Changing the IT Of Poste Italiane

Posteitaliane

Our Contacts

Mirko Mischiatti

Group
Chief Information Officer

in https://www.linkedin.com/in/mirko-mischiatti-834a34/

🐦 @MirkoMischiatti

✉ mirko.mischiatti@posteitaliane.it

Vincenzo Marchese

Head of Cloud Adoption
and Technology Architecture

in https://www.linkedin.com/in/vmarchese/

🐦 @inpartesenzarte

✉ vincenzo2.marchese@posteitaliane.it

Poste Italiane: an introduction

Some Numbers

MAIL & PARCEL [1]

Unrivalled physical distribution network

3580m Revenues

PAYMENTS, MOBILE & DIGITAL [1]

Italian payments champion
Advanced customer data capabilities
Leading financial web and app platforms

592m Revenues

FINANCIAL & INSURANCE [1]

Market leading product distribution network

5221m Revenues Financial
1470m Revenues Insurance

100%	127m	33%	19m	6.3m	2.8m	6.3m	€ 58.6bn	€ 125bn
ITALIAN COVERAGE	PARCELS PER YEAR	B2C MARKET SHARE	PREPAID CARDS	CREDIT CARDS	ACTIVE E-WALLETS	BANK ACCOUNTS	AVERAGE TOTAL DEPOSITS	INSURANCE SECTOR TECH.RESERVES

Some Numbers (the IT ones)

MULTICHANNEL

Post Office

Mail & Parcel

Call Center

Website and Apps

KEY FIGURES [1]

1.4m customers served per day

1.5m digital customers per day

12,822 Postal Offices

21.6m App Downloads

2.6m Digital IDs

2.8m Active e-Wallets

INFRASTRUCTURE [2]

11 Data Centers

67,000 Mainframe MIPS

850 applications

6,500 TB storage

10,200 servers

7,100 ATMs

23,000 digital postman kit

110,000 work stations

16,3 GBps network bandwidth

[1] *Source*: Poste Italiane: Risultati 2018 e Guidance per il 2019 [link]
[2] *Source*: Poste italiane: Vendor Meeting – Luglio 2018

Our Company Pillars

Experience

- Less is more
- Unified Experience
- Cognitive Systems
- Physical to Digital bridge
- Knowledge of the Client
- Data Driven personalization

Ecosystem

- Partners and Services
- Open API
- Marketplace
- Aggregation
- Orchestration

Trust

- Ethics
- Cybersecurity
- Reputation
- Sustainabiity

Liquid Company — Review Processes, Business and Operative Models following under a «Liquid Company» perspective

Value proposition & go to market — Define an integrated value proposition for the whole Ecosystem
Review the Go To Market strategy with an intermediated and disintermediated model able to enhance the onboarding of services and the fueling of the Ecosystem

Customer Experience Transformation

Governing the complexity of a multi-business context, integrating the product lines, enhancing the peculiarities, with the objective of putting always the Customer at the centre

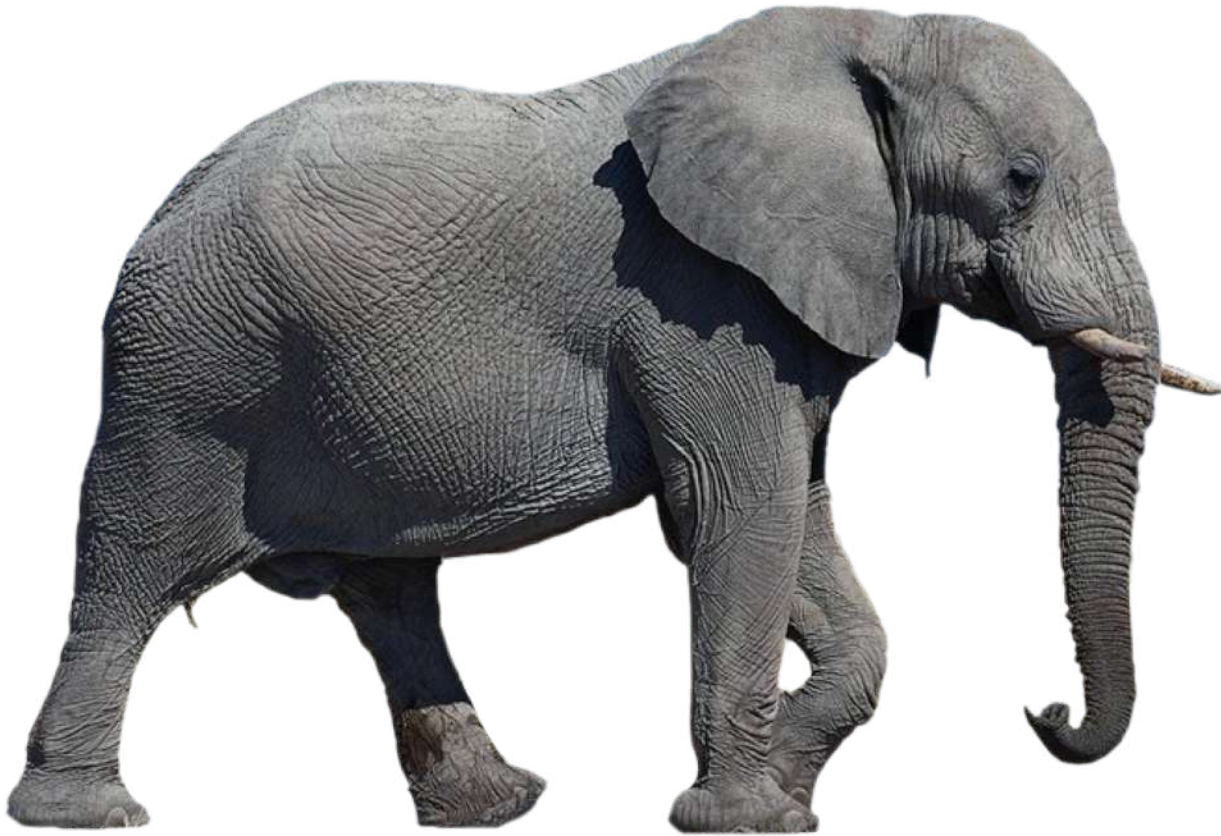## Simplify the Customer Experience!!

