

DECEMBER 2024



Data Model Concepts

Technology Modernization Strategy

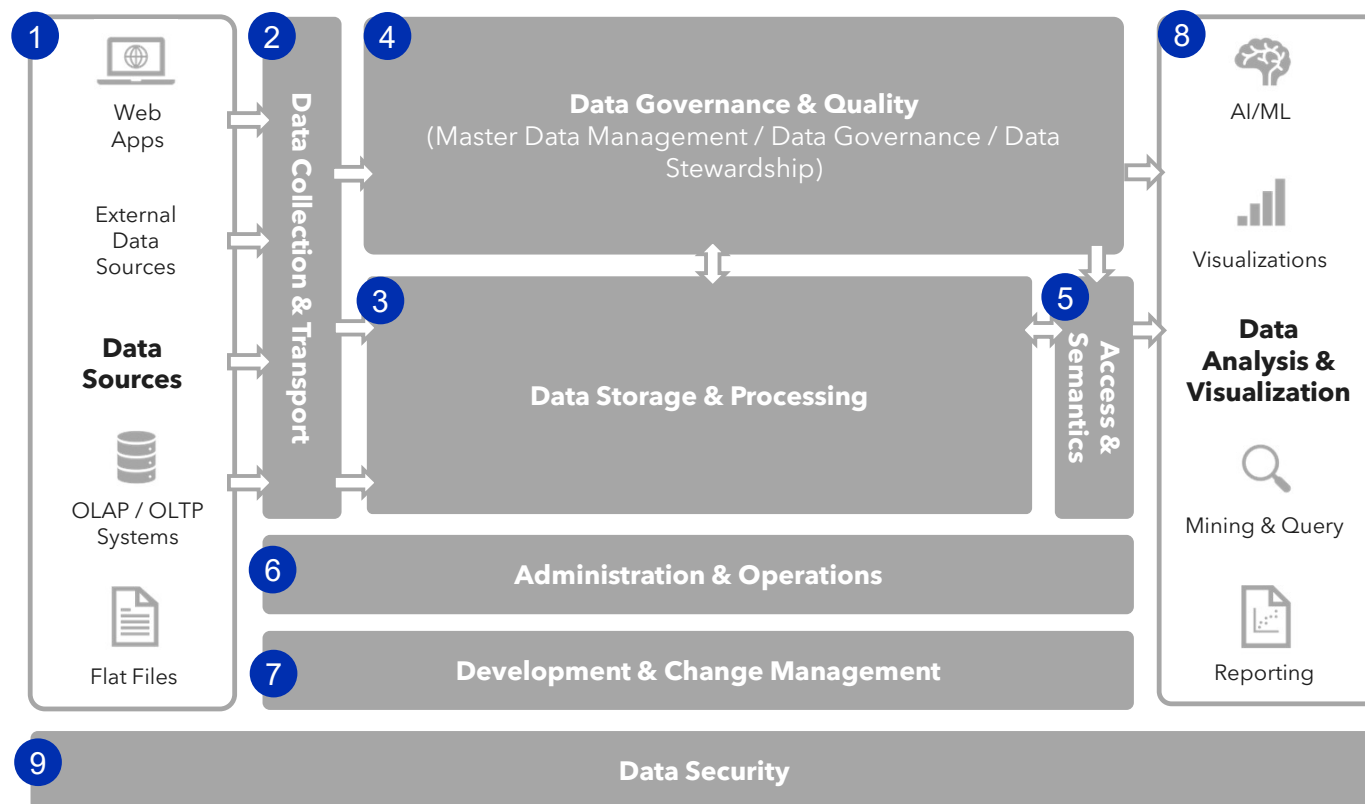
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Data Model

- **Current State Observations**
- **Target State Architecture**
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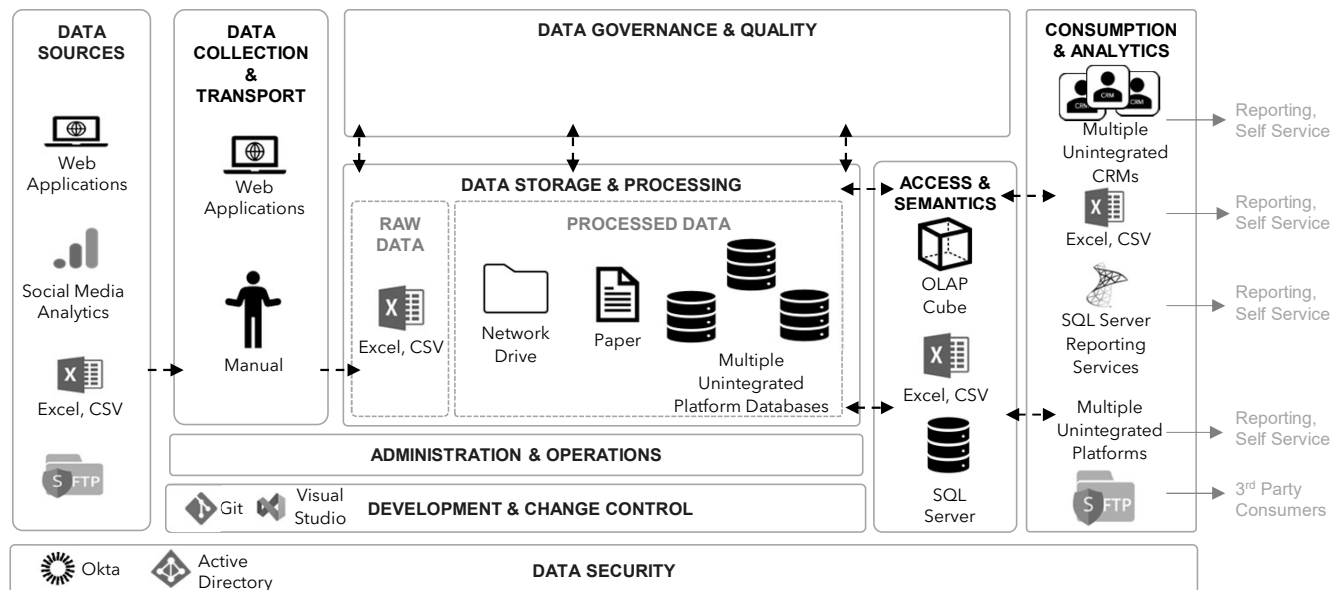
Data Platform Architecture Framework

