## Aws re: Invent



### I O T 2 0 4 - S

### More than rubber on the road: Tires in an IoT world

**Roberto Delrosso** Digital Innovation Lead Pirelli **Daniel Maher** Developer Relations Datadog

re: Invent



## **Ice-breaker!**



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## Pirelli

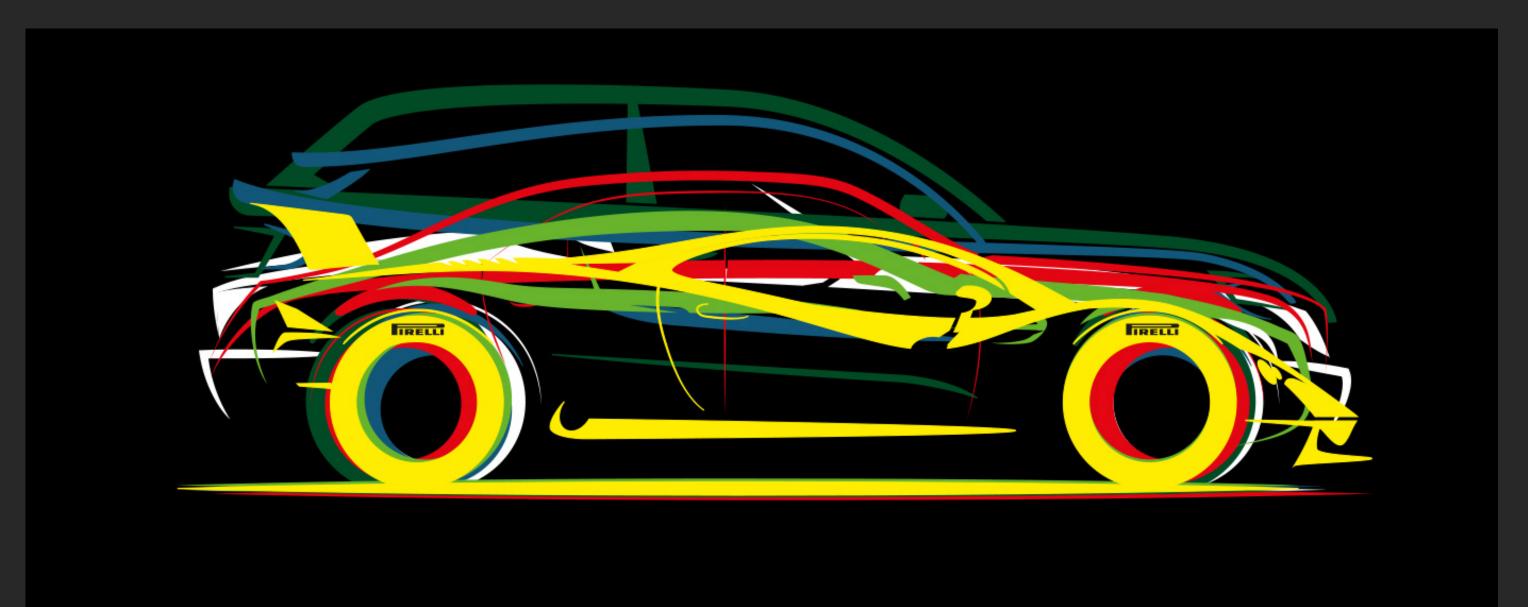


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### Every company is a tech company



### Datadog



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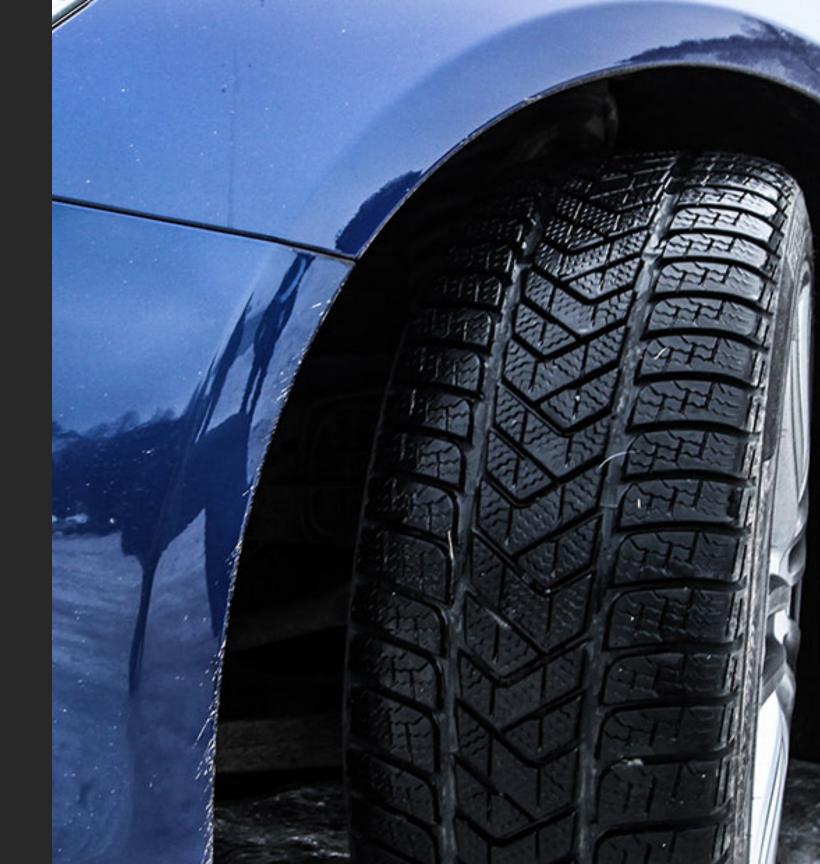
## Pirelli: A pure tire company...

