GOOGLE CLOUD PLATFORM DATA WAREHOUSE MIGRATION ASSESSMENT

Migrating from complex data warehouse solutions like Teradata, Netezza, or Oracle requires an orchestrated approach. By moving to GCP from an on-premises enterprise data warehouse solution, you can remove administrative complexity while benefiting from the full scalability, performance, and cost-saving potential of GCP services.

Optimizing big data workloads in the cloud for the best possible performance means restructuring your data and processing jobs. Pythian can help, starting with our Google Cloud Platform based Data Warehouse Migration Assessment, which is designed to bring clarity to your team in these areas:

- Your current technical and business data warehouse environment, areas for concern and of opportunity based on best practices
- The benefits, risks and costs associated with moving your data warehouse to a GCP architecture
- Recommendations regarding your future state, including the technologies and tooling that will help you on your path to better business outcomes
- An assessment of the skills of your current internal team, along with training, hiring and right-sizing recommendations.
- Pricing and cloud cost scenarios

Conducted as a collaborative exercise and with a focus on mapping business goals to a technology plan, data correctness, and business rules audit, one of Pythian's experienced cloud data strategists will come to your location for a five-day workshop to work with your teams. This assessment will take into account both current and planned needs, especially with regard to:

- **Agility** - Quickly and easily adapt to changes in source data and new technologies
- **Performance** - Experience faster data load time
- **Flexibility** - Modify data models to meet changes in your business
- **Efficiency** - Support a range of end-user analytics tools
- **Governance** - Ensure data lineage and master data management
- **Reliability** - Fault tolerance and recovery from point of failure
- **Consistency** - Leverage reuse and inheritance across business logic for a single version of the truth
- **Scalability** - Automated infrastructure elasticity and minimized overhead

- **Security** - Ensure the security of your data, systems, and processes
- **Data Correctness** - Institute business logic and data quality validation techniques based on established test criteria

HOW IT WORKS

Prior to the onsite workshop, you will curate your priority list of items to focus on during the assessment. These could include some of these areas:

- Analytics workloads and data for migration
  - Understanding what priority data sources, types of analytics, and user target tools are needed will help determine platform strategy and planning horizon
  - Identification of all reports, dashboards, and export data products targeted for migration
  - Data model considerations - E/R, logical and physical.
  - Semantic Layer: reporting and analytical considerations based on query mix (Enterprise vs. Departmental vs. Operational/Active)
  - Understanding business requirements not being met by current data warehouse
- Current analytics tech stack and opportunities for modernization
  - Data ingestion
    - Understand current source data ingestion methods and scale for adoption in Google Cloud Platform- batch and real-time
    - Historical data ingestion approach
  - Data curation
    - Understanding current data architecture and data models to determine an optimal data pipeline migration path to GCP
    - Explore opportunities to simplify and automate
    - Understand current schema management methods for adoption in Google Cloud Platform
    - Metadata management assessment summary and use of Data Catalogue. Data lineage, including batch file management, streaming, and ingestion delivery metrics and controls
  - Data consumption
    - Analytics user requirements
    - Data visualization options and recommendations such as Data Studio, Tableau, Looker, and others
    - Pros and cons of bringing your own analytics (BYOA)
- SLOs
  - Determining performance, availability, scalability parameters based on user or system requirements
  - Data timeliness assessment and recommendations
  - Data quality monitoring for critical data
  - SLAs
  - Real-time vs batch vs micro batch tradeoffs
  - Data backup and restore
- Security assessment
  - Access control and management using services such as Cloud Security Command Center, and IAM
  - Integration with enterprise identity and access management systems
  - Secure networking
  - Data loss prevention

- Evaluate any compliance or privacy constraints and their impact
  - PII considerations, GDPR data use/access management
  - Data quality
  - Data retention
  - Industry compliance implications: HIPAA, PCI, etc.
  - Auditing, logging, and monitoring of data
- Monitoring, alerting and reporting
- Back-up and recovery

ASSESSMENT WORKSHOP

Working with business unit(s), technology teams, analytics teams, and data stakeholders, the data strategist will help you determine business objectives and goals for the migration, state of your current data warehouse environment, future state of the new data warehouse environment, workloads and data targeted for migration, priorities, and timeline planning.

The two major focus areas of the assessment workshop are:

- **Analysis:** Pythian's seasoned Google Cloud Platform data strategists use a proprietary approach to analyze your existing on-premises data warehouse to determine the level of technical difficulty of the migration. The analysis includes a thorough review of current data sources, analytics workloads, components, and features being used such as database objects, database resident transformation code, dependencies on external objects, relative data volumes, data products, refresh rates, analytics tools, and more.
- **Roadmap creation:** The data warehouse migration path is then formally captured in a Data Warehouse Migration Roadmap document which details the work effort including the high-level migration strategy, future state architecture, required players, areas of complexity, risk, estimated migration timelines, and deployment strategy.

DELIVERABLES

Within three weeks of the assessment, Pythian will provide high-level guidelines and an approach for the data warehouse migration. We will deliver:

- An interactive presentation of results and recommendations
- A GCP-based Data Warehouse Migration Assessment report document that includes:
  - A roadmap with tooling recommendations
  - A phased plan for implementation of an Enterprise Data Platform project including Big Query, which covers:
    - High-level solution architecture that includes Google Cloud Platform native services such as BigQuery, Cloud Pub/Sub, Cloud Composer, Cloud Dataflow, Cloud Dataproc, Data Catalogue, Data Fusion, Data Studio, and/or open source
    - High-level solution schedule with an implementation plan
    - Defined user workshops based on stakeholder focus
    - Solution cost that includes an estimated range of Google Cloud Platform services costs

PARTNERING WITH YOUR TEAM

To ensure the success of your Google Cloud Platform based Data Warehouse Migration Assessment and project, we recommend that you establish a project team and make available the personnel who:

a) Control and know the data sources and data structures

b) Own the analytics use cases

c) Define and operate the current data warehouse data, transformations, and ecosystem

d) Represent analytic user personas that will use the data in some way (users)

e) IT and Security teams

f) Own the cloud accounts and budgets

PRICE

GET STARTED TODAY AND SAVE WITH OUR $30,000 USD OFFER

Benefit from Pythian's long and growing partnership with Google. You may also qualify for training and services funding from Google, with credits to GCP and/or also discounts for CloudRamp subscriptions.

An optional Proof of Concept using your actual data and analytics outputs, planning and implementing a dry run, and performing the final migration can be added to the assessment phase at an additional cost to the assessment offer, based on the scope of the POC.

WHY PYTHIAN FOR THIS PROJECT?

We have:

- 20 years in data
- More than 100 GCP certifications including Google Data Engineer, Google Solution Architect Google, Cloud Developer, and Google Cloud Platform Qualified Data Analyst
- Satisfied analytics customers
- A focus on outcomes as well as technology

GET STARTED TODAY

Contact us to find out how Pythian's analytics experts can help you become a truly data-driven organization, by aligning your business needs with your data strategy and technology.

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ABOUT PYTHIAN

Pythian excels at helping businesses around the world use their data to transform how they compete and win in the data economy. From cloud automation to machine learning, Pythian leads the industry with proven innovative technologies and deep data expertise. For more than 20 years Pythian has built its reputation by delivering solutions to the toughest data challenges faster and better than anyone else.

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