



AutoTrader

The DevOps Dream

K8 / Istio & a Dash of
Innovation

@DaveWhyte_DW
@AutoTraderLife



58m

Cross Platform Visits
Jan 2020 (+5% YOY)



14m

App Downloads



259m

Advert Views

800

Employees

200

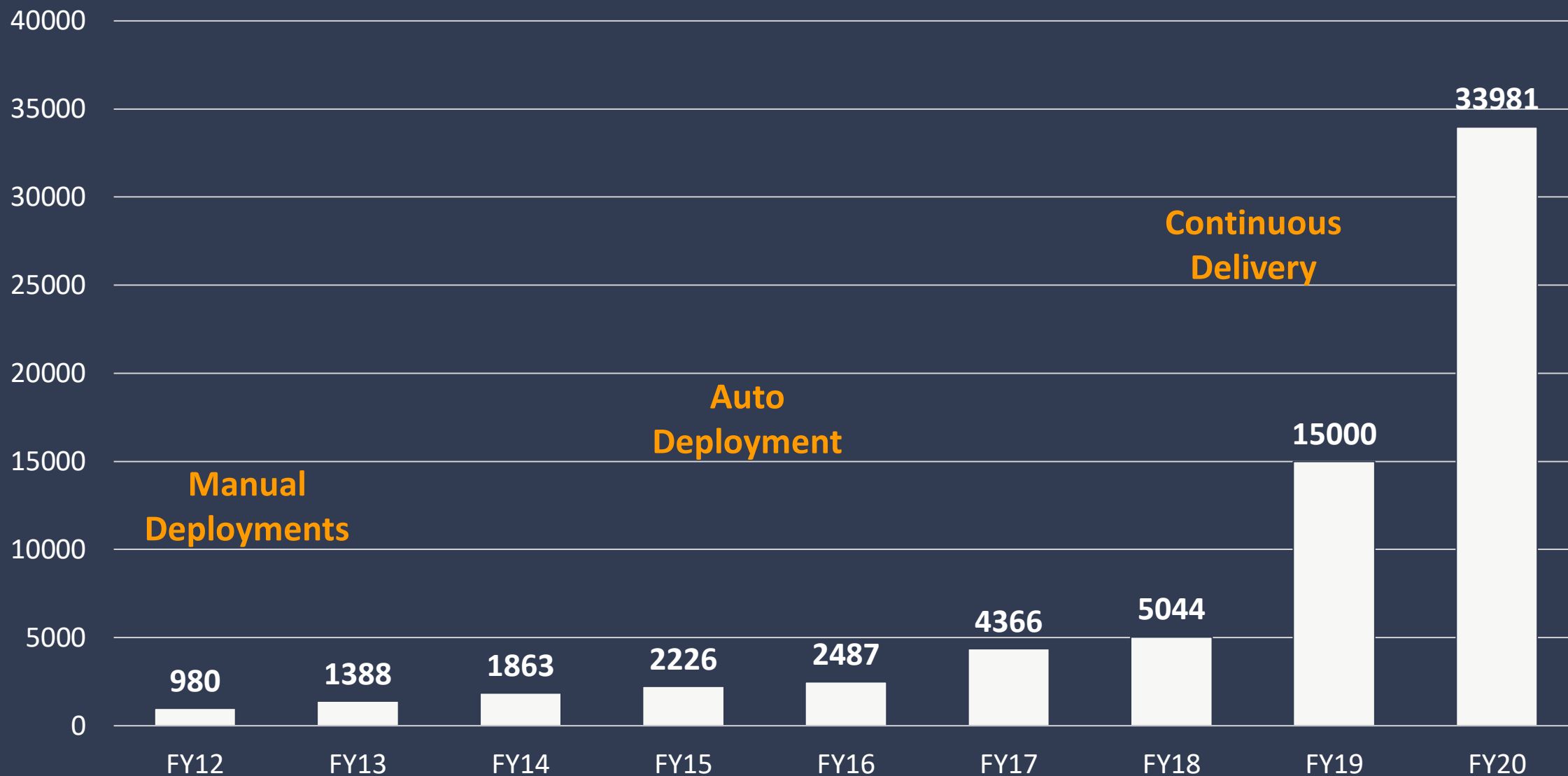
Developers

20

Infra & Ops Engr's



Releases...



```
[(* preprod:default)  
(→ ~/repos/demo/demo-app -> █
```

Shippr-cli

```

1 deployment:
2   containers:
3     - name: master
4       image:
5         registry: eu.gcr.io/at-artefacts
6         name: at-demo-app
7         tag: latest
8       httpPort: 4567
9       health:
10      resources:
11        requests:
12          memory: 512Mi
13          cpu: 150m
14        limits:
15          memory: 768Mi
16          cpu: 1000m
17      serviceDiscovery:
18        name: demo-app
19        description: Demo App
20        owner: dave.whyte@autotrader.co.uk
21        squad: operations
22        squadBuddy: dave.whyte@autotrader.co.uk
23        type: ruby
24      network:
25        policies:
26          - name: demo-app-policy
27            targetPod: {}
28            from:
29              namespaces:
30                - name: demo-app
31                #- name: some-other-application
32            to:
33              namespaces:
34                - name: demo-app
35                #- name: some-other-application

```

values.yaml

```
1 deployment:
2   containers:
3     - name: master
4       image:
5         registry: eu.gcr.io/at-artefacts
6         name: at-demo-app
7         tag: latest
8       httpPort: 4567
9       health:
10      resources:
11        requests:
12          memory: 512Mi
13          cpu: 150m
14        limits:
15          memory: 768Mi
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```

```
17 serviceDiscovery:
18   name: demo-app
19   description: Demo App
20   owner: dave.whyte@autotrader.co.uk
21   squad: operations
22   squadBuddy: dave.whyte@autotrader.co.uk
23   type: ruby
```

```
24 network:
25   policies:
26     - name: demo-app-policy
27       targetPod: {}
28       from:
29         namespaces:
30           - name: demo-app
31           #- name: some-other-application
32       to:
33         namespaces:
34           - name: demo-app
35           #- name: some-other-application
```

values.yaml