Cars

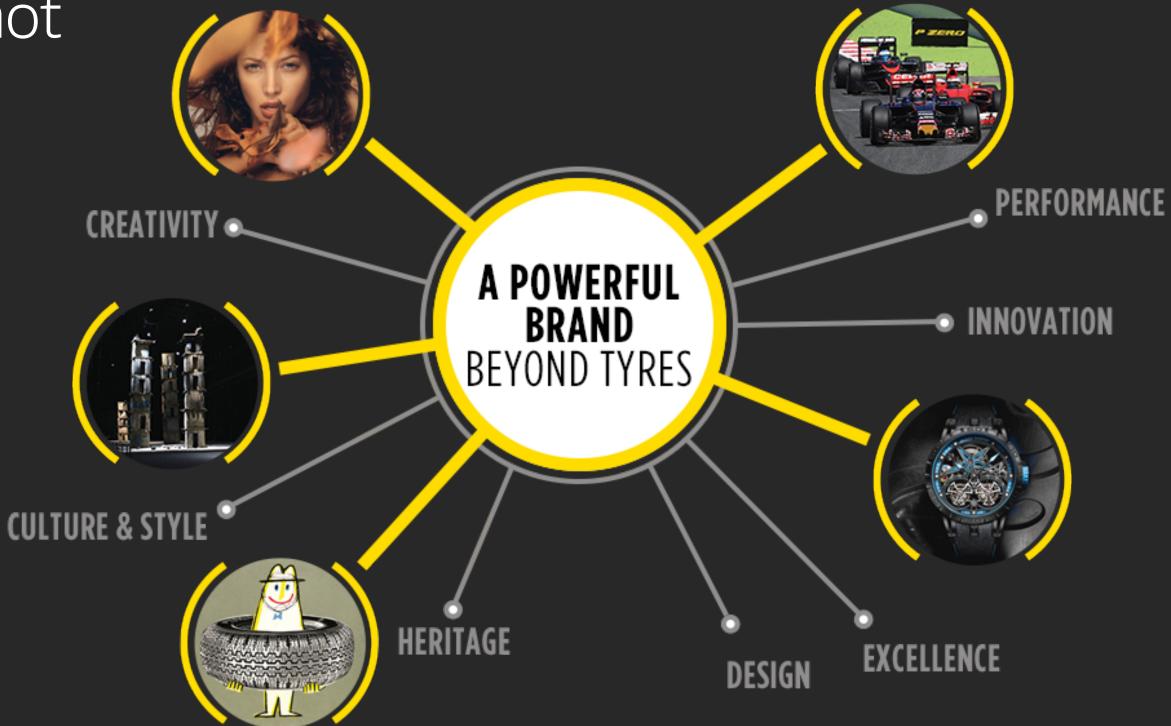
Moto

Motorsport

Bicycling



### ...or not



### Pirelli's focus

High-end and prestige markets

Premium products

Prestige brand



### From whence we came

Standard story: everything on-prem at data centers and in factories





### Moving to the cloud...

Nearly 150 years of legacy

More than just software



### B2B and B2C

Y TYRES Y SEARCH BY BRAND Y ALFA ROMED Y AC

### **Historically B2B-focused**

### Today, B2C is growing quickly

ALFA ROMEO

AC

ALEA DOMENIO

2013

2016

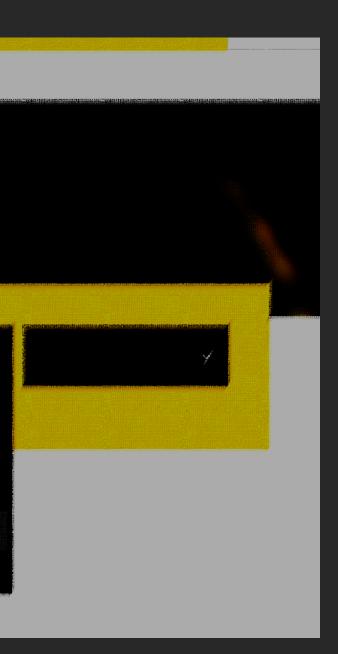
2011

2018

2019

### WHAT ALFA ROMEO DO YOU DRIVE?

input your details and discover the right tyres for your car



### The past: pretty good!

Built progressively and from organic needs

State of the art, at the time



Focus

Core system priorities

Protecting trade secrets

Securing sensitive data



Promise and potential challenges of the cloud

**Unlock creative potential** 

Massive cultural shift

Agile? DevOps? It's complicated...