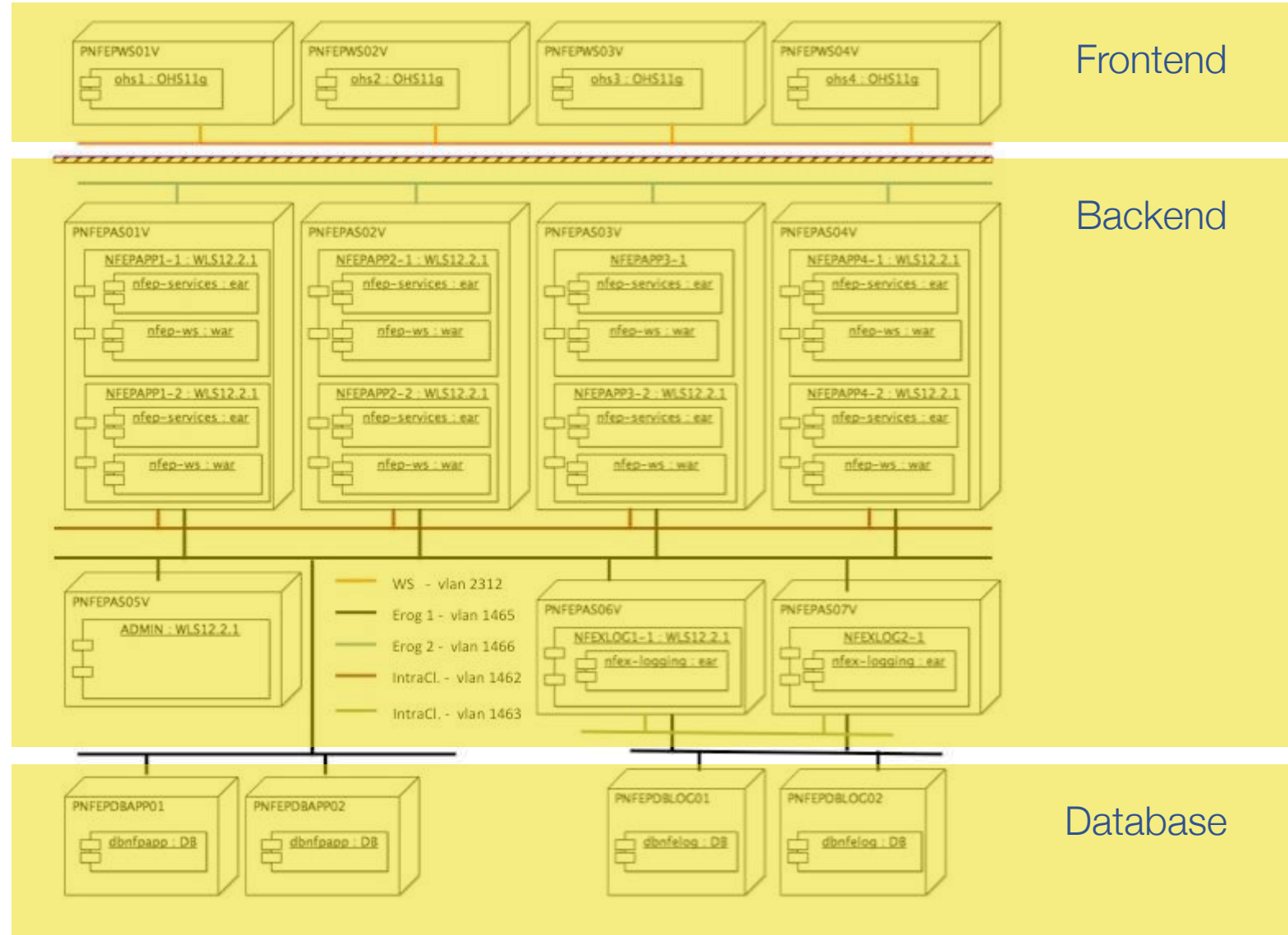# The «Tech» transformation

The Challenge

How to change this…   …into this

Conway's Law

«Any organization that designs a system will inevitably produce a design whose structure is a copy of the organization's communication structure»

Melvin E.Conway

Our Transformation Pillars

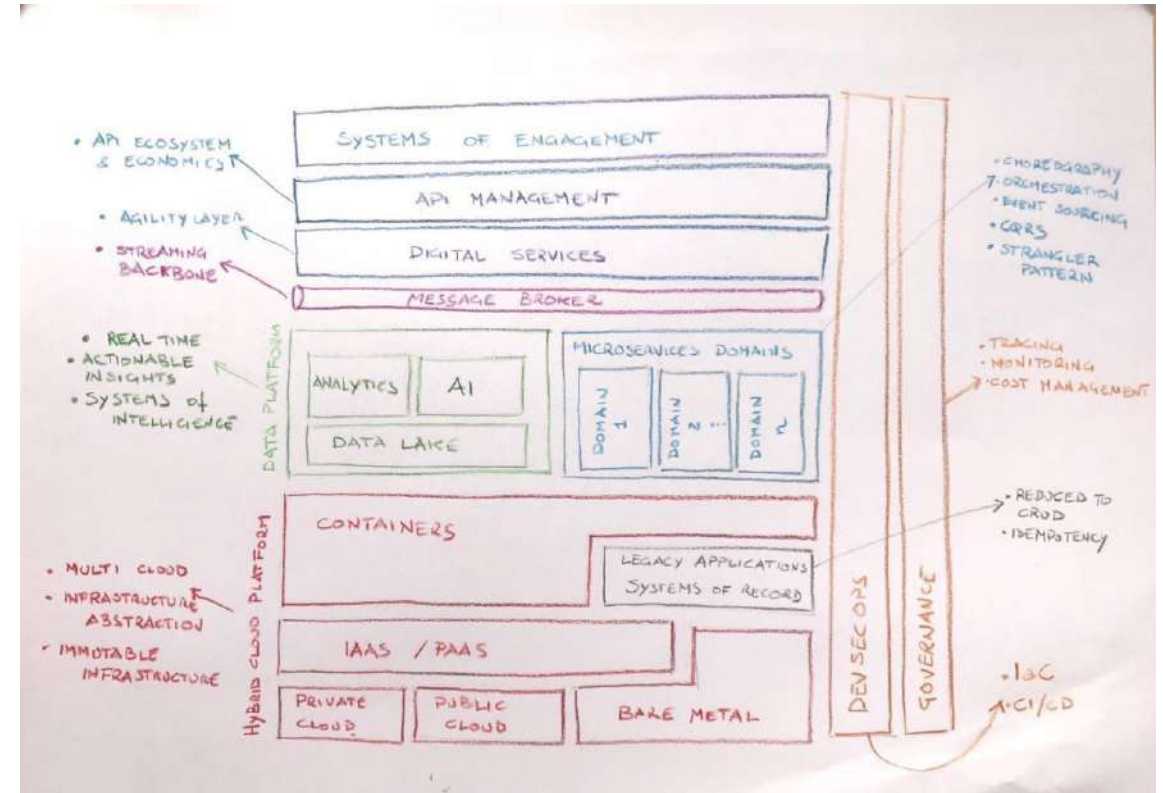| API First	Cloud First	Event First	Mindset First
• Centralized or distributed gateways • Economics • Catalog • Open Ecosystem • Open API	• Containers • 12-factor App • Hybrid Cloud • Microservices • DevOps • Exploit XaaS	• Streaming • Realtime processing • Decoupled Architecures	• Cultural Change • Generative Society • Collaboration • Continuous Improvement • Agile
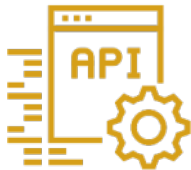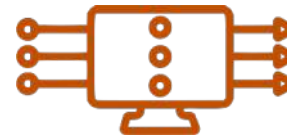
Marchitecture (?)

Architecture!

Application Modernization

sales funnels

Systems of Intelligence

containerized analytical engines

Marketing Campaigns

engagement services

digital services
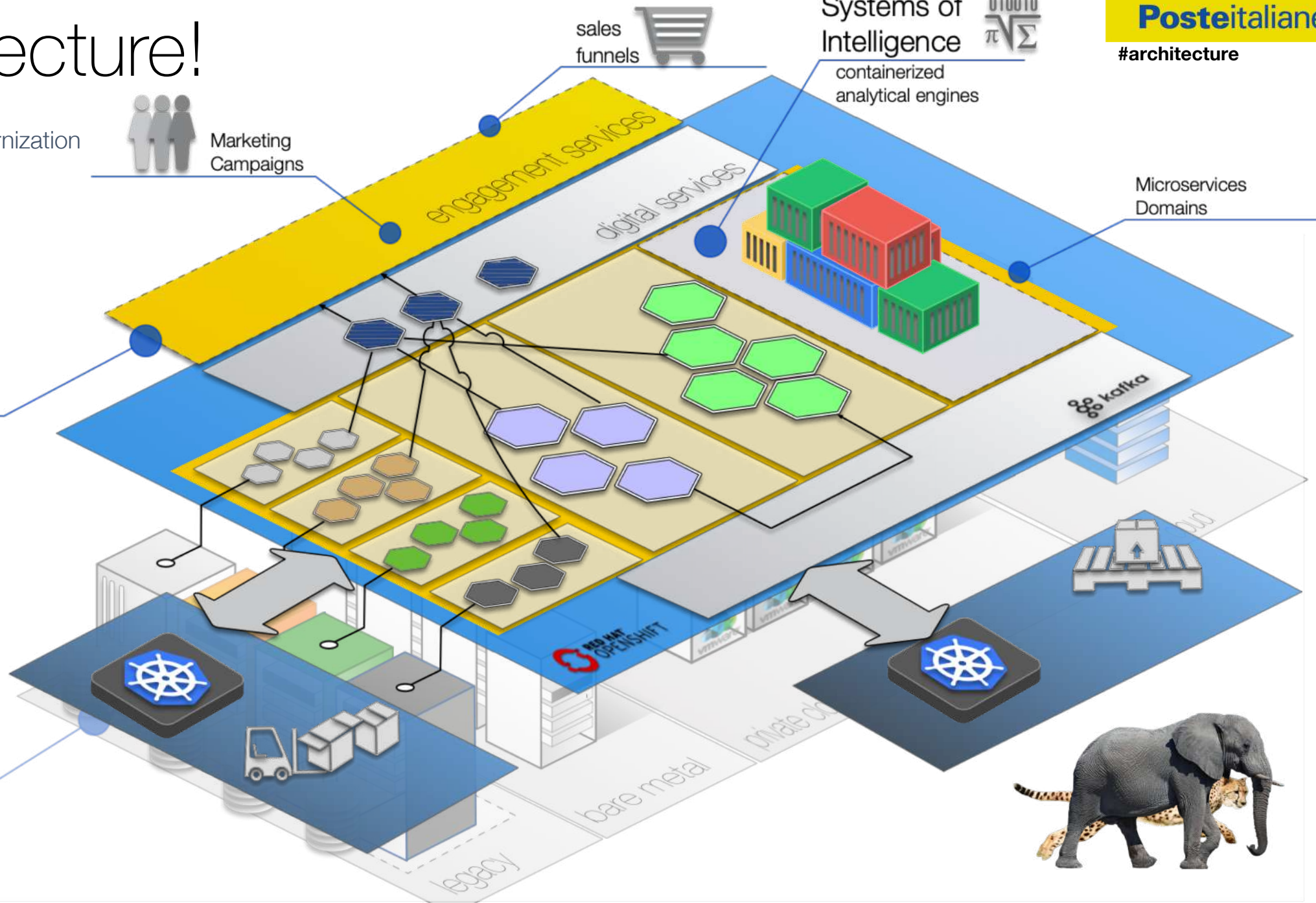
Microservices Domains

Systems of Engagement

kafka

reducing to

Systems of Record

based on legacy applications and systems

RED HAT OPENSHIFT

vmware

legacy

bare metal

private cloud

Timeline

Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019
		One View / Mediator	CRMU / PSD2	SFA Ret. / Svc.Activ	Palm.SDA
		RTDM / NSA	Sch.Cliente Light	Posidonia / Virtual POS	NBEP
				Priv.Banking	FEU

- On-Prem *virtual* Dev cluster **[ORIGIN]**.

