{RIVIERADEV}

Un Dev, un Ops et Git

A quelle vitesse réussiront-ils à réparer la prod?

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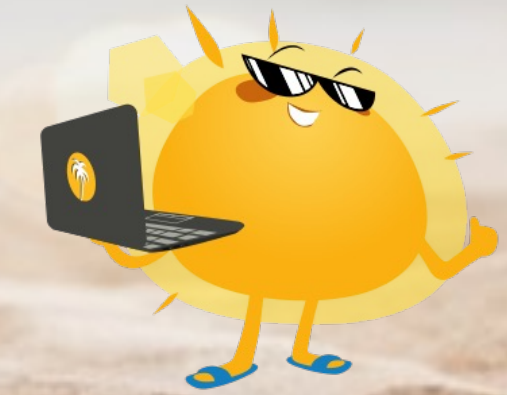
Introduction

Who are we?



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Who are we?

echo $(whoami)

@FabricePipart

@jsearby06

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Amadeus

What we do

We provide solutions for the Travel Industry

When will you fly back ? 😜

Amadeus in a few words

Some numbers

More than
18,000
people worldwide

1M+ hotel properties

474 airlines

More than
1 billion € in R&D
(5th largest European R&D)

1.5+ billion
passengers boarded in 2022

travel agencies, tour operators and corporations worldwide

190+ countries

150+ nationalities

60+ languages

Amadeus world presence

A multicultural company

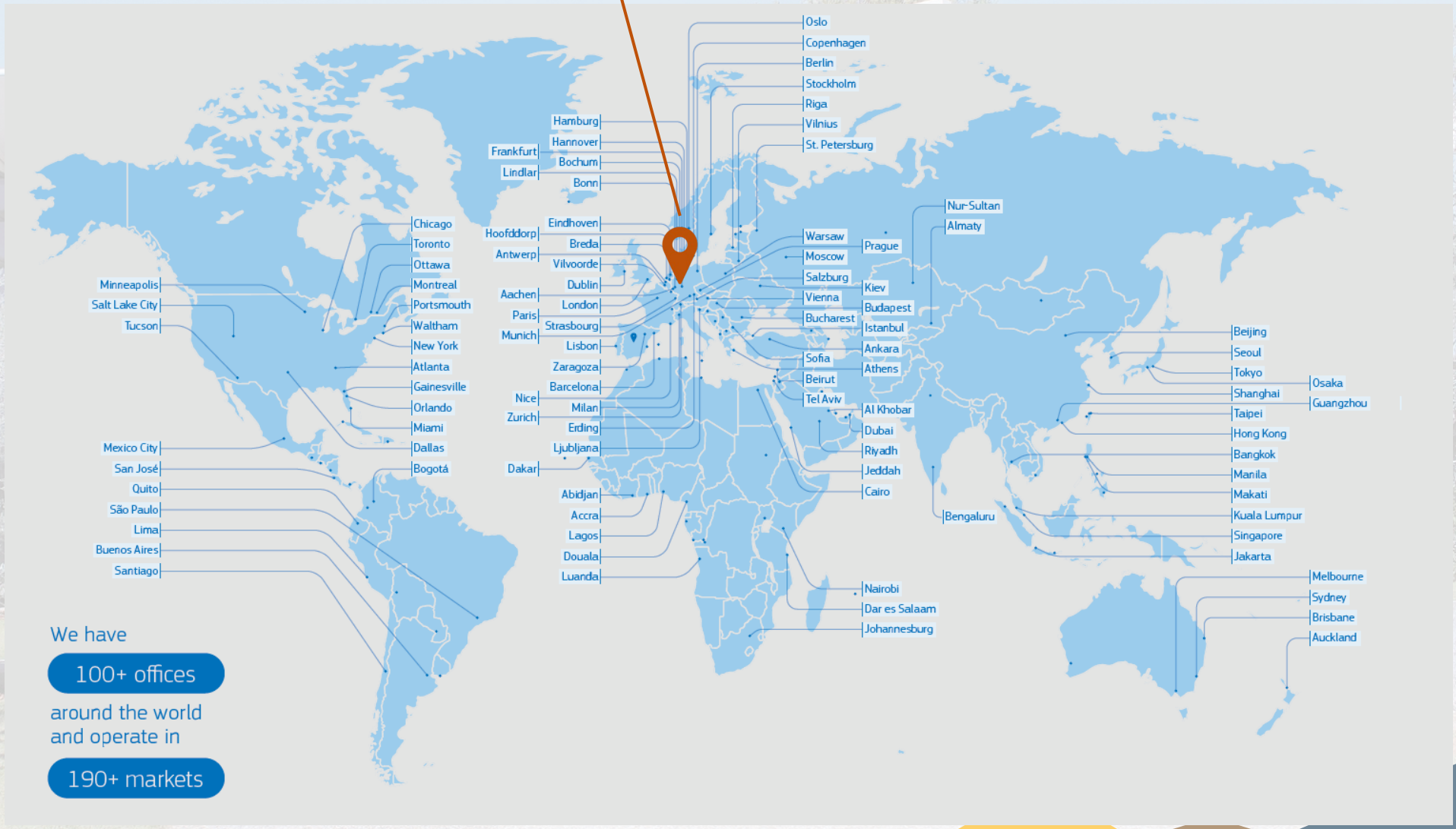
More than
18,000
people worldwide

190+
countries

150+
nationalities

60+
languages

World's largest data processing center dedicated to the travel industry



