



DATAMITE

OTE Pilot: Intra-Corporate Data Exchange in Telecoms

December 14, 2023



“Funded by the European Union’s Horizon Europe Research and Innovation programme under grant agreement N° 101092989, with a strong focus on data monetizing, interoperability, trading and exchange.”



Vasso Apostolopoulou
Innovation Engineer
IT Innovation Center of OTE Group

OTE Group at a glance

COMMENCEMENT OF COMMERCIAL OPERATIONS

November 1949

BoD CHAIRMAN & CEO

Michael Tsamaz

SHAREHOLDING STRUCTURE

51.7% **DEUTSCHE TELEKOM**
7.4% **GREEK STATE**

COUNTRIES OF OPERATION



Greece
Romania

SUBSIDIARIES

COSMOTE S.A.	OTE Rural North
COSMOTE Technical Services	OTE Rural South
COSMOTE e-Value	COSMOTE Payments
GERMANOS	COSMOTE TV Productions
OTESAT-MARITEL	COSMOTE Global Solutions
OTE Estate	Telekom Romania Mobile
OTE Academy	
OTE Insurance	

CUSTOMER BASE - 2022 (GREECE)



FIXED ACCESS LINE CONNECTIONS

2,701,453



FIXED BROADBAND ACTIVE RETAIL SUBSCRIBERS

2,318,241



COSMOTE TV SUBSCRIBERS

643,000



MOBILE COMMUNICATIONS SUBSCRIBERS

7.4m

HUMAN RESOURCES

>11,000



Current Need & Challenges

What is the current data landscape and how organization uses information available?

Current Modus Operandi

- **Each subsidiary usual acts independently** (systems, data, analytics & reporting needs)
- **Multiple sources of info** (same subsidiary might have multiple systems)
- **Multiple data non unified store** (each subsidiary has their a data store without common principles)

Current Challenges

- **Complex & fragmented data landscape**, with increased needs combining data across organization.
- Combining data according to **privacy and security standards** is complex process
- **Exchange data is lengthy, complex and resource demanding**

Current Need & Challenges

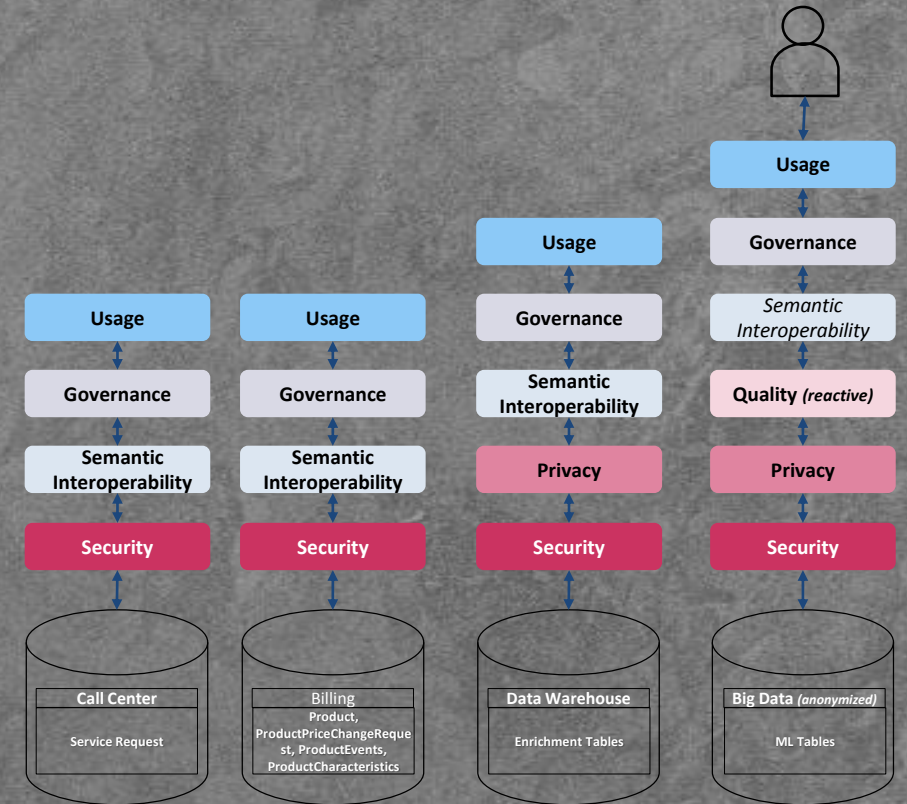
What are the main challenges during current state of data life cycle?

