

End-to-end implementation of a holistic data platform on AWS for Pfizer Case Study



At Pfizer, we believe that innovation comes from working in partnership with others. We are innovating to bring therapies to patients that allow them to live better and longer lives. We strive to set the standard for quality, safety, and value in the discovery, development, and manufacture of health care products.

We are proud to be part of an industry that has helped treat, cure and eradicate lifethreatening diseases. We play an active role across the Australian healthcare spectrum working with patient organisations and government for the benefit of each patient.

Since 1956, our people have worked together with our partners for the sole purpose of ensuring that Australians can access new and innovative medicines to extend and improve life. We are proud of our history and look forward with enthusiasm to the future.

Our Purpose

Breakthroughs that change patients' lives.

Our Mission

To be the premier, innovative biopharmaceutical company



The Challenge

Before the start of the Data Platform program, Pfizer was relying on a couple of disconnect data warehouses for their Business Intelligence needs.

Complexity had accumulated over the years and the systems were increasingly harder to maintain and expand. Adding new data sets to the Data Warehouse was difficult and business data needs were hard to fulfil in an efficient way.

One of the existing systems was third-party managed and was effectively a black-box to both the IT department and the business. Data lineage was close to impossible to establish and data rules changes were extremely costly.

From a front-end perspective, only standard static reports were available and with no self-service capabilities available. Changes to existing reports would require the intervention of IT developers.

Why Pfizer Chose Altis

Altis Consulting has a wide experience designing and implementing data platforms on AWS.

The Altis is used to delivering large program of work that span platform migration, business requirements gathering and end-to-end solution delivery.

"Altis Consulting have the expertise to deliver a program of this scope and complexity. They have intervened on many fronts during the engagement and ensured business outcome was top of mind.

As a result, the solution is well aligned with our business requirements and we are confident the delivered data platform will be able to evolve to address future needs."

Charl Smit – Business Technology Director ANZ – Pfizer Australia

- Data
- Information
- Analytics
- Outcomes

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Partner Solution

Data Platform Architecture

Altis has implemented a Data platform articulated around a Data Lake (S3) and a Data Warehouse (Redshift).

Multiple transformation layers have been implemented in the Data Lake to facilitate the ingestion, storage, transformation and presentation of data in the platform. See figure below.

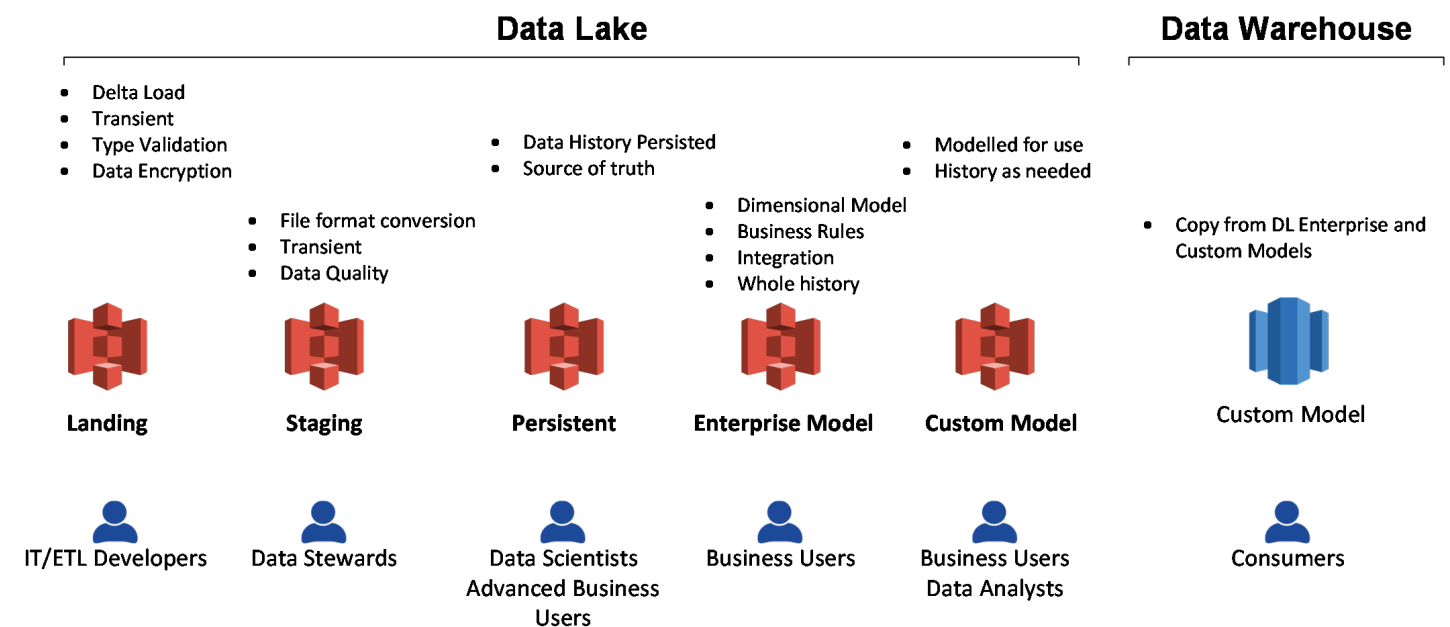


Figure 1 - Data platform layers

User access is channelled via the Data Warehouse that holds data specifically curated for the end-users need (e.g. Selfservice data visualisation or Dashboarding).

Data Processing Framework

During the engagement, Altis has implemented a framework that automates a lot of the mundane development tasks to build data pipelines. The framework handles processes of data ingestion, historization, change propagation and supports slowly changing dimensions process.

Call Altis today to find out how we can help maximise your business performance.

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“The decision to spend time at the beginning of the program to establish a framework with such a high level of automation has been critical to the success of the engagement.

The overall development effort has been dramatically reduced, while coding standards and maintainability are kept high.”

Guillaume Jaudouin, AWS Practice Lead,
Altis Consulting



The Results and Benefits

The solution delivered is an integrated data platform offering selfservice capabilities. Thanks to the established framework and the automated data pipeline ETL development costs are significantly reduced and it is easy to add new data sets to the platform to address new business requirements.

End-users now have access to data related to Market Analysis, Field Sales and Digital domains with new subject areas being added.

Pfizer will leverage the implemented platform and framework to continue ingesting data sets to provide business insights to the users of the AWS data platform.

Why AWS

Amazon Web Services is Pfizer’s preferred public cloud platform and is trusted to support Data and Analytics requirements now and in the future. The platform ensures control access and security, while AWS offering in the Data and Analytics space offer elasticity, real-time capabilities and advanced compute.



Elasticity

The AWS Data Platform leverages AWS Services’ native elasticity for both storage and compute. This allows the platform to adapt based on fluctuating needs.

This has a positive impact on the system’s cost, availability, responsiveness and performance.



Real-Time

The AWS Data Platform leverages real-time and event driven mechanisms that allow ingestion, transformation and presentation of the data as soon as it is available.

This is to support decision making when timing is important.



Advanced Compute

Multiple data processing options are offered on the AWS Data Platform. From traditional SQL based ETL for Data Warehousing workloads to advanced analytics and machine learning on unstructured data sets.

This ensures all data sets available to the organization can be processed and analyzed.

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