We have

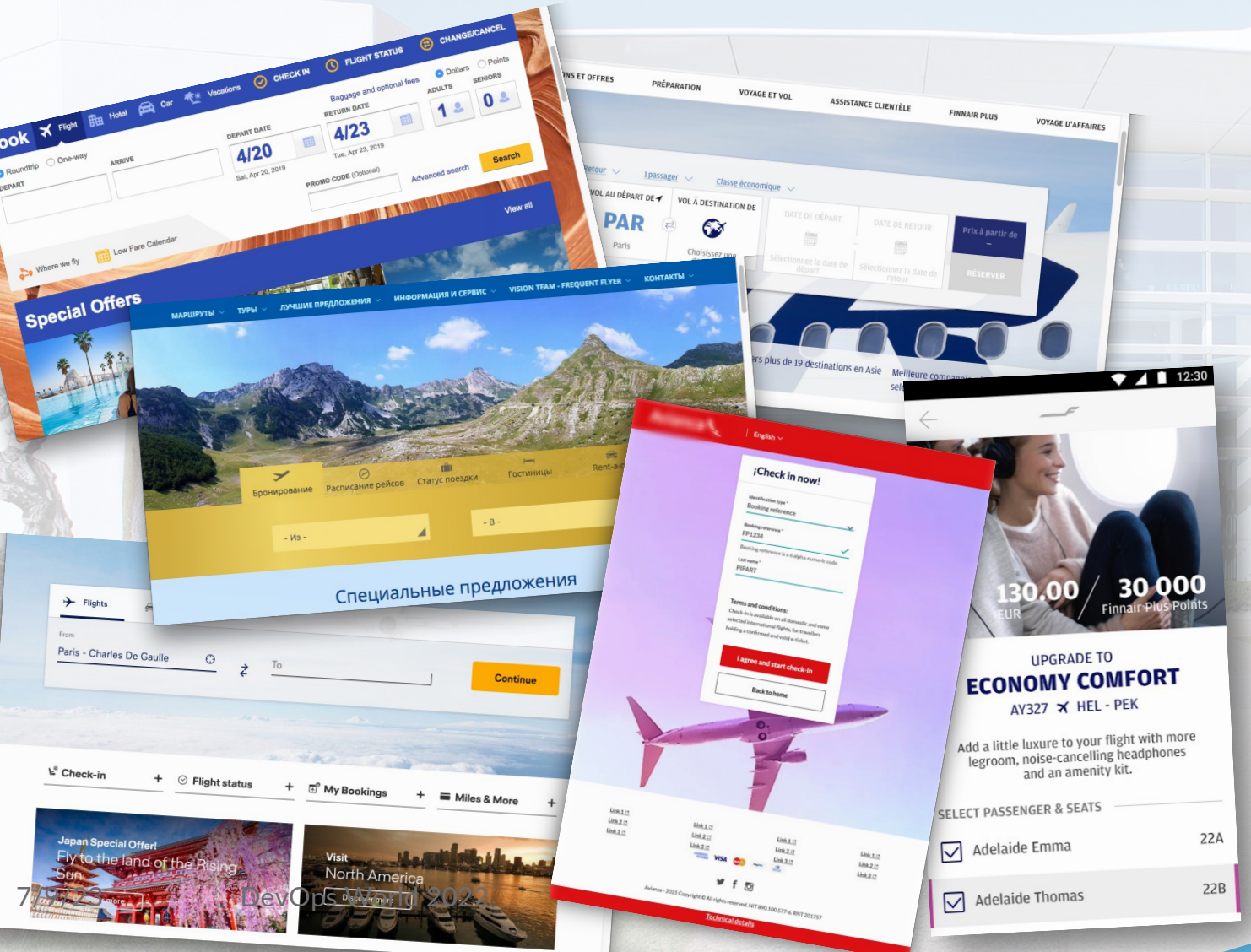
100+ offices

around the world
and operate in

190+ markets

Amadeus Digital

Large scale frontend deployments



- Dozens of webapps
- 2000+ hits / sec
- Millions lines of code

- SOAP
- REST
- www

- Java
- Angular
- Helm
- K8s / OpenShift

- Open Source
- Private Cloud
- Public Cloud

Amadeus experience

We lived several technical revolutions

1987

1990
www

1994
1st cookie

1995
java

1998
google

1998
Amadeus GDS creation

2001
first phone with internet

2001
Online flight booking

2006 - 2017
Leave mainframes

2011
IaaS

2013
Docker

2015
Kubernetes

2016 - 2020
Migration to private Cloud

2023

Dev

Ops

What now ?

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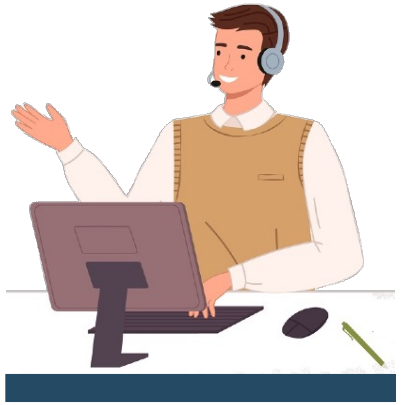
GitOps ?

Isn’t git for developers?

Un Dev , un Ops et Git



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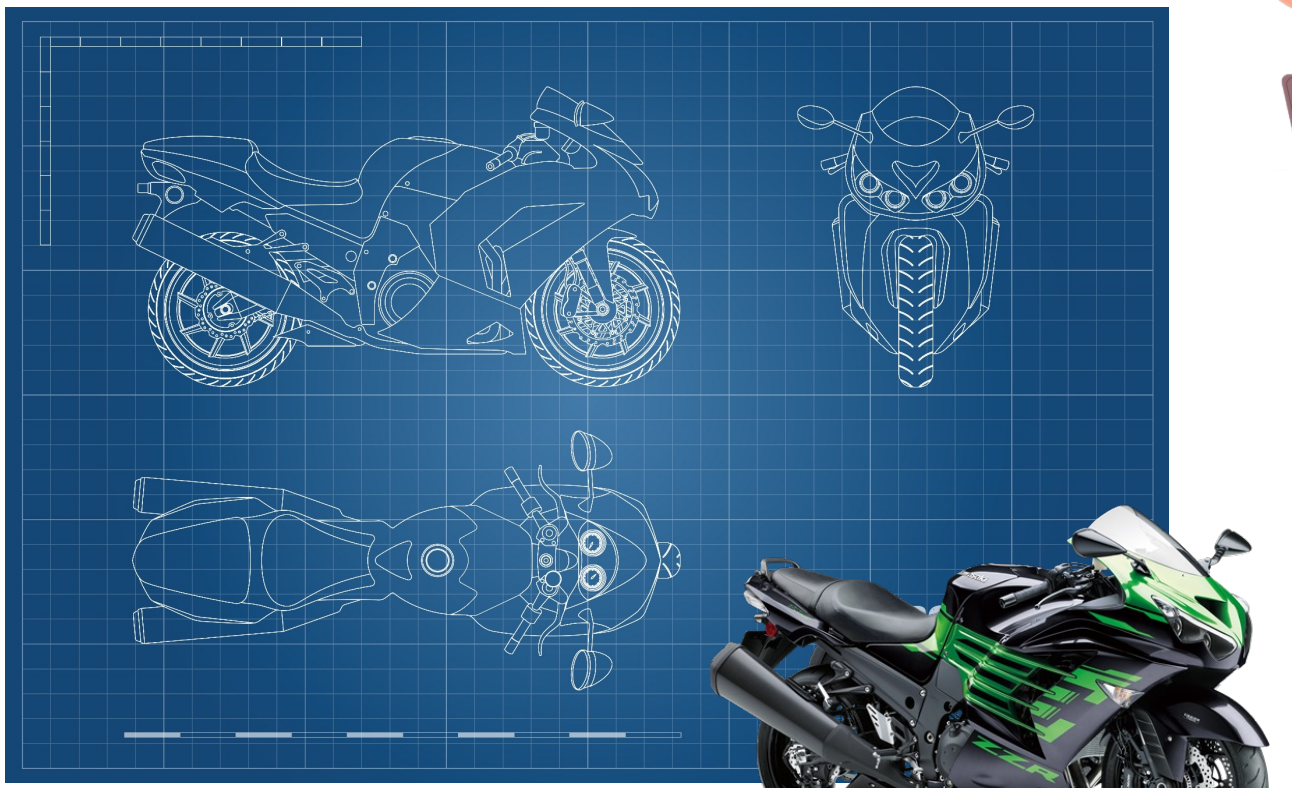
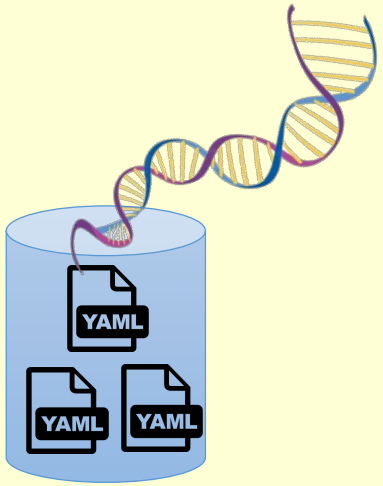
It always starts with a dream ...

