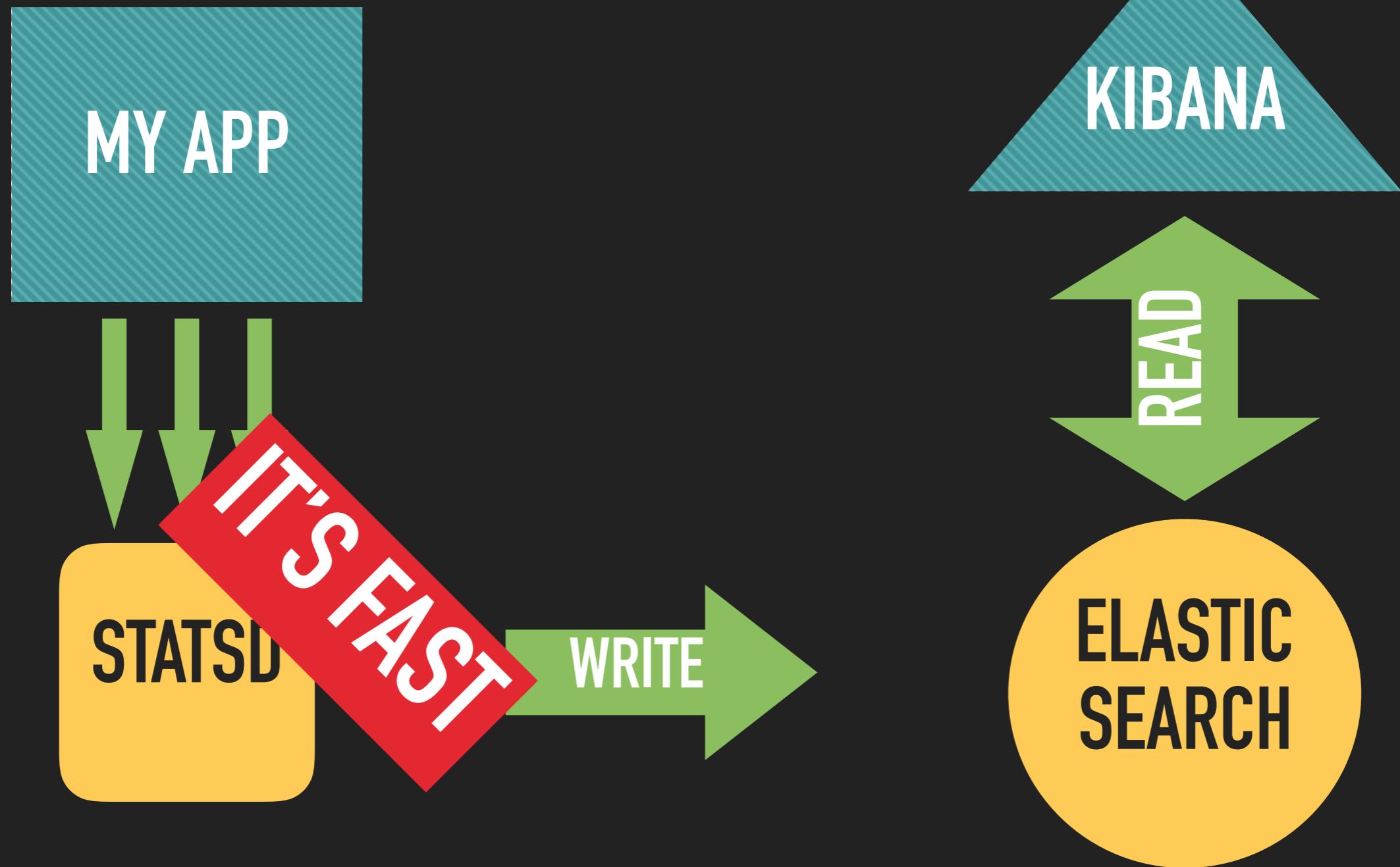
SEK

SEK
STATSD
ELASTICSEARCH
