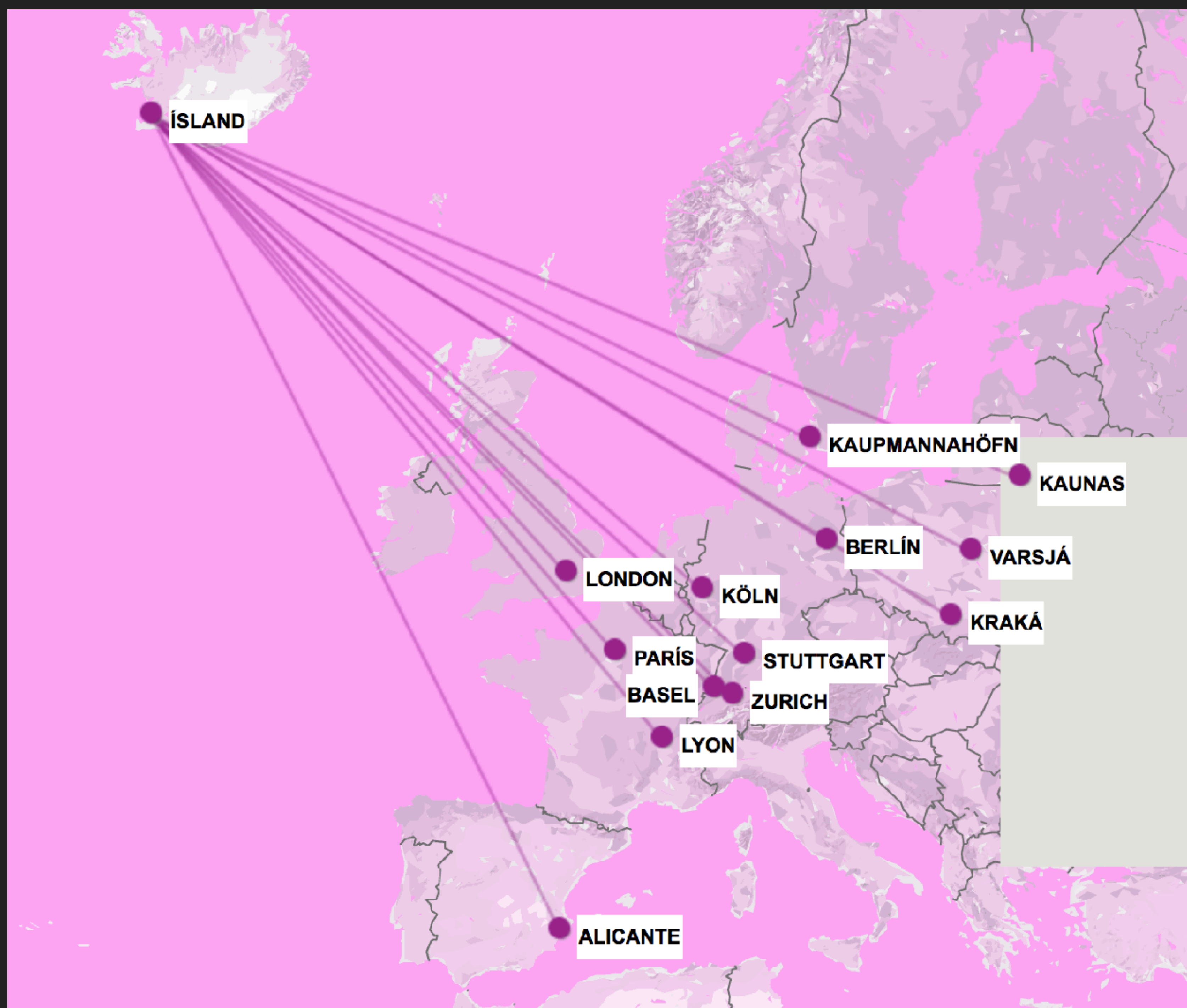


WOW AIR

---

**ÖRÞJÓNUSTUR OG FLUGVÉLAR**

# 2012



2016



## Plain Vanilla lokar og segir öllum upp

31.08.2016 - 12:04 Innlent



Mynd: Plain Vanilla

Öllum 36 starfsmönnum Plain Vanilla hér á landi var sagt upp í morgun. Þetta staðfestir Þorsteinn B. Friðriksson, forstjóri félagsins.

**VALGEIR ÖRN RAGNARSSON**

Fréttastofa RÚV

Þjónustugjöld Algengar spurningar Hafðu samband

Flug > Aukabjónusta > Sæti > Farþegar

## ✈️ Veldu flug út

Reykjavik (KEF) til Amsterdam (AMS)

	mið	fim	fös	lau	sun	mán
	MyWOW		MyWOW		MyWOW	MyWOW
24 APR ≥ 6:00 <b>23.499 ISK</b>	25 APR ≥ 2 valkostir <b>6.999 ISK</b>	26 APR ≥ 2 valkostir <b>12.999 ISK</b>	27 APR ≥ 2 valkostir <b>6.999 ISK</b> valið	28 APR ≥ 2 valkostir <b>17.999 ISK</b>	29 APR ≥ 2 valkostir <b>6.999 ISK</b>	30 APR ≥ 2 valkostir <b>6.999 ISK</b>

