

# MIGRATE TO SNOWFLAKE

Accelerate your migration to the Snowflake Al Data Cloud

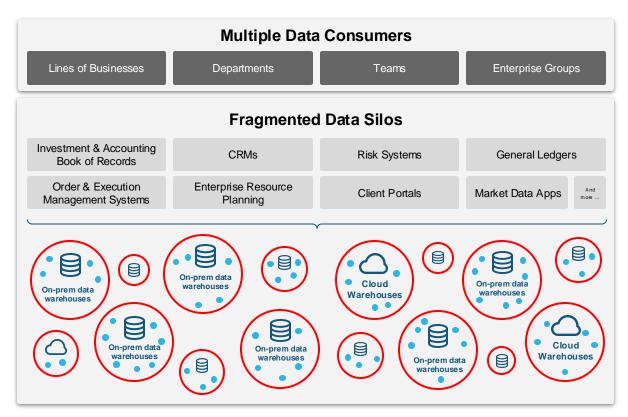
# MIGRATIONS WHY?

## 5 Questions to Ask When Considering a Migration

- Does my platform have fast analytical performance?
- Am I experiencing problems with workload management?
- Is my platform truly scalable?
- Can I quickly enable sharing of data, apps and models?
  - Am I charged for more than I actually need?

Ebook: 5 Questions to Ask When Considering a Migration to Snowflake

## **Inefficiencies of Complex Data Architectures**





- Higher TCO to vendor
- Infrastructure maintenance costs (i.e. system admin, rights provisioning, detection, etc)
- ETL costs



- Limited concurrency
- Difficult to access data & data definition



Bespoke architect limit adaptivity

### Benefits of a Modern Data & Al Platform





#### Predictable Costs

- Fully managed service with infrastructure costs included
- Less resources needed to manage, administer, tune, and use



#### Optimized Performance

- High concurrency
- Speed to use case production



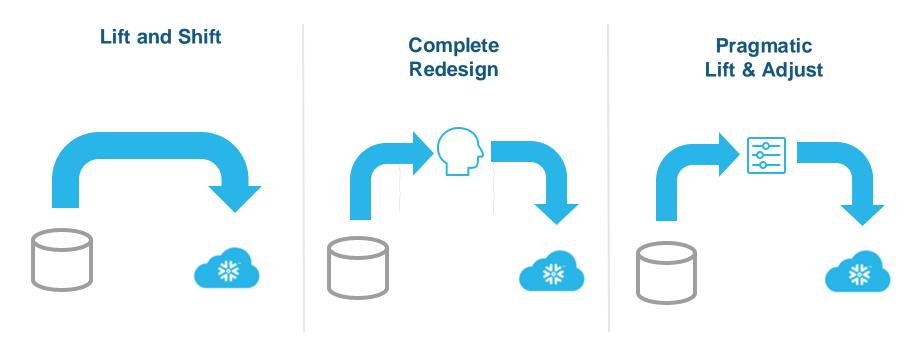
#### **Scalability**

- Multi-cluster warehouses used to match compute resources to use case value
- Open and interoperable architecture with Apache Iceberg

# **MIGRATIONS** FRAMEWORK

## **Options For Migration Strategy**

Best approach: Depends on customer priorities / constraints



### **Components of a Migration**

A migration is the end-to-end process of completely moving from a legacy platform to Snowflake

#### **Planning and Design**

Effort required to plan and scope the overall migration project

#### **Database Code Conversion**

Database-specific DDL, procedures, and scripts translated to Snowflake

#### **Data Ingestion**

Data acquisition, ETL/ELT pipelines to be repointed or converted

#### **Data Validation and Testing**

Verify that data matches and end-to-end integration testing of all components



#### **Optimize and Run**

Performance optimization and cost management to ensure efficient consumption

#### **Environments and Security**

Architect and implement new security plans including SSO, roles, and data level security