- On-Prem *virtual* Test **[OKD]** and PreProd cluster **[OCP]**

- Infrastructure stabilization **[OKD]**

- On-Prem *bare-metal* PreProd cluster **[OCP]**

- On-Prem *bare-metal* Prod Cluster **[OCP]**

Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019

- Start of collaboration with Redhat

- On-Prem *virtual* Prod cluster **[OCP]**.

- First On-Prem *bare-metal* cluster **[OCP]**

- On-Cloud 2 clusters **[OCP]**

After 1.5 Y

20 projects in dev stage

4 systems in production

1324 repos

~500 developer

13 clusters (OCP, Origin 3.9 and OKD 3.11)

1300 cores in production (WIP)

4 pipelines per project
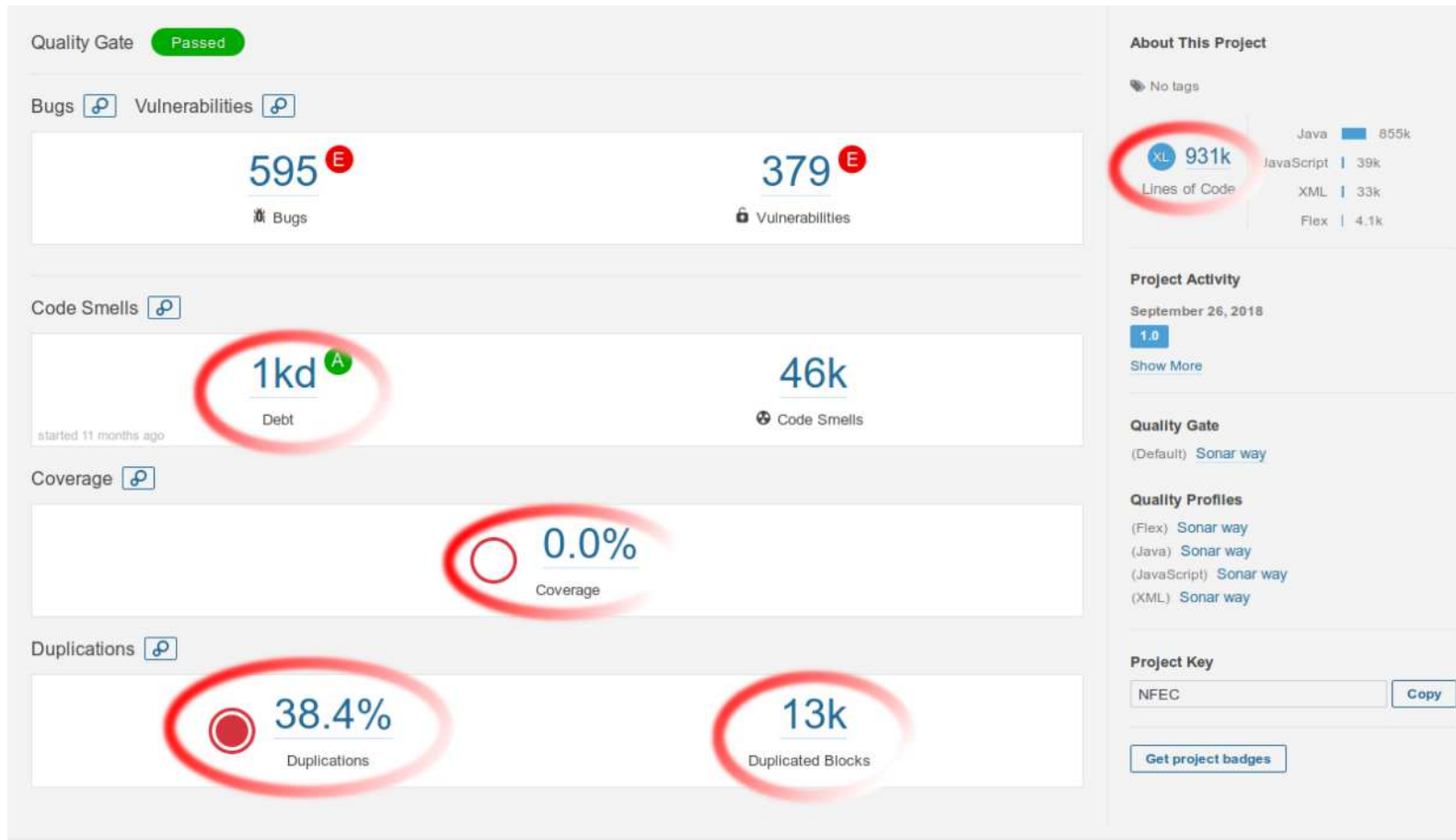
1600 jobs

… and Counting

Some Use Cases

Use Case #1: Unified FrontEnd

The Pain

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- 931 kloc