Make a plan



Describe every aspect and sign the contract



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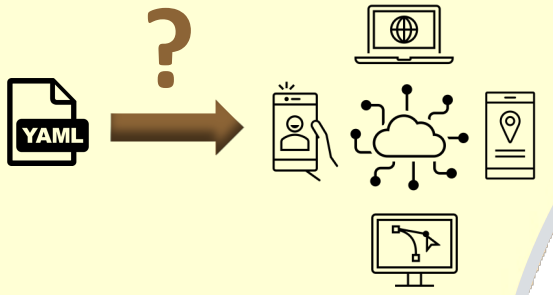
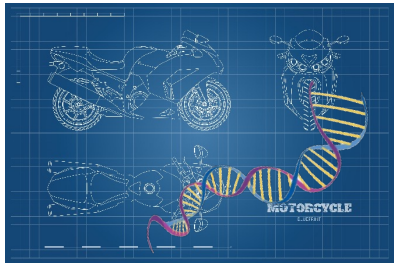
OK … How to make it real?

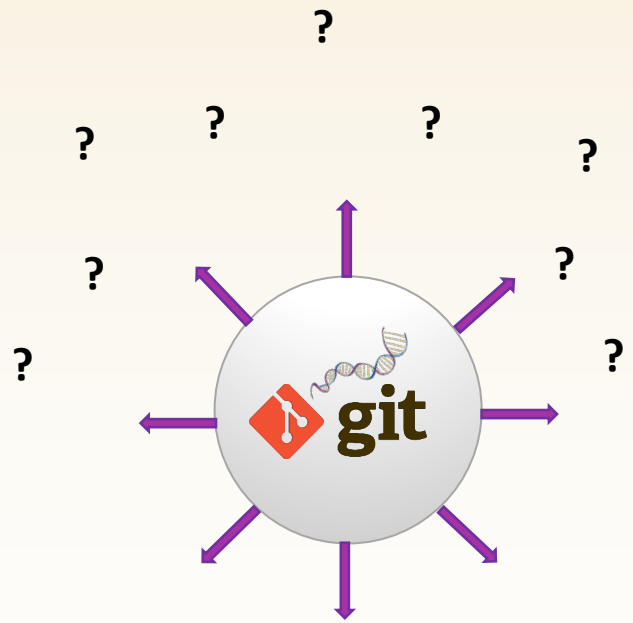




We automate and build a factory of course !

git

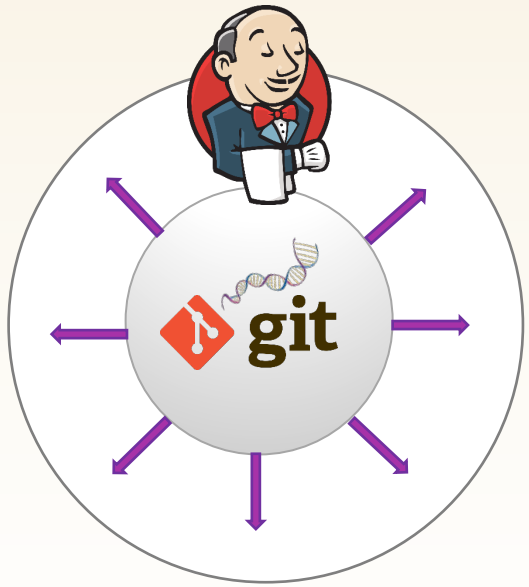
Collaborate. As code.



- Standard
- Contribution checklists
- Designed for collaboration
- Asynchronous reviews

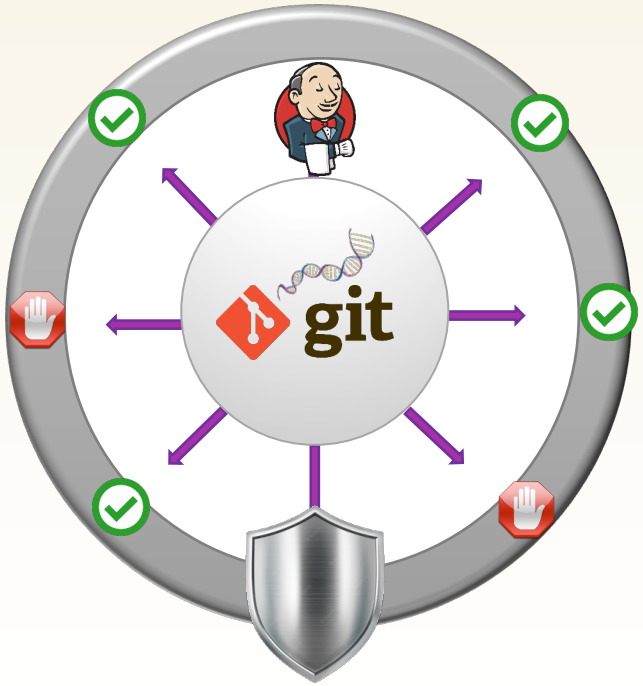
Propose → Approve → Merge

Jenkins. To automate checks.