Business



Technical

Usage	<u>Combine data</u> from different sources & different granularity <u>is not straightforward</u> &. ETL is not flexible nor forward looking to new changes.
Governance	Data are dispersed across different systems, and which <u>makes difficulty to identify the data owner</u> in efficient way (data closer to system owners)
Semantic Interoperability	<u>Different sources have different models</u> and their integration to a unique one is a difficult and time consuming.
Quality	<u>Data quality</u> checks implemented only in the consumption point (<u>re-active checks</u>), and issue resolution takes time and effort (ad-hoc analysis)
Privacy	<u>Privacy</u> handling is performed during ingestion, introducing new systems that <u>increase data hops</u> and time to deliver of data products.
Security	<u>Access controls & monitoring are implemented across all system</u> that users can consume data and all integration points, coordination of all this affects time and cost to deliver



Pilot Description

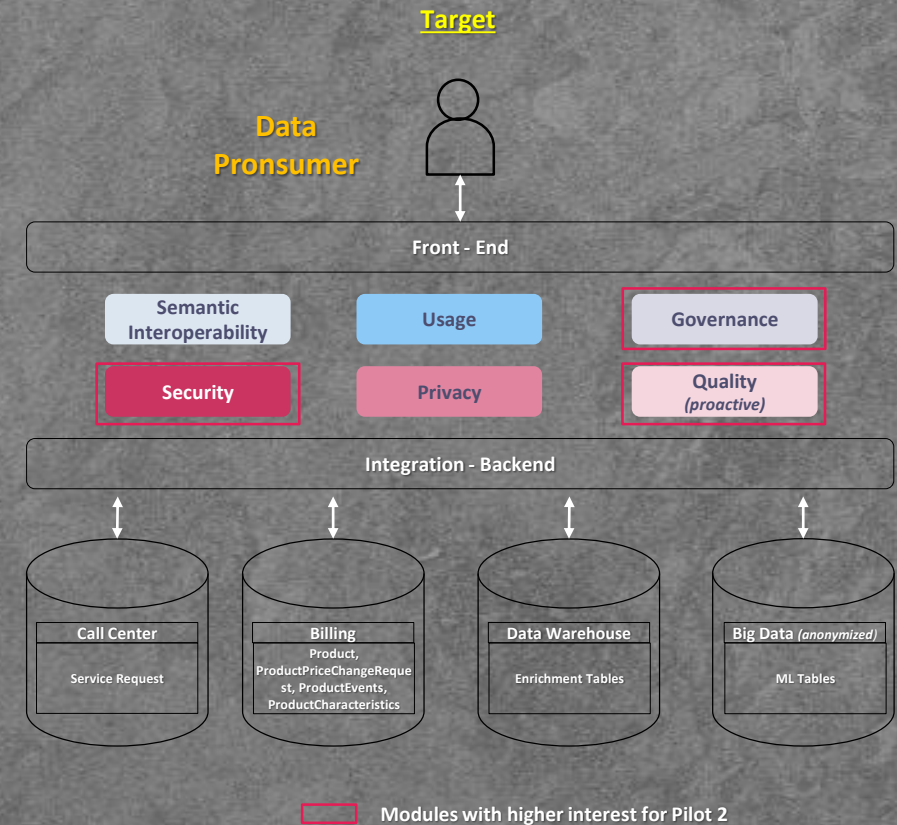
How can DATAMITE support the resolution of current challenges?

