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Federated

Data

Analytics

What is our origin?

- **Luís Filipe Antunes:**

Full Professor at the Faculty of Sciences of the University of Porto;

Director of the Competence Center for Cybersecurity and Privacy at the University of Porto;

- **TekPrivacy:**

Spin-off from the University of Porto;

Founded in **2017**;

Bridging the gap **between academia and industry.**



Luís Filipe Antunes

Founder and CEO

U. PORTO

FC FACULDADE DE CIÊNCIAS
UNIVERSIDADE DO PORTO

What problem are we trying to solve?

- ❖ Data are a crucial resource for companies and organizations in the 21st century. Those who can extract value from their data will gain a competitive advantage;
- ❖ Most entities have been gathering data for large periods, without realizing they are accumulating value;
- ❖ At the same time, privacy concerns and Data Regulations are hindering the entities' abilities to value their data, which introduces a significant opportunity for new business models.

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How will we tackle this issue?



On-premise

Development of an **appliance** on the premises of the data generating entity, the data are safely managed and never leave the site.



DPO Assistance

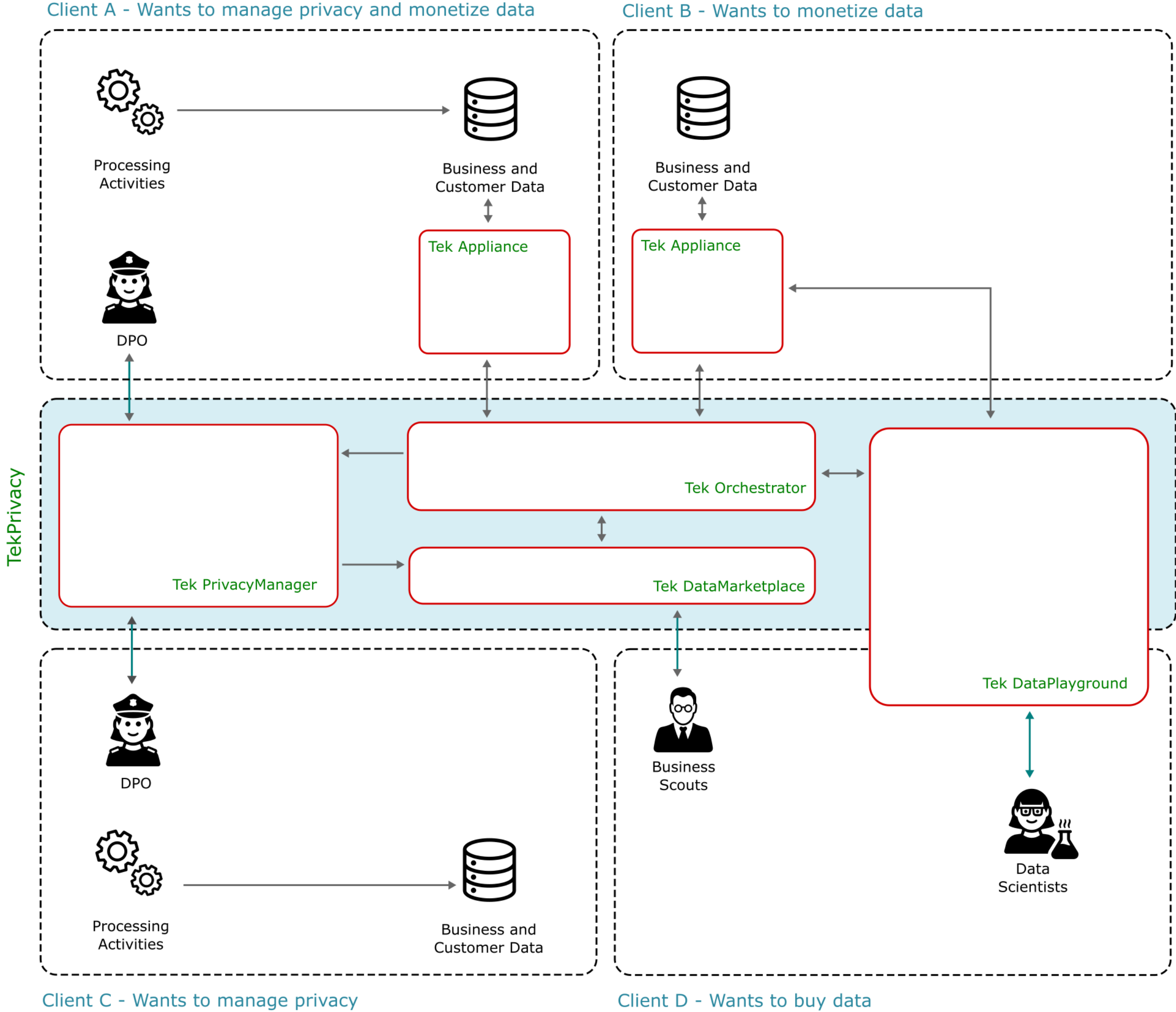
Different types of **support** to DPO activities, allowing for a greater maturity in data privacy processes.