```
(* preprod:demo-app)
(→ ~/repos/demo/demo-app (master) ✓ -> shippr project status -e preprod
```

Information

- Name: demo-app
- Description: Demo App
- Owner: dave.whyte@autotrader.co.uk
- Squad: operations
- Squad Buddy: dave.whyte@autotrader.co.uk
- Git URL: <https://github.atcloud.io/dave-whyte/demo-app/tree/5a1aa6b79463e17fd234cede62a4d67b37093901>
- GoCD URL: https://go.atcloud.io/go/pipelines/value_stream_map/shippr-cli.demo-app/2

Hosts

- <https://app.demo-app.preprod.k8.atcloud.io> (intra-cluster: <http://app.demo-app>)

Observability

- Metrics: <https://metrics.demo-app.preprod.k8.atcloud.io>
- Tracing: <https://tracing.demo-app.preprod.k8.atcloud.io>
- Logs: <https://logs.demo-app.preprod.k8.atcloud.io>

Pods

- demo-app-6996d7bb64-2m2nz (Running, 2/2 containers ready, 0 restarts, 13m old)

To view your pod's logs:

- shippr project logs -e preprod (all pods)
- shippr project logs -e preprod --pod demo-app-6996d7bb64-2m2nz (single pod)



TOTAL APPLICATIONS

336 in total, 4 new this week



TOTAL DEPLOYMENTS IN THE LAST 24 HOURS

480



TOTAL HTTP REQUESTS IN THE LAST 24 HOURS

421,745,415

KIBANA METRICS IN LAST 24 HOURS

363,712,824



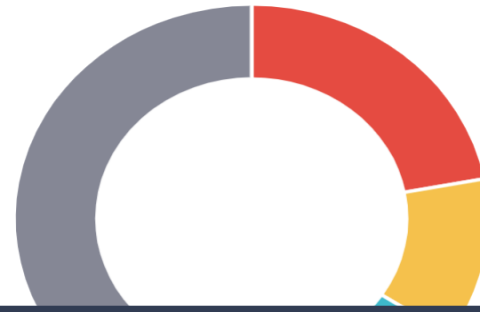
KIBANA LOGS IN LAST 24 HOURS

87,508,755



TOTAL NUMBER OF DOCKER CONTAINERS

Distribution by Squad



customer-tools-and-billing dealer-auction
stock-search-platform consumer-experience other