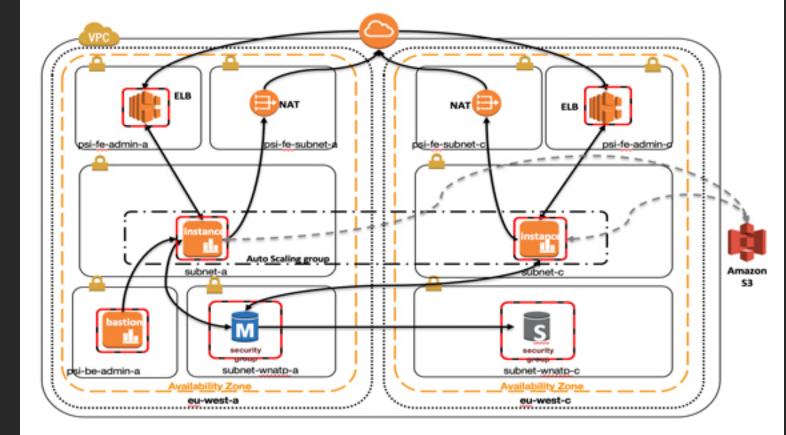
### The first phase

Brand new team with a *big responsibility* 

Lift and shift



### Let's talk tech



# Advantages of the first phase

Technical advantages? Sure.

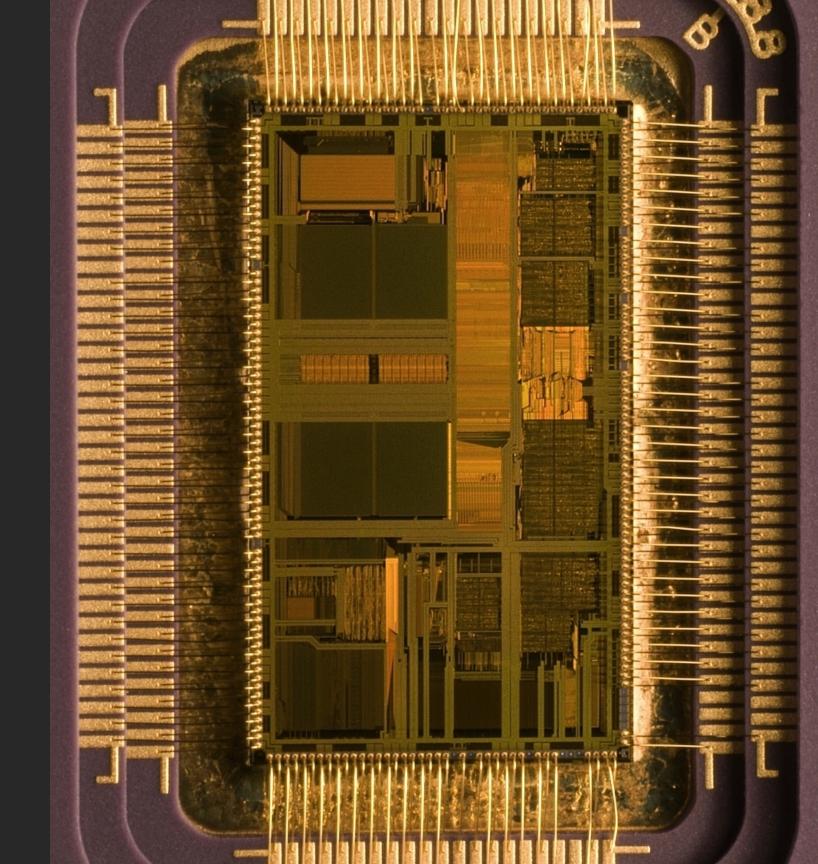
Business advantages? Sì!



### Observability: required

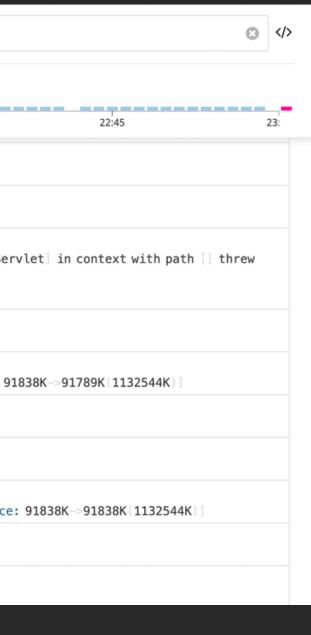
Monitoring isn't enough

Partner with an expert



### What is Observability?

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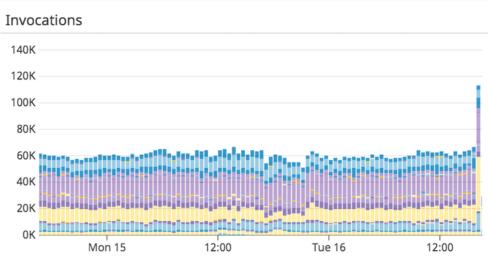
### Increasing complexity and scale