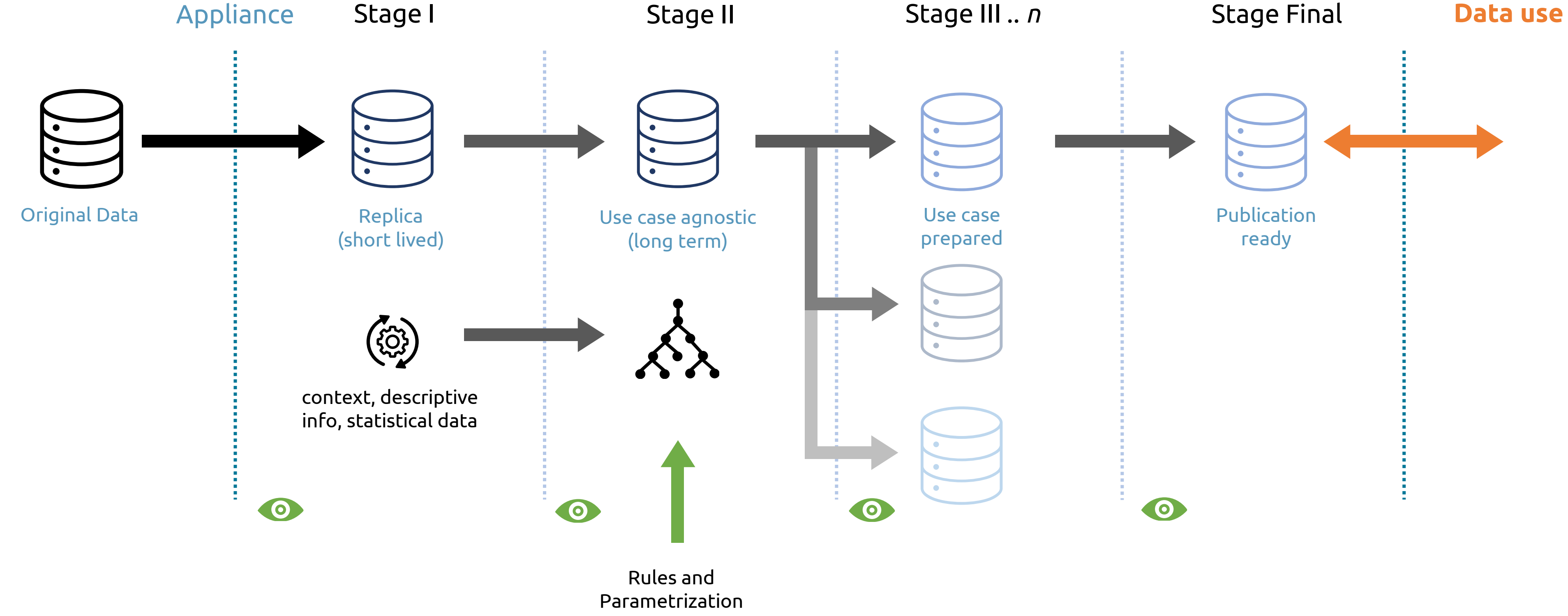
Data value

Perform queries on a **decentralized system**, allowing for entities to extract value from the data while keeping the users' data private.

How will we implement our solution?