Upplýsingar um flug	WOW basic	WOW plus	WOW comfy	WOW premium
Reykjavik (KEF) <b>6:00</b> ✈️ © 3klst. 15min.   WW442 Upplýsingar um flug >	Amsterdam (AMS) <b>11:15</b>	<b>7.499 ISK</b> <input type="radio"/> Hvað er innifalið? >	<b>13.121 ISK</b> <input type="radio"/> Hvað er innifalið? >	<b>20.999 ISK</b> <input type="radio"/> Hvað er innifalið? >
<b>MyWOW verð</b> Skráðu þig í MyWOW og fáðu besta verðið	<b>6.999 ISK</b> <input type="radio"/>	<b>12.621 ISK</b> <input type="radio"/>	<b>14.999 ISK</b> <input checked="" type="radio"/>	<b>24.999 ISK</b> <input type="radio"/>
	✈️ Farmiði 🧳 Lítill taska/veski	✈️ Farmiði 🧳 Lítill taska/veski 🧳 Handfarangurstaska	✈️ Farmiði 🧳 Lítill taska/veski 🧳 Handfarangurstaska	✈️ Farmiði 🧳 Lítill taska/veski 🧳 Handfarangurstaska

### ✈ Flight details

DATE <b>10.04.2018</b>	IATA <b>WW173</b>
ORIGIN <b>KEF</b>	DESTINATION <b>LAX</b>
DELAY <b>04m</b>	STATUS <b>DELAYED</b>

STD <b>15:10</b>	ATD <b>N/A</b>	✈	STA <b>00:30</b>	ATA <b>N/A</b>
---------------------	-------------------	---	---------------------	-------------------

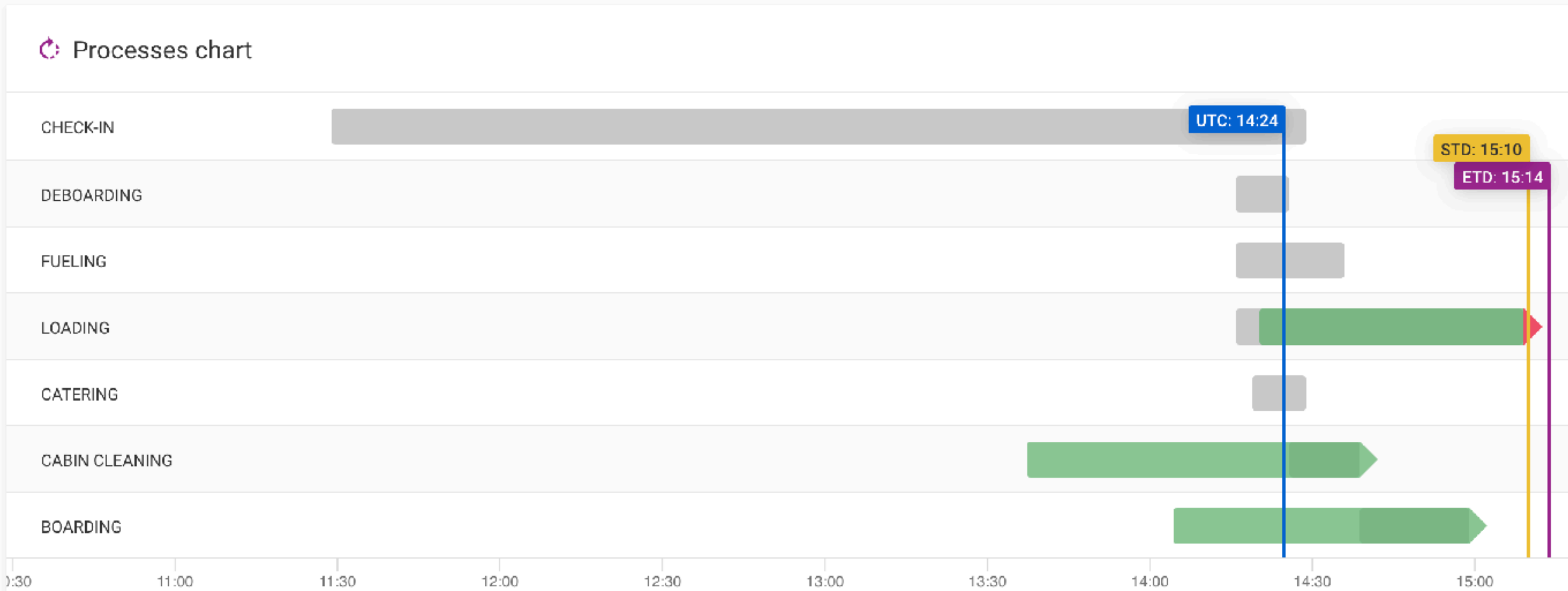
### ✈ Aircraft

NAME <b>TFGAY</b>	TYPE <b>A333</b>
CAPACITY <b>338</b>	LOAD <b>68.3%</b>
AVAILABILITY <b>107</b>	

### ✈ Inbound connections

Boarded ▾

BOARDED <b>65</b>	NOSHOW <b>1</b>	ACTIVE <b>164</b>	CHECKEDIN <b>2</b>	TOTAL <b>232</b>		
FEMALE <b>100</b>	MALE <b>115</b>	CHILDREN <b>13</b>	INFANTS <b>2</b>			
AMS <b>7</b>	BCN <b>7</b>	CDG <b>10</b>	CPH <b>8</b>	DUB <b>3</b>	FRA <b>0</b>	KEF <b>0</b>
LGW <b>20</b>	SXF <b>10</b>					



[Back](#)

# MY FLIGHT



21 Aug

Flight no. WW154/WW942

## Chicago



## Stockholm

ORD  
**16:20**

LAYOVER TIME:  
**25hrs.35min.**

ARN  
**23:05**

Terminal: C

Booking: Y59PX8



ITINERARY [>](#)

PASSENGER INFO [>](#)



### GET A BIG SEAT

Your wish is our demand. No request too strange or personal!