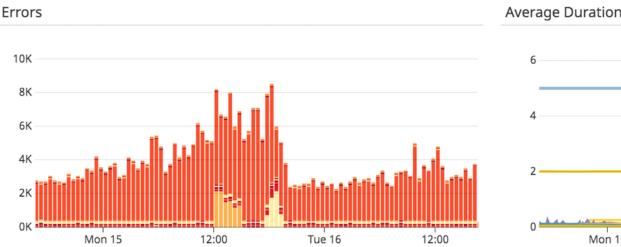
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up	2 months ago
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up	a month ago
up	a month ago
up	3 months ago
up	2 months ago
up	a month ago
up	a month ago
up	4 months ago
up	7 days ago

### An holistic, multi-dimensional approach

Q





### ✓ Function Name

Q Filter 102 values

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🗹 bigdog

auto\_lambda\_logs\_... ✓ aws-retirement-to-t...

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Critical B2C service crossing multiple segments and teams

Chasing problems; chasing ghosts...

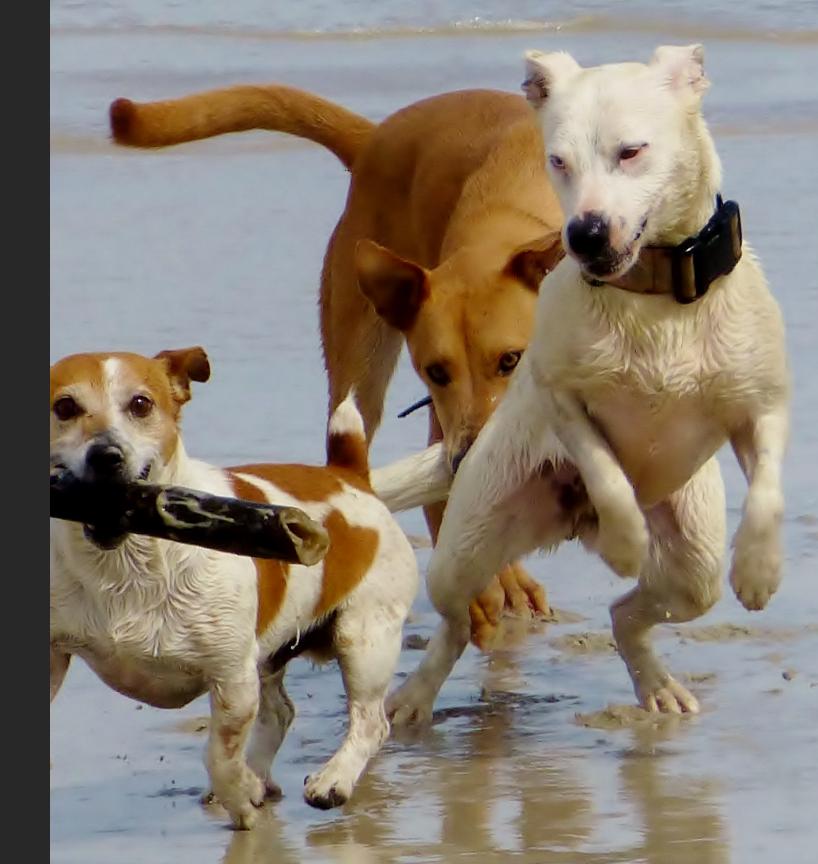


### Everybody needs friends

Growing internally and externally

AWS collaboration

Datadog collaboration



### The second phase

Level-up: new tech, new culture

Move faster and safer



### Docker for all!

No lifting and shifting; need to rearchitect things

Containerization is definitely faster, but is it safer?



### Trust, but verify

Rapid prototyping

Managed services

Infrastructure concerns



### Serverless (Lambda)

What is it?