A modern data platform includes several interdependent layers which can be summarized into several categories.



- 1 Source data (structured, unstructured, streams) and systems (on-premise, cloud, external)
- 2 Transport and cataloging of data from its origination into a system where it can be identified, stored and analyzed
- 3 Scalable storage and processing solutions for vast types and quantities of data
- 4 Access, governance, and stewardship solutions
- 5 Providing unified interface and connectivity points for users and applications
- 6 Effective administration, maintenance, and operations management solutions
- 7 Standardized governance, DevOps, and change management operations to facilitate data projects
- 8 Target data-driven results
- 9 Comprehensive and robust protocols to secure data.

FAME Current State Data Architecture

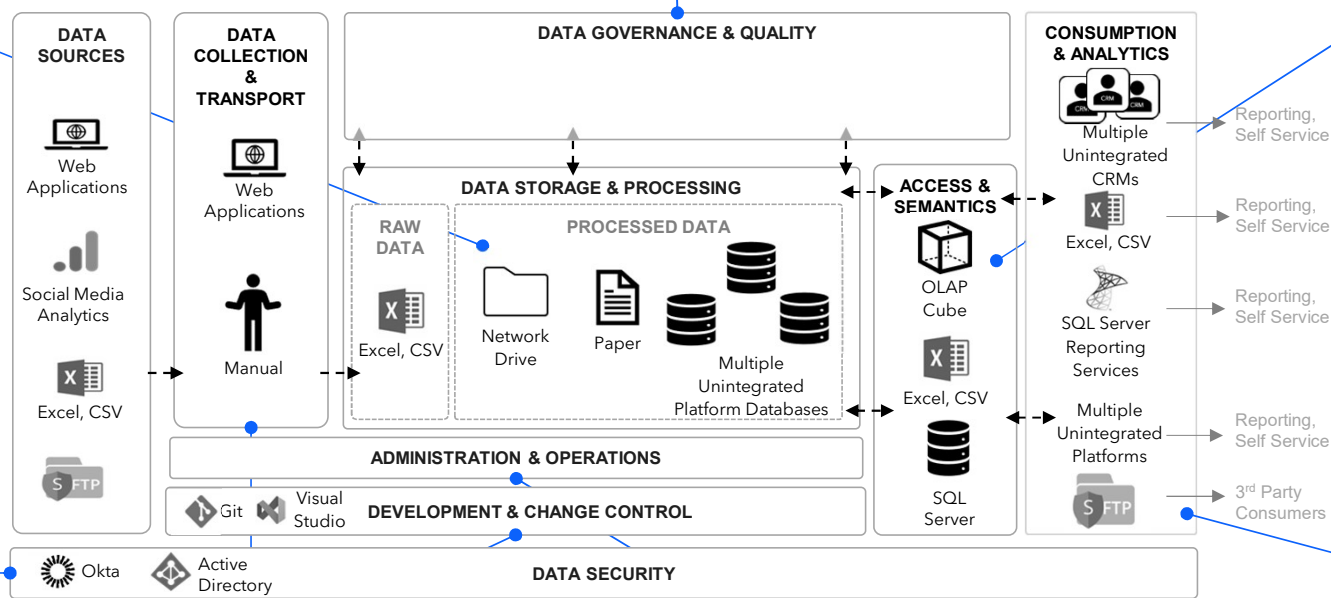


Current State Problems



- Data modeling and design is incomplete, so data, constraints and relationships are not consistently represented across systems.
- Sources of truth for key data domains do not exist.
- Data is often manipulated outside of secure systems using tools like Excel or MS Word and stored on network file shares.
- Use of Role Based Access Controls is limited.
- Maintaining audit trails is difficult due to use of a single service account with DB access.

- Data definitions do not exist and are inconsistent across systems.
- Datatypes and lengths are often incompatible.
- No Data Retention Policy exists.

