

AI人工智慧數據中台 產品介紹

teradata.

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Teradata由專業團隊領軍，自2018年起每年穩定且持續投入於研發

Our people make more possible

7,000+

員工遍佈於全球41個國家

612

持續創新，申請各式專利技術

100

Human Rights Campaign
Foundation's Corporate Equality
Index survey score

200+

與全球重要合作夥伴合作導
入各式新的應用場景

\$1.6B

自2018年起每年投入研發的資源

2025 ESG commitments

承諾全球減少30%之能源消耗(2021為
基礎)

100%

各產業的領導品牌企業均採
用Teradata平台與服務

80+

基於Vantage平台ClearScape Analytics，
發展AI/ML use cases

減少 34%之Scope 2 排放 (2021為基礎)

Teradata受第三方評等機構高度認可：

FORRESTER

The Forrester Wave™: Cloud Data Warehouses, 2023，評比為領導者。

The Forrester Wave™: Data Management For Analytics, 2023，評比為領導者。

Gartner

於**2023年**Gartner® Magic Quadrant for Cloud Database Management Systems 報告中高度認可Teradata對於產品發展的願景與實踐力。

於該報告中所評鑑之關鍵能力，Teradata於資料倉儲與邏輯式資料倉儲兩項評比皆榮獲第一名。

IDC

IDC MarketScape: Asia/Pacific Customer Data Platform 2023 Vendor Assessment，評比為領導者。

IDC MarketScape: Worldwide Customer Data Platforms Focused on Data and Marketing Operations Users 2022 Vendor Assessment，評比為領導者。