- 13k duplicated blocs

- 38.4% duplications

- 0% coverage

- 1k days debit to accomplish defect fixing

… and this was just one of our Frontends

The Solution

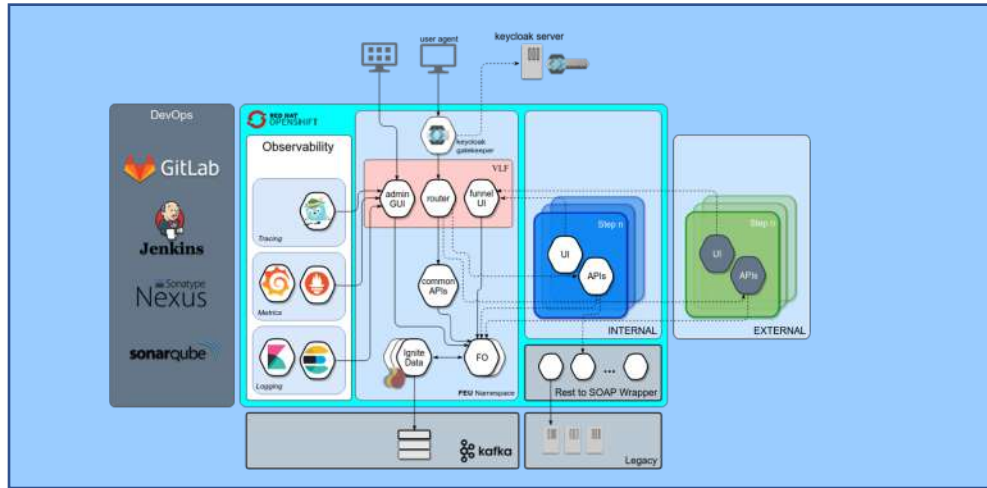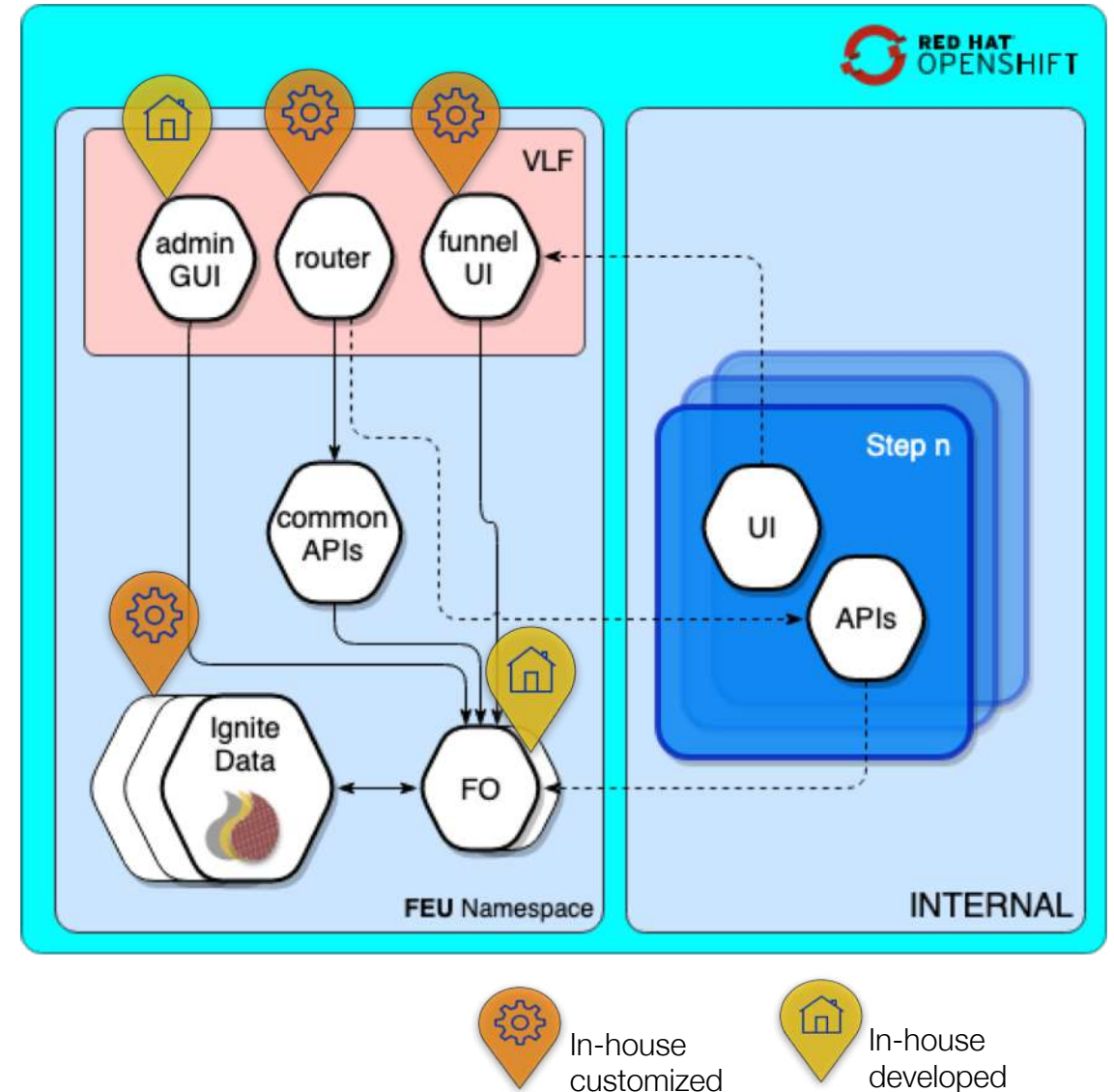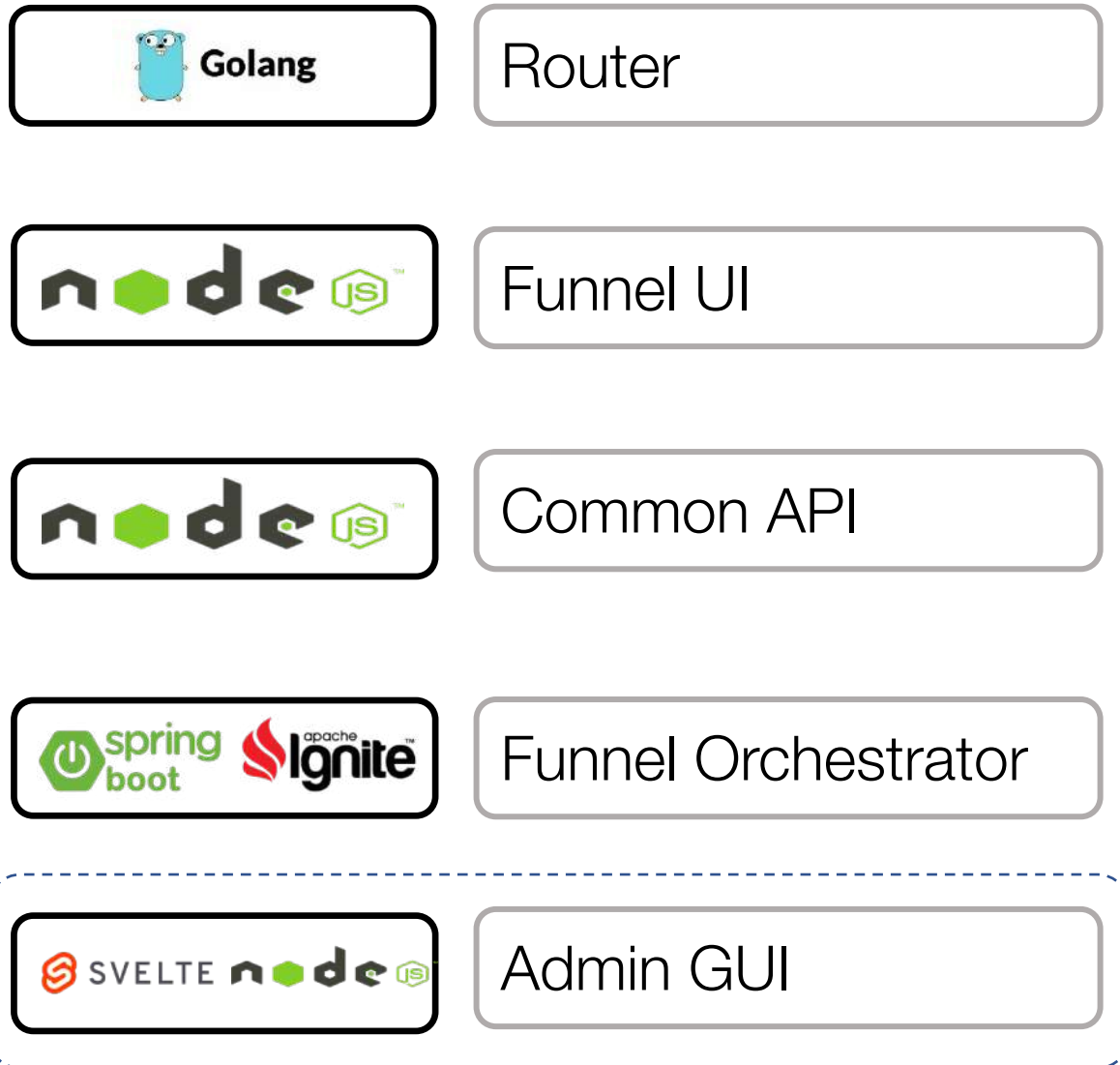| IMPERATIVES	STANDARDS	ARCHITECTURE	FEATURES
• Standard mimics • Extensible to third parties • Divide et impera • Agile Development • PSPI • GitFlow	• Open Metrics • Open Tracing • Open API • OpenID Connect • OAuth 2.0	• Scalable • Secure • Resilient • Cloud ready • Active/Active • DevOps Enabled • Stream Enabled • Observable • Modular	• Unified Model • Centralized Control • Centralized Access (audit/logging) • Uniform Security Model • One Click Install • Reduction of TTFB • Polyglot