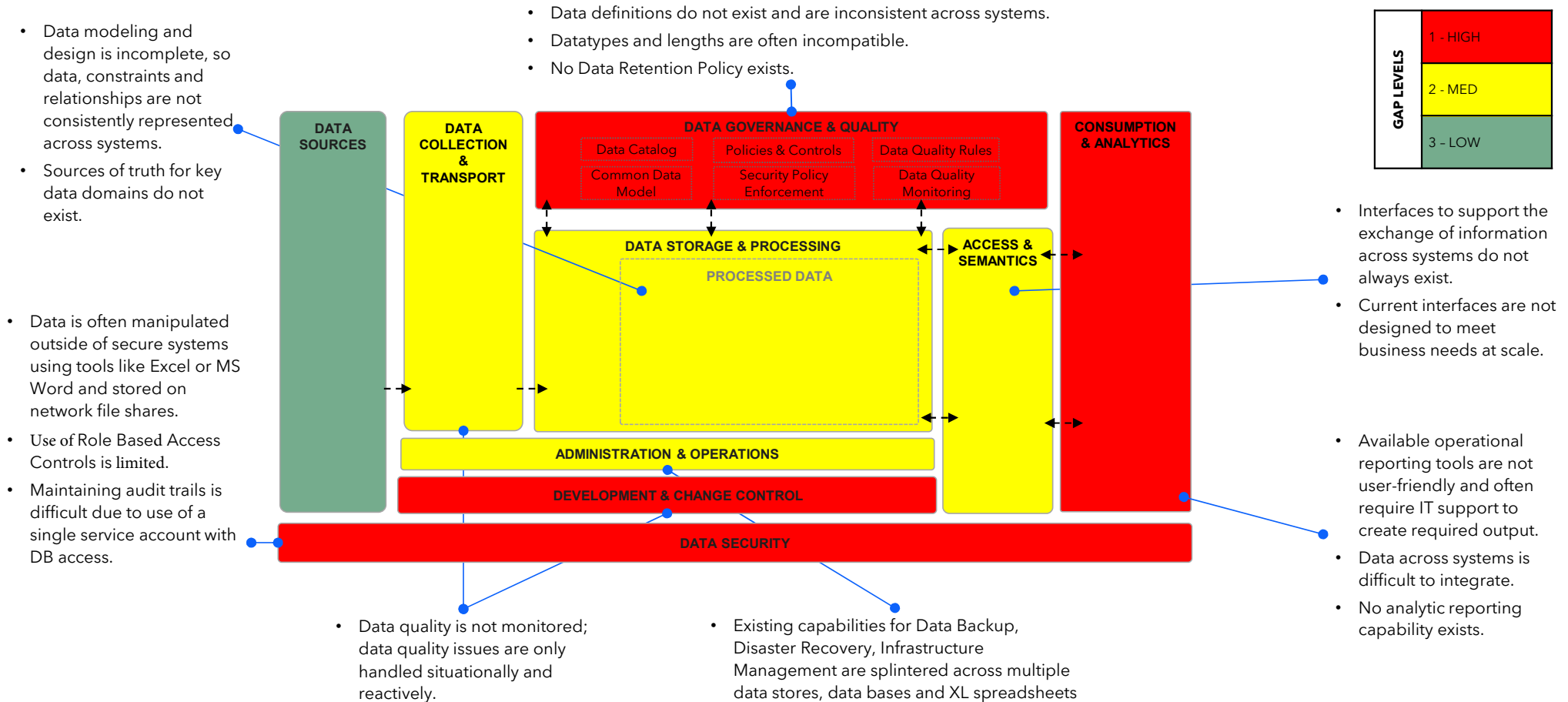


- Data quality is not monitored; data quality issues are only handled situationally and reactively.

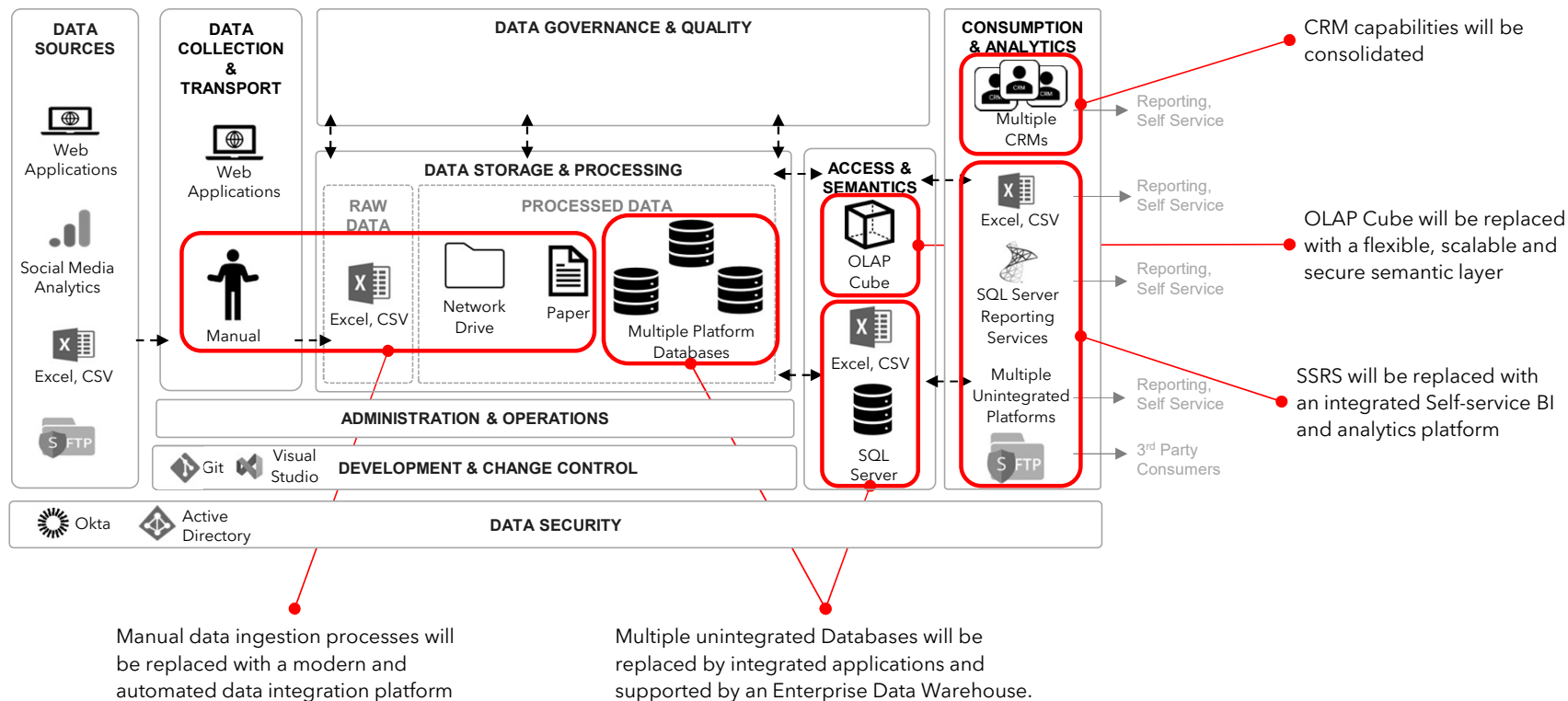
- Existing capabilities for Data Backup, Disaster Recovery, Infrastructure Management are splintered across multiple data stores, data bases and XL spreadsheets