Trusted by the world's largest enterprises



6 of the top 6 airlines



6 of the top 6
banks



5 of the top 6
telecommunication
companies



5 of the top 6
courier services



5 of the top 5
healthcare providers



4 of the top 5
auto manufacturers



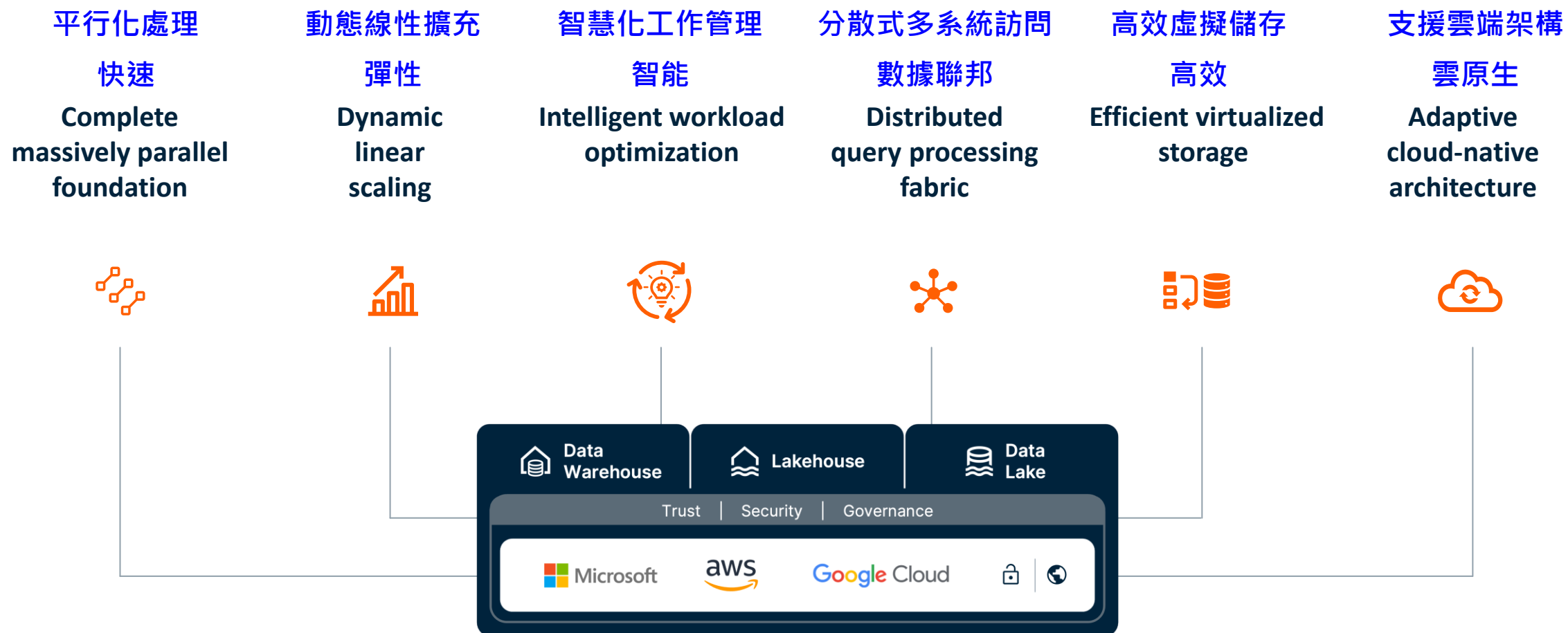
3 of the top 5
professional services



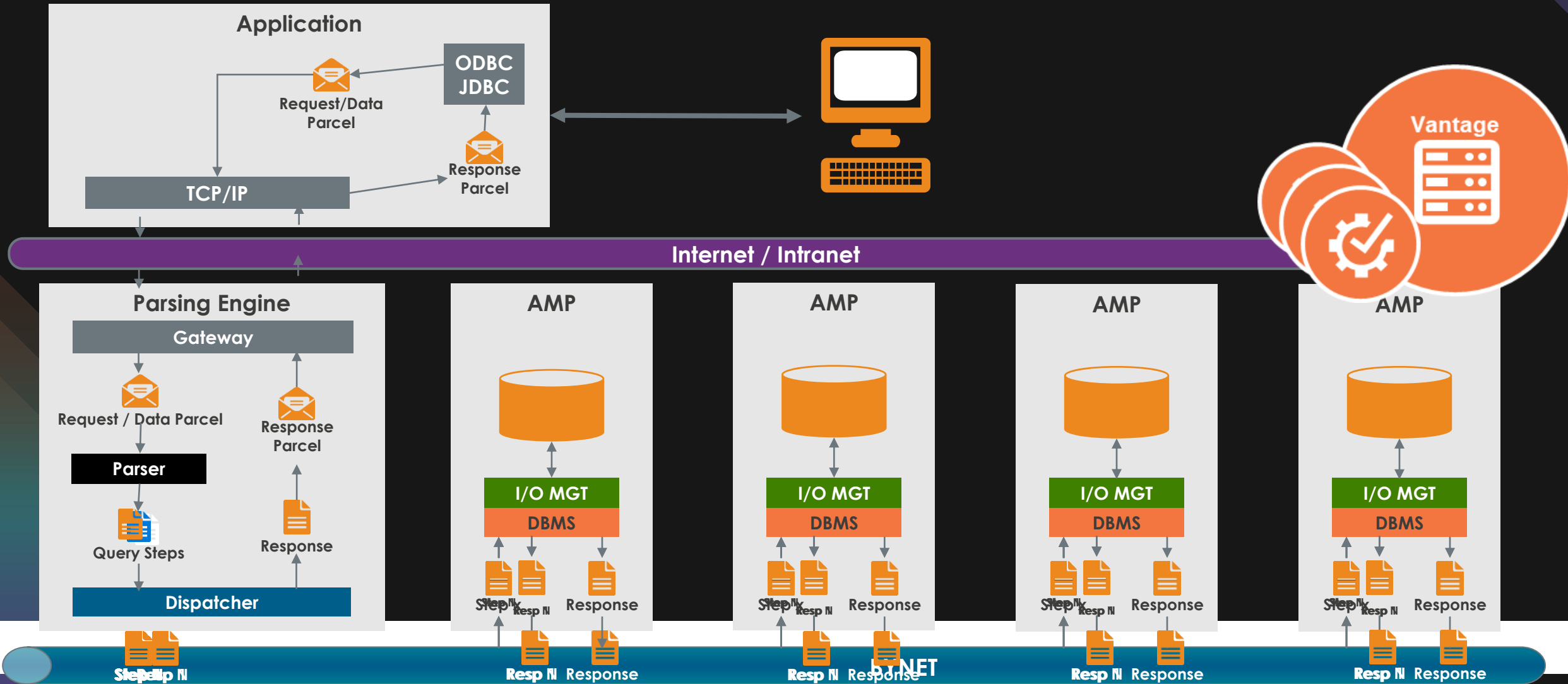
3 of the top 4
retailers

...choose Teradata

Teradata Vantage 45 年所淬煉之優越架構特性

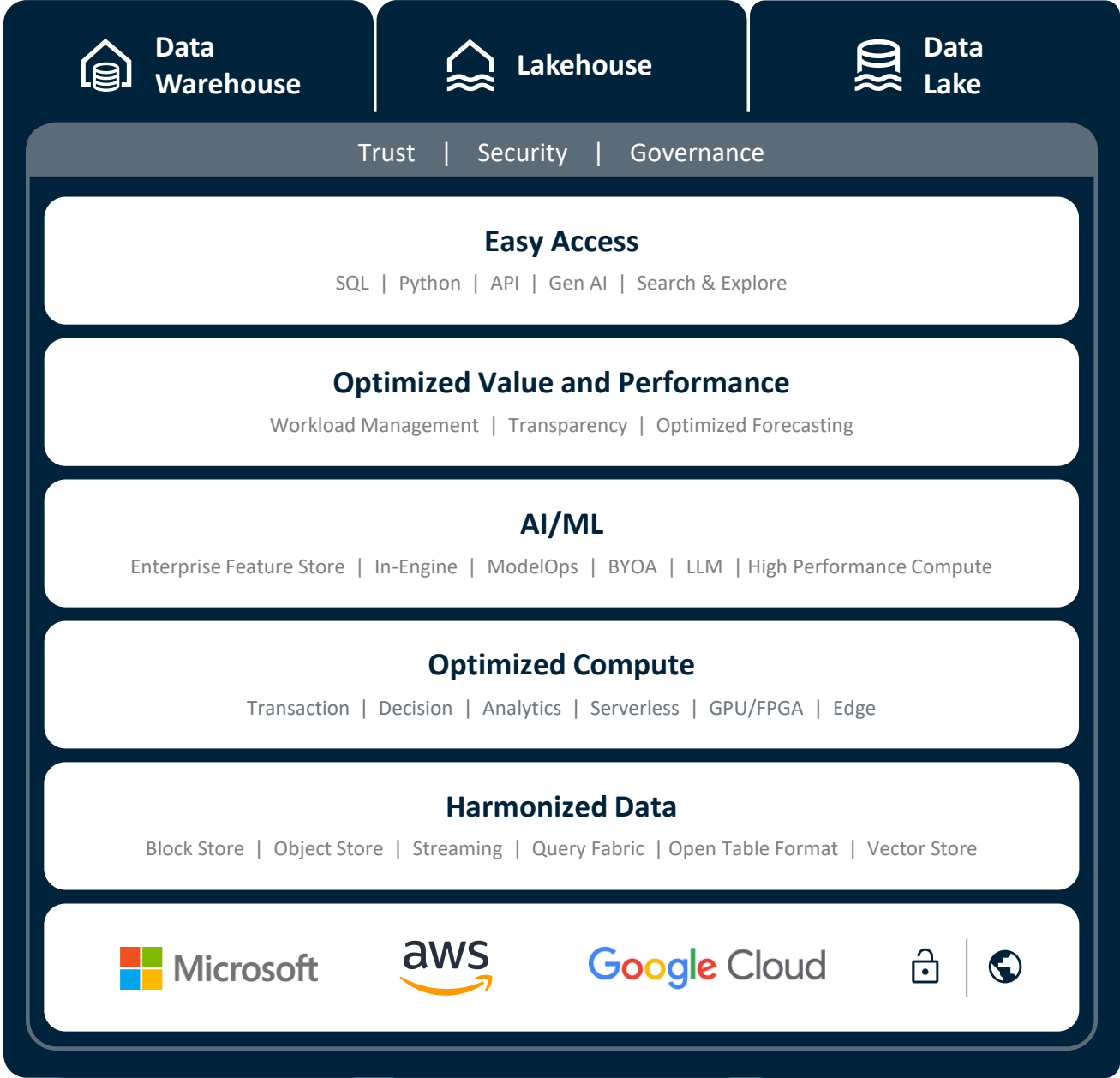


Teradata Vantage 平行化處理架構圖式



Teradata AI 人工智慧數據中台是實現現代化數據管理與整合的最佳利器，透過完善的技術架構達到數據共用，幫助企業即時、一致性的串聯所需資料，高效推動數位轉型，將數據資產的價值最大化。

- 1. **Harmonized Data (資料整合)：**
統一整合來源多樣的資料，確保資料即時性和一致性，解決數據孤島現象。
- 2. **Optimized Compute (計算效能優化)：**
優化計算資源，加速處理龐大資料集，提高分析和模型訓練效率。
- 3. **AI/ML (人工智慧/機器學習)：**
支援AI/ML應用，輕鬆開發、部署和管理模型，提升預測準確性和業務洞察。
- 4. **Optimized Value and Performance (價值與性能最佳化)：**
最大化資料價值，同時提升系統性能，實現更快投資回報和業務成果。
- 5. **Easy Access (輕鬆存取)：**
提供輕鬆存取機制，Data as a Service，加速資料查詢、檢索和分享，支援業務需求和決策。



ClearScape Analytics

The most powerful, open, and connected end-to-end AI/ML capabilities

Highly Optimized In-Database Analytic Functions

-  Descriptive Statistics
-  Data Cleansing/Transformation
-  Feature Engineering
-  Hypothesis Testing
-  Multivariate Statistics
-  Machine Learning & AI
-  Time-Series Forecasting
-  Digital Signal Processing
-  Pathing Analytics
-  Geospatial/Temporal