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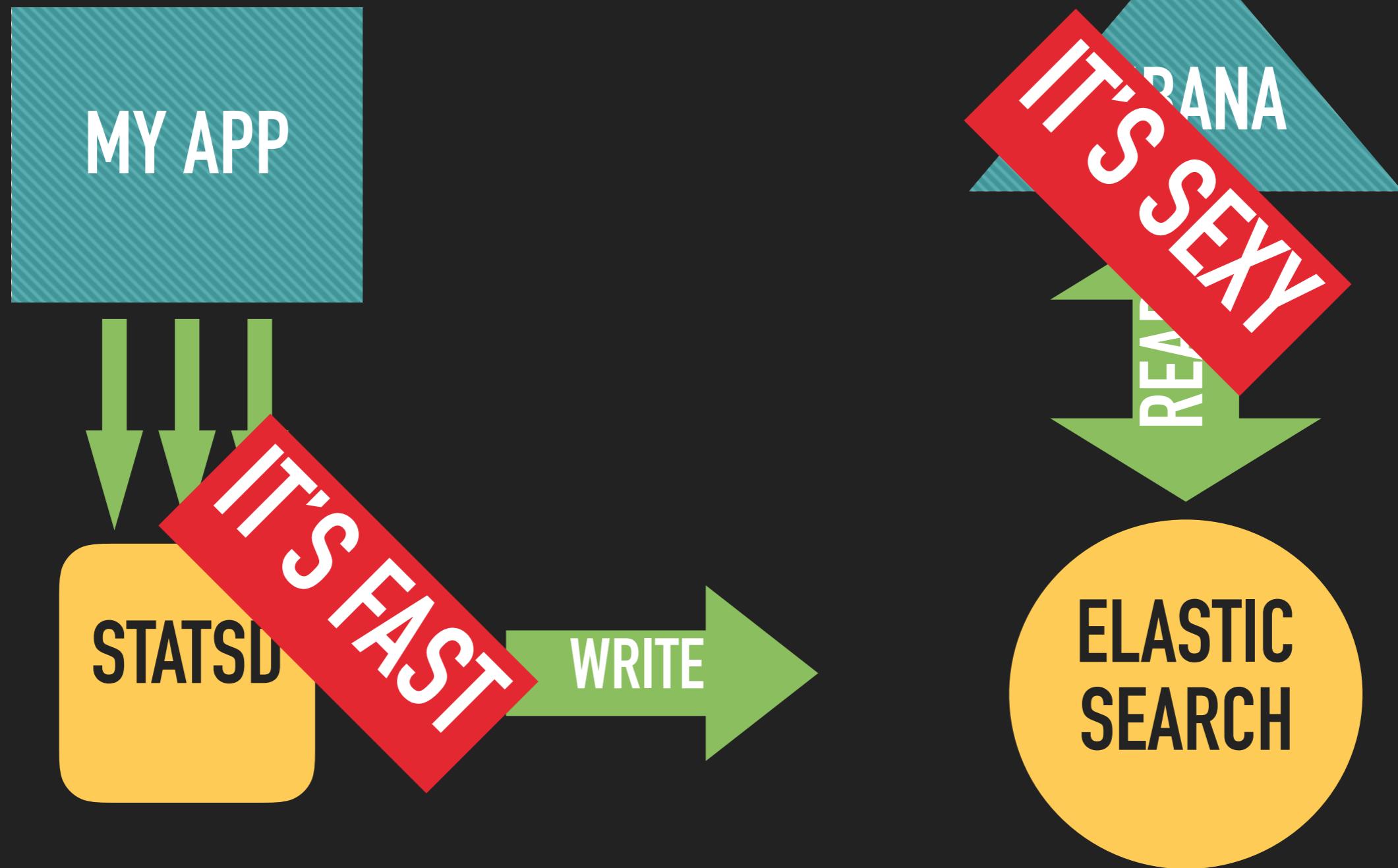
BASIC ARCHITECTURE