- Interfaces to support the exchange of information across systems do not always exist.
- Current interfaces are not designed to meet business needs at scale.
- Available operational reporting tools are not user-friendly and often require IT support to create required output.
- Data across systems is difficult to integrate.
- No analytic reporting capability exists.

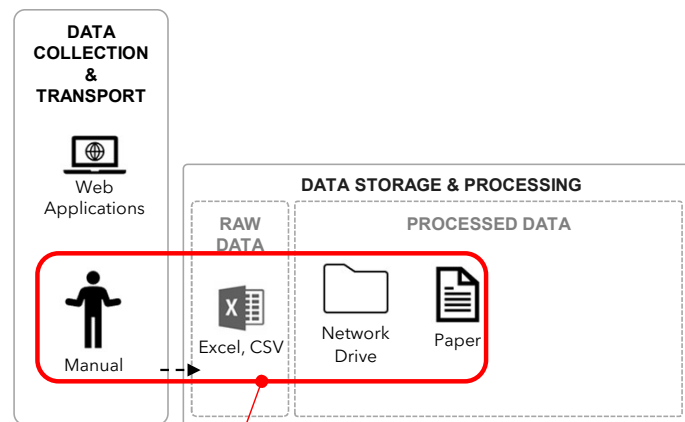
Data Architecture (Gap Heatmap)



Current State Components to Sunset

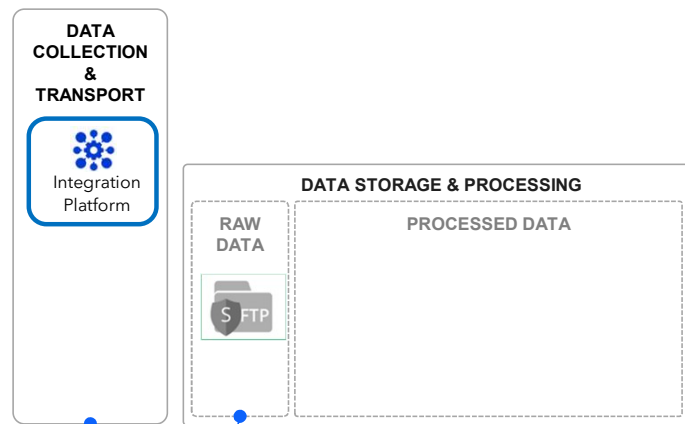


Current State Data Collection & Transport



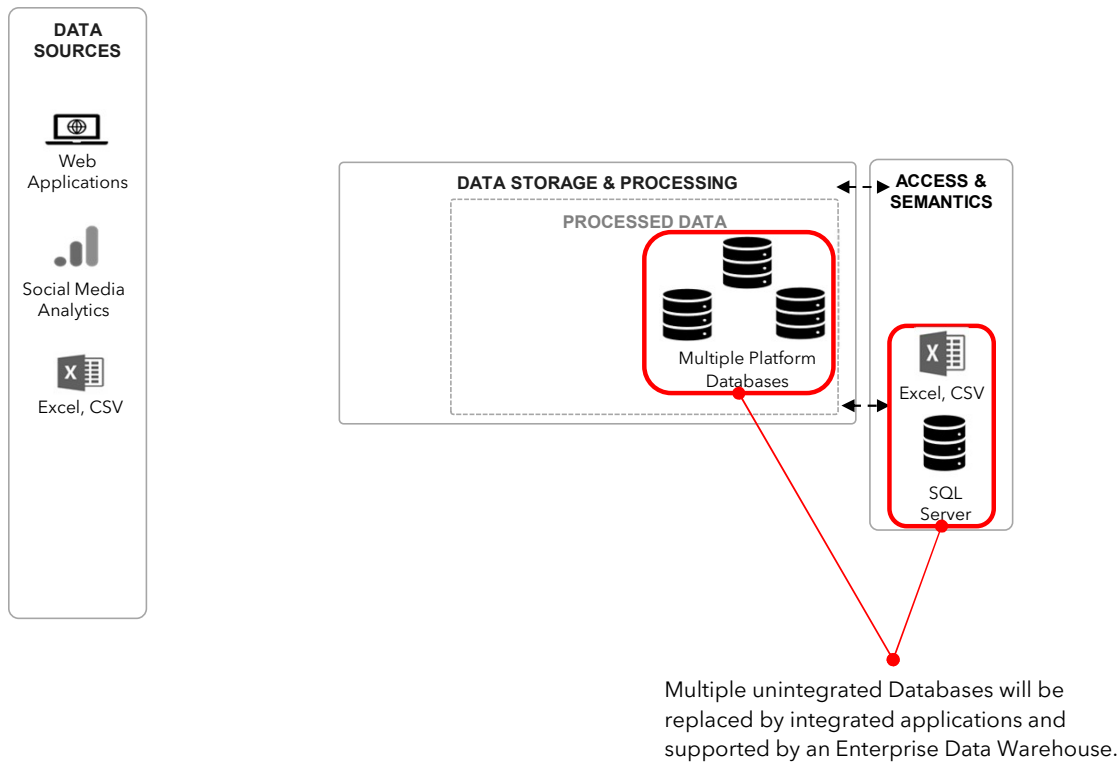
Manual data ingestion processes will be replaced with a modern and automated data integration platform