#### **Data Migration**

Movement of an initial dataset from the legacy system to Snowflake

#### **Reporting and Analytics**

Repointing or refactoring of reporting tools and downstream consumption

#### **Deployment**

Final review and approval, operational readiness, parallel run and cutover

#### **Program & Change Management Plus Training**



# **MIGRATIONS PROCESS**

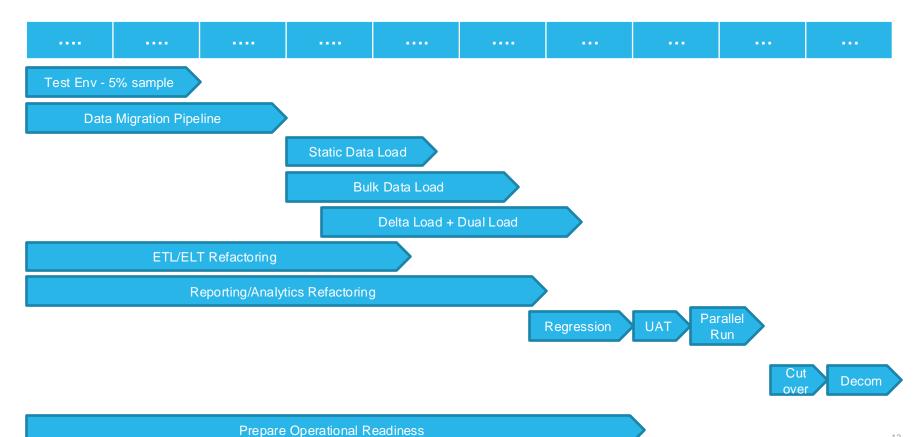
## **Document the Existing Solution**

- List databases and database objects to migrate
- List processes and tools that populate and pull data from the existing data warehouse
- List security roles, users and permissions
- Document the existing data warehouse solution into an as-is architecture diagram

## **Agree On A Migration Approach**

- Categorize
  - processes to migrate as-is
  - processes that need reengineering
  - processes that need fixing
  - processes that are no longer needed
- Draft migration deliverables
- Create to-be architecture diagram

## **Sample Timeline**



# **SnowConvert for Relational Database Code Conversions**



#### **Sources**

Oracle

SQL Server

Teradata

Amazon Redshift

#### What is it?

SnowConvert is a high-fidelity, legacy database code conversion tool with Snowflake as the only target platform.

#### How does it work?

- Code Extraction
- Code Assessment
- Code Conversion
- Unit Testing
- Refactor Complex Object

1.7B+
Lines of Code

converted

45M+

Database Objects

converted

+96%

Conversion Rate on average

# **SnowConvert is Proven to Successfully Convert Code During a Migration**

**Accelerate Migrations with SnowConvert** 

Representative Conversion Rates\*

Microsoft SQL Server

**Teradata** 

**Oracle** 

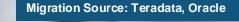
**Amazon Redshift** 

(Tables and Views)

Tables	99+%
Views	98+%
Synonyms	98+%
Sequences	99+%
DML Statements	95+%
UDFs	90+%
Stored Procedures	90+%
Teradata Macros	98+%
Teradata Utility Scripts	95+%
Oracle Packages	85+%

<sup>\*</sup>These rates are based on total lines of code for professional services engagements with SnowConvert for entire workloads and not individual objects, specifically for Oracle, SQL Server, and Teradata migrations. Amazon Redshift is excluded. These rates include internal usage. Data from March 2020 - December 2024.

# **MIGRATIONS CUSTOMER STORIES**





Pfizer Accelerates Insights and Lowers TCO by 57% While Processing Data 4x Faster With Snowpark

## 57% reduction in TCO

and 28% reduction in overall database costs vs. previous solution Achieved goal of "One Pfizer": Pfizers data is now centralized, speeding up report generation across the company. Faster processing has saved over 19,000 hours annually, and improved decision making.



Snowflake has been strategic to simplify our data foundation. It allowed us to solve concurrency and data silo problems at an enterprise scale ... It gives us functionality we can't get anywhere else — and it costs us less.

