



Breaking Silos through Data Decoupling

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Breaking Silos through Data Decoupling

1. Problem Statement

2. Solution

3. Summary



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Problem Statement

Top 5 Major Problems by Data Related To Digital Transformation



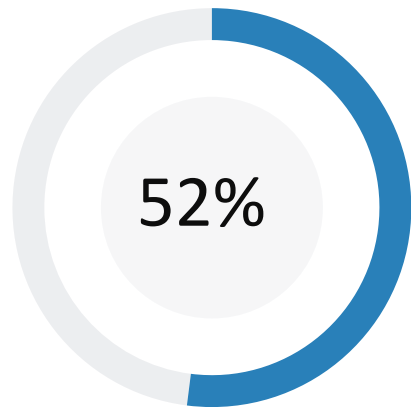


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Problem Statement

Putting Perspective into Metrics

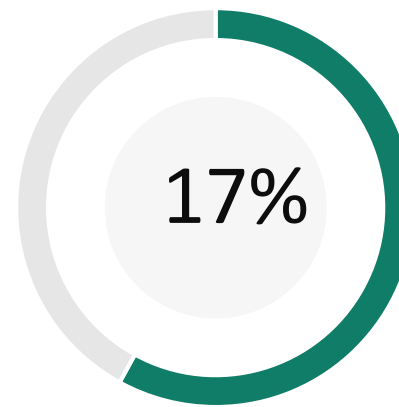
Workflow



% Non-Productive Time

Business users' time spent on data related matters such as data gathering and searching, quality control (QC) and loading based on 10 key workflows in Field Development Plan (FDP).

Data



% Time Spent

Everyone who acquires data spends time re-checking it. 17% time spent (equiv to 58 man years) for well header, check shot, deviation and basic logs (find and quality check).