FEU – Architecture

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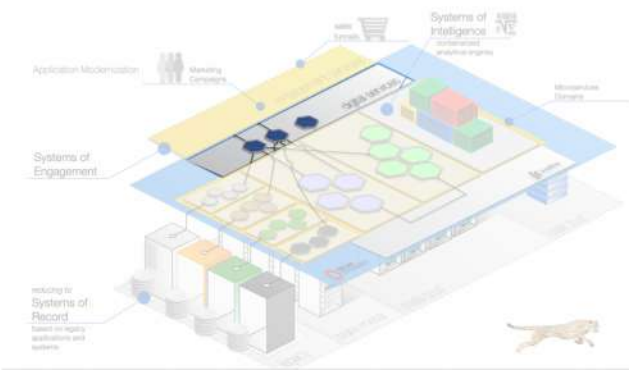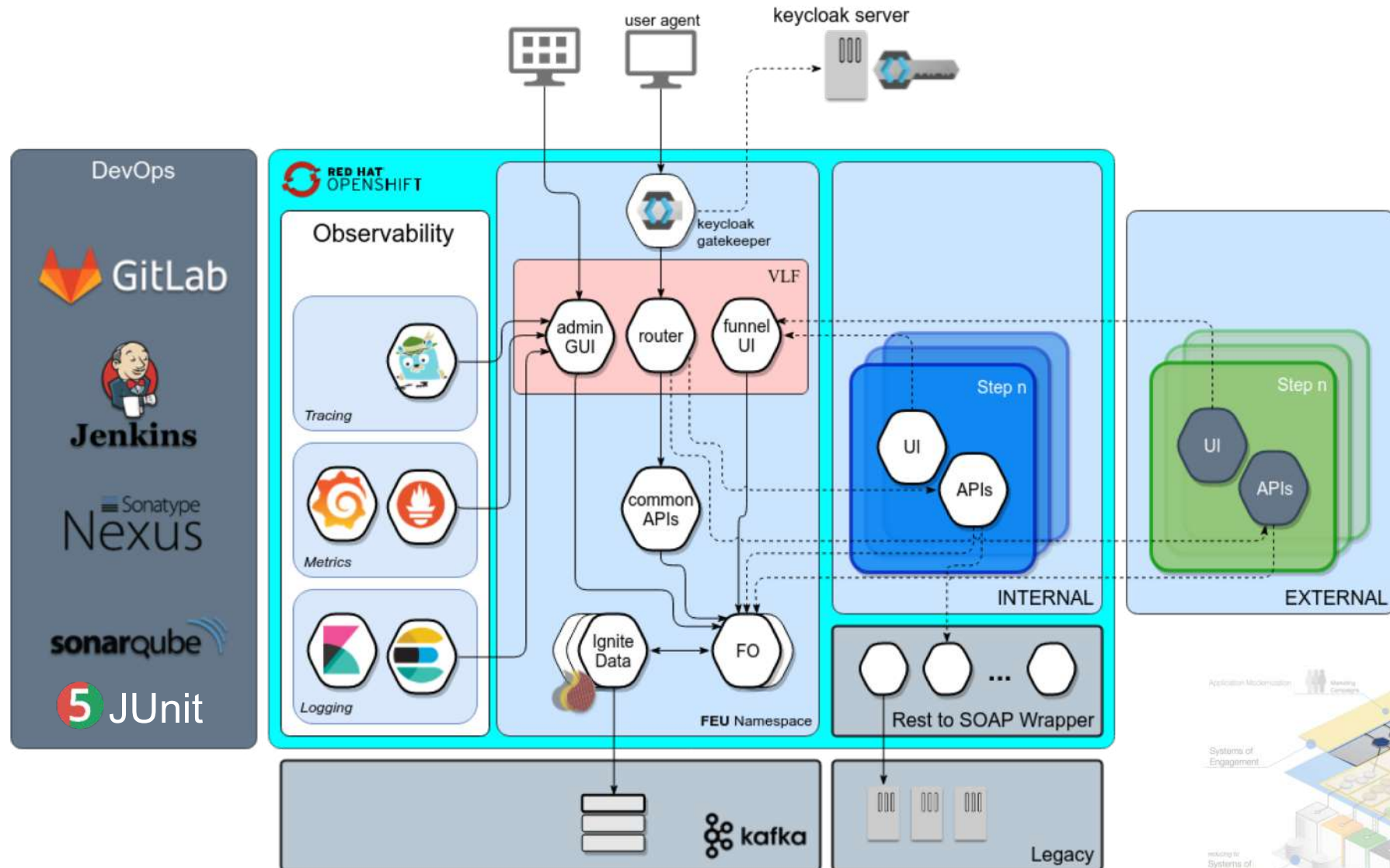
FEU in the big picture
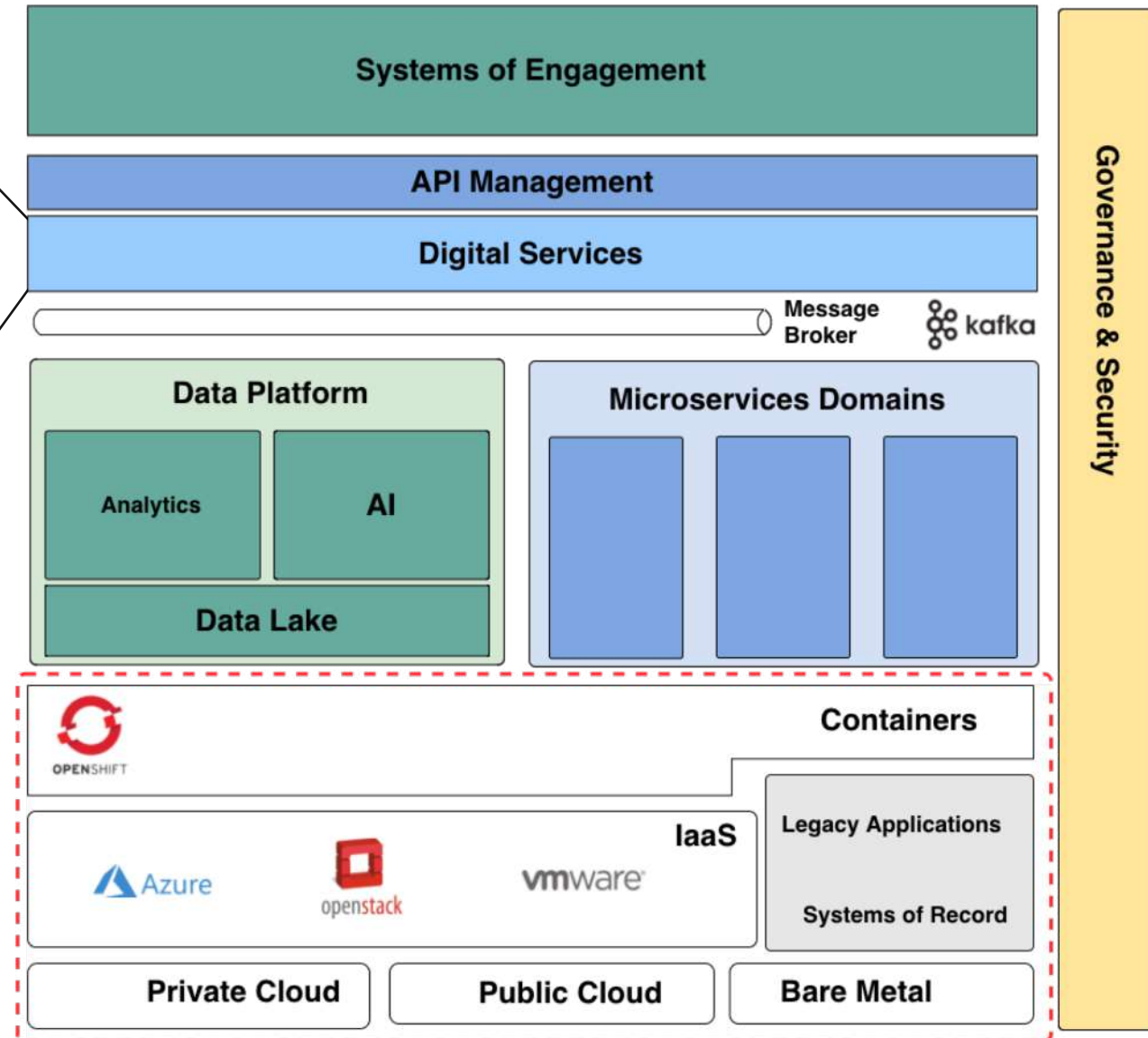
FEU: Polyglot Architecture