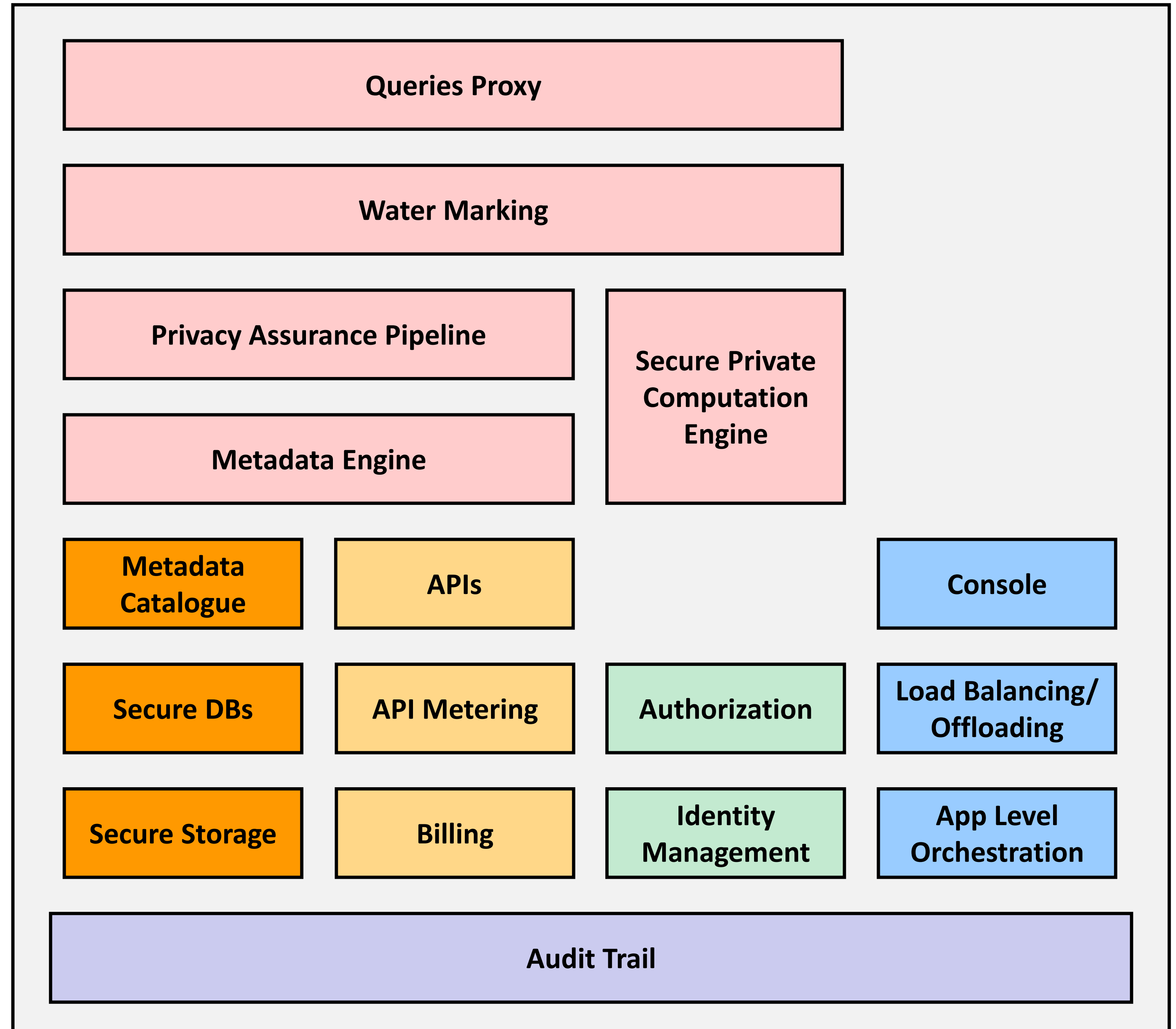
Privacy Assurance Pipeline