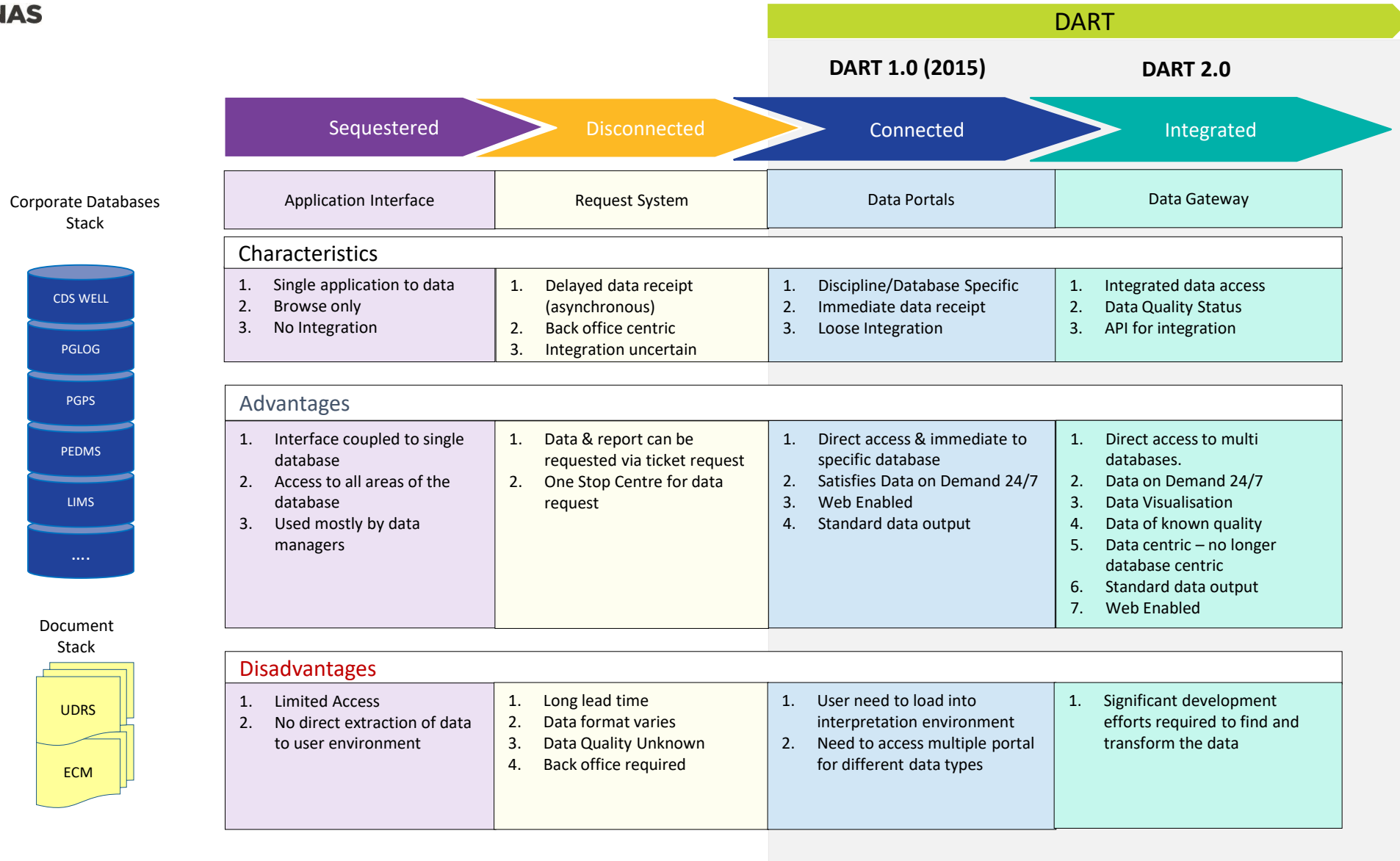
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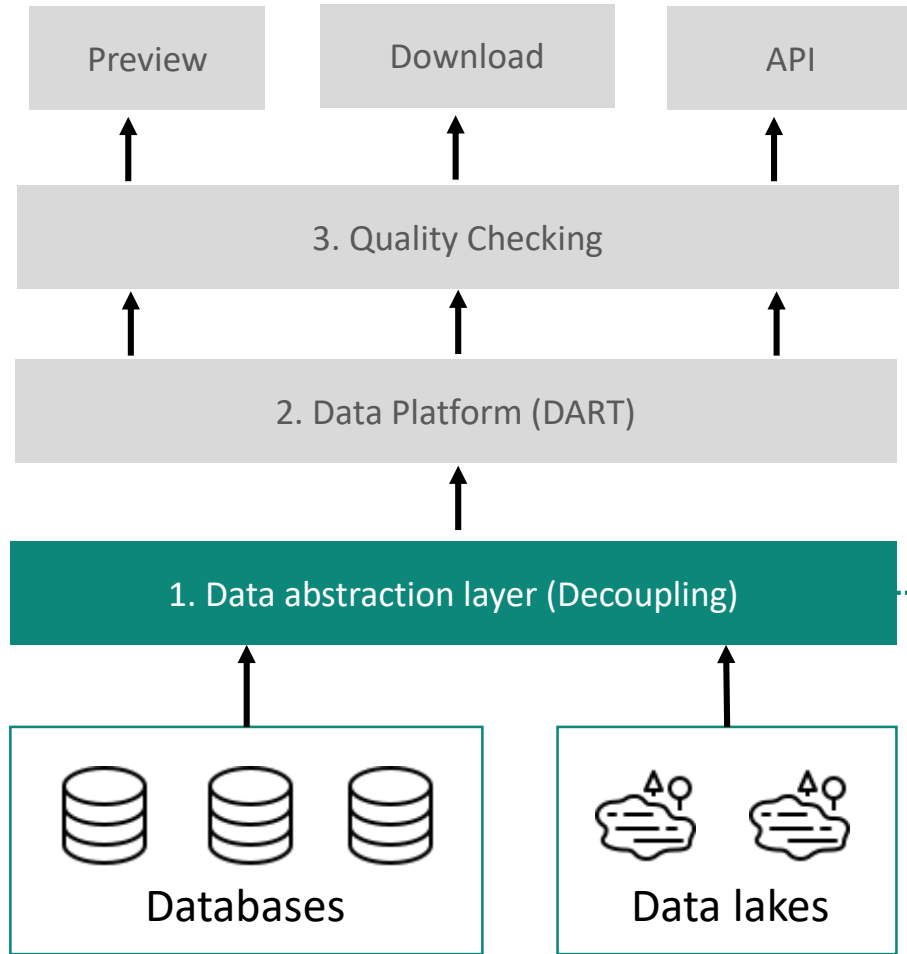
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SIMPLIFY Data Access through Data Access Robot (DART)