ADD



### BAGGAGE

Crispy on the outside, juicy on the inside.

ADD

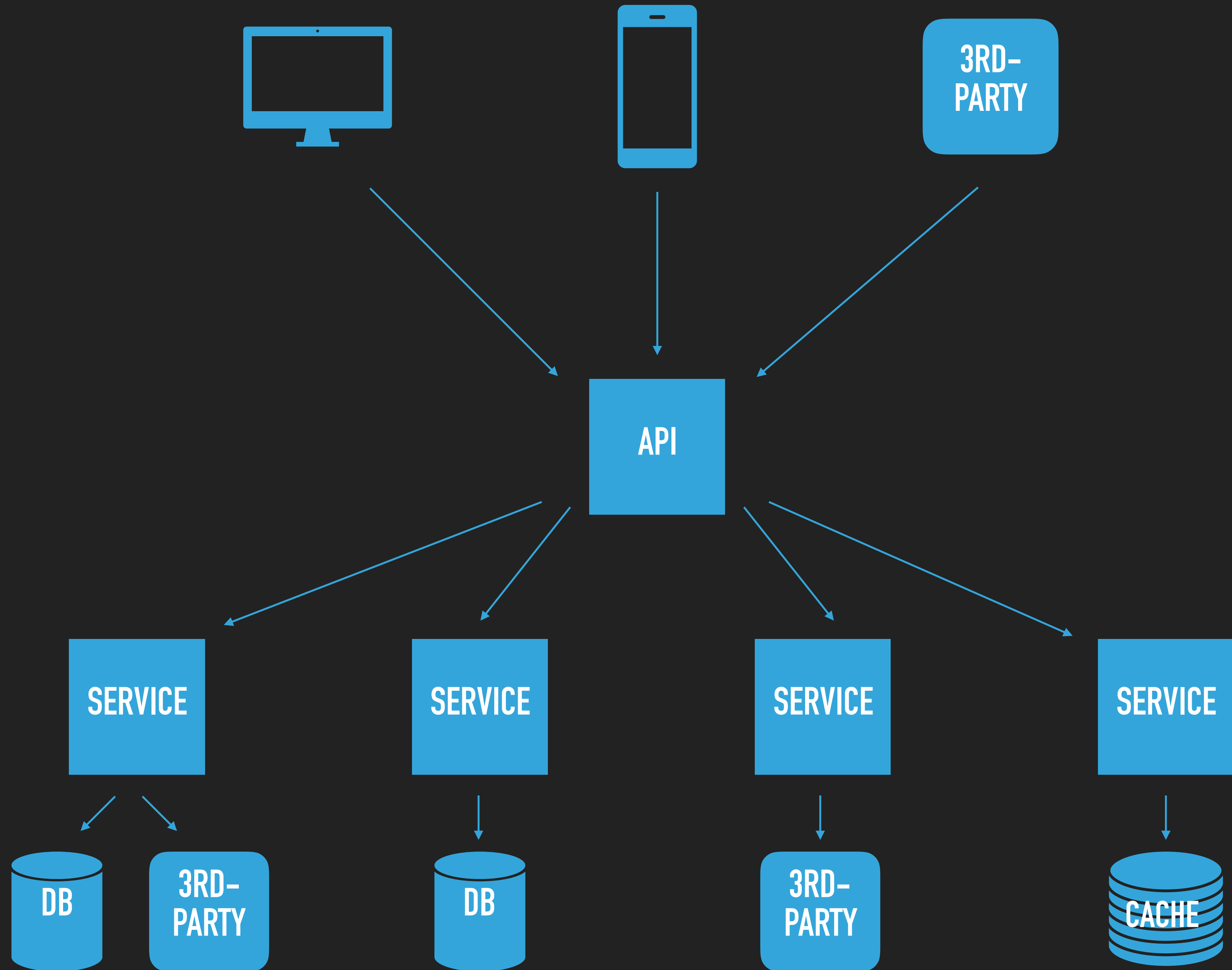


### AIRPORT SHUTTLE

We know what it feels to be confused in a new country. Take the easy way in.

ADD

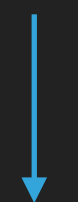
Heija Sverige!