Works for some things, but not for others

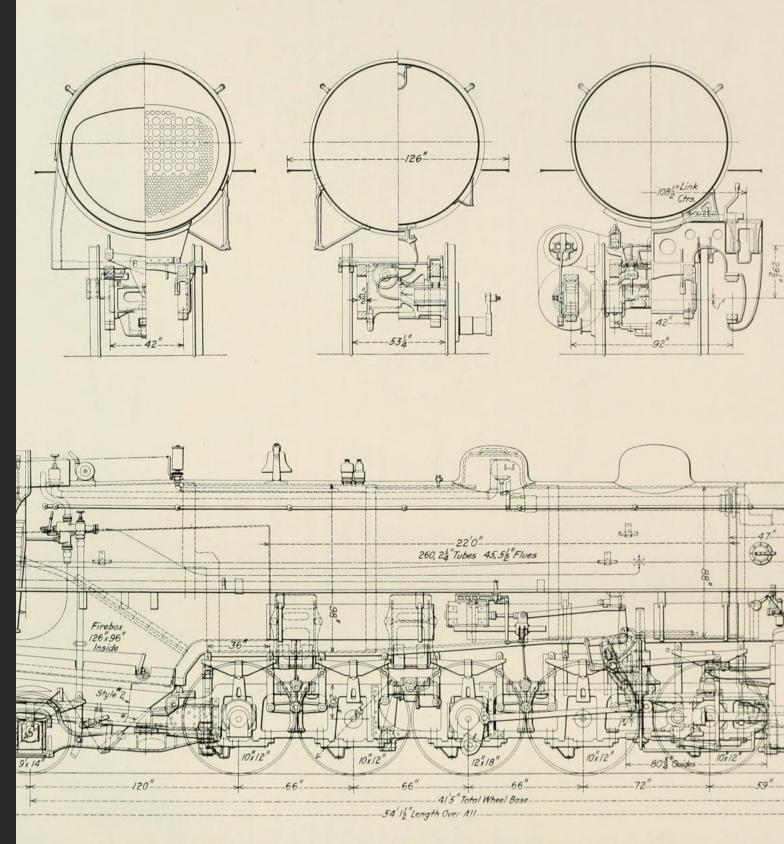
Operational advantages and concerns



### Serverless, a practical example

APIs are often good candidates for serverless

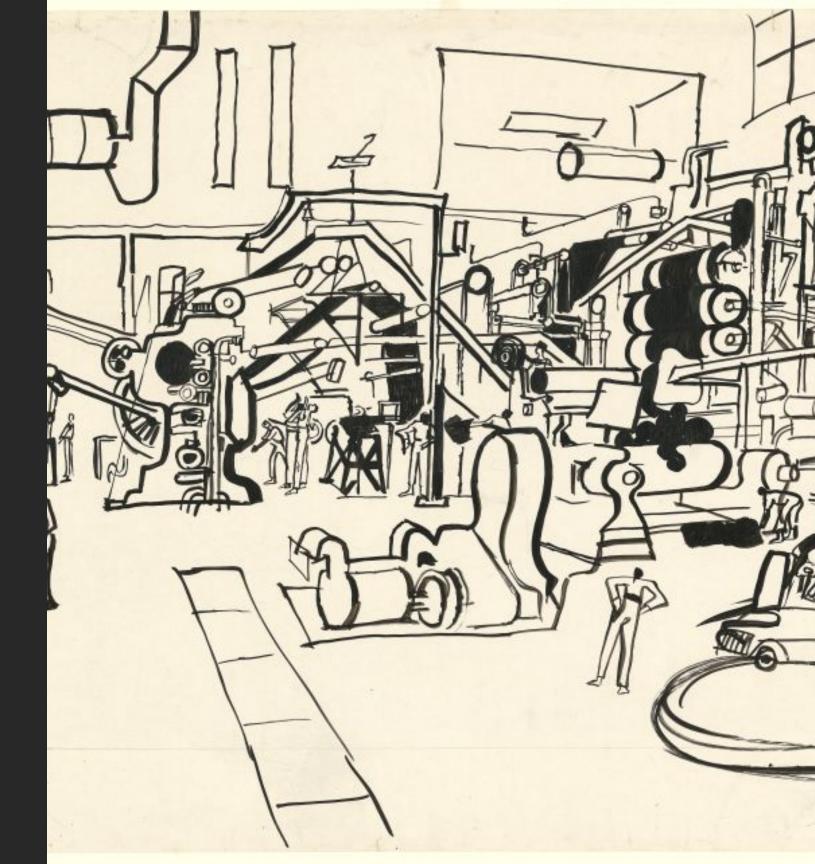
May require significant design and implementation changes