Target State Data Collection & Transport

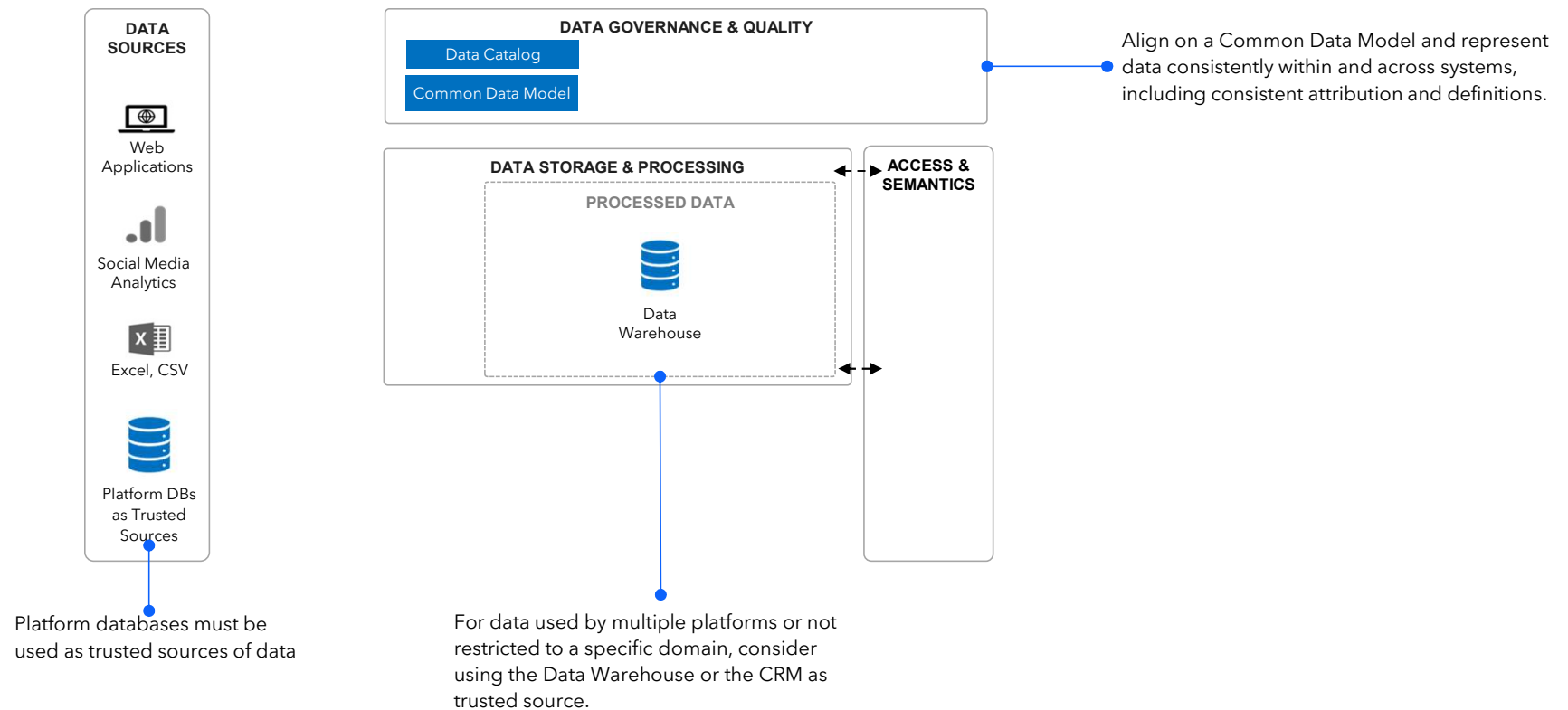


Deploy an Integration Platform to extract and load raw data from external sources into the target platforms, CRM or Data Warehouse.

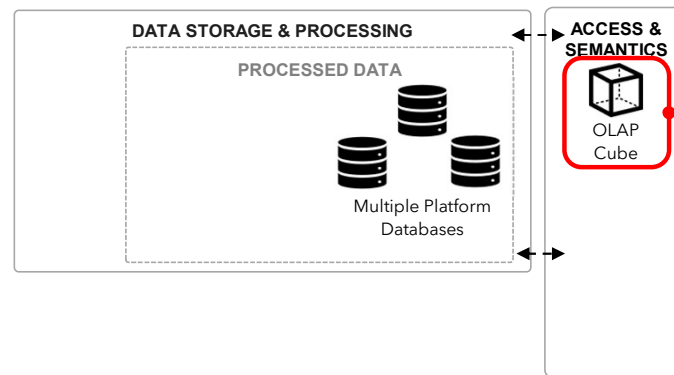
Current State Data Sources, Storage and Processing