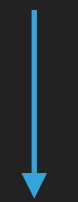
} REASON/JS



} GRAPHQL



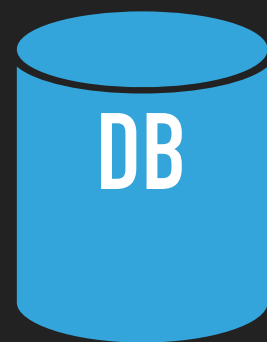
} SCALA



} THRIFT



} SCALA/.NET CORE



} POSTGRES, DYNAMODB, REDIS



**KUBERNETES**



} REASON/JS



} **GRAPHQL**



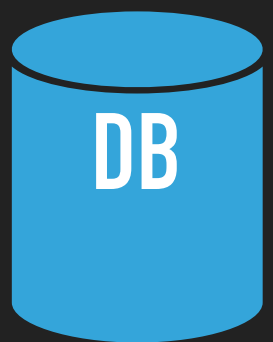
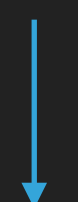
} **SCALA**



} **THRIFT**



} **SCALA/.NET CORE**



} **POSTGRES, DYNAMODB, REDIS**



**KUBERNETES**

## FYRIRSPURN

```
flight {
  arrivalAirport
  passengers {
    messages {
      address
      status
    }
  }
}
```

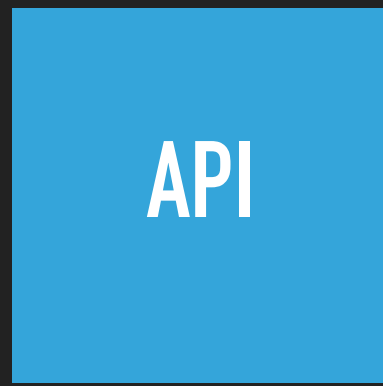
```
{
  "flightNumber": "442",
  "departureDate":
    "2018-04-16T00:00:00"
}
```

## SVAR

```
{
  "flight": [{
    "arrivalAirport": "AMS",
    "passengers": [{
      "messages": [{
        "address": "steinar@wow.is",
        "status": "delivered"
      }]
    }]
  }]
}
```



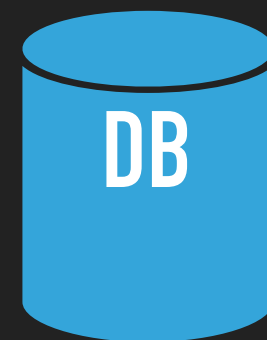
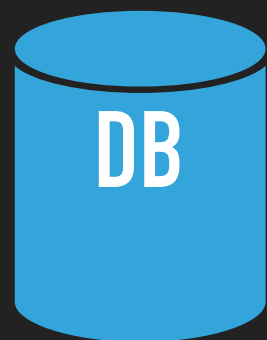
```
flight {  
  arrivalAirport  
  passengers {  
    messages {  
      address  
      status  
    }  
  }  
}
```



getFlight

getPassengers

getMessages





```
1 query flightMessages($flightNumber: String!, $departureDate: String!) {
2   flight(flightNumber: $flightNumber, departureDate: $departureDate) {
3     passengers {
4       messages {
5         address
6         status
7       }
8     }
9   }
10 }
```

## QUERY VARIABLES

```
1 {
2   "flightNumber": "442",
3   "departureDate": "2018-04-16T00:00:00"
4 }
```

No Description

## FIELDS

flight(flightNumber: String!, departureDate: String!, includeCancelled: Boolean): Flight

flightTracker(arrivalAirport: String, departureAirport: String): [FlightTrackerFlight!]

allFlights(lowerDate: String!, upperDate: String, arrivalAirport: String, departureAirport: String, arrivalDepartureAirport: String): [Flight!]

flightsByBookingReference(bookingReference: String!): [Flight!]

passengersByBookingReference(bookingReference: String!): [Passenger!]

testFlight: [Flight!]

communications(before: Long, limit: Long, communicationType: CommunicationTypeInput, test: Boolean): [Communication!]

communication(communicationId: String!): Communication!

travellersByBookingReferenceAndLastName(bookingString!, lastName: String!): [Traveller!]

# SCALA

- ▶ Hybrid FP/OO tungumál
  - ▶ Every value is an object
  - ▶ Every function is a value
  - ▶ Immutable data types
  - ▶ Pattern matching
- ▶ Keyrir á JVM
- ▶ Vinnur með Java

```
val f = (_: Int) * 2
f(32) // Int = 64
```

```
val g = (h: Int => Int) => h(_: Int) * 2
g(f)(2) // Int = 8
```

```
case class Person(firstName: String, lastName: String)

def hello(person: Person) = person match {
  case Person("John", _) => "Blessaður Nonni!"
  case Person(_, x) => s"Hello, $x."
}
```

```
hello(Person("John", "McClane"))
// String = Blessaður Nonni!
```

**YOU COME TO ME AT  
RUNTIME**

**TO TELL ME THE CODE YOU ARE  
EXECUTING DOES NOT COMPILE**

# TYPES

- ▶ Static type
  - ▶ Compiler type inference
  - ▶ Upper and lower bounds
- ▶ Öflugir listar (collections)
- ▶ Immutable as default

```
val m = Map(  
  1 -> "one",  
  2 -> "two"  
)  
  
// Map[Int,String]
```

```
def dropFirst[A](l: List[A]) = l.tail  
  
dropFirst(List(1, 2, 3)) // List[Int] = List(2, 3)
```



# FUTURES

- ▶ Asynchronous API
- ▶ Skilar `Future[Time]` í stað `Time`
- ▶ Combinators
  - ▶ `map`, `flatMap`, `filter`, `foreach`, `andThen`, ...
- ▶ Villumeðhöndlun
  - ▶ `rescue`

```
val departureTime: Future[Time] = getFlight("123")  
  .map({ flight =>  
    flight.departureTime  
  })
```

```
val resp: Future[Seq[String, String]] = for {  
  flight      <- getFlight("123")  
  passengers <- getPassengers(flight)  
  messages   <- getMessages(passengers)  
} yield {  
  messages.map({ message =>  
    (message.address, message.status)  
  })  
}
```