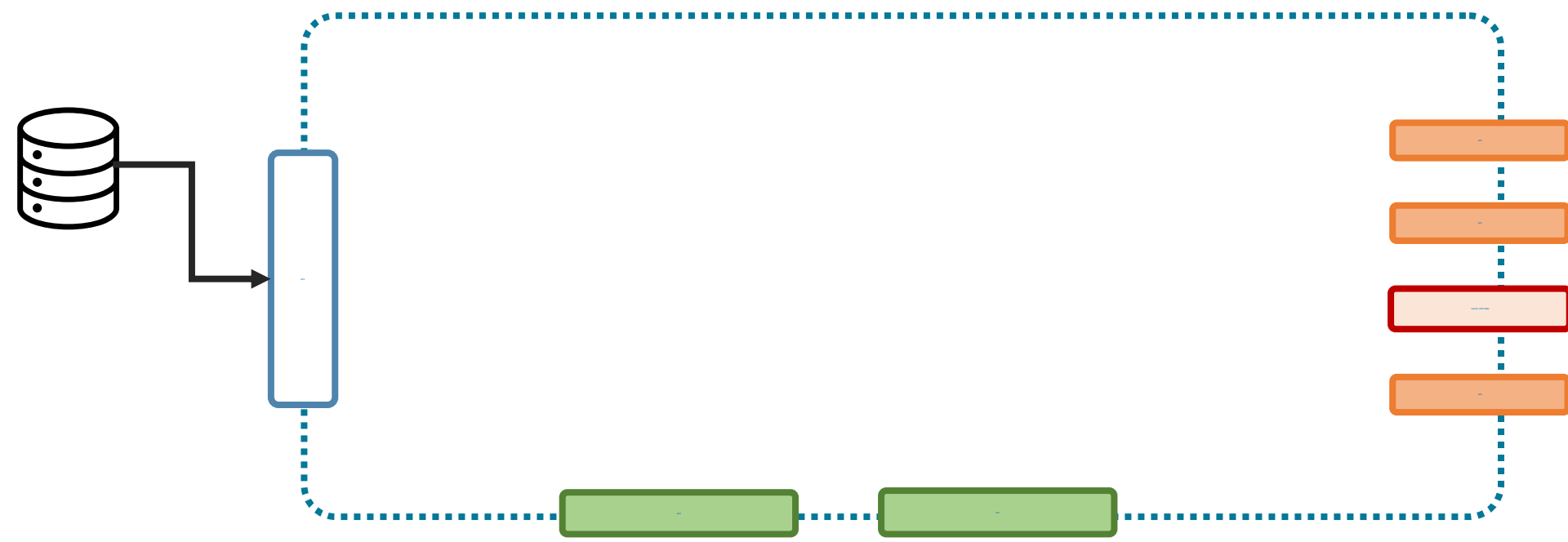
 Privacy and Security monitoring for each segregated stage