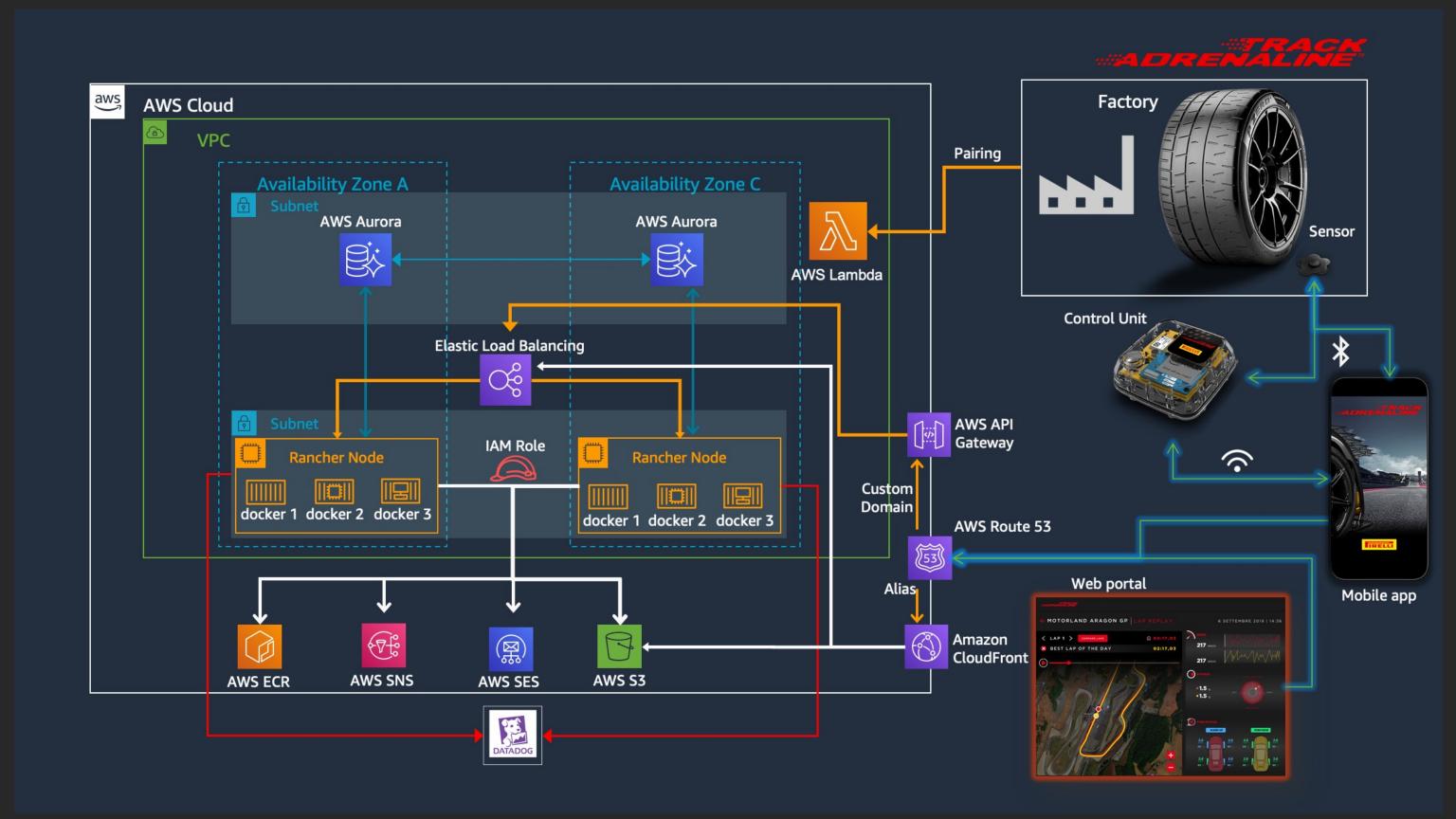
Elevation and Cross Sections of Union Pacific 2-10-2 Type Locomotive