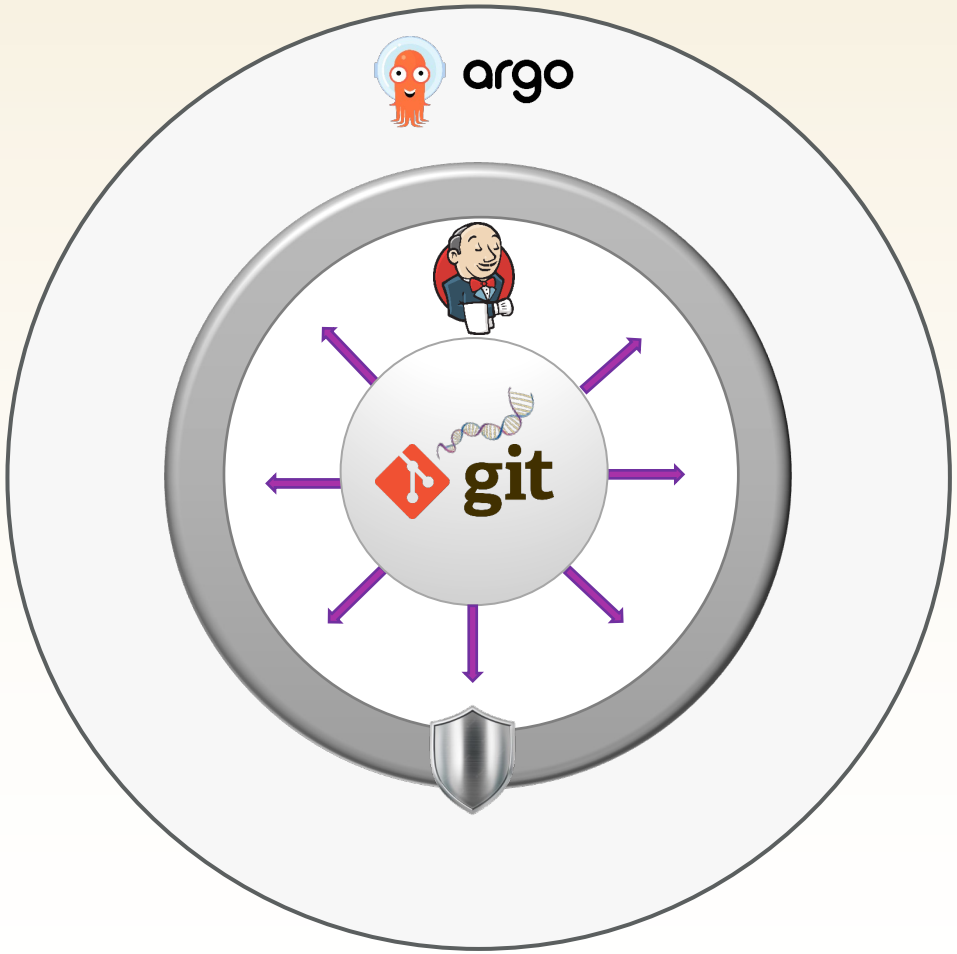
- [x] Standard
- [x] Trigger hooks
- [x] Versatile
- [x] Ease feedback loop
- [x] Automation avoids mistakes

Automatic checkpoints



- [x] Error checks
- [x] Security checks
- [x] Operational checks
- [x] Freeze
- [x] Audit trail
- [x] Gatekeeping
- [x] Replacement for prod boards