- STEVEN RING, **Director of Enterprise Database Solutions** 

#### PFIZER ACCELERATES INSIGHTS AND **LOWERS TCO BY 57% WHILE PROCESSING** DATA 4X FASTER WITH SNOWPARK





#### **PROBLEM**

- Pfizer's data was dispersed across various platforms, including Oracle databases, Amazon S3 files, Teradata systems, and even individual spreadsheets, leading to inefficiencies and hindering the 'One Pfizer' vision.
- The fragmented data environment caused delays in data extraction, movement, and transformation. resulting in costly time lags and reduced productivity.
- Maintaining multiple data systems increased total cost of ownership (TCO) and operational overhead.



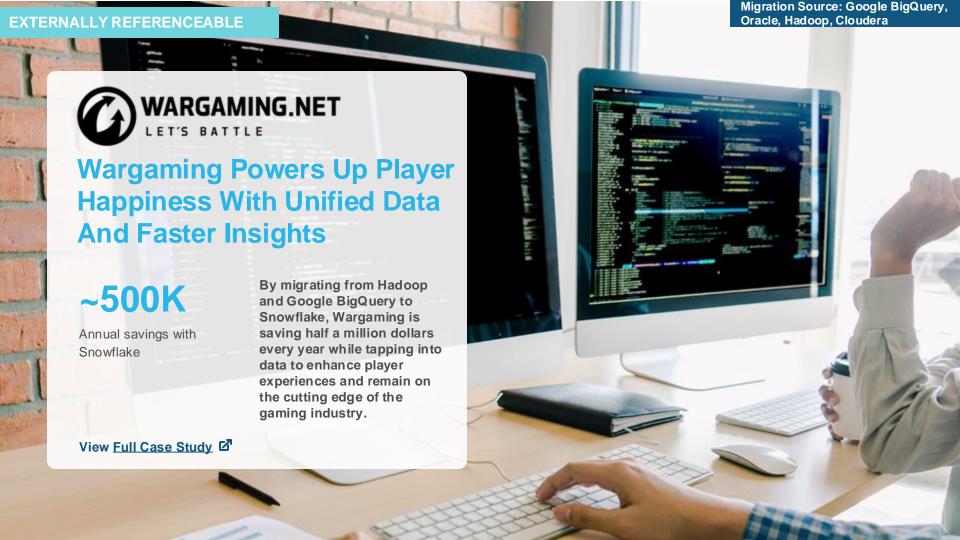
#### **SOLUTION**

- Pfizer consolidated its data into a single, secure, and compliant platform, eliminating silos and enabling seamless data sharing across business units.
- Utilizing Snowpark, Pfizer developed a cloud-based Virtual Analytics Workspace, allowing data scientists and business users to collaborate effectively and process data more efficiently.
- Standardization of Data Access: By creating a unified source of truth. Pfizer ensured that all departments could access consistent and up-to-date information, facilitating better decision-making.



#### **RESULTS**

- Data processing times improved, saving approximately 19,000 hours annually.
- Pfizer achieved a 57% reduction in TCO and a 28% decrease in overall database costs compared to the previous solution.
- The time required to generate critical reports decreased from up to an hour to just 40 seconds, enabling field representatives to utilize customer visit time more effectively.
- Snowflake facilitated seamless. data sharing across all business units, aligning with Pfizer's 'One Pfizer' vision and enhancing collaboration.









Our analysts are thrilled with the performance improvement. Snowflake is significantly faster than what we had with Hadoop: Data delivery is now up to 40% more efficient."

ALEX RYABOVHead of Data Services,Wargaming

**View** 



# WARGAMING POWERS UP PLAYER HAPPINESS WITH UNIFIED DATA AND FASTER INSIGHTS



#### **PROBLEM**



#### SOLUTION



#### **RESULTS**

- Wargaming's original data warehouse, using Hadoop, Oracle, Cloudera, Tableau, and Google BigQuery, couldn't handle growing data volumes and player base.
- On-prem systems and BigQuery became unsustainable due to increasing storage, processing costs, and hardware upgrades.
- The old setup required complex ETL workarounds and slow hardware expansion (e.g., adding six new nodes took six months), delaying growth and agility.