Target State Data Sources, Storage and Processing

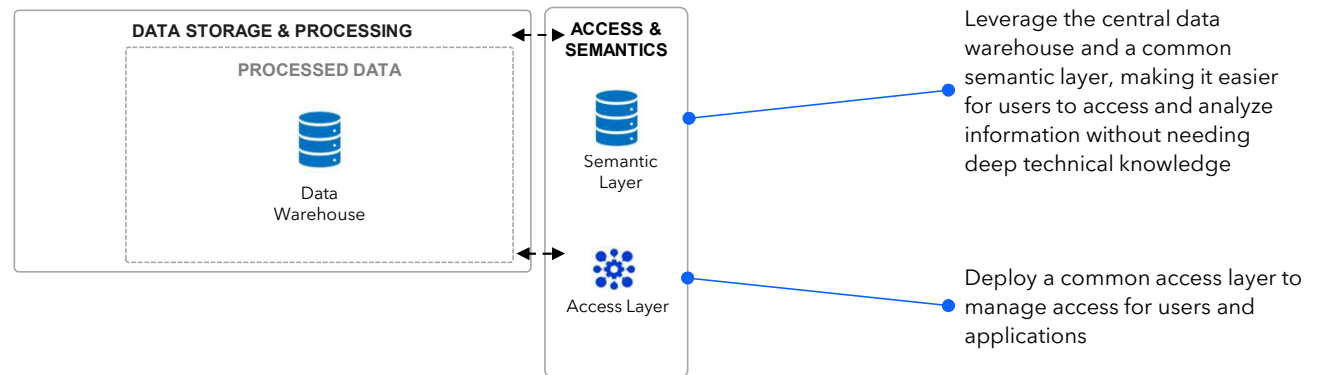


Current State Access & Semantics

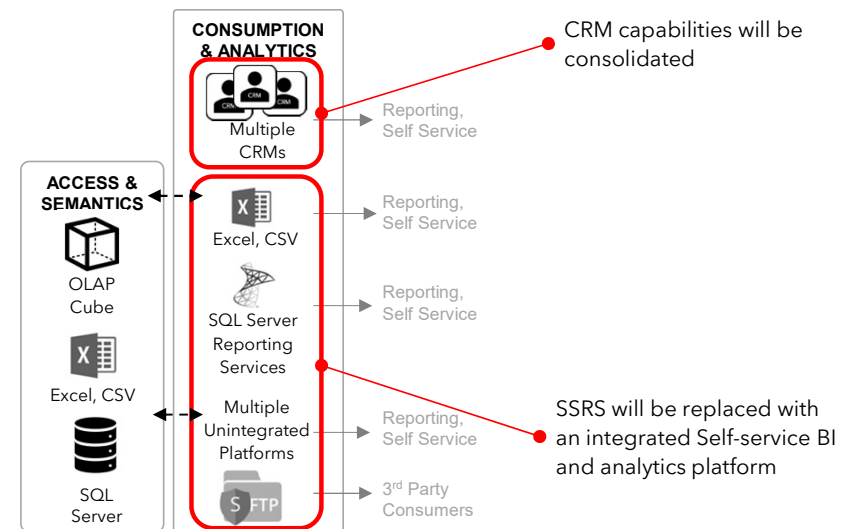


OLAP Cube will be replaced with a flexible, scalable and secure semantic layer

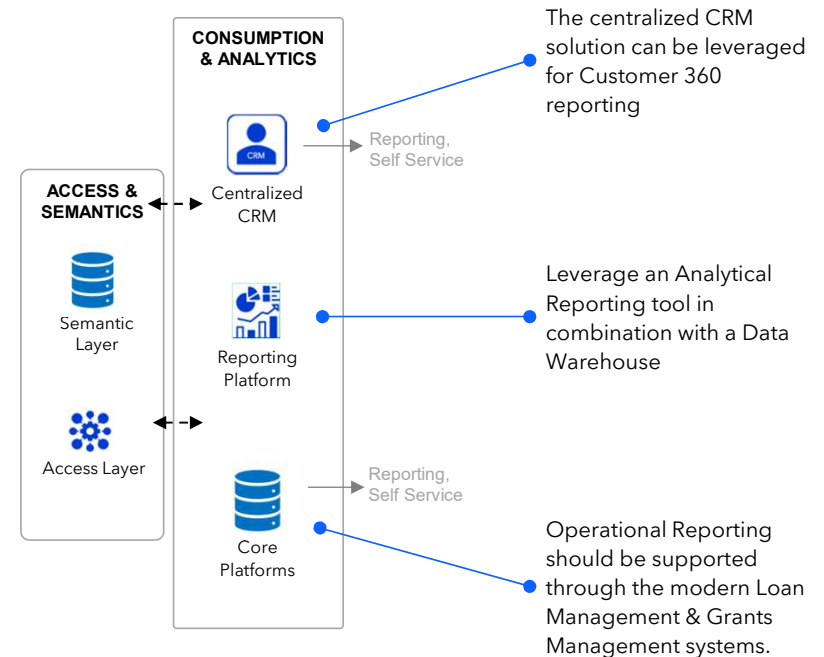
Target State Access & Semantics



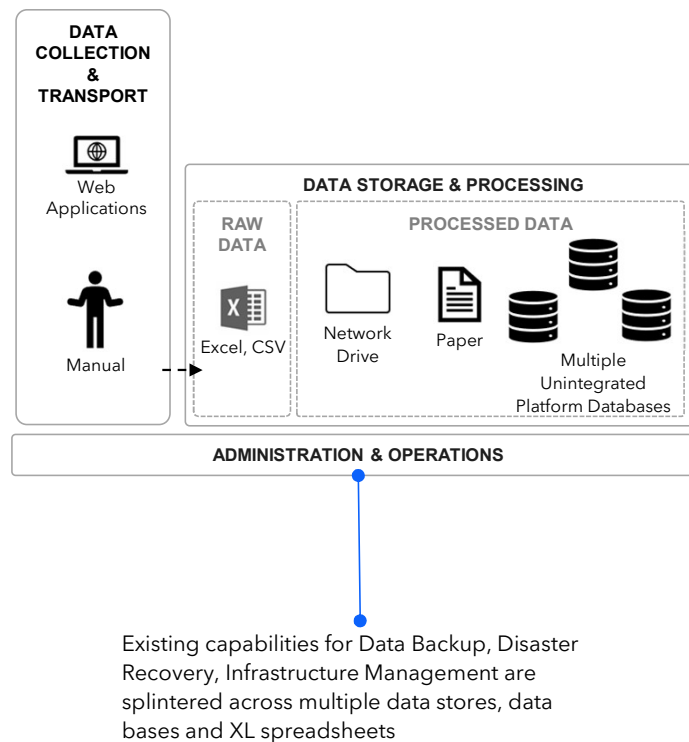
Current State Consumption & Analytics