 Unidirectional data flow until last stage

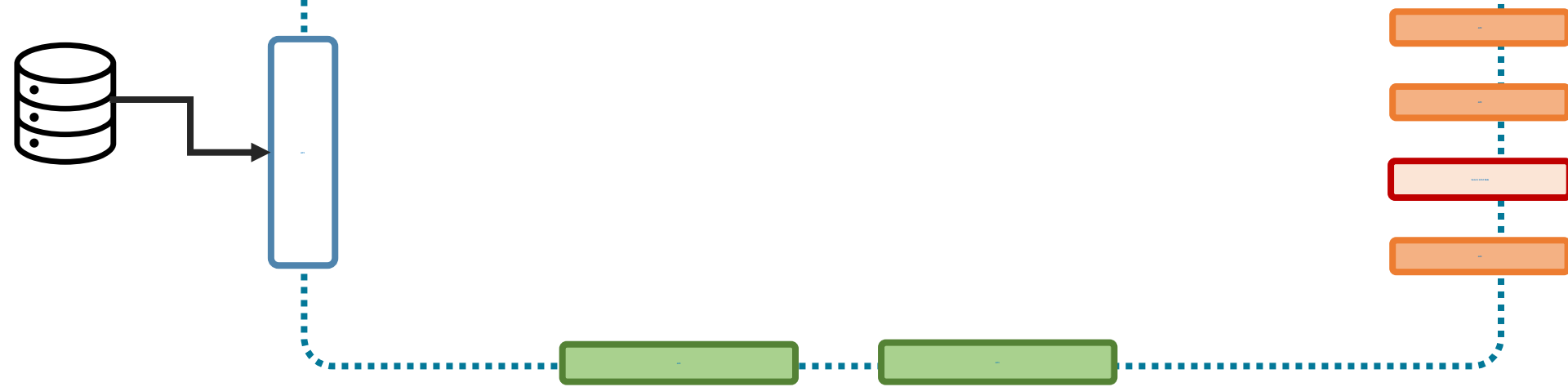
Appliance – Components



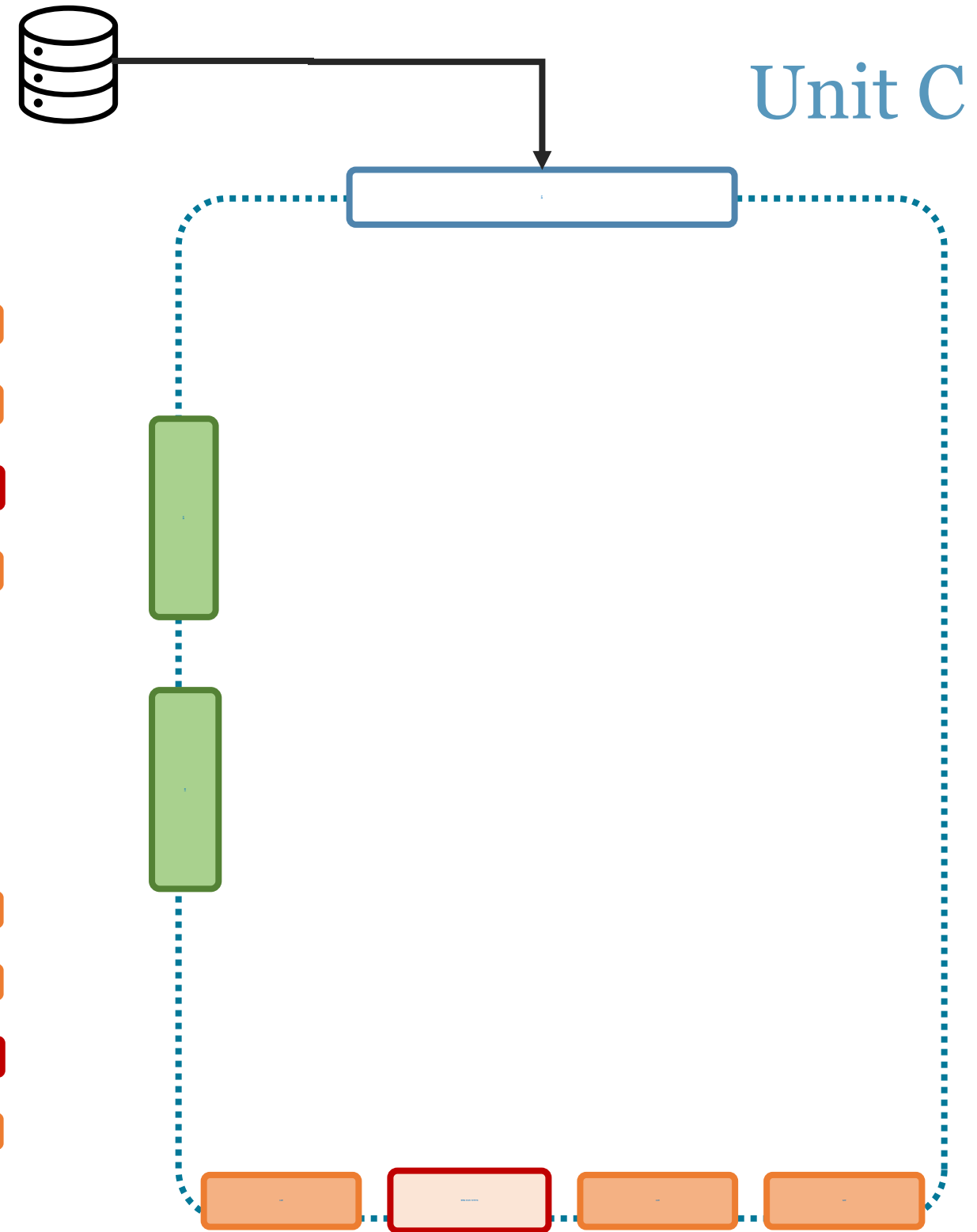
Producer - Unit A



Unit B



Unit C



Consumer

use cases

- Business Intelligence
- Mockup Data
- Privacy Preserving Machine Learning
- Cross Organizational Business Intelligence