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Copy only critical data

#1 Decoupling & Liberating data

Most of the data are tied to application database. Therefore, in order to liberate the data:

1. We design data abstraction layer that is highly tailored to the business needs.
2. The abstracted data are presented into data types.
3. Each data types are carefully designed to determine its mandatory and optional attributes needed for business activities.

Example Data Types:

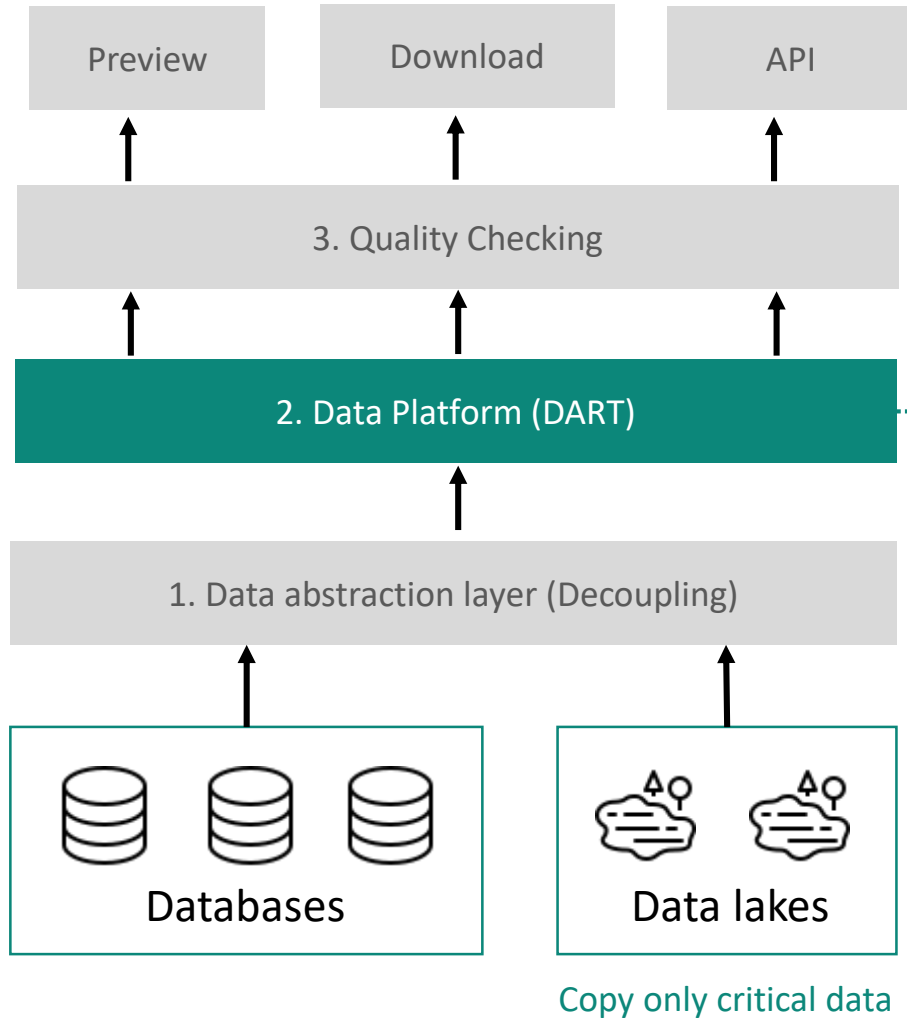
Well Schematics	Checkshots	Pipelines	Daily Operations Report (Facilities)
Deviation Data	Well Test	Well Integrity	Pressure Volume Temperature (PVT)

and 280+ data types...