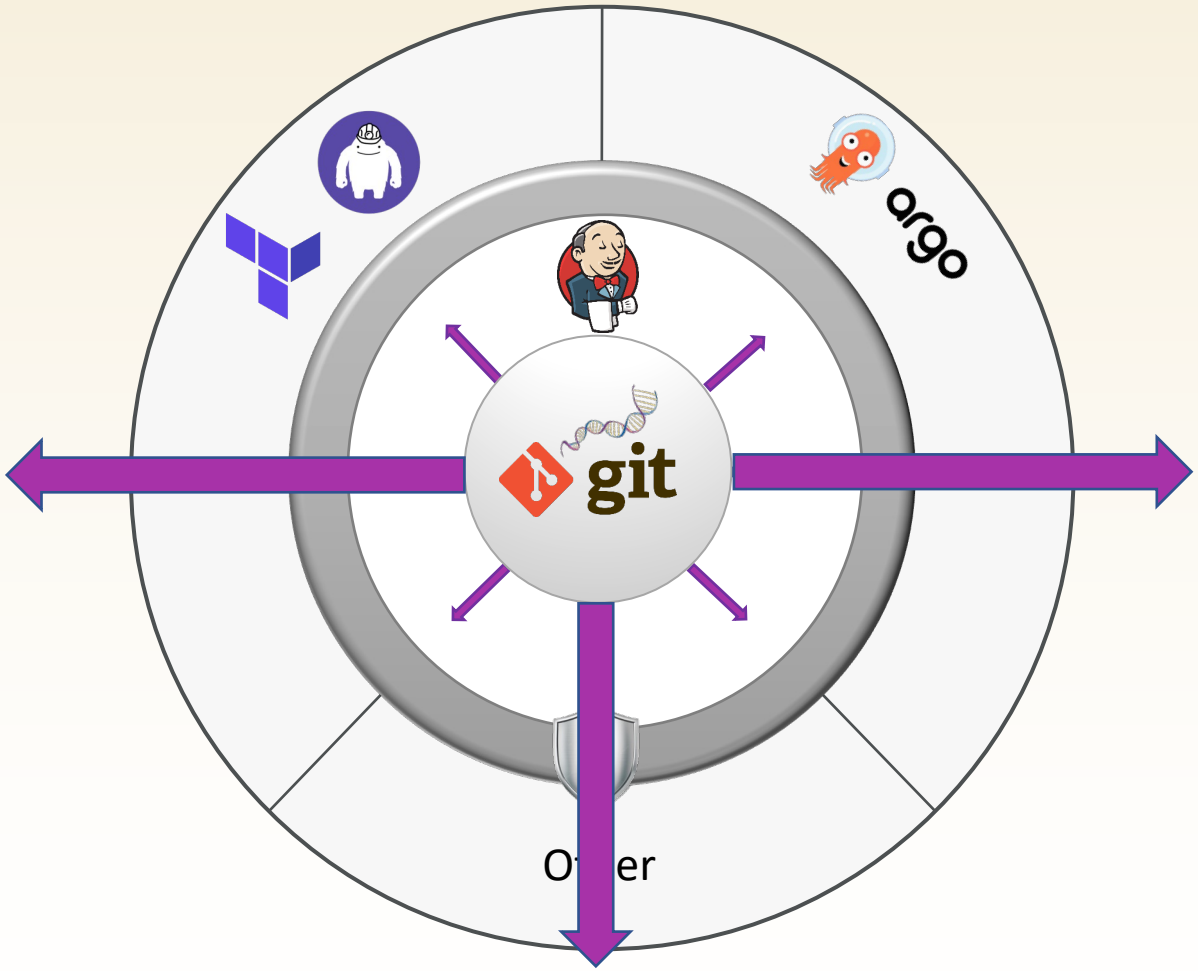
Apply the declarative model



- ☑ Standard
- ☑ Leverages the declarative model
- ☑ Compares model and reality

Factory. Of Anything.

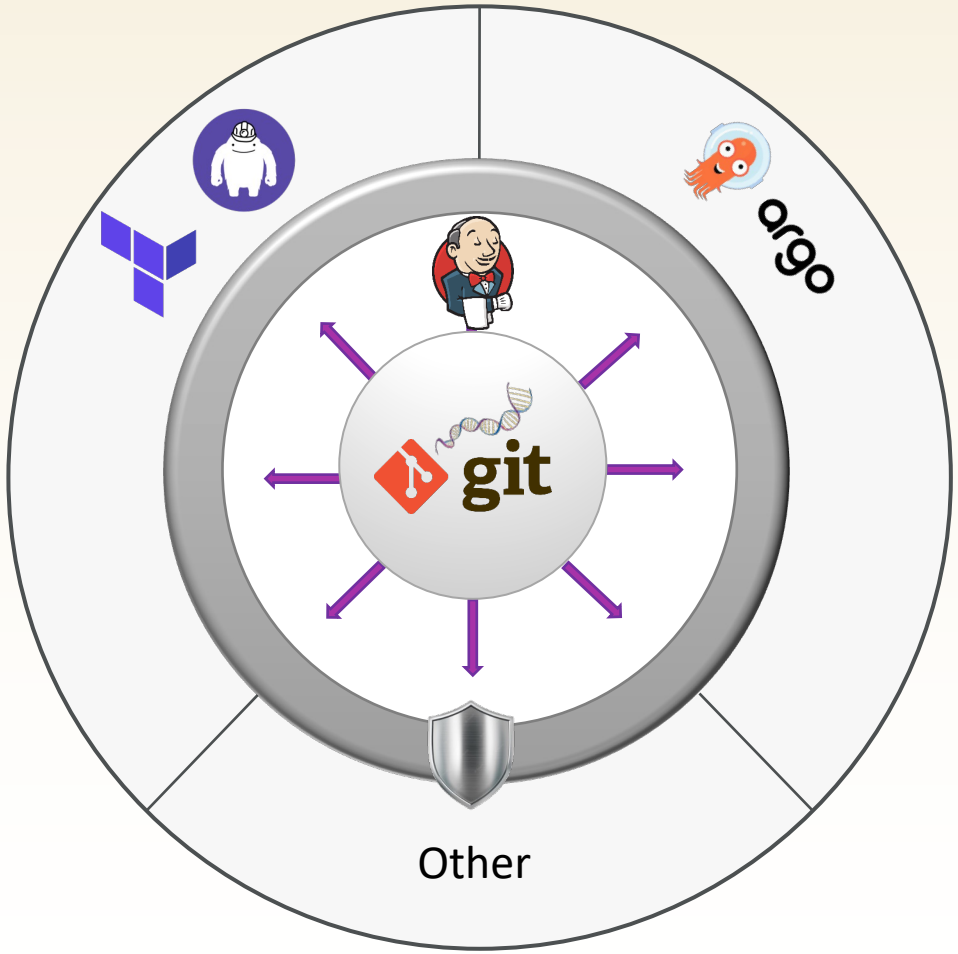
Infrastructure



Application

Security

Factory. Of Anything.