Spend by Squad

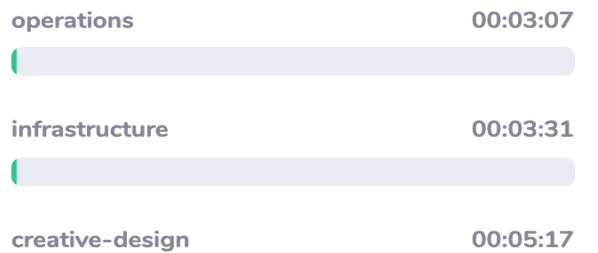


customer-tools-and-billing stock-search-platform
data-engineering dealer-auction other

Application Distribution by Language



Average Time to Production by Squad (last 24 hours)



Platform Dashboard

 Dashboard

 **App Directory**
 Dependency Graph

 Service Mesh

 Alert Dashboard

 Documentation

INTERFACE
 Environment


Application Directory

Squad

Language

Service Tier

Platform Versic

Application


abtest-allocator

consumer-experience

owner: andy.riley

tier: 1

buddy: dylan.hicks

type: java

Jump to

A/B Test Allocator for Sauron

advert-alerts

dealer-auction

owner: elliot.sumner

tier: 3

buddy: dave.whyte

type: java

Jump to

Processes adverts to alert users to suitable vehicles

advert-checker

data-engineering

owner: james.mcnee

tier: 3

buddy: balkrishna.gukhool

type: nodejs

Jump to

Simple app for RDS

advert-price-history-processor

customer-tools-and-billing

owner: james.mcnee

tier: 3

buddy: balkrishna.gukhool

type: java

Jump to

Kafka state store which consumes from stock-item and produces price-history-update, which is consumed by forecourt-service & searchone

advertise-on-autotrader-ie

james-r

owner: jamese.richardson

tier: 3

buddy: jonathan.dalton

type: java

Jump to

Consume adverts from Kafka to autotrader.ie

advertiser-branding

buying-experience

owner: muhammad.raza

tier: 3