# FINAGLE

- ▶ RPC system frá Twitter
- ▶ Service: Server or client
  - ▶ Filters (auth, timeout, logging, ...)
  - ▶ Retries
  - ▶ Skorður (concurrency, queue, ...)
  - ▶ Villumeðhöndlun
  - ▶ Stats
- ▶ Álagsdreifing (Load balancing)

```
val service = { req =>
  Future.value(HttpRes(Code.OK, "Hello world!"))
}

ServerBuilder()
  .name("httpd")
  .codec(Http)
  .bindTo(":8080")
  .build(service)
```

## RPC FRAMEWORK

- ▶ Þjónustur tala Thrift sín á milli
  - ▶ API <-> Microservice
  - ▶ Interface definition
  - ▶ Binary communication protocol
- ▶ Code generators fyrir flest tungumál
- ▶ Ekkert XML
- ▶ Innbyggðar týpur

```
struct Message {
    1: string id
    2: optional string groupId
    3: string communicationId
    4: i64 created
    5: MessageType messageType
    6: string address
    7: string message
    // [...]
}

service MessengerService {
    Message getMessage(1: string id)
        throws (1: MessageNotFound messageNotFound)
}
```

## EITT REPOSITORY

- ▶ Eitt build kerfi
  - ▶ Pants
- ▶ Eitt deployment ferli
- ▶ Eitt githash, þvert á þjónustur
- ▶ Facebook, Google, Twitter, Foursquare

The screenshot shows the GitHub interface for the repository 'wowair / monorepo'. The browser address bar shows 'https://github.com/wowair/monorepo'. The repository is private. The main navigation bar includes 'This repository', 'Search', 'Pull requests', 'Issues', and 'Marketplace'. Below the repository name, there are tabs for 'Code', 'Issues 1', 'Pull requests 31', 'Projects 0', and 'Wiki'. The repository description is 'Monorepo with Pants build system'. A language distribution bar shows: JavaScript 38.6%, Scala 34.2%, C# 6.4%, and OCaml 5.0%. At the bottom, there is a 'Branch: master' dropdown and a 'New pull request' button. A recent activity entry shows 'danben4 Merge pull request #3633 from wowair/improve-inputs-on-passenger-page'.

Scala services

wowair/heart:4f766485a38b2743a78deb51b600e3ffdb8eacc9

wowair/flight:4f766485a38b2743a78deb51b600e3ffdb8eacc9

wowair/clientapi:4f766485a38b2743a78deb51b600e3ffdb8eacc9

wowair/mywow:4f766485a38b2743a78deb51b600e3ffdb8eacc9

Reason/JS clients

wowair/claim-web:4f766485a38b2743a78deb51b600e3ffdb8eacc9

wowair/booking:4f766485a38b2743a78deb51b600e3ffdb8eacc9



baldurh approved these changes 7 days ago

[View changes](#)

LGTM



Merge rem  
destinatio

### All checks have passed

10 successful checks

✓ c24c334



steinar mer  
10 checks passed

✓ **ci/circleci** — Your tests passed on CircleCI! [Details](#)

[Revert](#)

✓ **ci/circleci/deploy** — Deployment to dev OK [Details](#)



steinar dele

✓ **ci/circleci/deployment/services/booking** — Cha... [Details](#)

✓ **ci/circleci/deployment/services/claim-web** — C... [Details](#)