Business



Technical

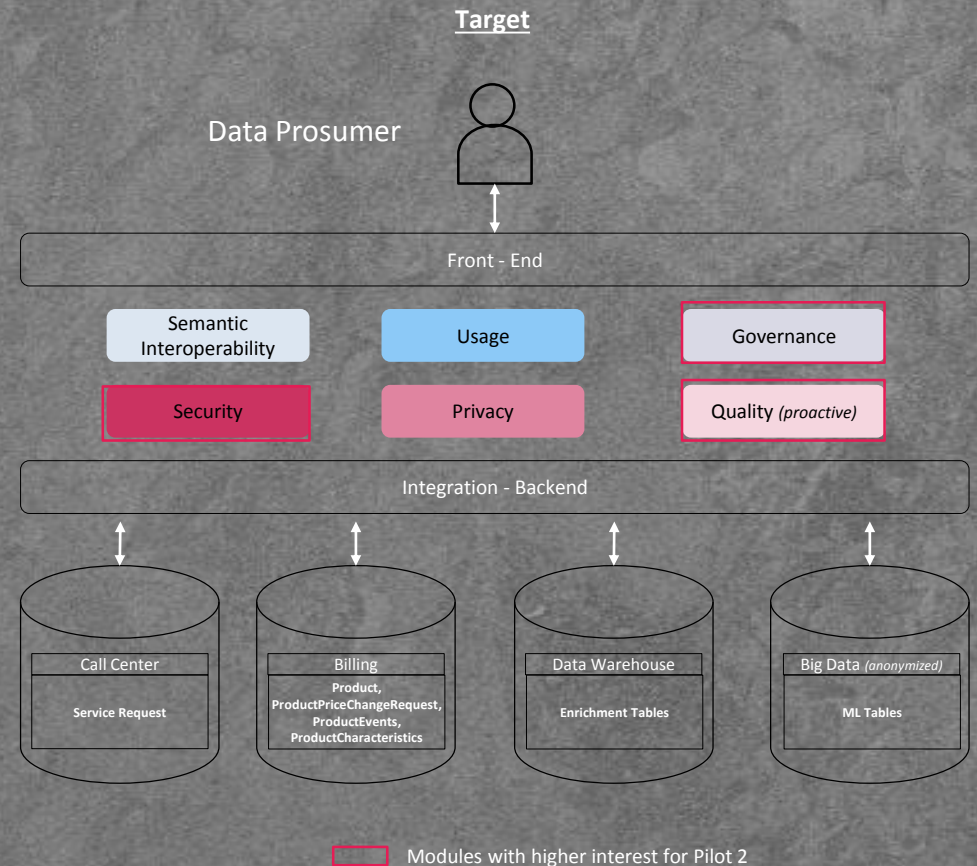
Usage	The ability to <u>query data</u> over the different data repositories <u>in a federated manner</u> .
Governance	<u>Metadata located in centralized repository</u> , reducing complexity of governing data (data ownership / data definition / data mapping).
Semantic Interoperability	<u>An unique data model across organization</u> with global mapping to correlate main entity identifiers across data sources.
Quality	<u>Global point to define data quality rules</u> on top of data source models. These rules must be integrated with data pipelines procedures.
Privacy	Privacy handling is rule based, offering <u>dynamic anonymization/de-anonymization</u> , allowing users consume efficiently and in a safe manner data
Security	Users consume information from centralized layer, allowing to have <u>uniform, fine grain and rule based security controls</u> .



Pilot Description

How can DATAMITE support the resolution of current challenges?

- **Intra-corporate** data exchange between different subsidiaries of OTE Group, enabling combining information from numerous data sources
- **Aligned with** organizational **privacy, security and data governance** OTE requirements
- **Operate on production in an efficient way** with actual use case that combines data from different data platforms
- **Support of BAU & ad-hoc needs** of the users



Core Roles ...

... that have been identified for the implantation of OTE Pilot User Stories



Data Owner (Business User) is the responsible for dataset that are provided, authorizing what datasets will be shared to whom and for how long



Data Consumer (Business User) is the user who will have access to data to use them data for business related tasks and decision-making processes.



Data Provider is responsible to prepare, make available, integrate and provide needed datasets / information to data consumers based on directions of data owners.

Technical role that implements data owner directions



System Administrator is responsible for the operation, management and maintenance of the installed DATAMITE instance.



Security/Privacy Responsible is responsible for set the privacy and security policies, guide/consult users concerning related topics and oversees their policy implementation.



Data Governance Responsible develops, consults, monitors and enforces data governance policies and practices (including Data Quality).

HL User Stories | Sharing Policies

Define/Apply, Capture and Monitor Policies

High Level Description / Targets



Define which datasets will be shared to whom, and for how long



Authorize and authenticate users before accessing, avoiding non-authorized access of data



Capture and monitor usage of data by consumers, enabling a well secured working environment



Alerting suspicious behaviors, proactively acting on possible risks

HL User Stories | Govern Data

Metadata & Policies

High Level Description / Targets



Capture all related information concerning metadata



Centralize metadata in a catalogue



Enabling interaction (share or capture/update) with external systems



Be accessible from internal users providing data control and ownership information

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HL User Stories | Quality

Track, Monitor & Inform concerning Quality

High Level Description / Targets



Define KDE (key data elements) that are more interested to follow



Track quality of data by execute commonly agree tests



Monitor quality of information through reports



Inform users concerning data quality issues, improving data reliability & usability

OTE Pilot Desired Outcomes

Key expectations from the project



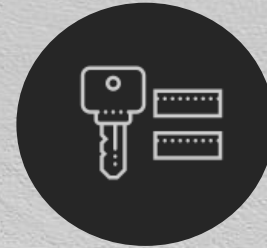
Share data across different data repositories of the organization (both non sensitive and sensitive) using unified policy



Consumers use reliable data that are ready to be consumed, covering freshness and data synchronization aspects of the information.



Consumer to develop solution based on reliable data using a solution that handles privacy related aspects seamlessly and efficiently



Monitor and control access, enabling reviewing when and which type of data have been accessed.



Users understand and utilize data through a unified data model with a Common data catalogue, enabling users to access business meaning of data



Minimize time to market using quickly integrated and accurate information

Thank you!



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[https://www.cosmote.gr/cs/otegroup/gr/
it_innovation_center_new.html](https://www.cosmote.gr/cs/otegroup/gr/it_innovation_center_new.html)

SCAN ME