- Wargaming moved to Snowflake for a more scalable, unified data platform that consolidated multiple data sources and offered high performance for fast-growing data needs.
- Snowflake allowed data to be stored anywhere, giving
   Wargaming the freedom to choose cloud providers and store data in open formats like Iceberg Tables.
- Snowflake's built-in role-based access control (via Horizon Catalog) enabled secure, efficient data access across Wargaming's global team.

- Wargaming saved approximately \$500,000 annually by migrating to Snowflake.
- Wargaming saw up to a 40% improvement in data delivery speed, allowing product analytics teams to access near real-time insights through Tableau dashboards.
- The move to Snowflake alleviated previous performance bottlenecks, enabling faster, more comprehensive insights, and eliminating frustrations like query timeouts.



# Penske Drives Excellence And Efficiency With Gen Al Using Snowflake Cortex

<15

Days to build a new Al summarization model

Penske turned to
Snowflake's Al platform to
easily and securely harness
the power of generative Al —
delivering operational
efficiency and improving
associate safety and
retention across two product
lines.

View Full Case Study 2







The efficiency we've gained with Snowflake has enabled us to grow faster. Based on our success, other areas of the Penske organization are also looking at ways they could leverage Snowflake."

VISHWA RAM
 Vice President, Data Science
 and Analytics, Penske
 Logistics

**View** 



# PENSKE DRIVES EXCELLENCE AND \*\*snowflake\* EFFICIENCY WITH GEN AI USING SNOWFLAKE CORTEX



#### **PROBLEM**

- Data accessibility and visibility issues due to limitations of onpremises data solutions (e.g., SQL server, mainframe systems).
- Inefficient reporting: The old reporting tool was restricted to one or two locations, only handled a month's worth of data, and would crash during extended use.
- Manual and siloed data analysis:
   Business analysts had to rely on other departments for reports, and accessing performance indicators from multiple sources was cumbersome.



#### **SOLUTION**

- Migrated to Snowflake, which centralized and secured all performance data, improving accessibility and scalability.
- Implemented LLMs within Snowflake's governed perimeter to analyze data, generate insights, and support data-driven decisionmaking.
- Empowered business analysts with tools like Tableau to create reports independently, speeding up the reporting process and reducing dependency on other departments.

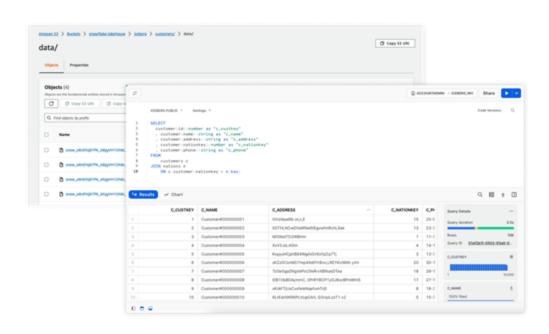


#### RESULTS

- Business analysts can now generate company-wide reports spanning five years in just 15 minutes.
- Data engineers and analysts can focus on higher-value tasks instead of repetitive reporting and data wrangling.
- Leadership now has access to comprehensive reports, enabling more informed and data-driven decisions across departments.
- Cortex AI made it easy and costeffective to securely bring LLMs to their data

### **Lakehouse Analytics**

Connect data anywhere. Seamless analytics experience. Governed security & optimized performance.



### MI-IOOb,

20 hrs

compute saved per day, which helped save tens of thousands of dollars per month 3x

faster financial forecasting with new Al model using Snowpark

Since moving to Snowflake from Amazon Redshift and Dremio, departments across WHOOP now enjoy expedited access to data and insights. Learn More

# THANK YOU