## Some of the cool things we're building

Racing on tracks Managing truck fleets Sustainable mobility

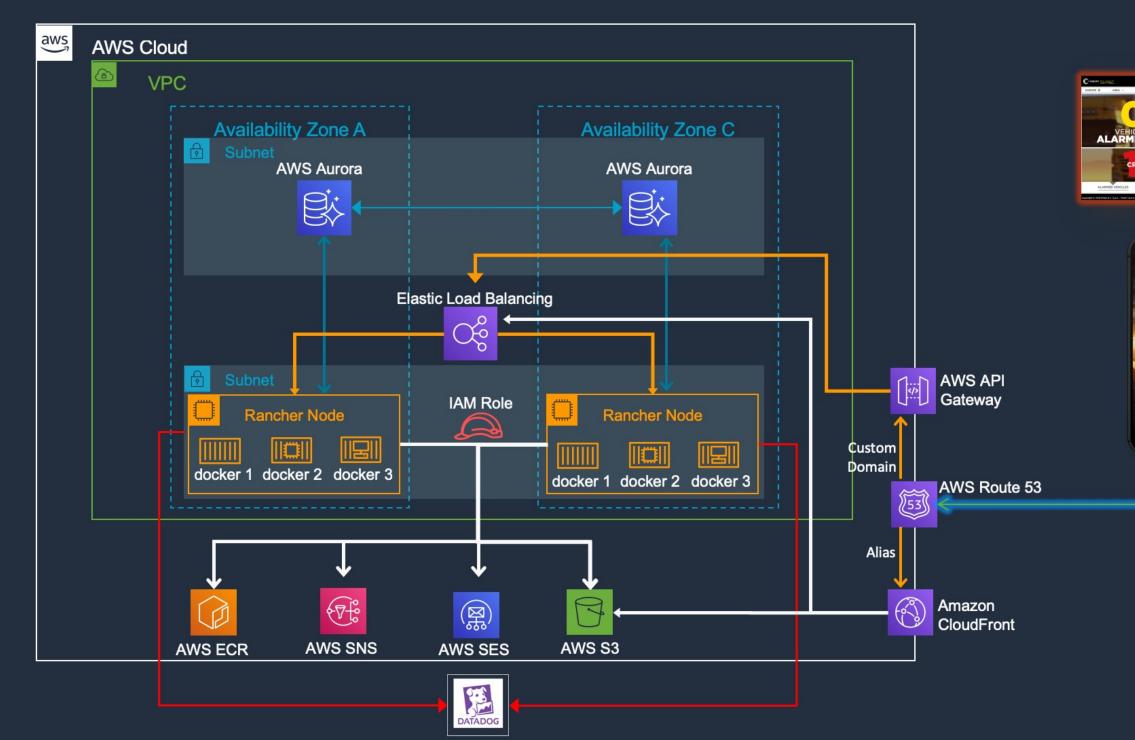








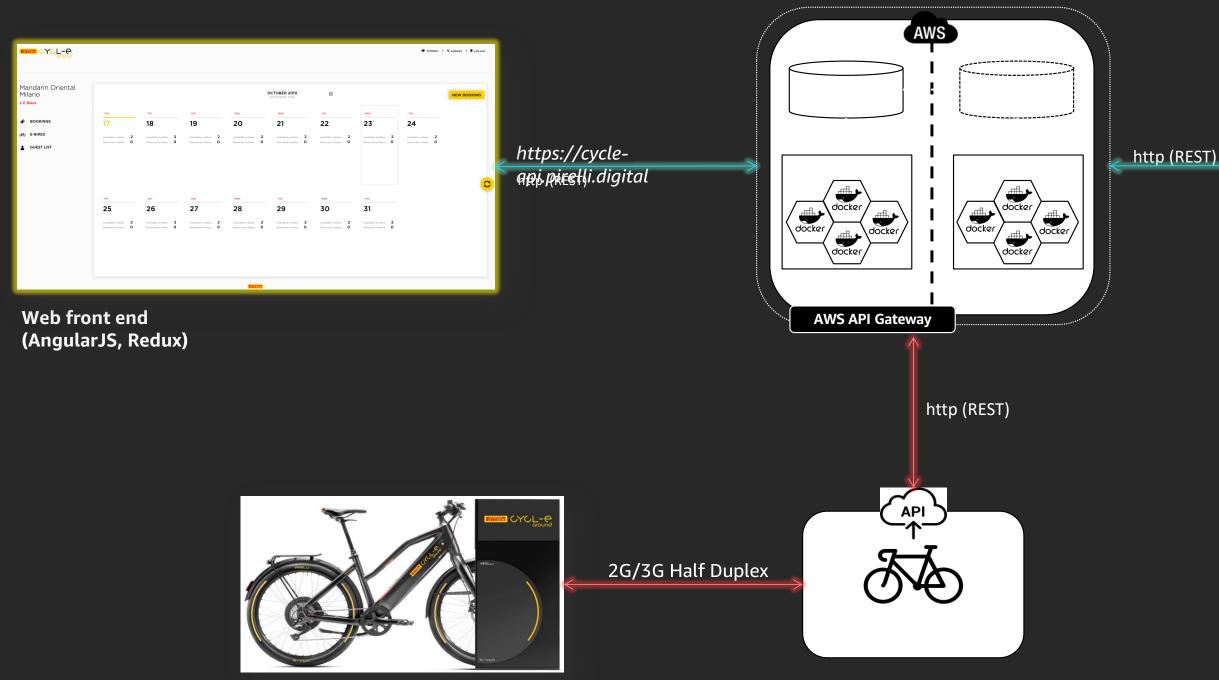
SOLUTIONS TO ENHANCE YOUR TRANSPORT BUSINESS