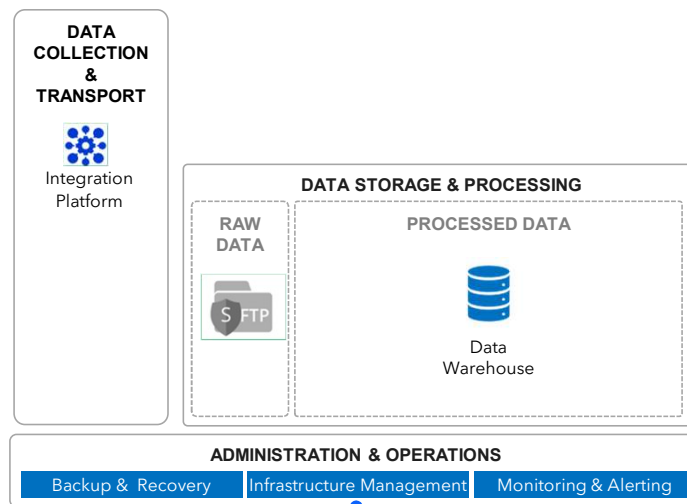
Target State Consumption & Analytics



Current State Administration & Operations

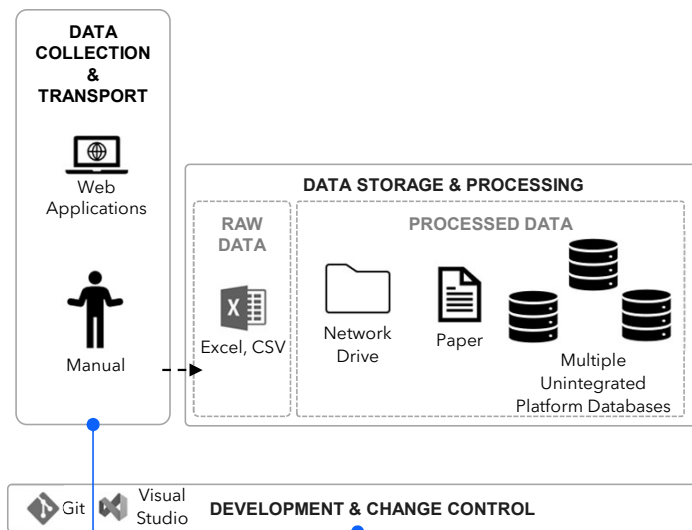


Target State Administration & Operations



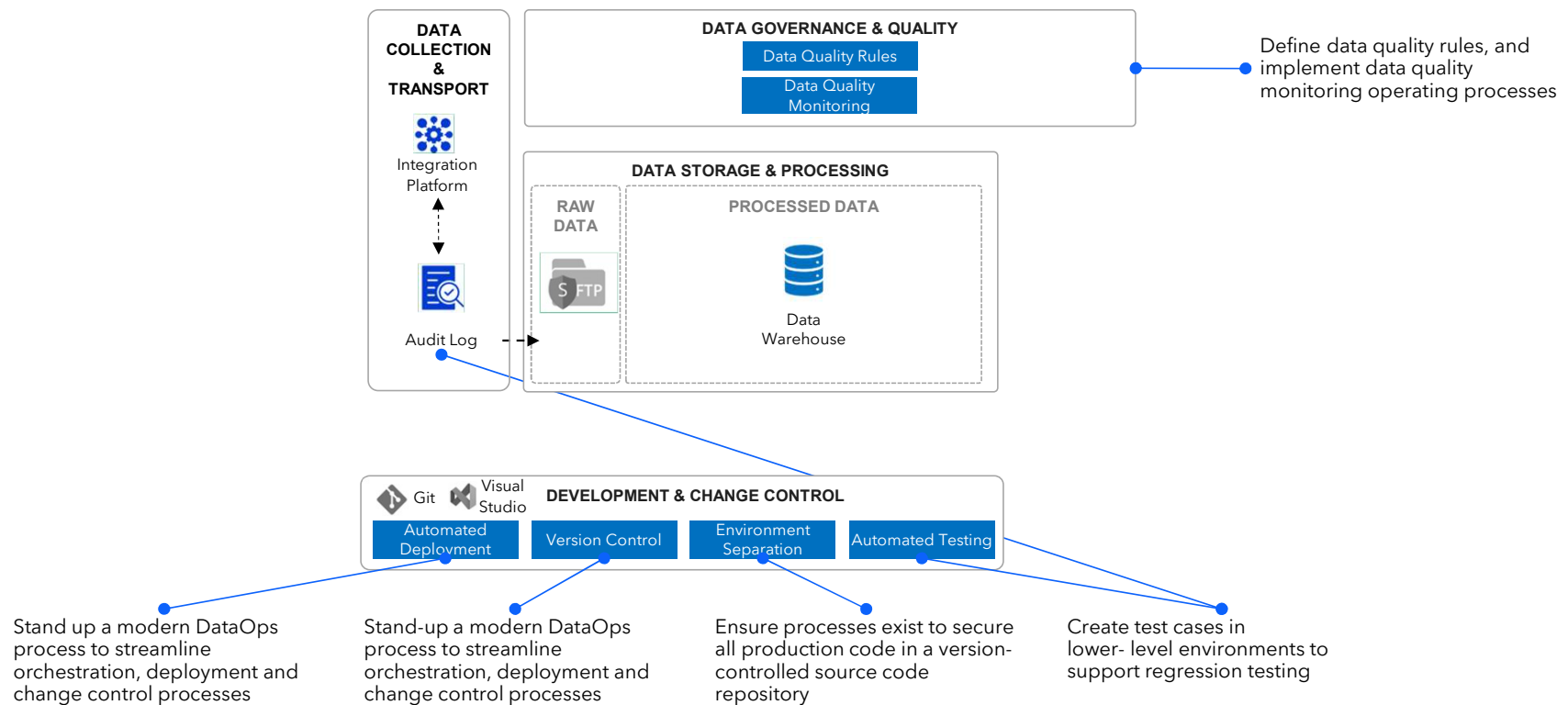
Administration & Operations capabilities for Backup, Disaster Recovery, Infrastructure Management are provided by a SaaS data platform