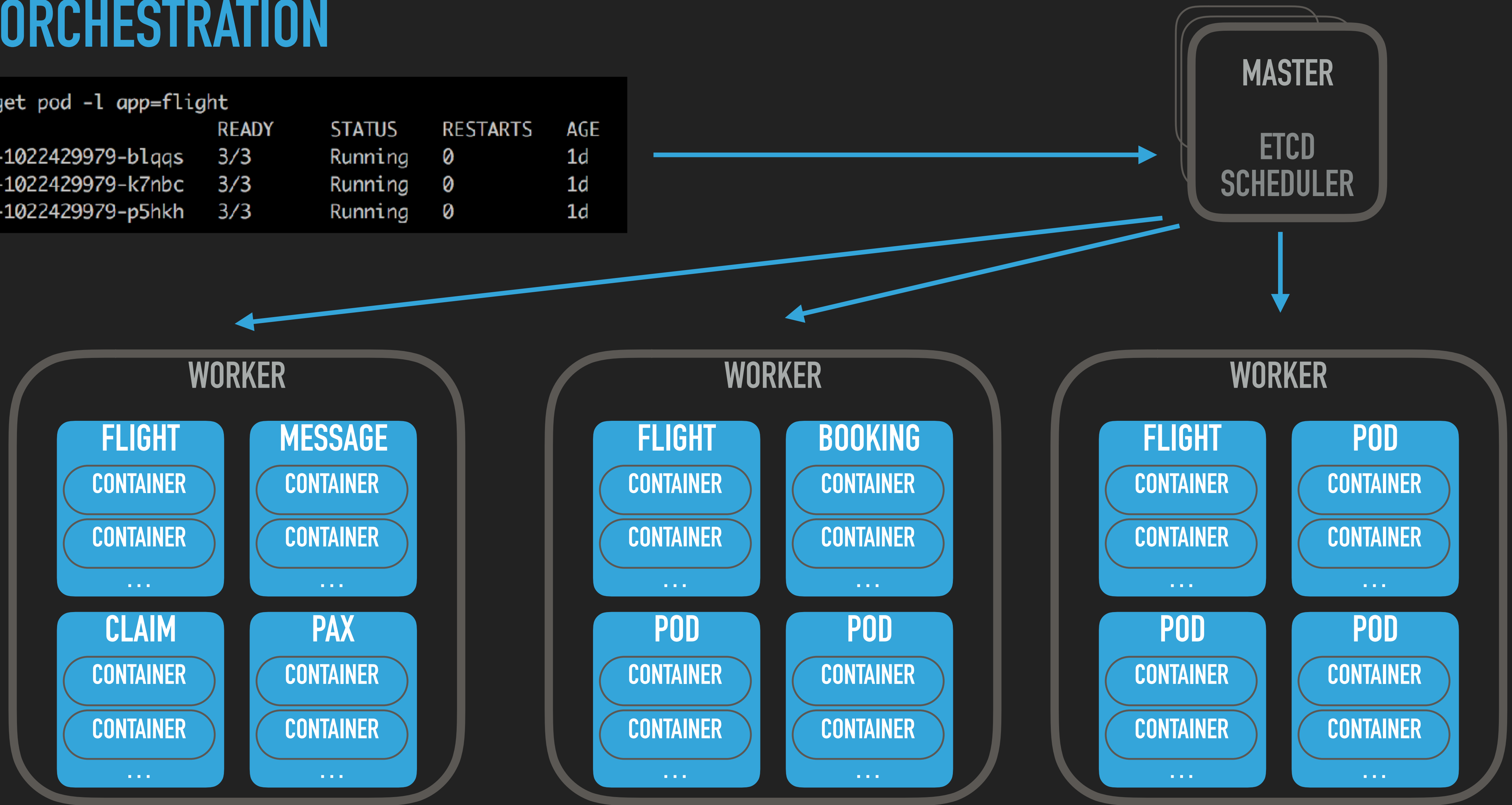


Write

Preview

# DOCKER ORCHESTRATION

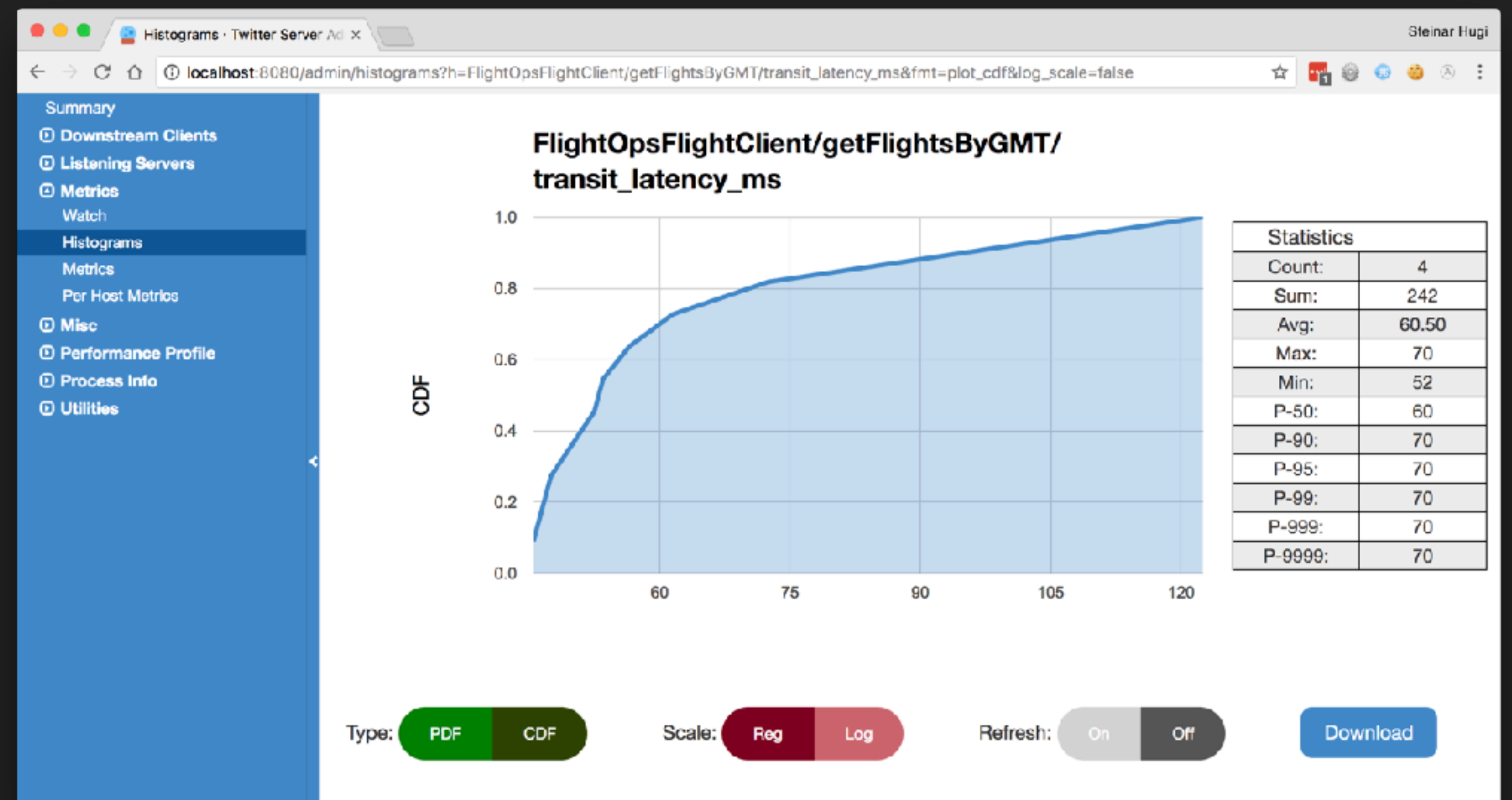
```
➔ ~ kubectl get pod -l app=flight
NAME                                READY   STATUS    RESTARTS   AGE
master-flight-1022429979-blqqs      3/3     Running   0           1d
master-flight-1022429979-k7nbc      3/3     Running   0           1d
master-flight-1022429979-p5hkh      3/3     Running   0           1d
```