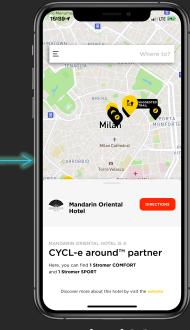




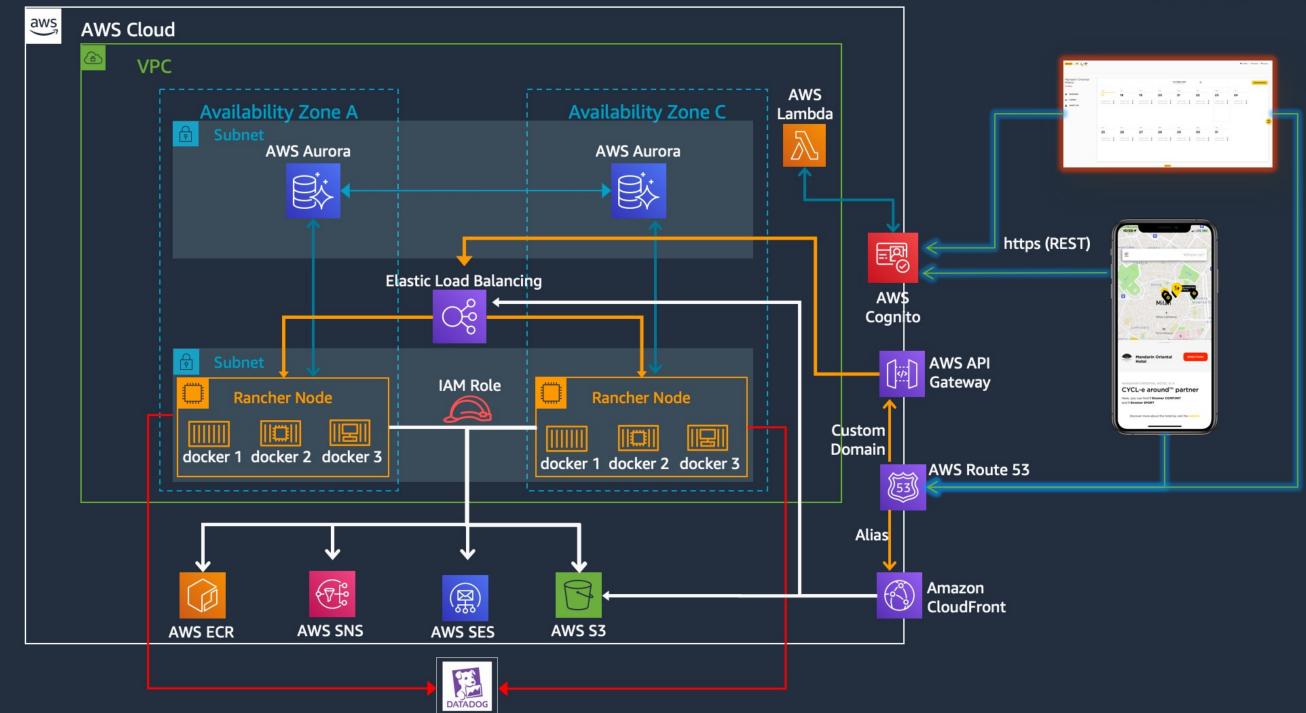








### Native iOS and Android App





### Setting standards

Provide guidance to teams both internally and externally

Not dogma—adaptability is key!

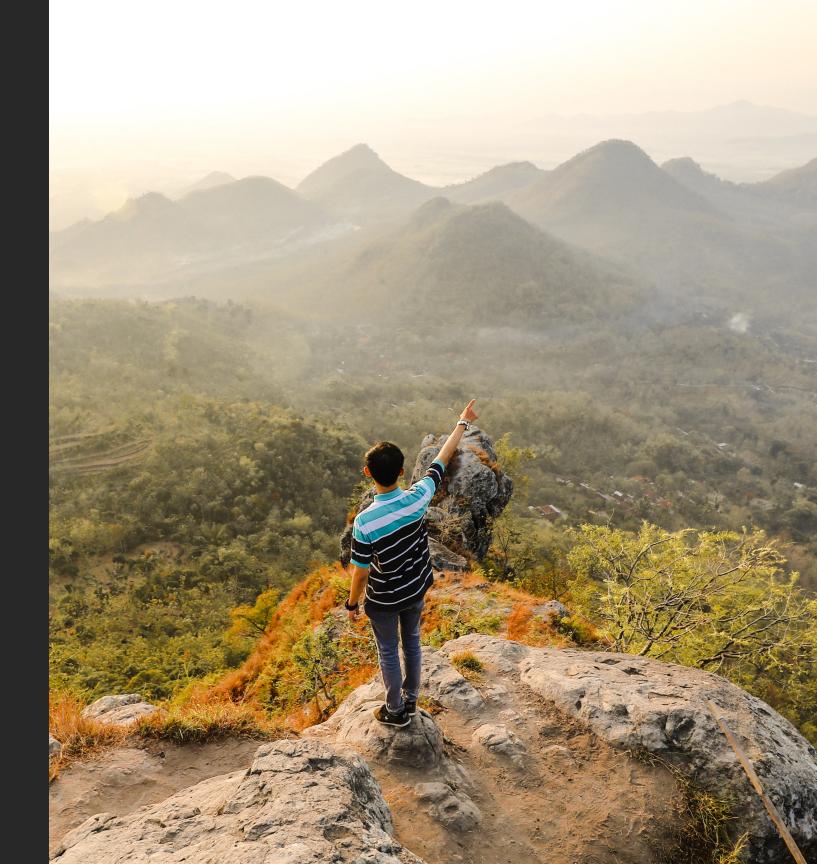


### Future improvements; the third phase

AWS Landing Zone

Improved observability story

Secrets management



# Thank you!

**Roberto Delrosso** Digital Innovation Lead Pirelli Daniel Maher Developer Relations Datadog



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