buddy: dylan.hicks

db: mysql

type: java

Jump to

Allows retailers to self-select partner branding to appear on their FPA.

advertising-preferences-service

customer-tools-and-billing

owner: ben.mccarthy

tier: 3

buddy: balkrishna.gukhool

db: mongodb

type: java

Jump to

This app will persist preferences chosen by customers during the advertising journey

airflow

data-engineering

owner: darren.haken

tier: 3

type: python

Jump to

App Directory



Application Directory

Squad

Language

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Platform Versic

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Processes adverts to alert users to suitable vehicles

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Simple app for RDS members to look for issues with adverts, particularly WRT to valuations

type: nodejs

Jump to

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Jump to

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type: java

Jump to

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Jump to

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This app will persist preferences chosen by customers during the advertising journey

db: mongodb

type: java

Jump to

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type: python

Jump to



Application Directory

Squad

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type: java Jump to

- app.abtest-allocator
- admin.abtest-allocator

- GoCD Pipeline
- GoCD VSM
- Git Source Code
- Jaeger Tracing
- Kibana Logs

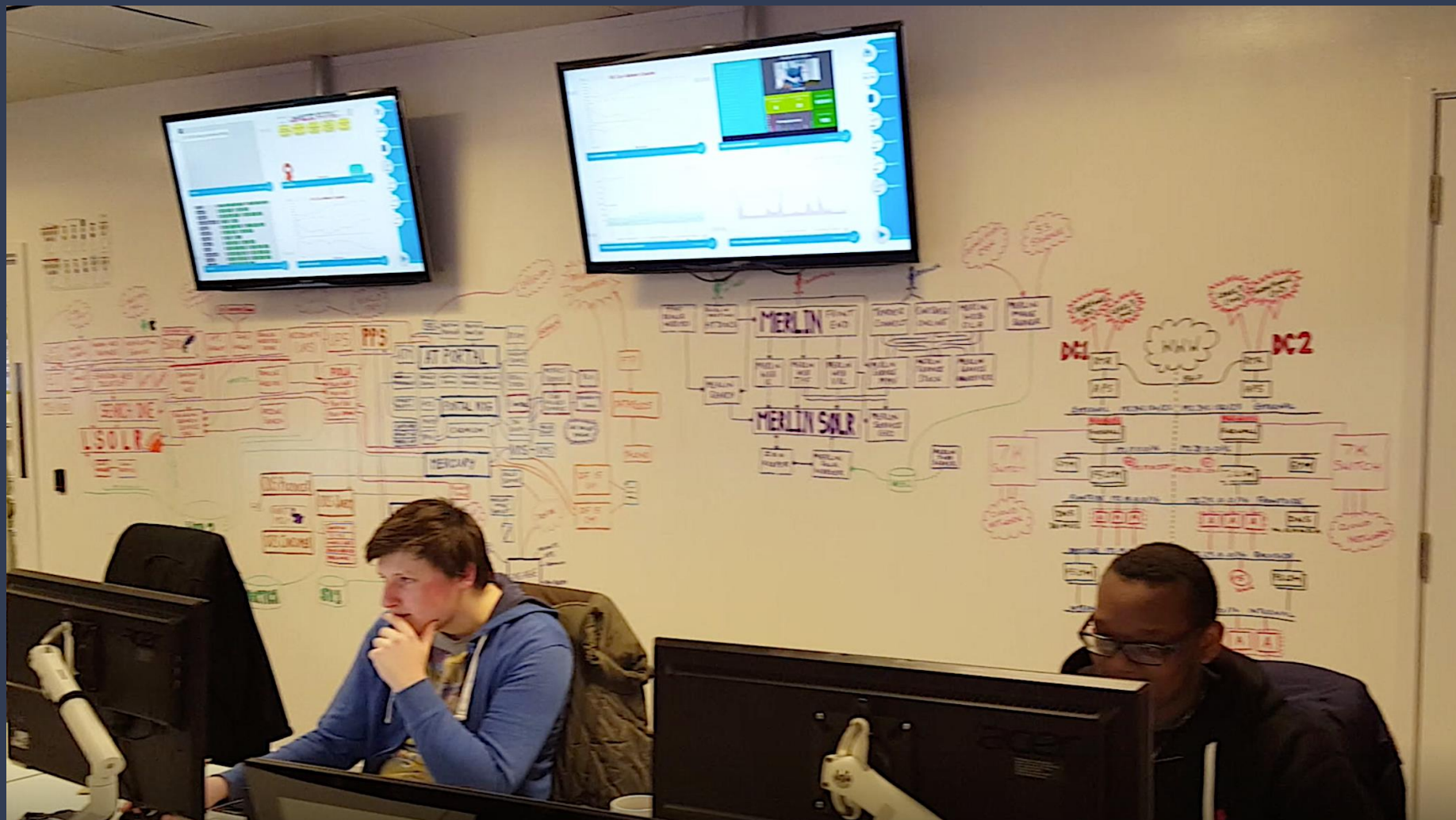
- Metrics: Service Mesh
- Metrics: Envoy
- Metrics: JVM

db: mysql type: java Jump to

db: mongodb type: java Jump to

type: python Jump to

Dependency Graph – the old way...



Dashboard

App Directory

Dependency Graph

Service Mesh

Alert Dashboard

Documentation

INTERFACE

Environment

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Search

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Jump to

This app will persist preferences chosen by customers during the advertising journey

airflow data-engineering owner: darren.haken tier: 3

type: python

Jump to

Airflow is a platform to programmatically author, schedule and monitor workflows as directed acyclic graphs (DAGs) of tasks.

api-admin web-platform owner: chris.kelly tier: 2 buddy: dylan.hicks

type: java

Jump to

Admin tool for configuring API Gateway for publishing AutoTrader APIs.

Dependency Graph

Previous

2

3

4

5

...

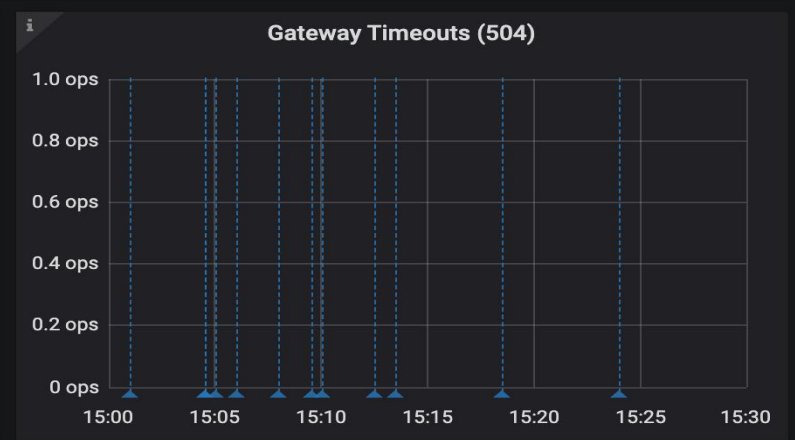
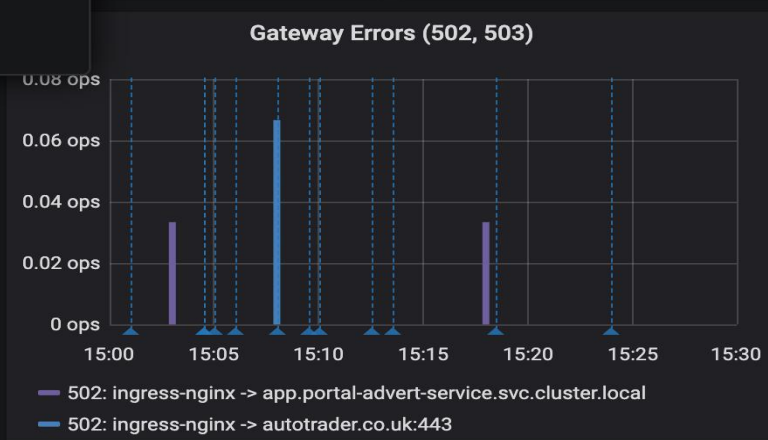
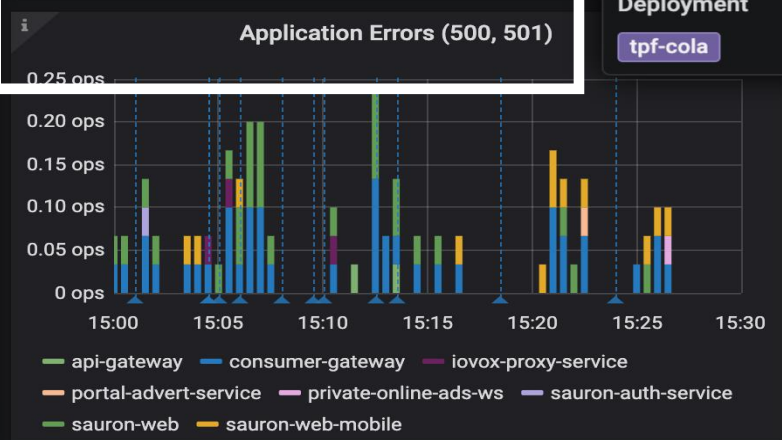
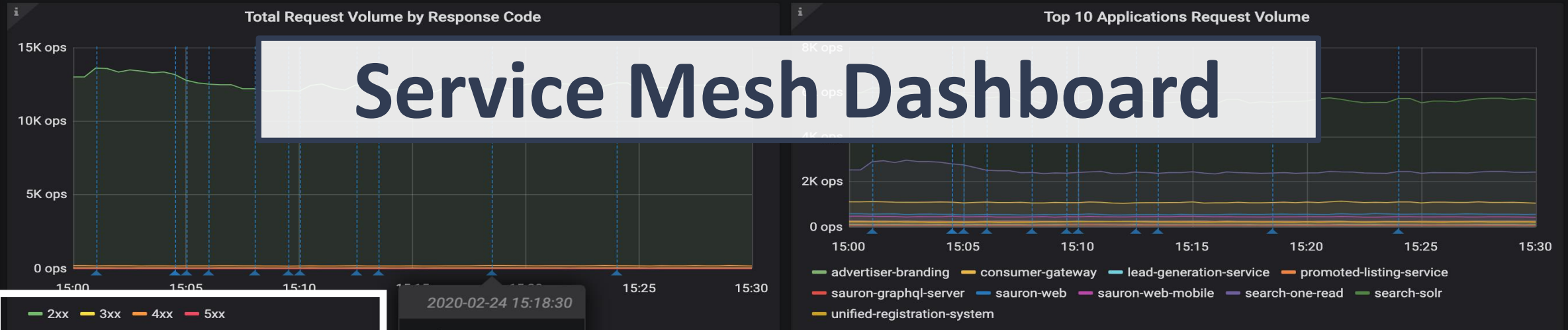
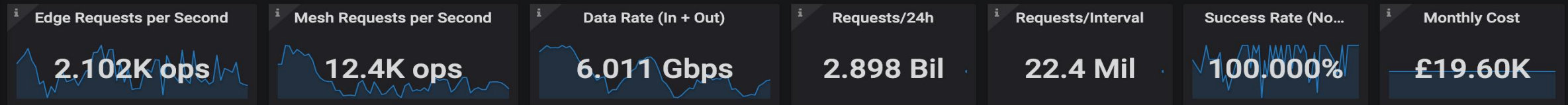
38

Next

New Node ☐ Deployment ☒

at-delivery-platform-preprod Dev Pre Prod Prod

Overall Statistics



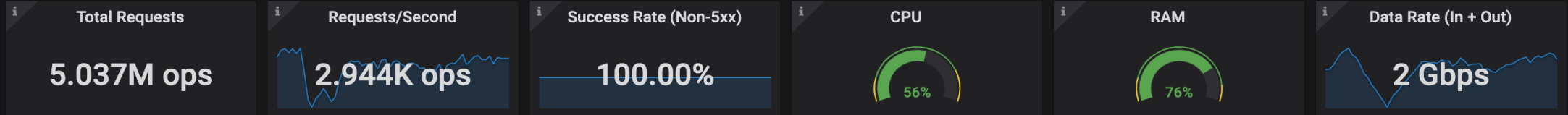