Golang — Router

Node.js — Funnel UI

Node.js — Common API

spring boot / apache Ignite — Funnel Orchestrator

Svelte / Node.js — Admin GUI
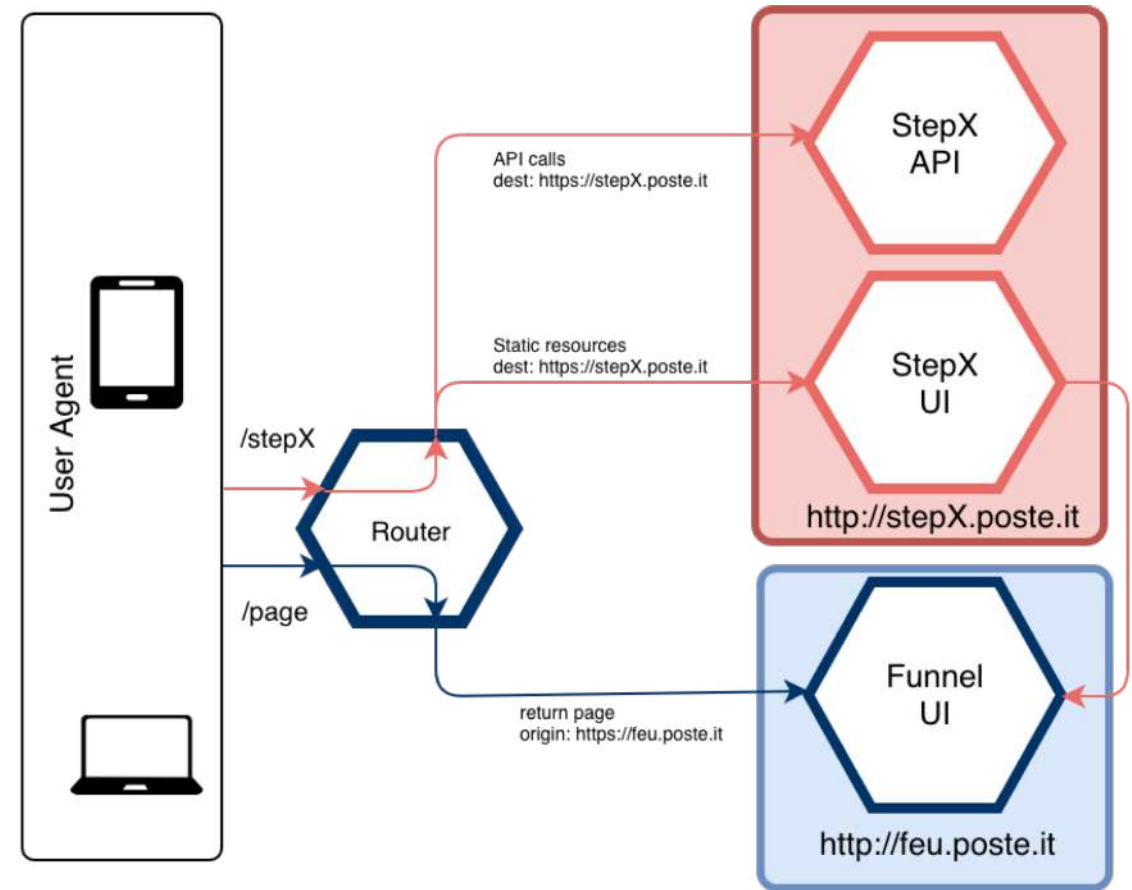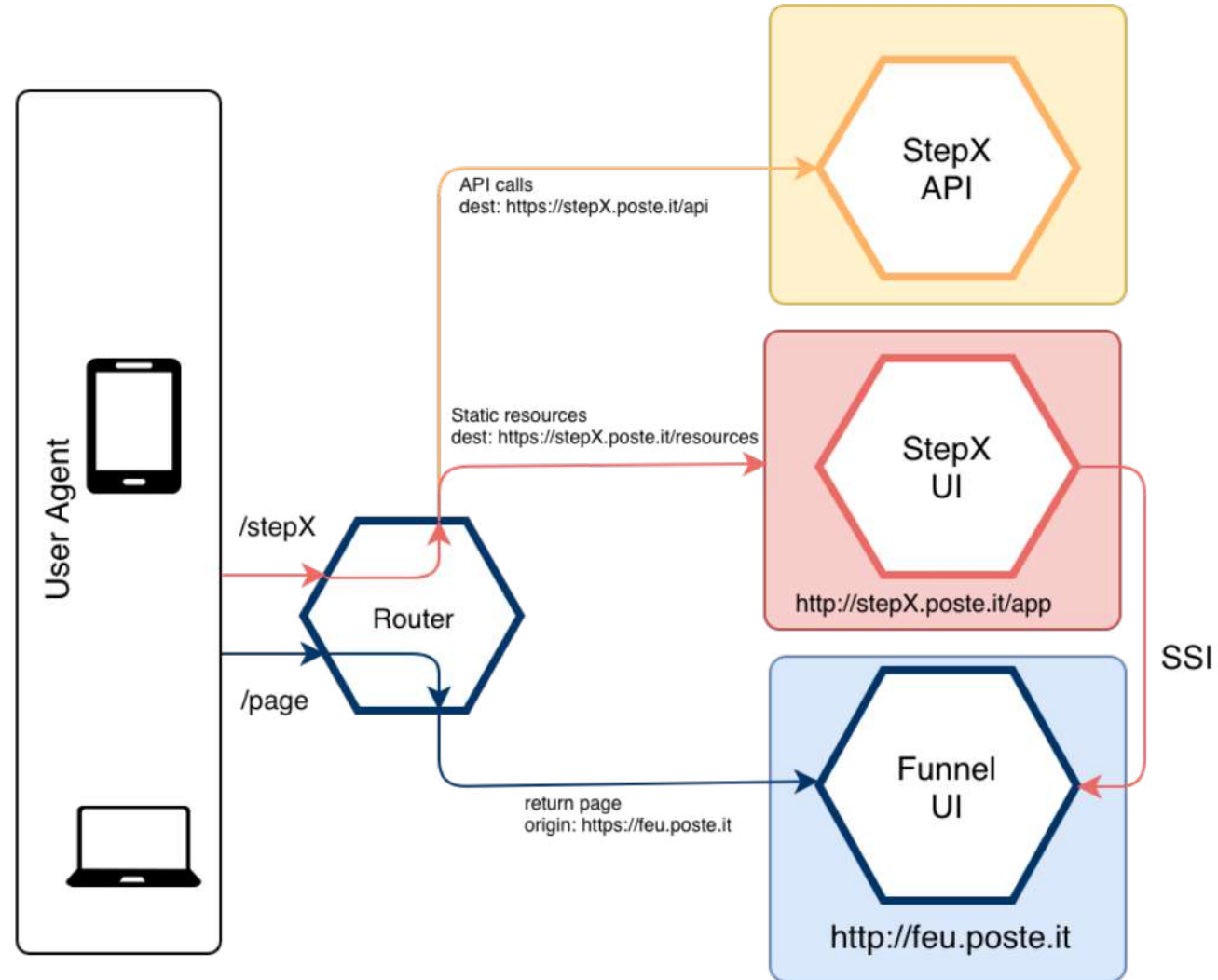
FEU – Micro Frontends

How it works

- Every microfrontend exposes its own static resources, APIs and page fragments.
- The router handles the multiple endpoints
  - Page fragments served through the FunnelUI
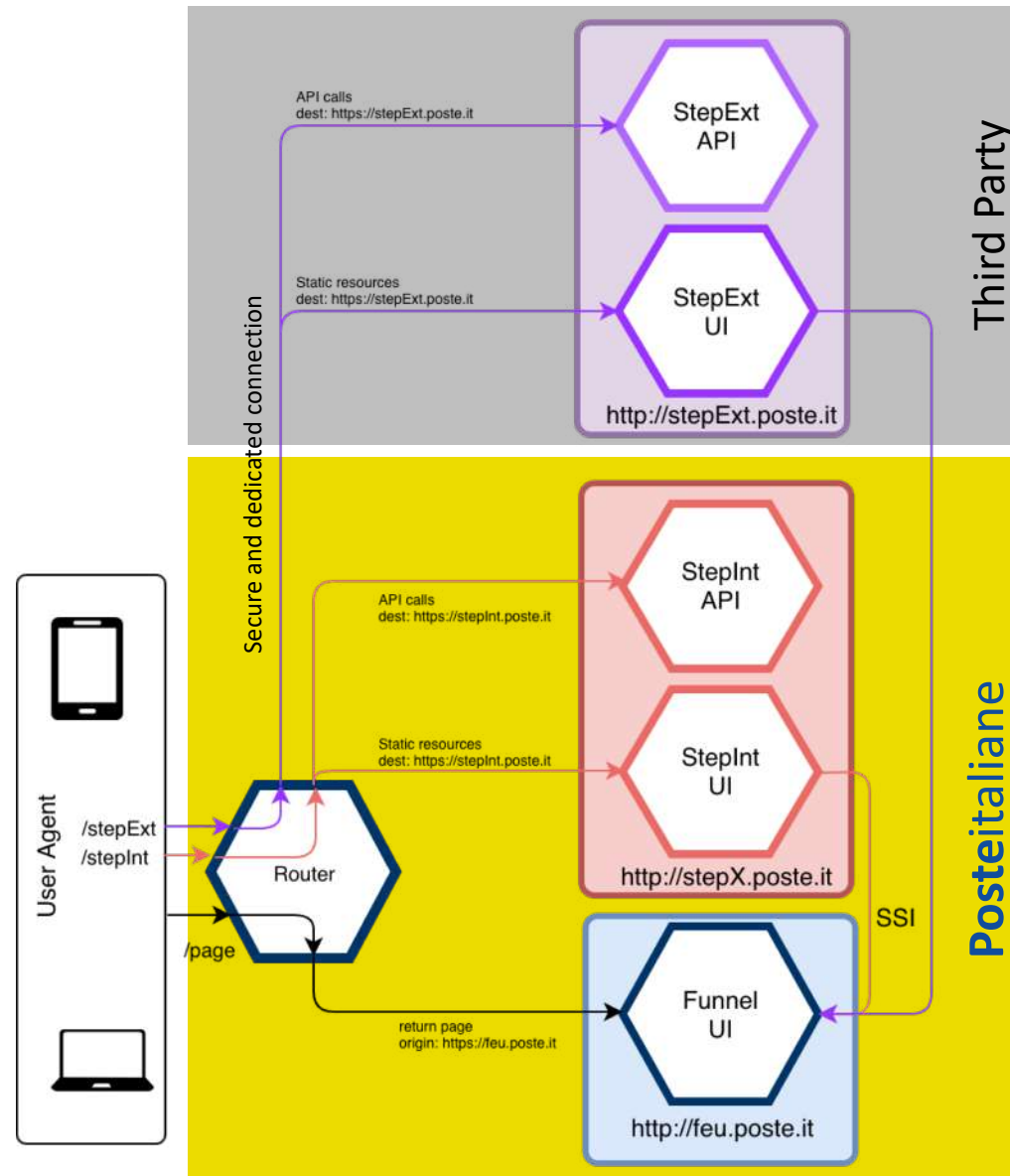 - APIs and static resources