# KUBERNETES

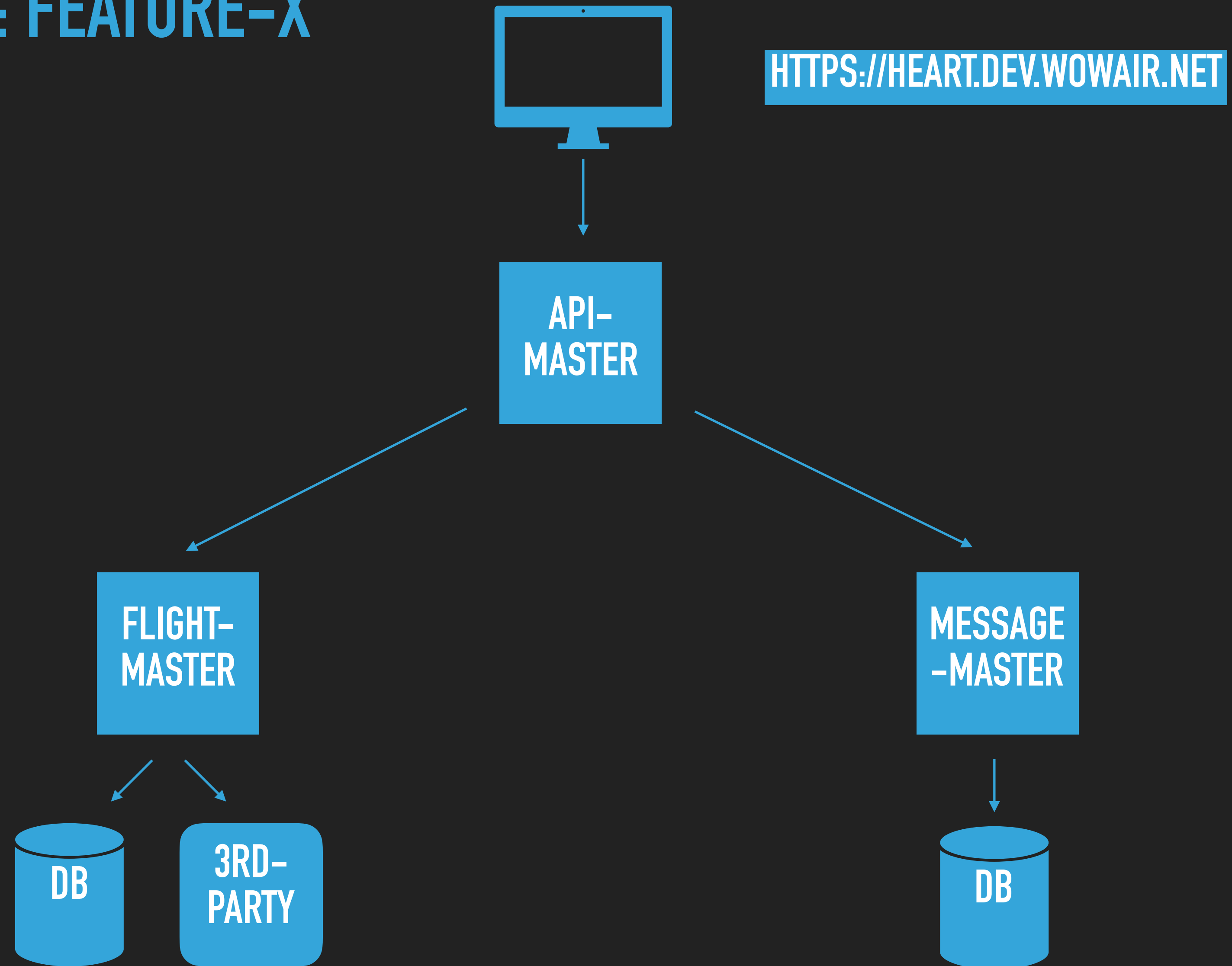
- ▶ Deilir resources niður á þjónustur
  - ▶ CPU og Memory
- ▶ Autoscaling
- ▶ Service discovery
- ▶ Secret management
- ▶ Automatic failure recovery
- ▶ Health checks
- ▶ Network policies
- ▶ Open source

```
→ ~ kubectl port-forward master-flight-1022429979-p5hkh 8080:9990
Forwarding from 127.0.0.1:8080 -> 9990
Forwarding from [::1]:8080 -> 9990
```