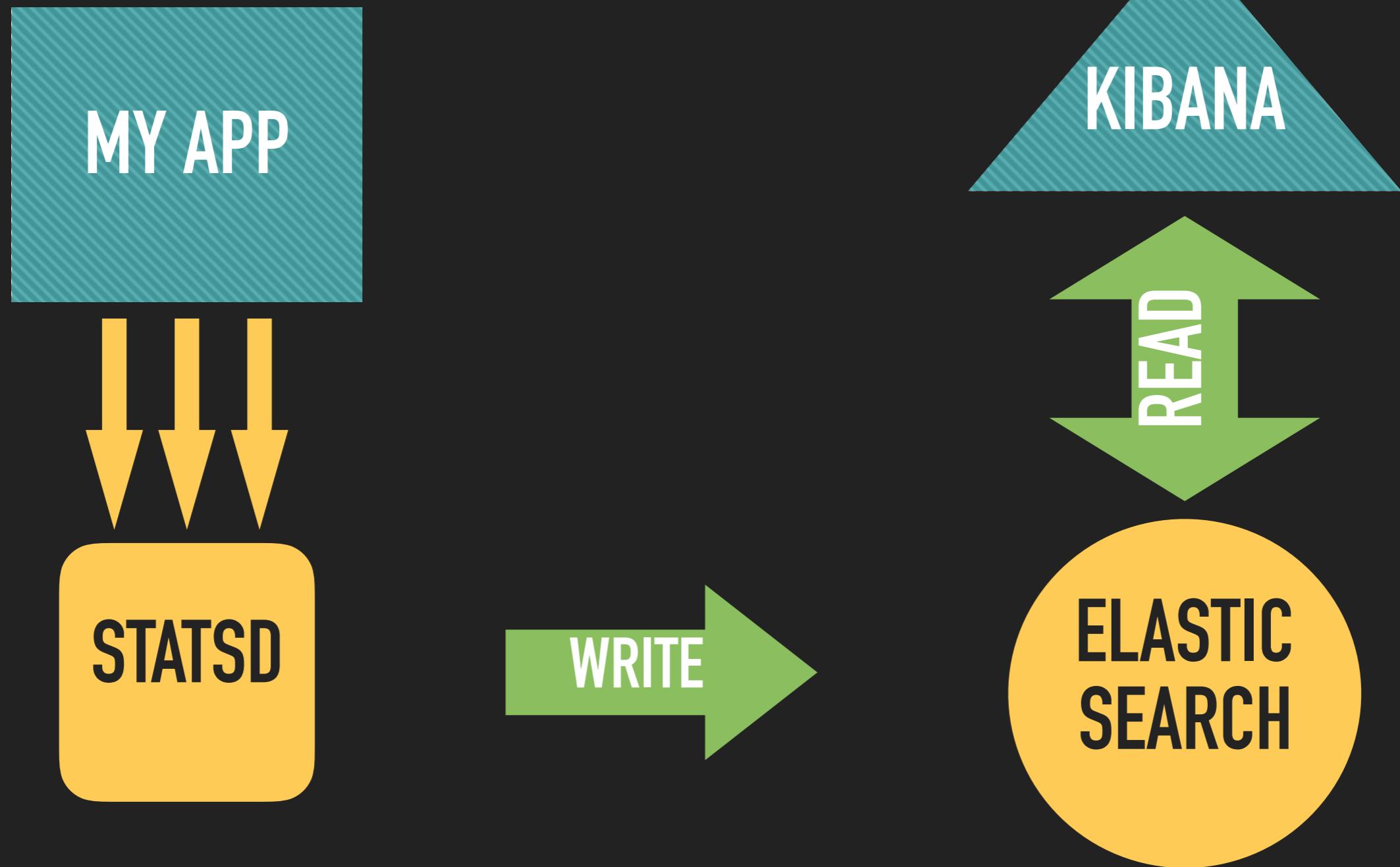
BASIC ARCHITECTURE



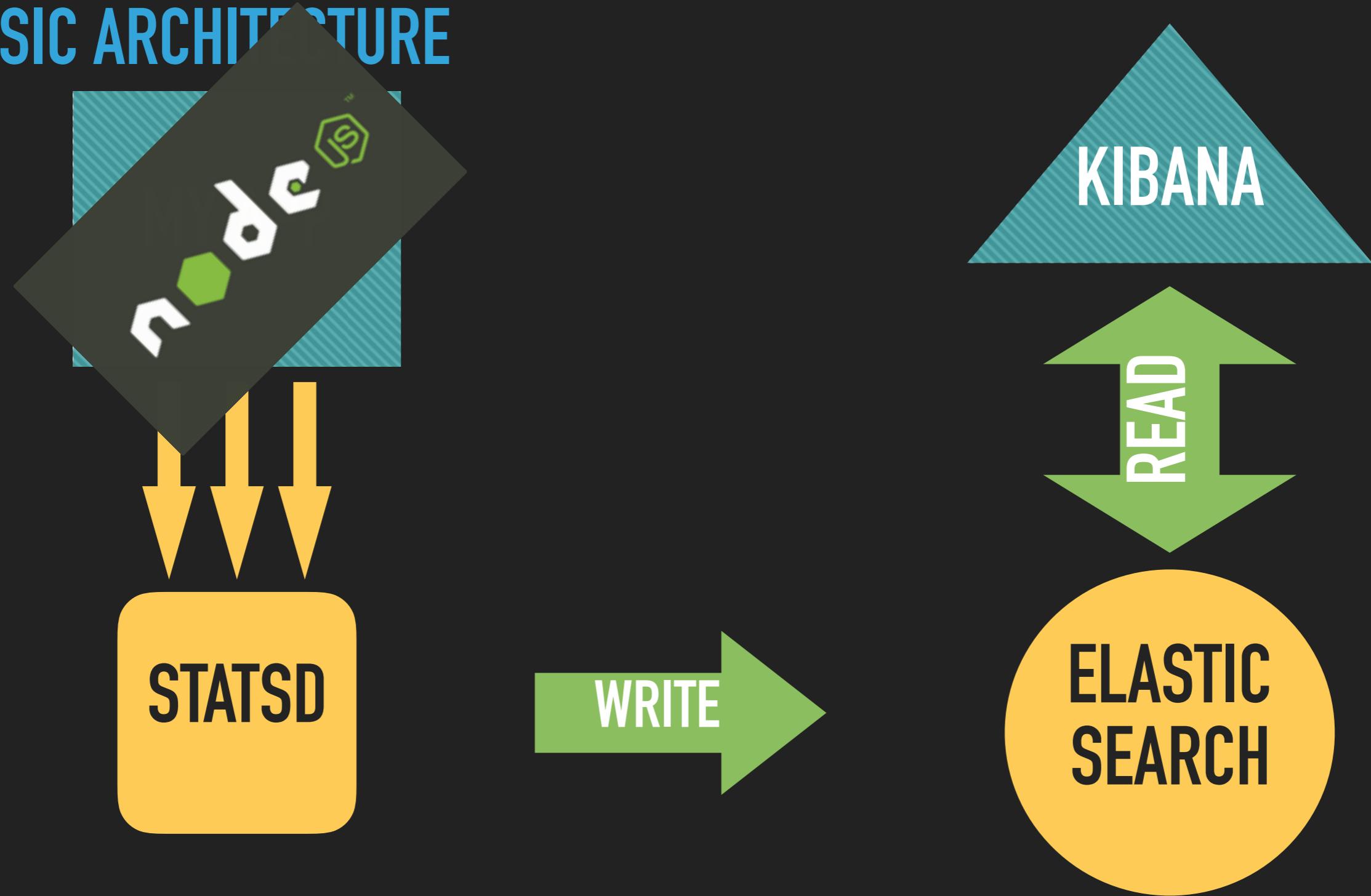
BASIC ARCHITECTURE