FEU –UI vs API Separation

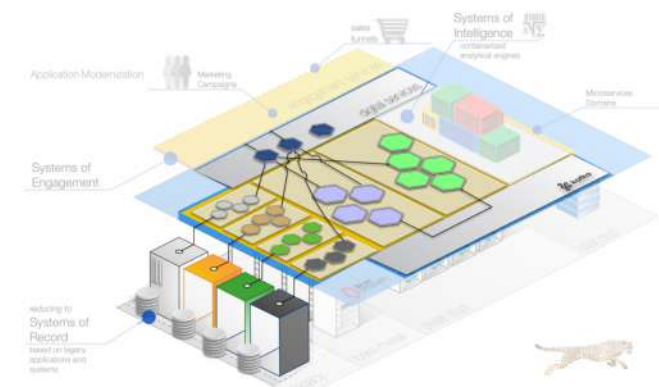# FEU – Externalize to third parties

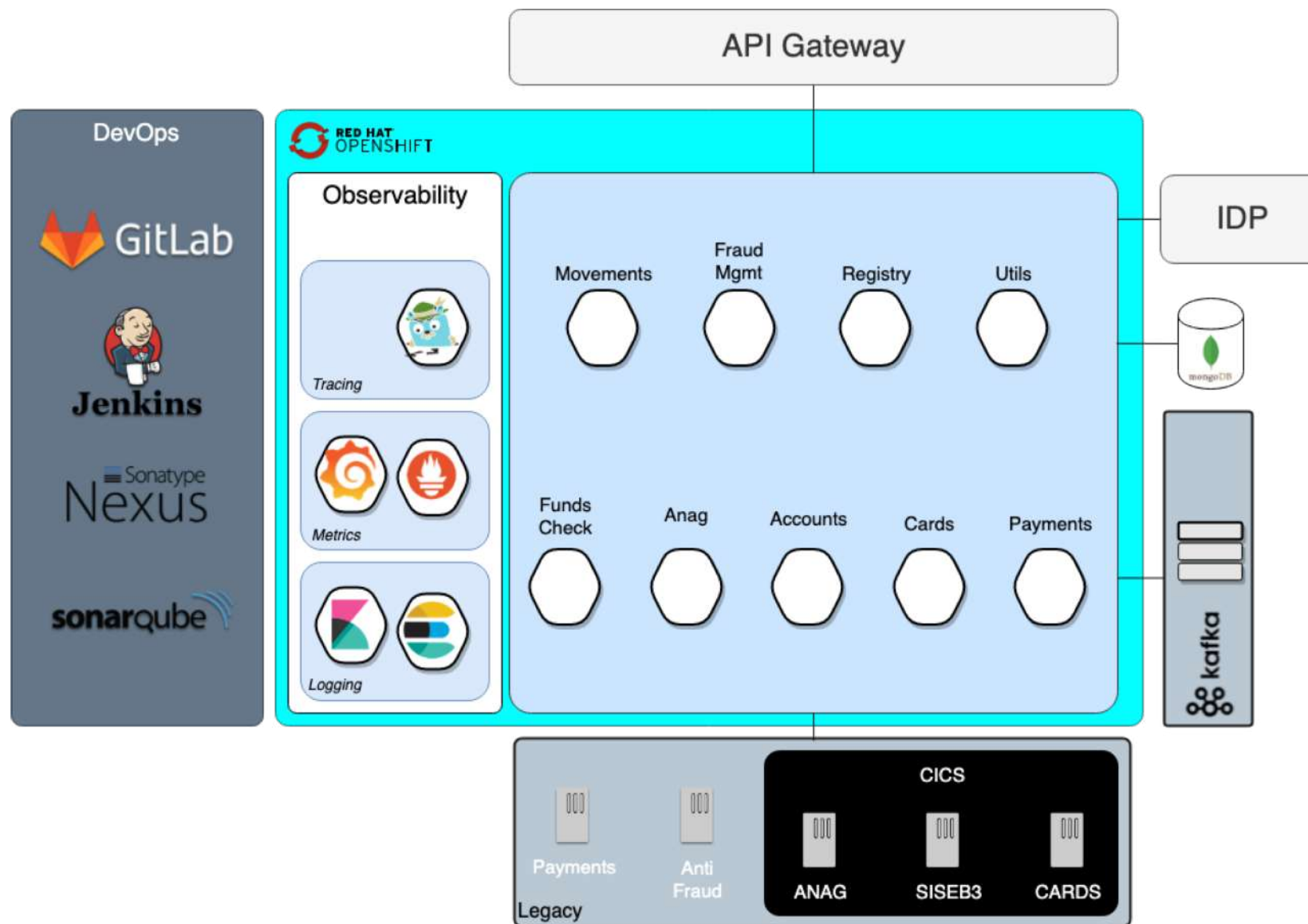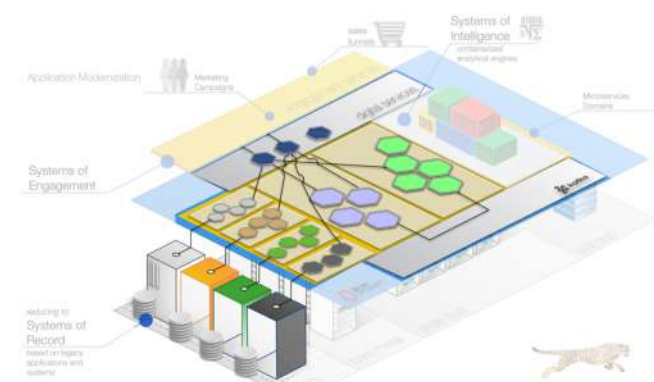# Use Case #2: OpenBanking