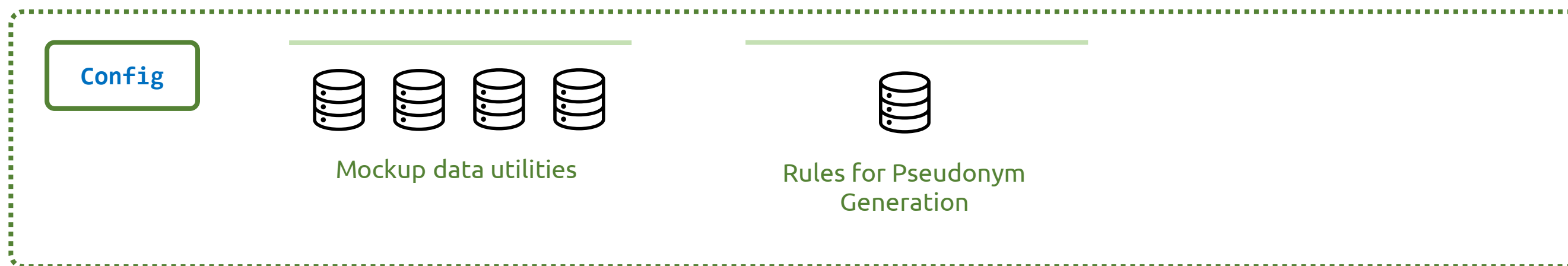
Organization domain

Decentralized at its core

config stage

privileged access

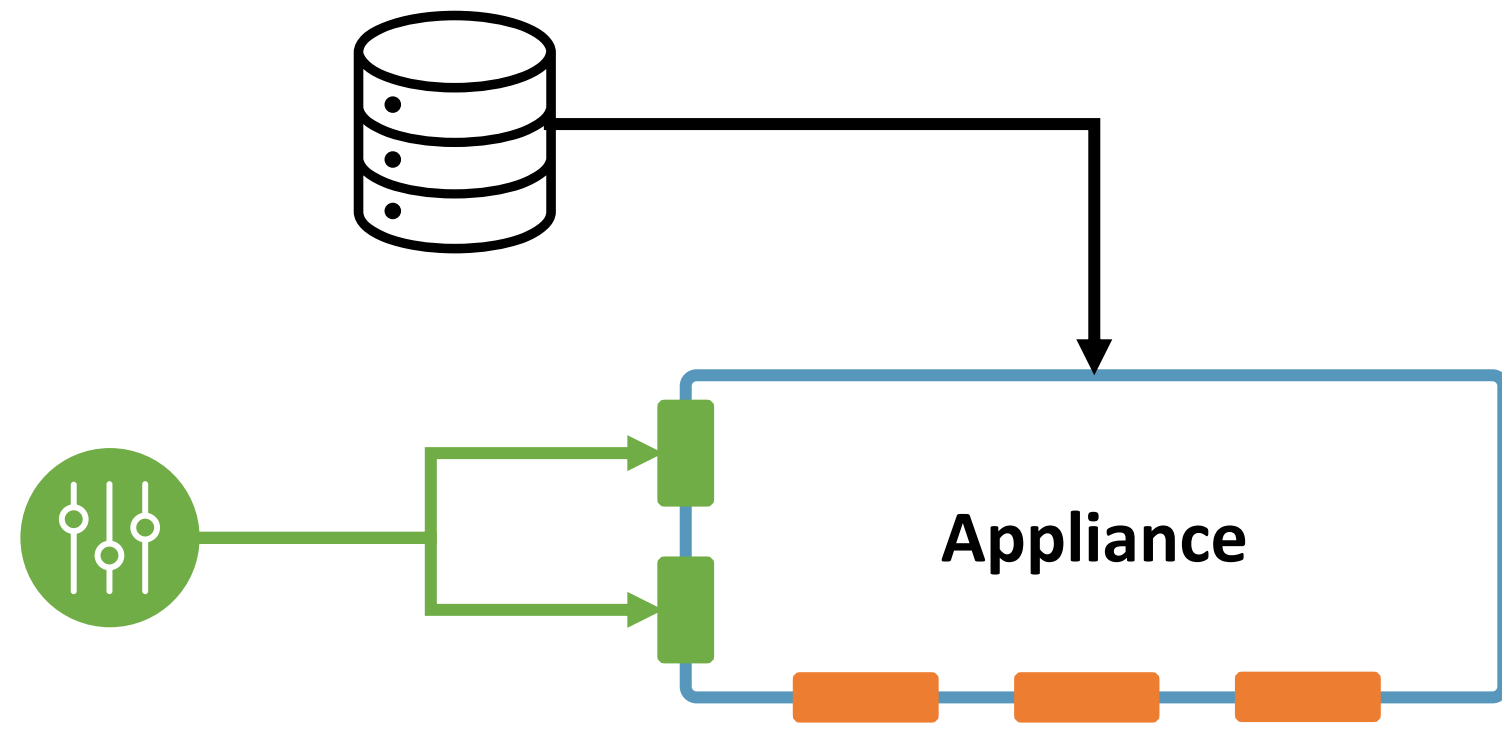
Usage information (billing purposes)