BASIC ARCHITECTURE



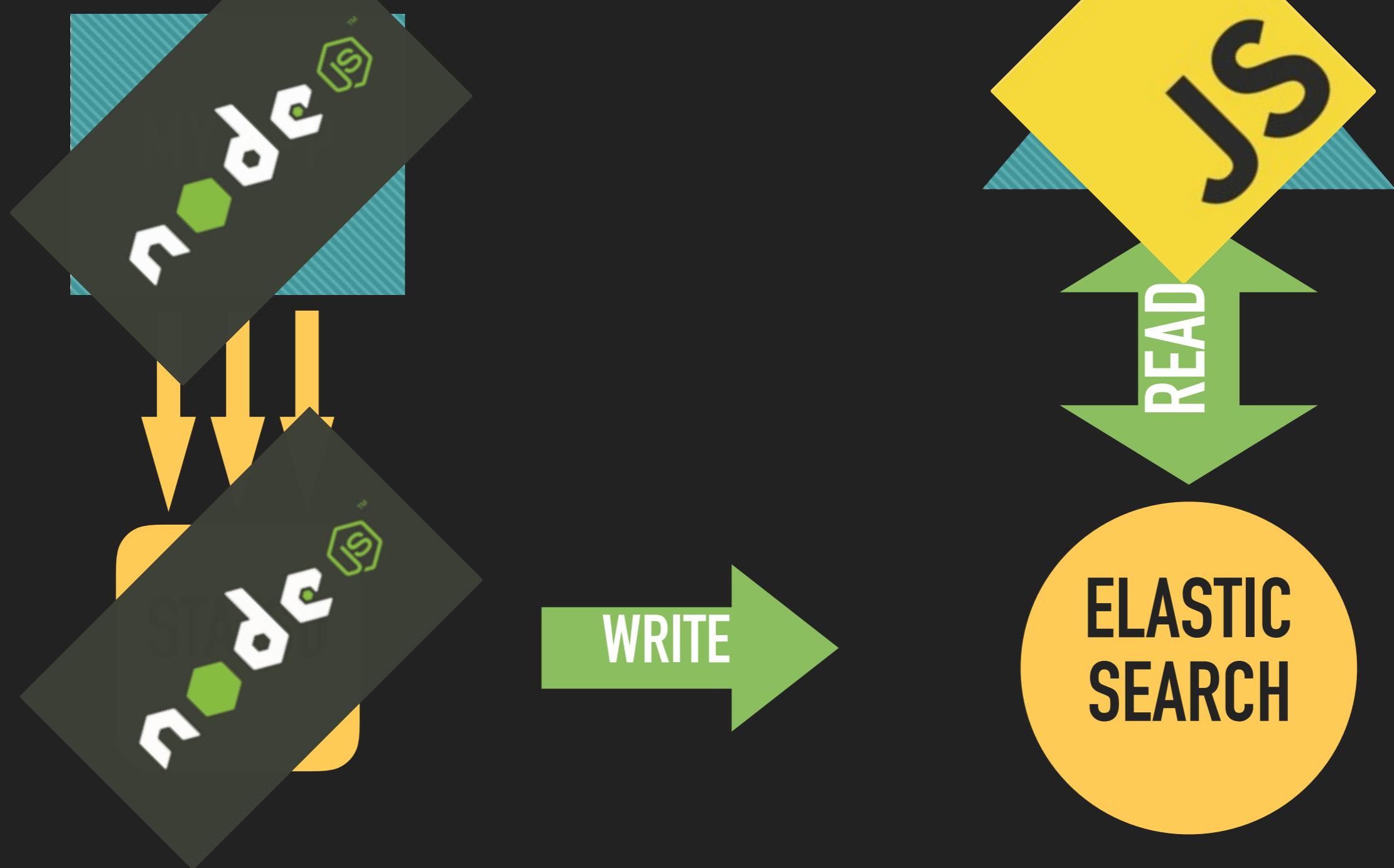
BASIC ARCHITECTURE



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