How do we solve the problems?

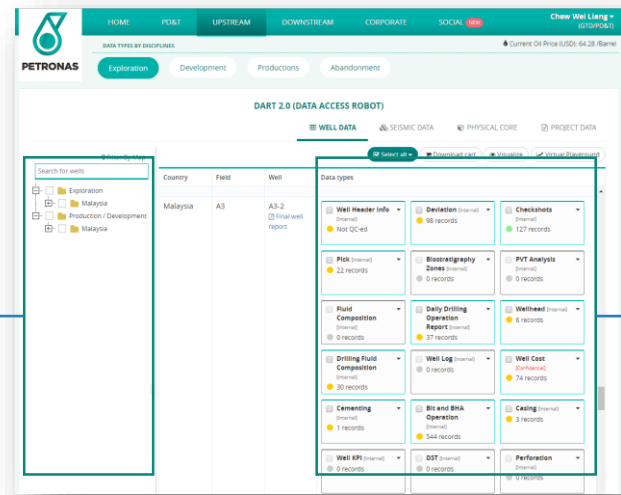
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#2 Data Platform

Liberated data presented by the data types are listed on the data platform. This enable line of sights of the data availability, and enable business users with proper entitlements to quickly access the data.

Every action will be log for audit trail and security purposes.



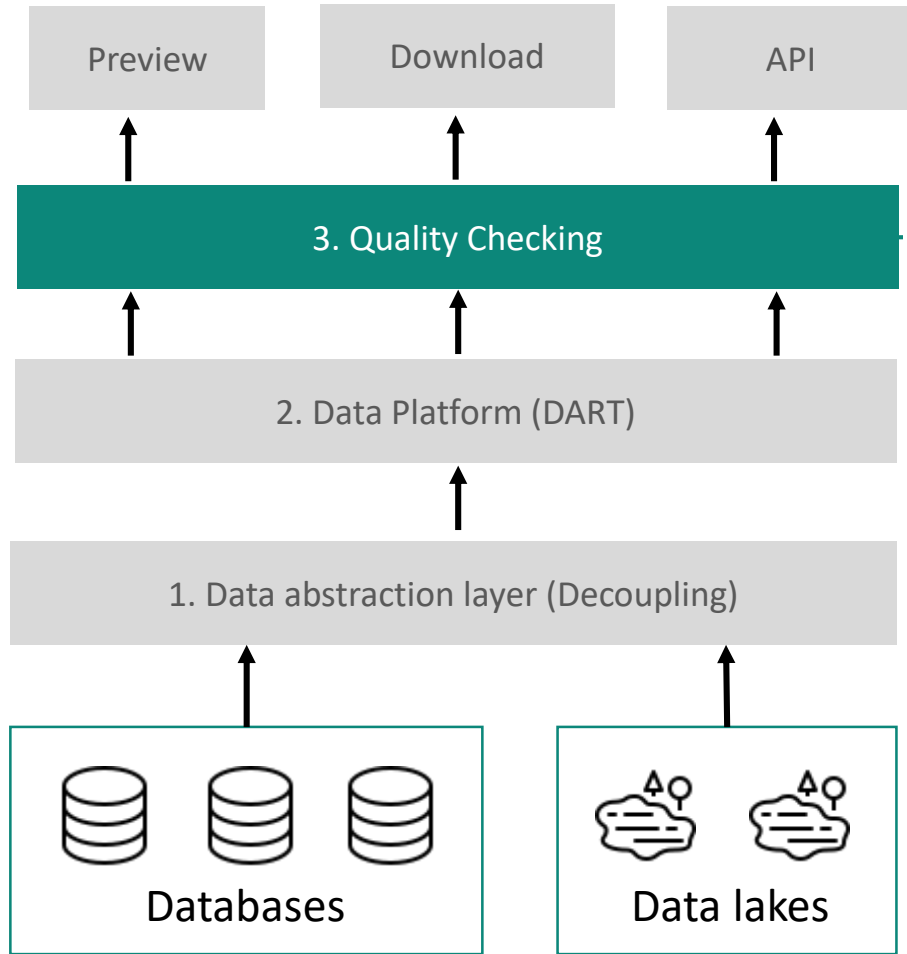
Asset

Data Types

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#3 Quality Checking