tek domain

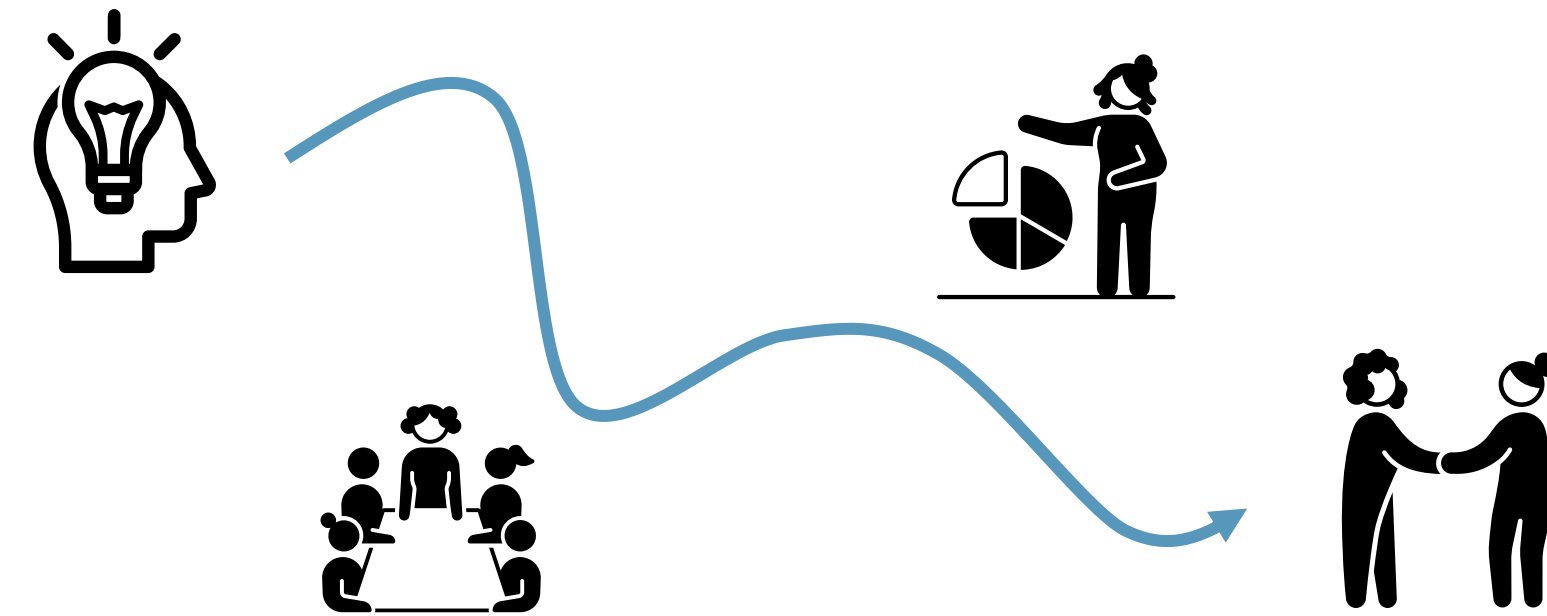
Orchestrator

Empower

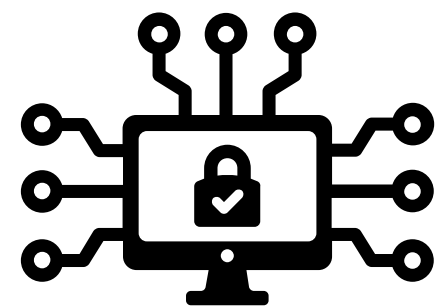


Bringing technological tools to organizations that make it possible to value data in multiple ways

Idealize use cases, study ways to value data inside and outside organizations, and improve business models



Cybersecurity



Data Protection



Legal



Train and equip organizations with tools to ensure the comfort of support areas

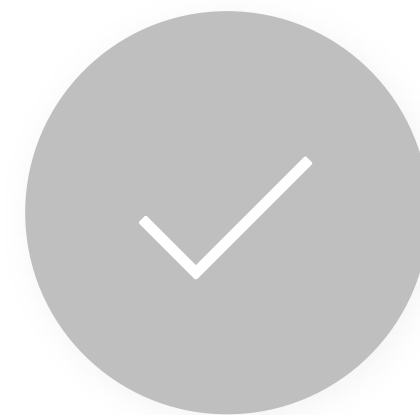
Why are we different?

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Integration

Our solution involves an appliance built on the data-generating institutions' infrastructures.



Data never leaves

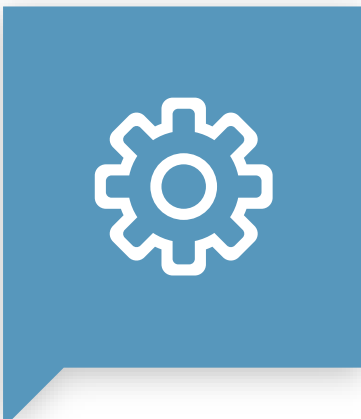
Queries can be made, including correlation between different datasets, with data never leaving the premises.



Large, diverse data catalogue

Our solution is multi-purpose, with clients in municipalities, retail, health, utilities and finance, allowing for interesting queries to be made.