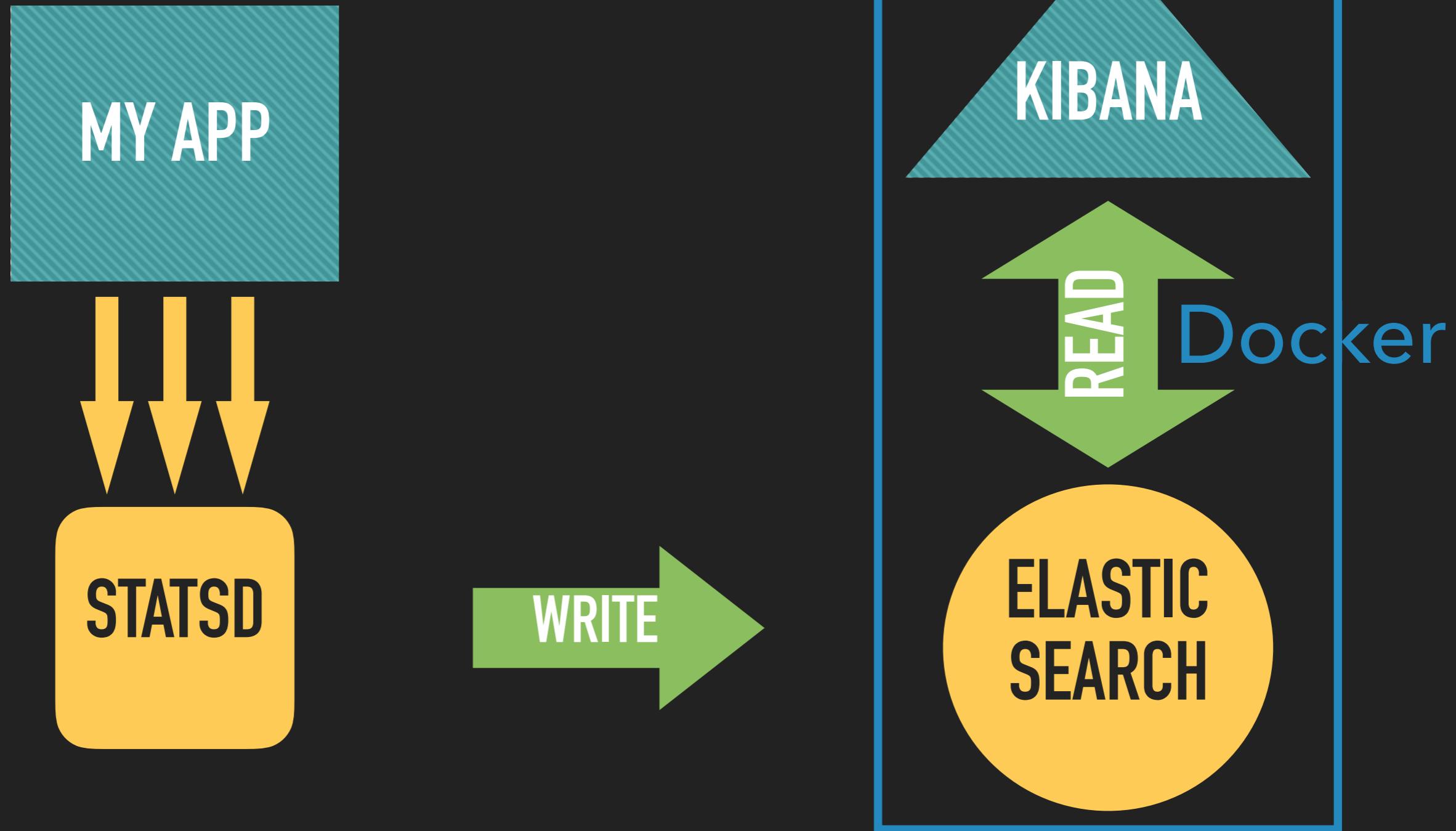


4 - DEMO TIME

HTTP REQUEST HEADERS



BASIC ARCHITECTURE



WHY DO WE NEED ANALYTICS ?

THANK YOU !

THANK YOU !

LET'S KEEP IN TOUCH

- ▶ Give us a star !
- ▶ github.com/Goyoo/ningjs

- ▶ Wechat, Github and Twitter:
- ▶ @Doweig