Liberated data will go through the process of data quality checking. The process of measuring the data quality is done through the following step:

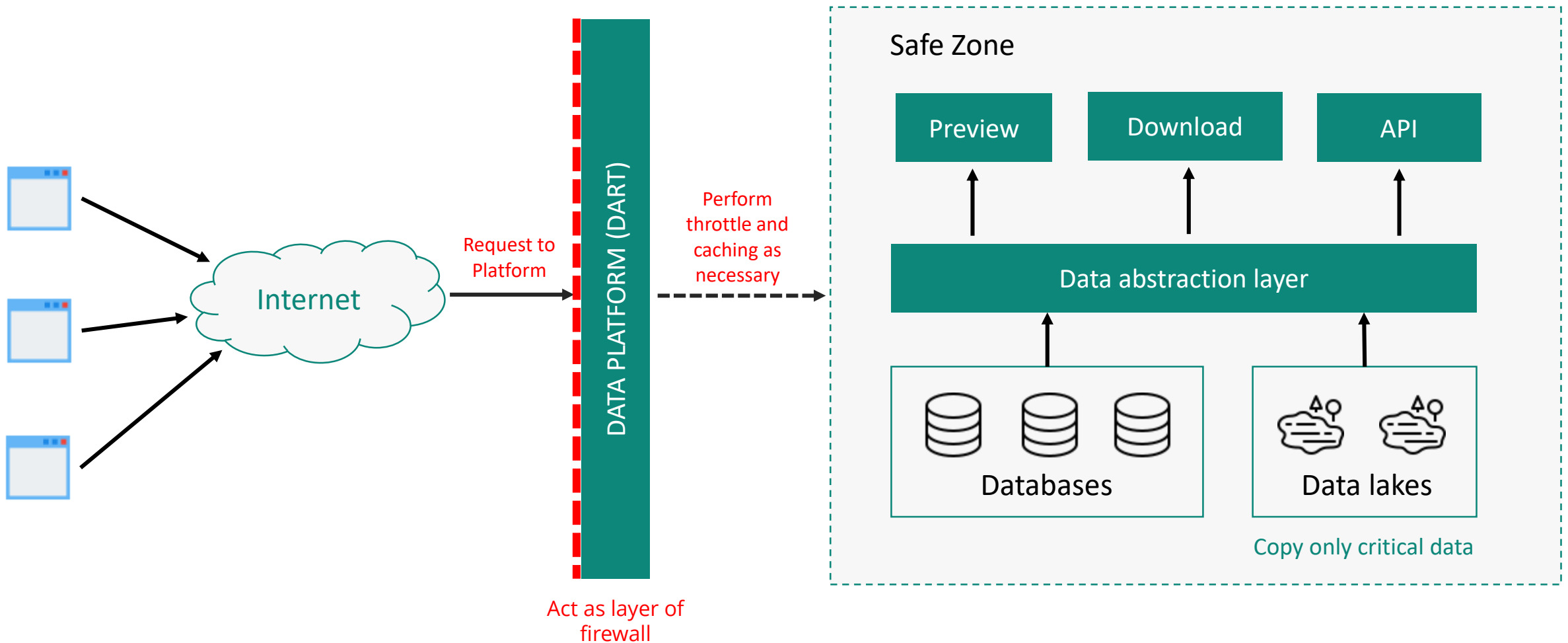
1. A set of business rule is defined based on the input from Subject Matter Expert (SME) or Subject Matter Focal (SMF).
2. The metrics are defined based on the set of business rule and implemented into the system.
3. Data quality is presented to the user in different level of granularity, and they can be aggregated into high level dashboard view.