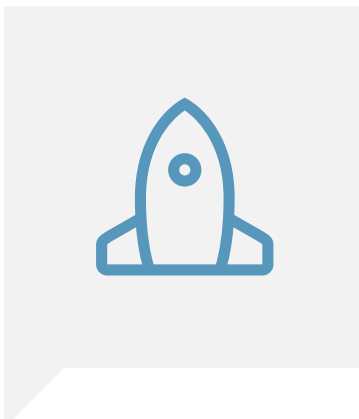
Where are we (going)?



2021

Platform for supporting DPOs

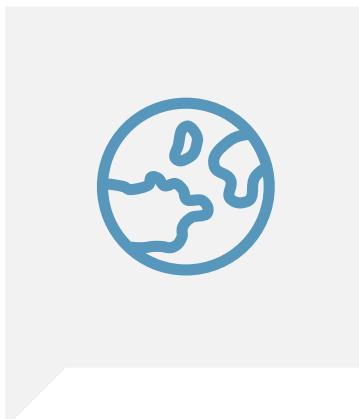
The platform serves as a basis for DataInValue, providing support for DPOs, including risk assessment and vulnerability evaluation and mitigation.



2022

DataInValue

The platform will be extended and improved; the appliances will be installed on a partnership basis.



2023

Query makers

With the platform fully developed and the early adopters defined, at this stage we will be ready to tackle the market.

Risk Utility Tool Base Page

Use the buttons to make an analysis or login to edit catalogs.

ANALYSIS

DATA ADMIN

Thank You!

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Luís Filipe Antunes

lfa@tekprivacy.com

+351 931 153 811

FC6 – Ciência dos Computadores, R. Campo Alegre, 1021, 4169-007, Porto – Portugal

www.tekprivacy.pt