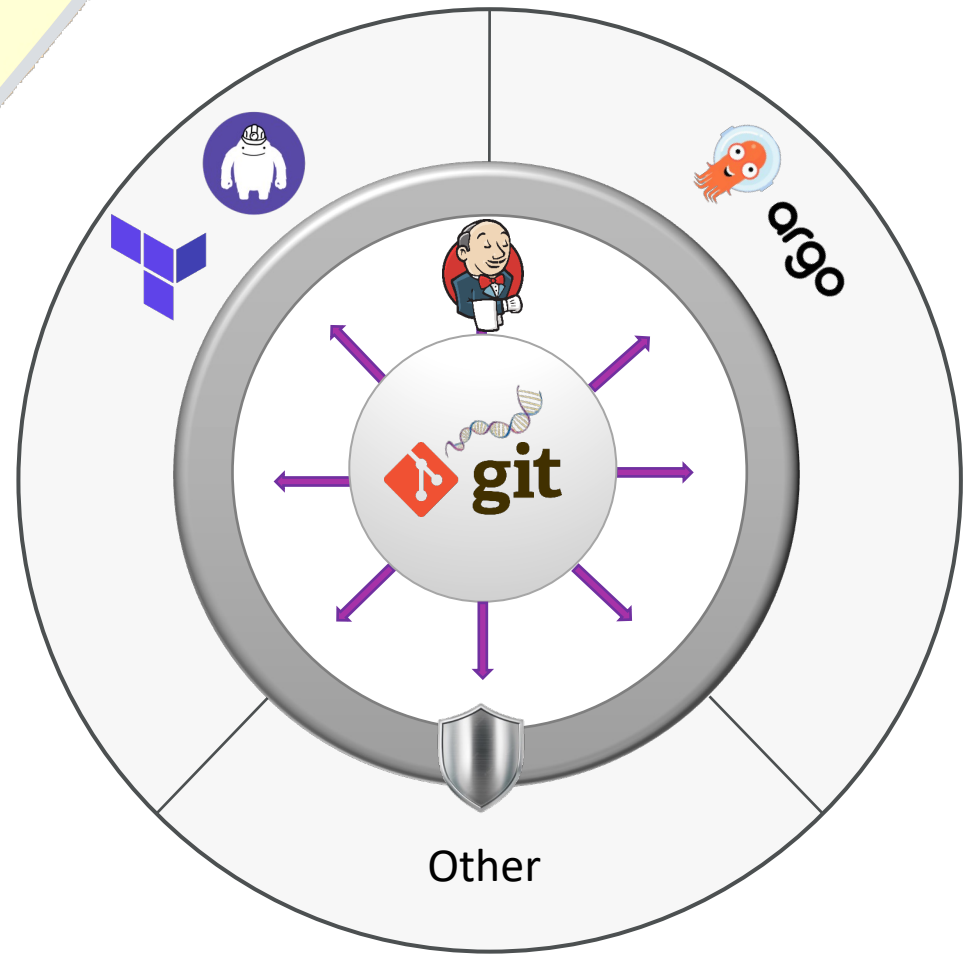


- ☑ Infrastructure
- ☑ Applications
- ☑ Security
- ☑ Anything…

argo
git
Other

Auditable ?

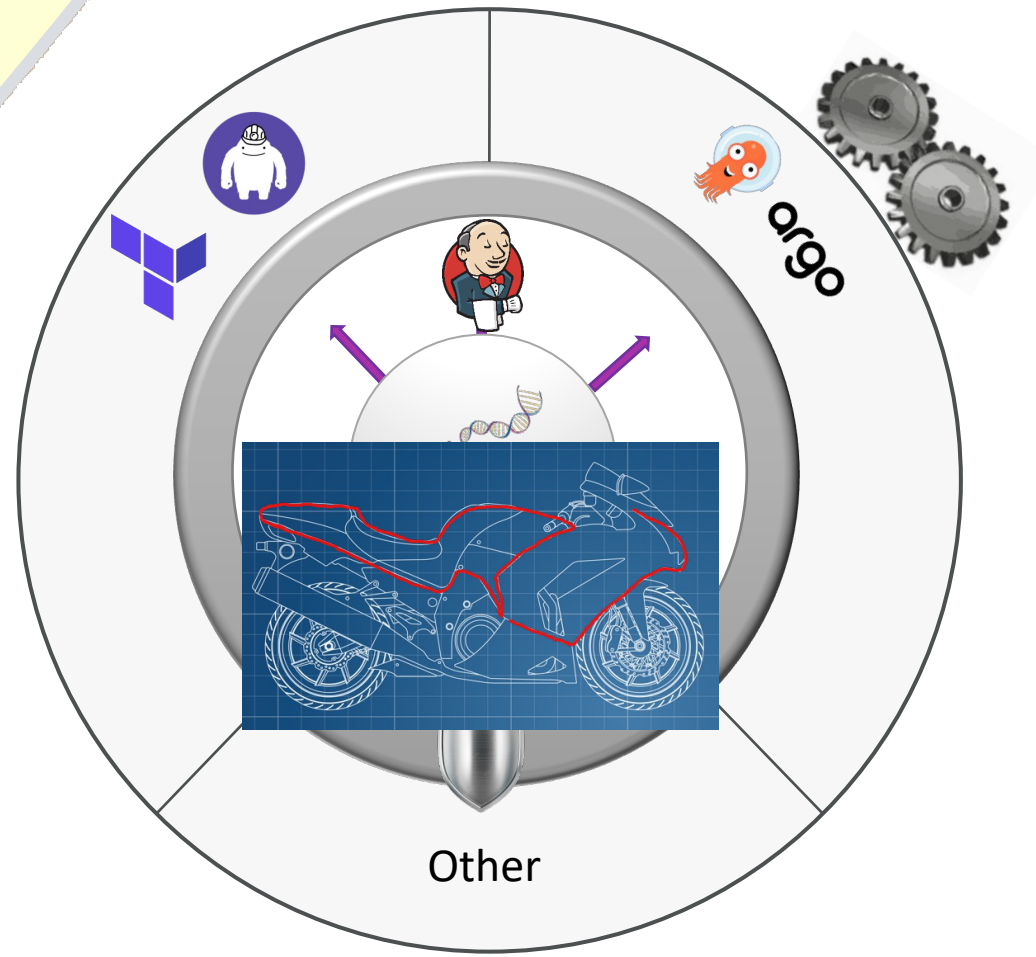
All changes clear and traceable



- ☑ Git Blame
- ☑ Git Diff
- ☑ Audit trail

Resilience ?