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How do we solve the problems?

Designed with Robustness and Security in Mind

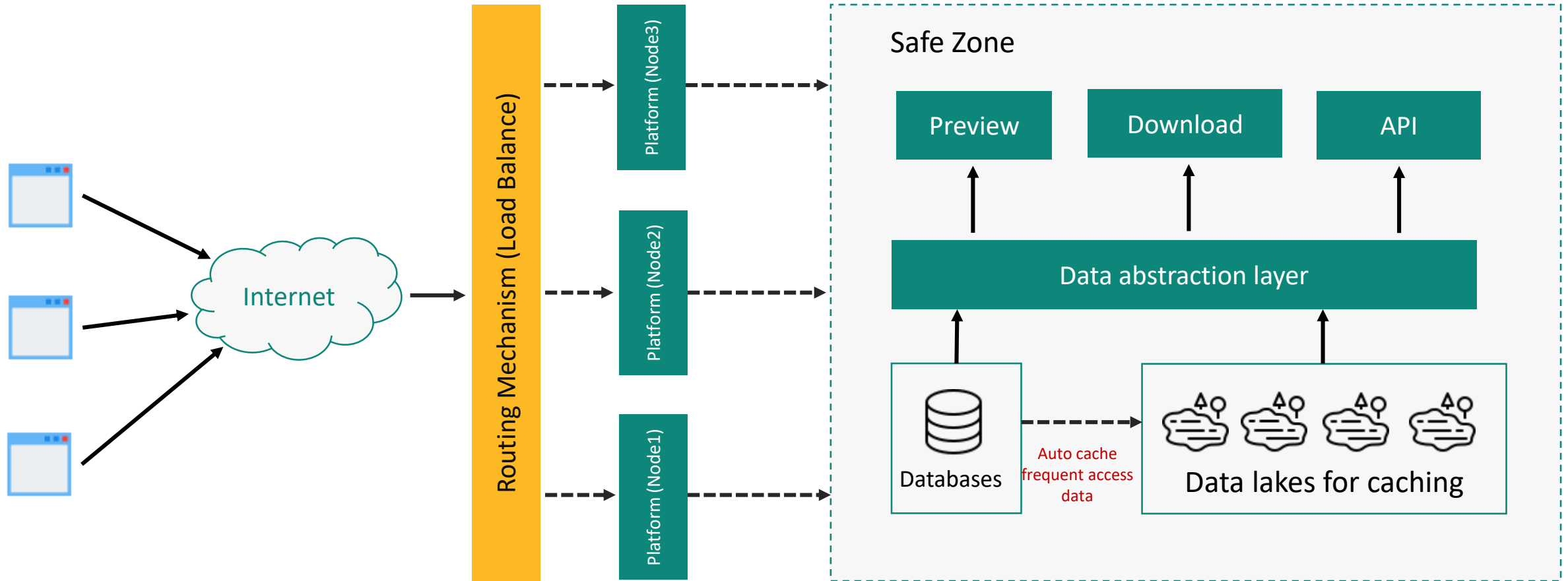




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How do we solve the problems?

Designed with Scalability in Mind



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Summary



Data decoupling give the user with proper entitlement the “superpower” ability to be able to access the data anytime, anywhere they needed for operation and analytic purposes.



Database filled with data has no value until it can be easily accessible and turned into valuable insights for the business.



Data quality is measured and the level of quality data is automatically aggregated and tracked in dashboard for further action by data custodian.



Time savings in acquiring data and quality checking translate into millions of dollar in cost saving.

Thank you for your passion!