Current State Development & Change Control



Data quality is not monitored;
data quality issues are only
handled situationally and
reactively.

Target State Development & Change Control



Current State Data Security



- Data is often manipulated outside of secure systems using tools like Excel or MS Word and stored on network file shares.
- Use of Role Based Access Controls is limited.
- Maintaining audit trails is difficult due to use of a single service account with DB access.



Okta



Active
Directory

DATA SECURITY

Target State Data Security

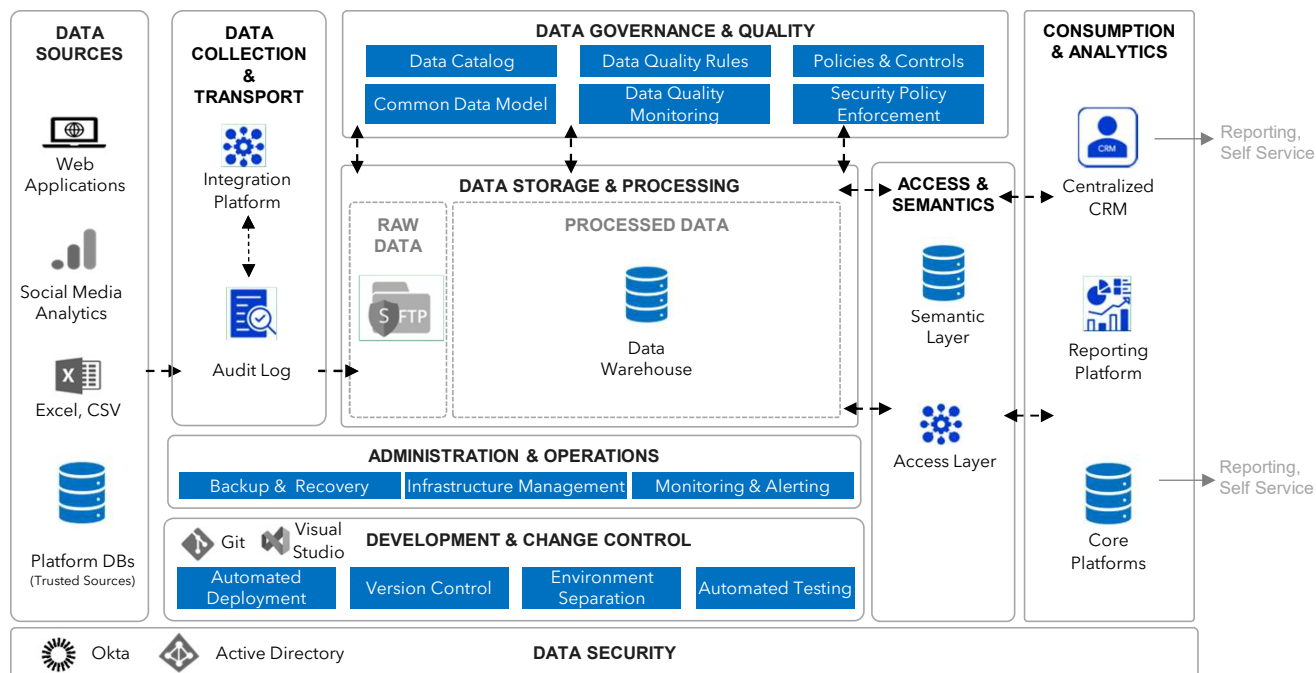


- Define and enforce policies, controls & processes to manage data integrity, consistency, retention, quality, and security.
- Protect data (including PII data) from unauthorized access, use and alterations by defining and enforcing security policies, controls, roles and related architecture.



Assess current state Data Security maturity and address high priority security issues and gaps.

Target State Data Architecture



Data Architecture (Target State)