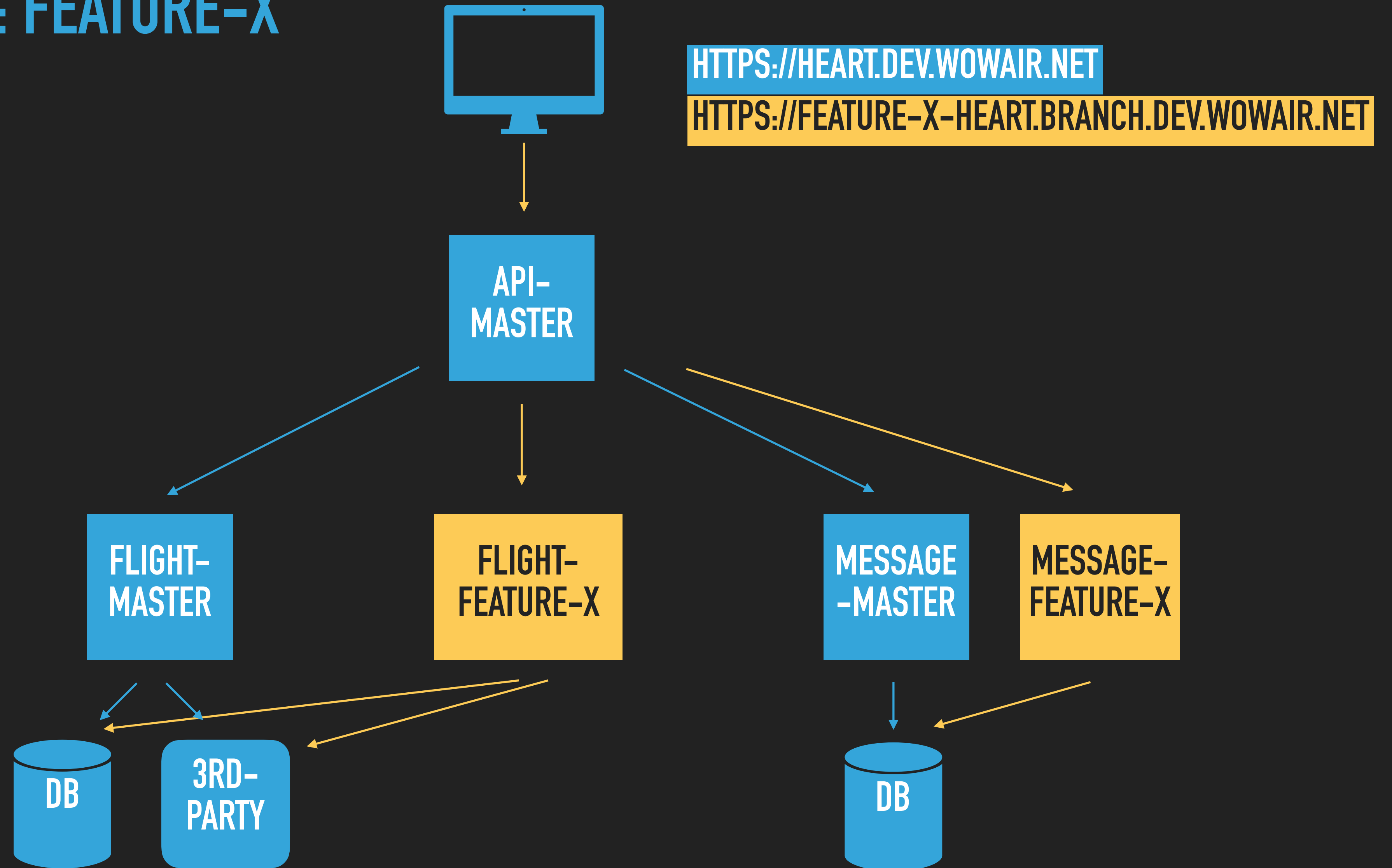




# FEATURE BRANCH: FEATURE-X



# FEATURE BRANCH: FEATURE-X



## MERGE & DEPLOY

- ▶ CircleCI
  - ▶ GitHub integration
- ▶ Pants plugins
- ▶ Lint + unit tests
- ▶ Health checks

The screenshot displays a GitHub pull request interface. At the top, a user named 'laufeyrut' has added 'ready for review' and 'booking' labels. Below this, a user named 'danben4' has approved the changes, with a comment 'Cool' and a thumbs-up emoji. A 'View changes' button is visible. A message indicates that more commits can be added by pushing to the 'meal-hover-experiment-fix' branch on 'wowair/monorepo'. A green-bordered box highlights the 'Changes approved' status, 'All checks have passed' (5 successful checks), and 'This branch has no conflicts with the base branch' (merging can be performed automatically). A 'Merge pull request' button is present, along with a note that the pull request can also be opened in GitHub Desktop or via command line instructions.

laufeyrut added **ready for review** **booking** labels 3 hours ago

danben4 approved these changes 3 hours ago [View changes](#)

Cool 👍

Add more commits by pushing to the **meal-hover-experiment-fix** branch on **wowair/monorepo**.

**Changes approved** [Show all reviewers](#)  
1 approving review [Learn more.](#)

**All checks have passed** [Show all checks](#)  
5 successful checks

**This branch has no conflicts with the base branch**  
Merging can be performed automatically.

**Merge pull request** You can also [open this in GitHub Desktop](#) or view [command line instructions](#).