



# Technical Response

## Epworth Data Platform Modernisation

RFP Response - May 2025



Cloud

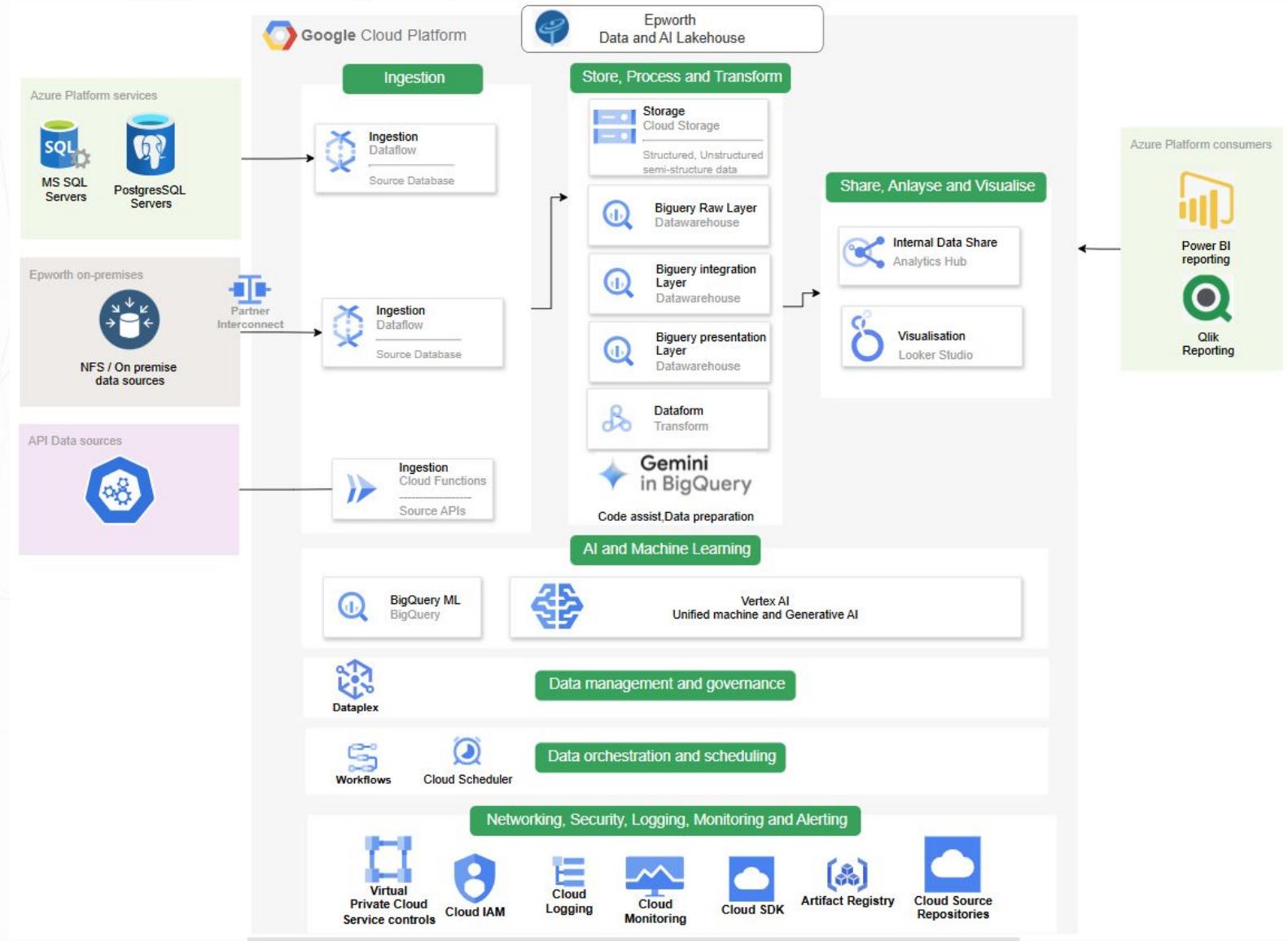


Data & Analytics



Intelligent Automation

# Architecture (Component Overview)



# Component Overview

Ref	Component	Function	Hosting	Date of First Release
1	<b>Google Cloud Platform</b>	The foundational hyperscaler platform from Google, providing a comprehensive suite of cloud computing services that host and enable all other functionalities. It offers scalable and reliable infrastructure for building, deploying, and managing data solutions and applications.	PaaS	2008
2	<b>BigQuery</b>	GCP's primary cloud data warehouse, BigQuery is a highly scalable and serverless solution designed for fast SQL queries and analysis. It serves as the central repository for staging, integrating, and presenting data.	PaaS	2011
3	<b>Dataform</b>	An open-source, serverless service for developing, testing, and deploying SQL-based data transformation workflows directly within BigQuery. It helps build robust and maintainable data pipelines using version control and testing best practices.	PaaS	2020
4	<b>Dataflow</b>	A fully managed stream and batch data processing service ideal for building robust data pipelines. Dataflow efficiently ingests, transforms, and analyzes data, preparing it for storage in a data warehouse or other destinations.	PaaS	2015
5	<b>Cloud Functions</b>	A serverless compute platform that allows you to run event-driven code written in various languages without managing servers. Cloud Functions are excellent for tasks like API integration, real-time data processing, and triggering other cloud services.	PaaS	2018
6	<b>Dataplex</b>	An intelligent data fabric offering a unified data management and governance solution across GCP. Dataplex enables data discovery, lineage tracking, quality control, and centralized cataloging for distributed data.	PaaS	2022
7	<b>VertexAI</b>	Google's unified machine learning platform for building, deploying, and managing ML models and GenAI applications at scale. It provides a comprehensive suite of tools for the entire machine learning lifecycle, from data preparation to prediction.	PaaS	2021
8	<b>Workflows</b>	A fully managed orchestration service that automates complex sequences of Google Cloud services and HTTP-based APIs. Workflows execute tasks based on defined schedules or dependencies, simplifying the creation of intricate service integrations.	PaaS	2021
9	<b>Looker Studio</b>	A free, user-friendly data visualization and reporting tool that natively integrates with GCP services. Looker Studio allows for the creation of interactive dashboards and reports, providing insights into pipeline performance, costs, and operational errors.	SaaS	2022
10	<b>Google Cloud Storage</b>	A highly scalable and durable object storage service for unstructured data like images, videos, and backups. It offers various storage classes and lifecycle management policies to optimize cost and data availability.	PaaS	2010