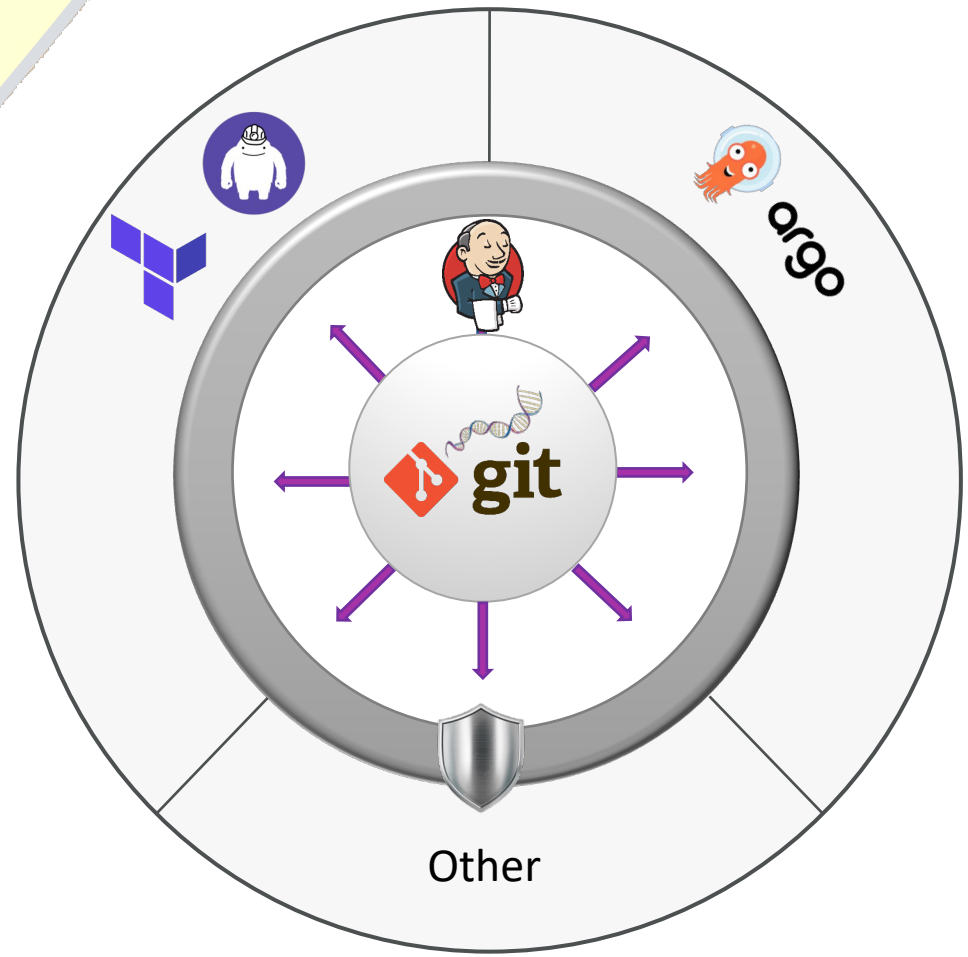
Easy recovery from a temporary issue



Self healing

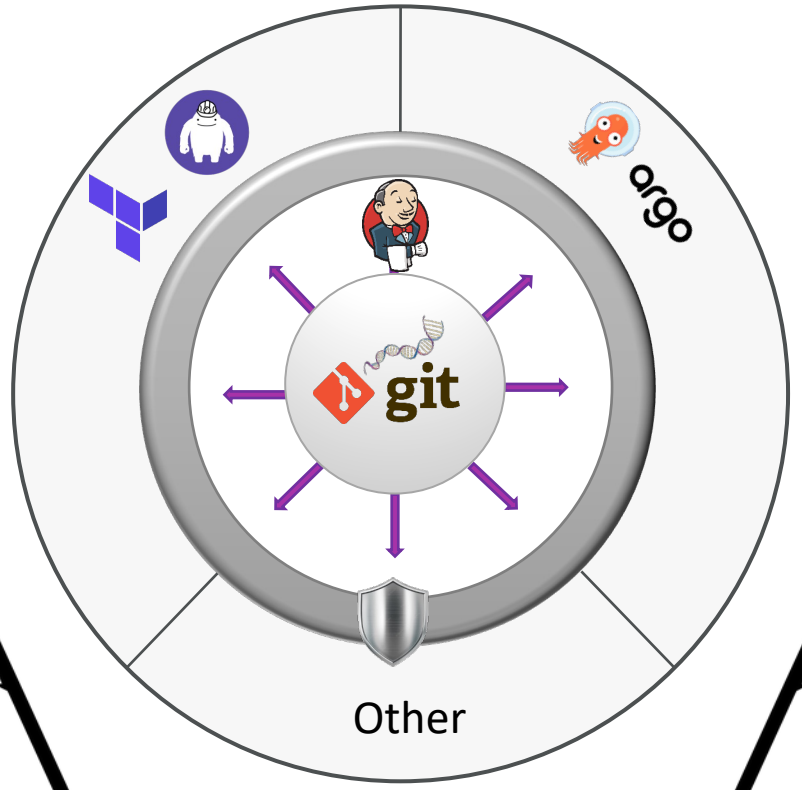
Recoverability ?

Things.
Go.
Wrong.



git revert !

Let's go GitOps !



RECOVERABLE

RESILIENT

AUDITABLE

SIMPLE

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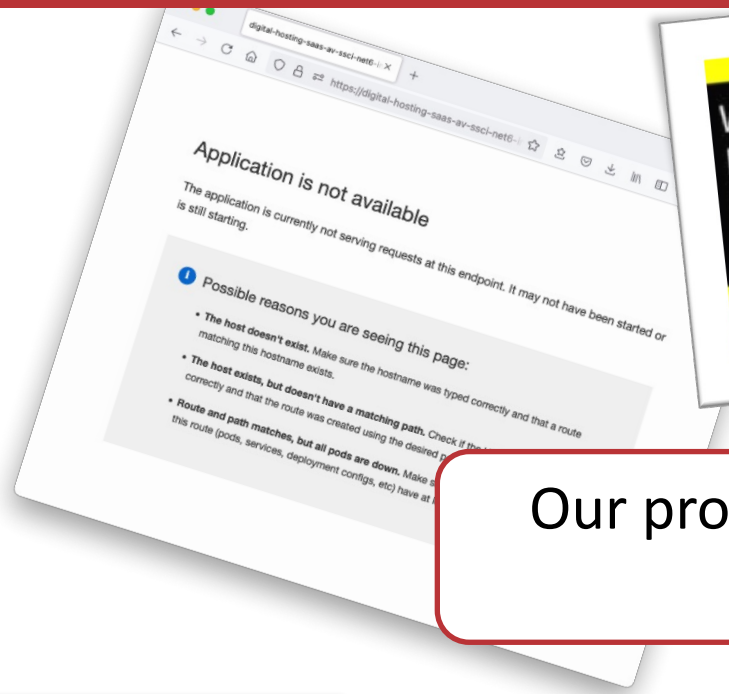
Time for a live demo !

Let the demo gods be on our side

Orlando … We have a problem!



Our production environment is not accessible anymore

We need to migrate to a new region NOW

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Key points

What did you just witness?