The Pain

Compliance to regulation

Mainframe
CLOSED
For Batches

The solution

API Gateway
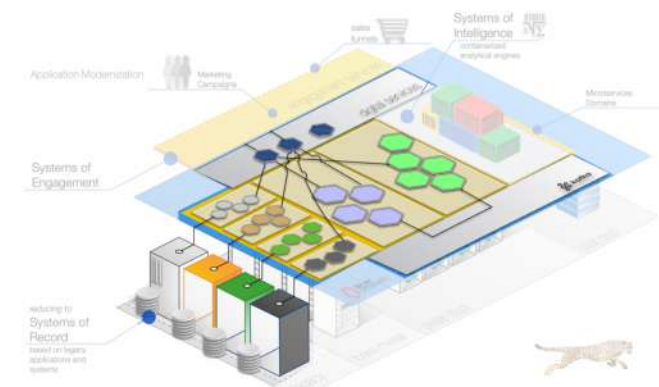
DevOps

GitLab

Jenkins

Sonatype Nexus

sonarqube

RED HAT OPENSHIFT

Observability

Tracing

Metrics

Logging

Movements

Fraud Mgmt

Registry

Utils

Funds Check

Anag

Accounts

Cards

Payments

IDP

mongoDB

kafka

Payments

Anti Fraud

CICS

ANAG

SISEB3

CARDS

Legacy

Systems of Intelligence

Application Modernization

Marketing Campaigns

Microservice Systems

Systems of Engagement

Systems of Record

H24

H24
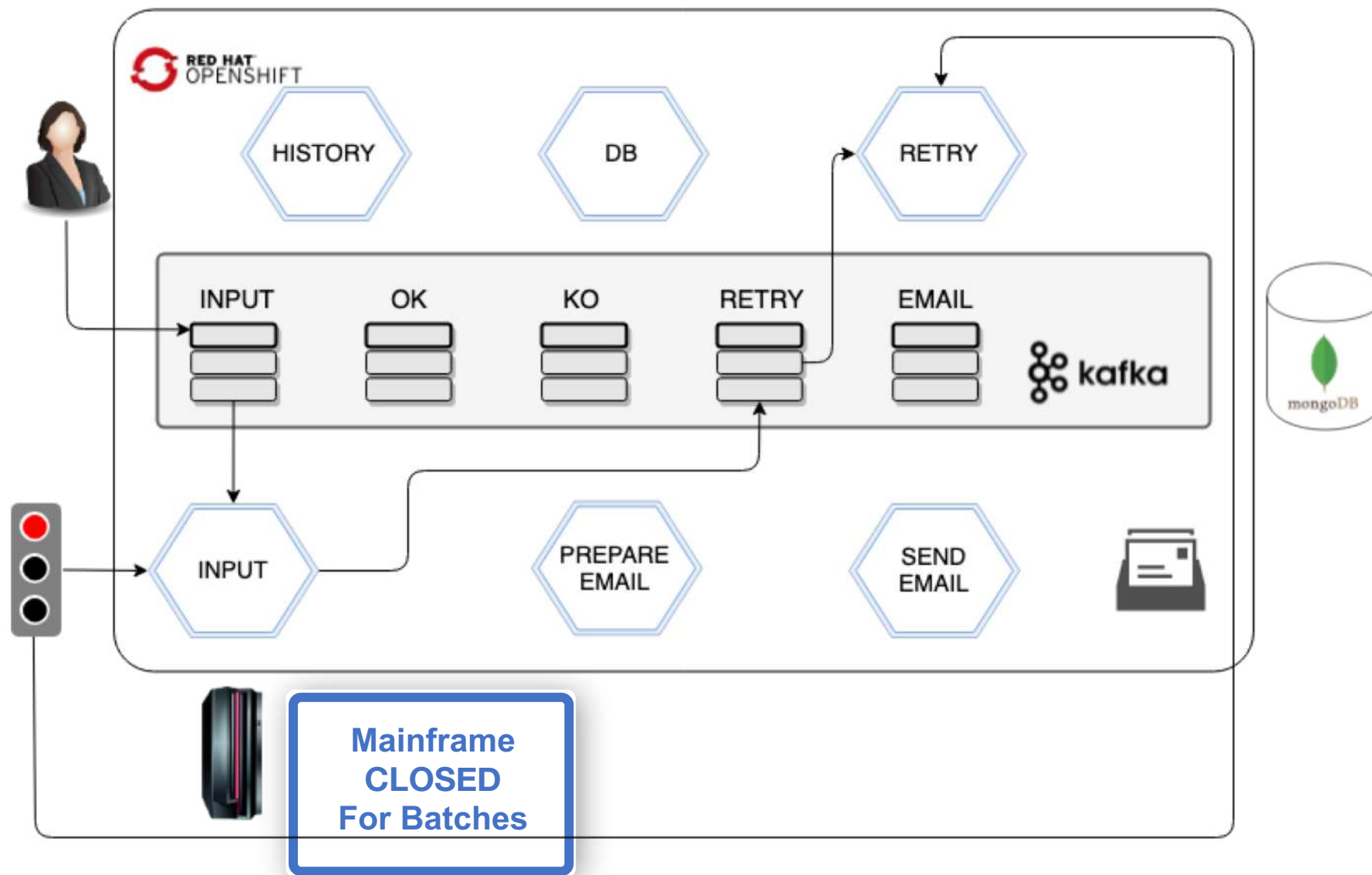
Active/Active OpenBanking
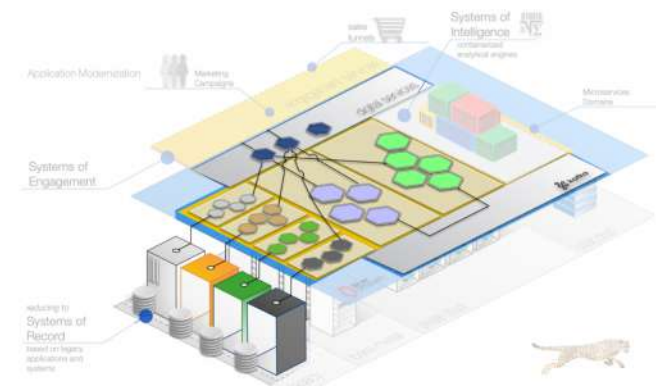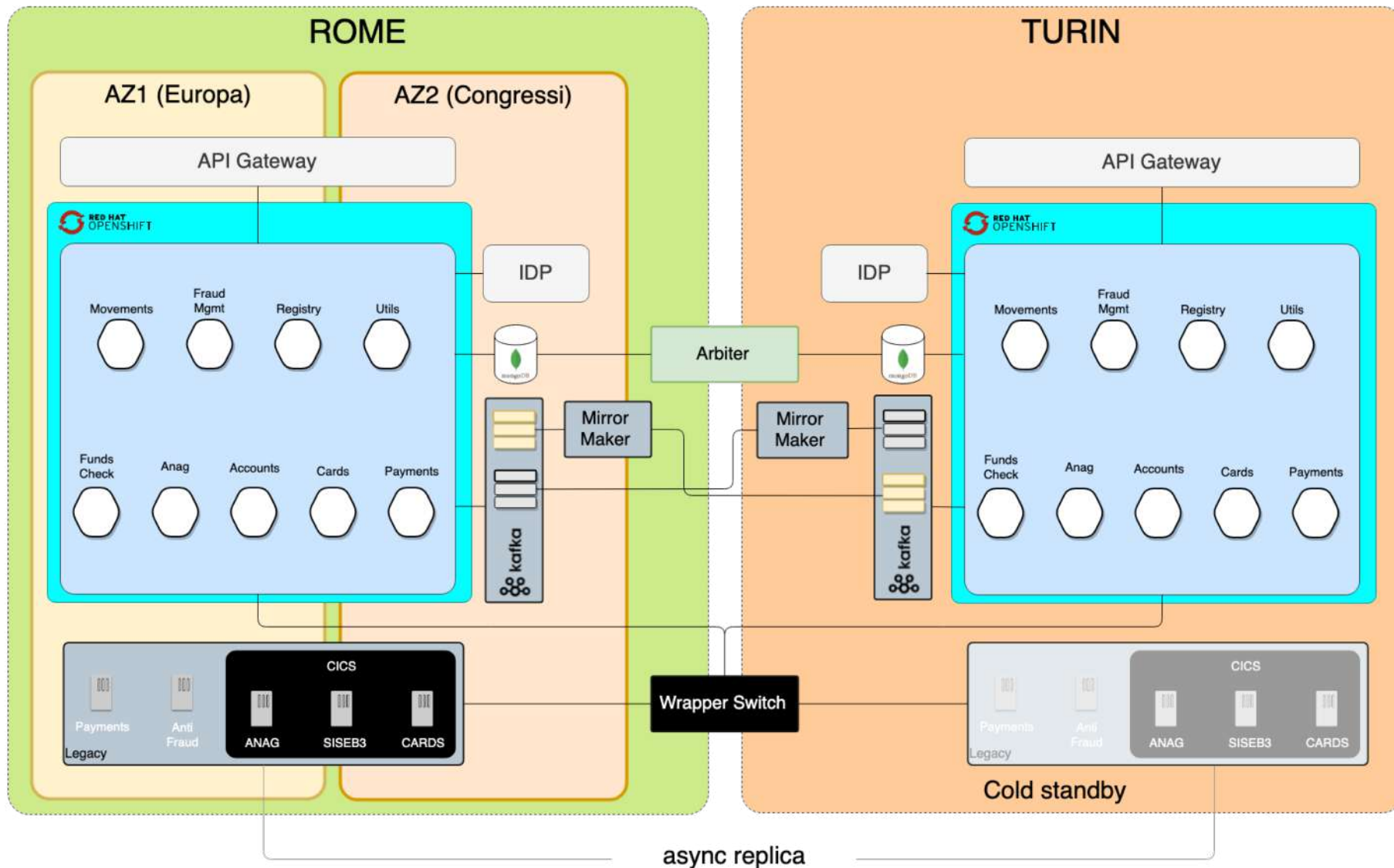
The Challenge

How to change this…   …into this

With this !

Use Case #3: The People

https://www.posteitaliane.it/it/carriere.html

Carriere

I risultati migliori si raggiungono con le persone.

Insourcing

Open Source

Italian Silicon Valley