namespace search-one-read

workload search-one-read

percentile 95

Deployment  Dev  Preprod  Prod  Tracing  Inf Stats  DB Stats  Envoy Stats

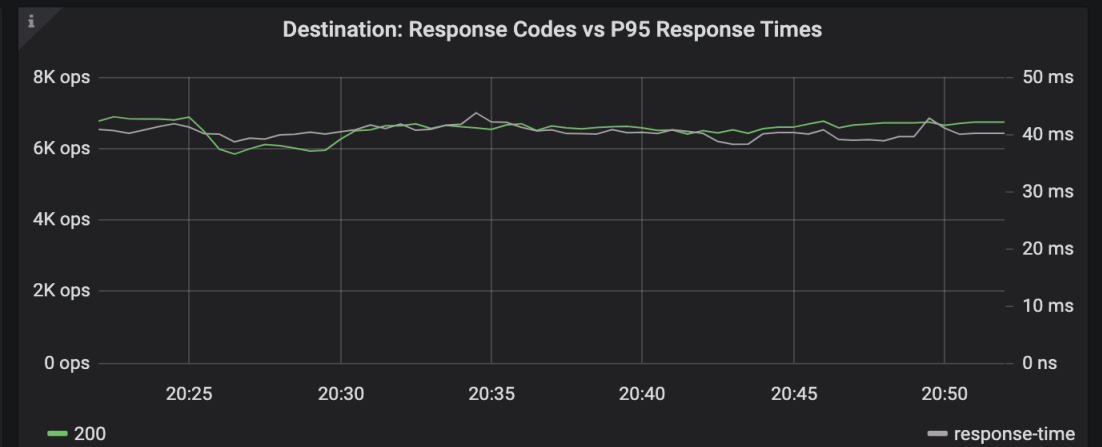
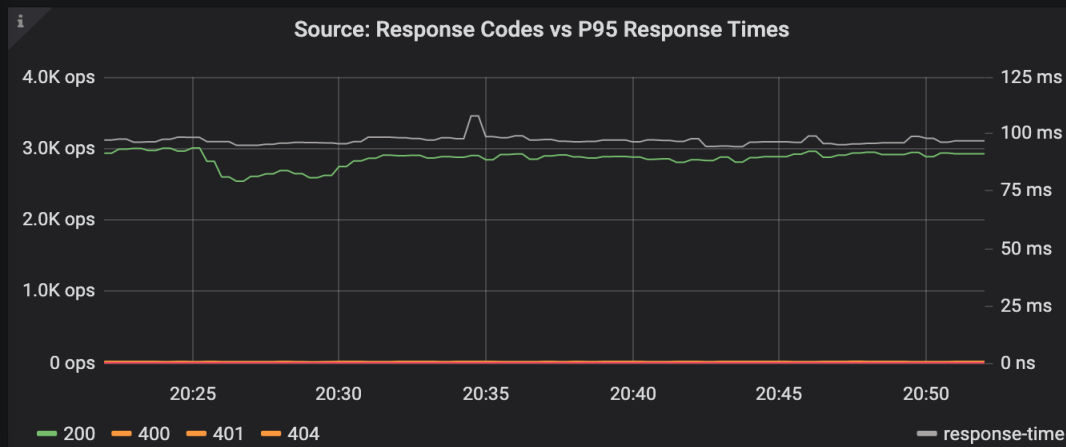
Overall Stats



Summary

Source Services							Destination Services						
Service	Ops	P50	P90	P95	P99	Success	Service	Ops	P50	P90	P95	P99	Success
sauron-web-mobile	1.02K ops	9 ms	59 ms	87 ms	233 ms	100.000%	solr	6.74K ops	2 ms	21 ms	40 ms	101 ms	100.000%
sauron-web	890.13 ops	13 ms	111 ms	198 ms	449 ms	100.000%							
lead-generation-service	470.01 ops	18 ms	145 ms	167 ms	195 ms	100.000%							
promoted-listing-service	355.46 ops	18 ms	41 ms	44 ms	48 ms	100.000%							
sauron-graphql-server	137.87 ops	20 ms	89 ms	99 ms	210 ms	100.000%							

App Dashboard





Skippr APP 16:56

[\[dealerauction-admin-api\] Service returning high amounts of 5xx codes](#)

The error rate of an application in the last 5 minutes has exceeded the typical pattern for that application when compared to the previous 20 minutes.

Firing

- [dealerauction-admin-gateway](#)

Service Owner

[@elliott.sumner](#) from "dealer-auction"

tags: critical, prod | 12 Feb

Take Ownership

Silence



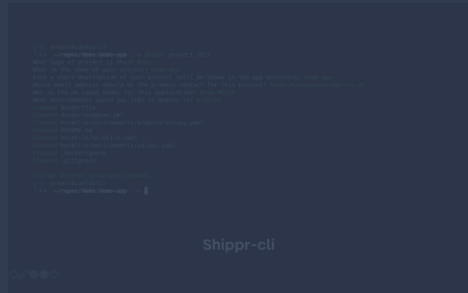
[2 replies](#) Last reply 5 days ago

Summary...

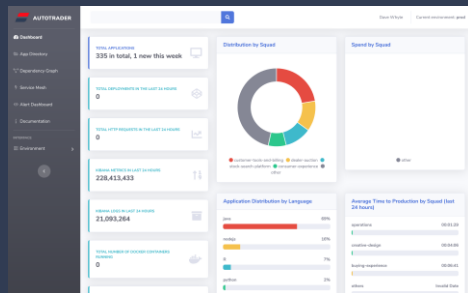
```
[c1: ~]$ cat ~/go/src/github.com/shipprr/shippr/defaults.go