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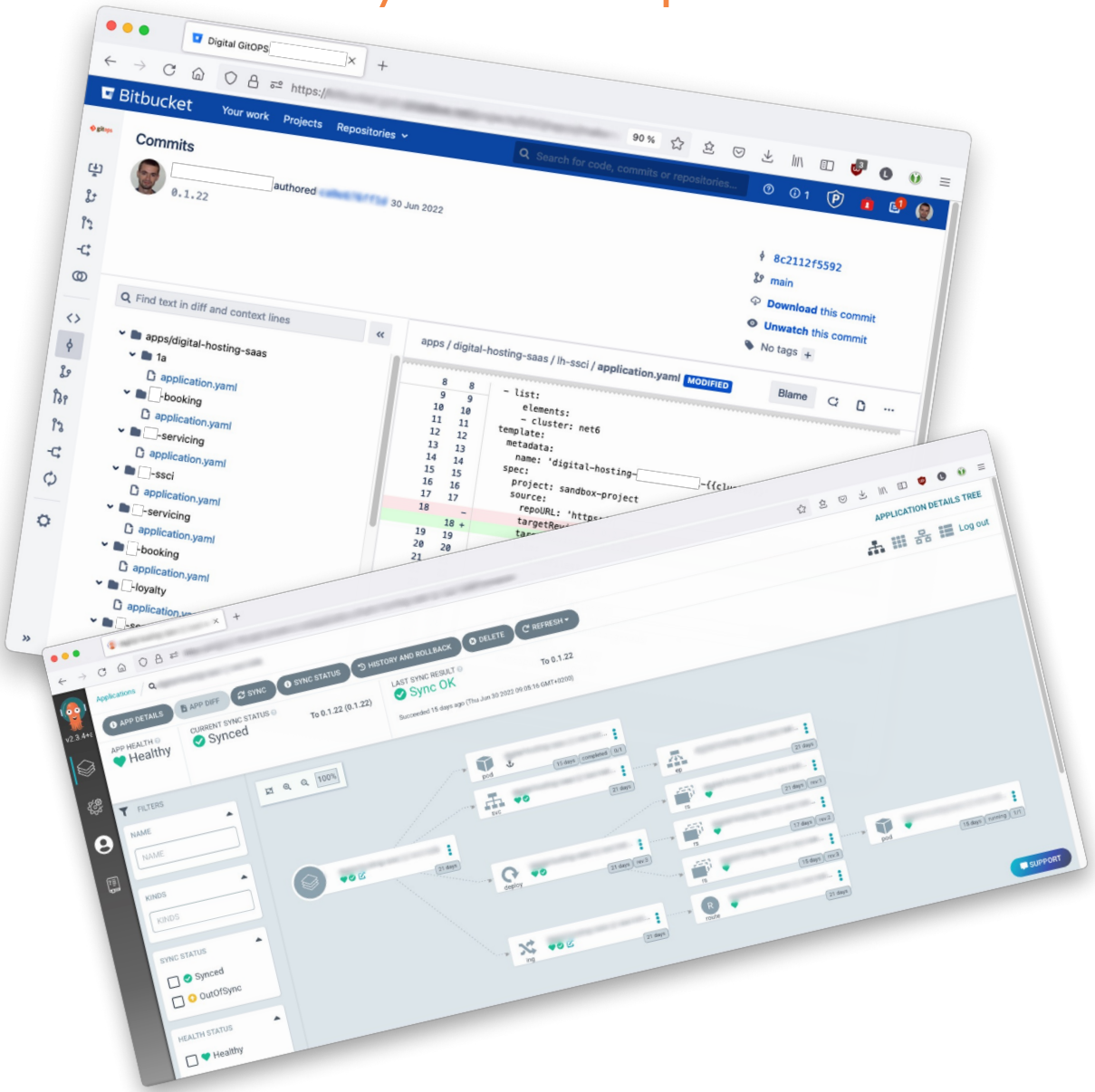
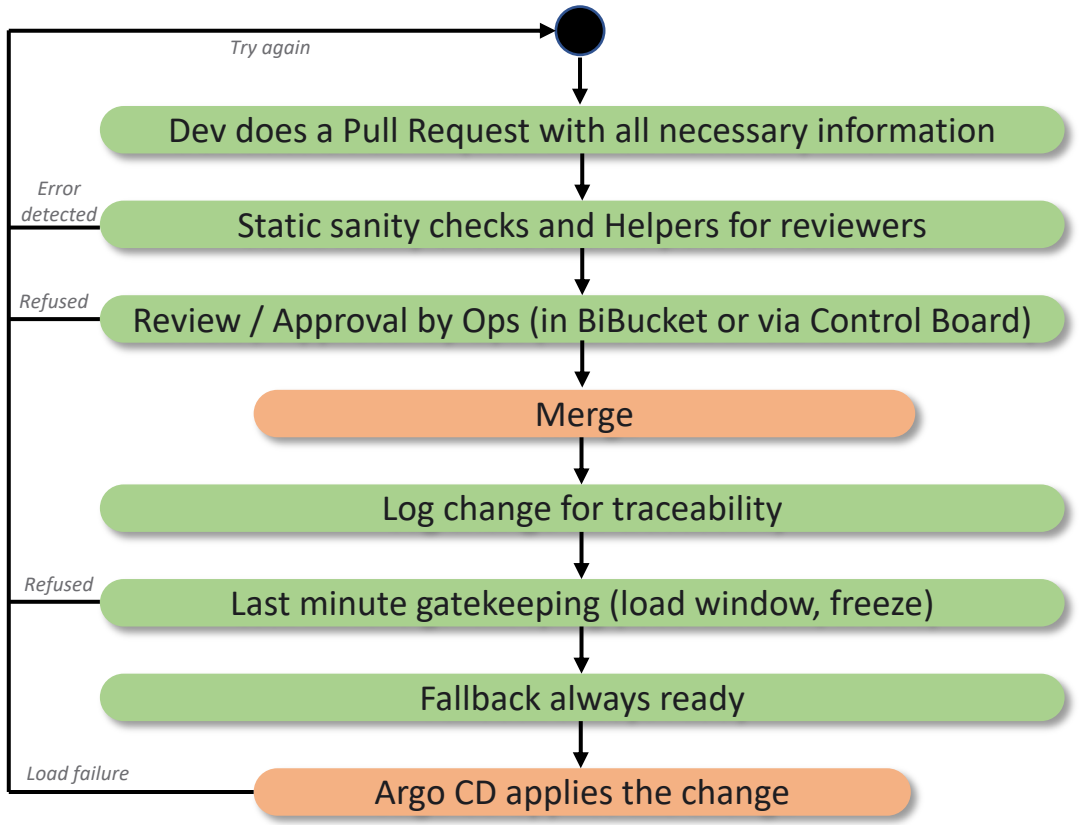
DevOps with GitOps

Look how easy it is to request the load of a new version



- Operations (and their processes) as code



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GitOps is great

Our feedback looking back at our journey

Takeaways

A disaster recovery is hard to implement

All in GitOps not just a part

Adoption is key

Self Healing is great

Security at the top of its game

Setup tighter control on toolchain

Maintain toolchain updated

Special attention for secrets automation

What else?

Keep generating discussions between Dev and Ops

Everything as Code: network, permissions, secrets, conf ...

Canary loads

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Questions ?

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