// -l --repo:github:shippr --go --shippr project init
What type of project to build?
What is the name of your project? shippr
Enter a short description of your project (will be shown in the app directory) Shippr
What mail address should be the primary contact for this project? [github@shipprr.com]
Who is the second author for this application? [me]
For development, would you like to deploy to heroku?
Create Dockerfile
Create docker-compose.yml
Create heroku.yml
Create heroku/terraform/terraform.yml
Create heroku/terraform/terraform.yml
Create heroku/terraform/terraform.yml
Create docker-compose
Create .gitignore
Initial project structure created.
[c1: ~]$ cat ~/go/src/github.com/shipprr/shippr/defaults.go
// -l --repo:github:shippr --go --
```

Simplify, make the hard bits easy!

Summary...

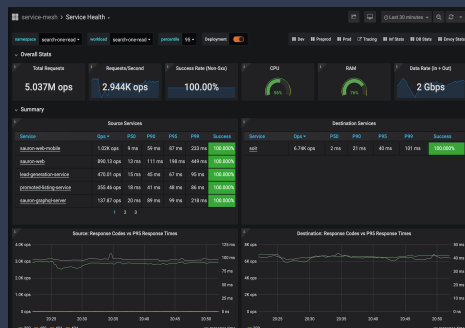


Simplify, make the **hard** bits
easy!



Build out **cool**
DevOps tooling

Summary...



Clear **observability** is
crucial for **success!**

A red classic car, possibly a Mini, is shown from a low angle in a tunnel. The car has a license plate that reads "HIMP 7291G". The tunnel walls are curved and have some lighting fixtures. In the background, another car is visible, and the tunnel appears to be curving. The overall scene is dimly lit, with the car's headlights and the tunnel's lights providing illumination.

AutoTrader

@DaveWhyte_DW

@AutoTraderLife