Leverage Languages and Tools of Choice

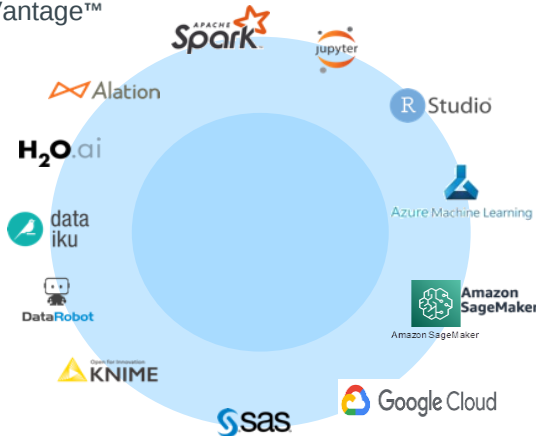
Languages

Use preferred languages R, SQL, Python, SAS



Partner Integration

Best ML/AI tools with tight integration and execution with Vantage™



Bring Your Own Analytics

Open analytics framework containers and model sharing



Deploy at Scale to Drive Transformative Results

Robust APIs

Real-time or batch scoring
Enable open ecosystem access to features or data



Access

REST, SQL,
Python, R, Java



Orchestration

QueryGrid, NOS

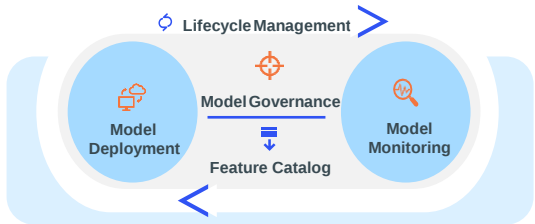


Replication

TPT, DSA, SFTP,
Native APIs

Integrated ModelOps

Model governance, lifecycle management, and monitoring extensions

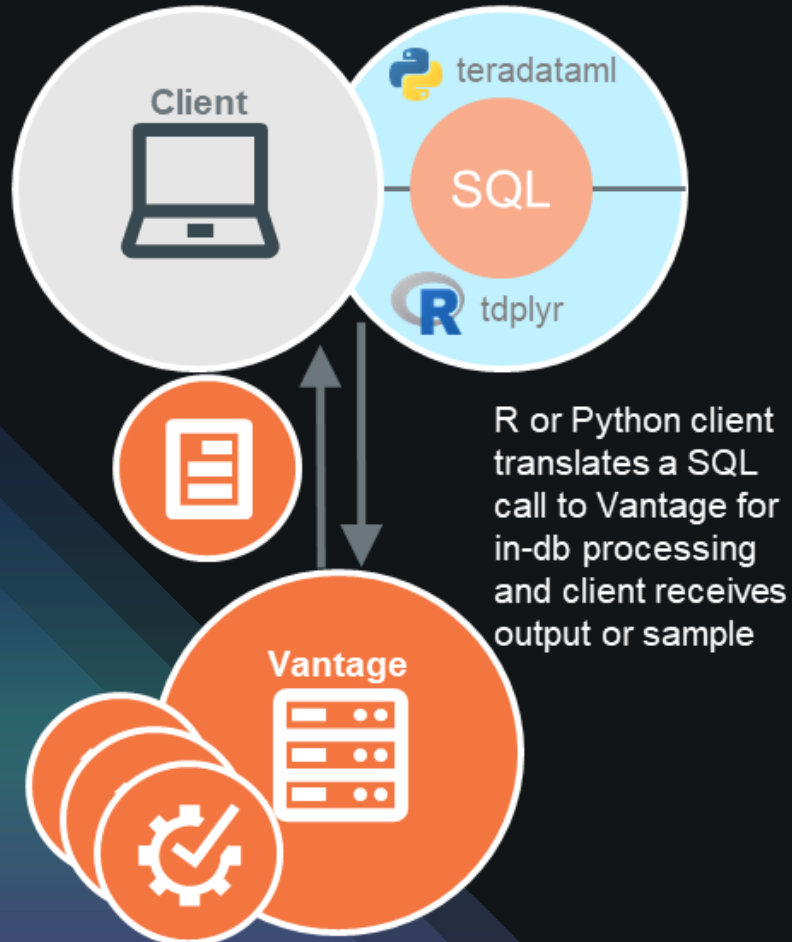


Tightly Integrated with Vantage Database and Workload Management

超過 150 種 **AI/ML** 原生分析功能

1

In-Vantage Processing



監督式機器學習

生成式 AI

非監督式機器學習

路徑分析

時間序列分析

地理空間資訊分析

文字探勘

假設檢定

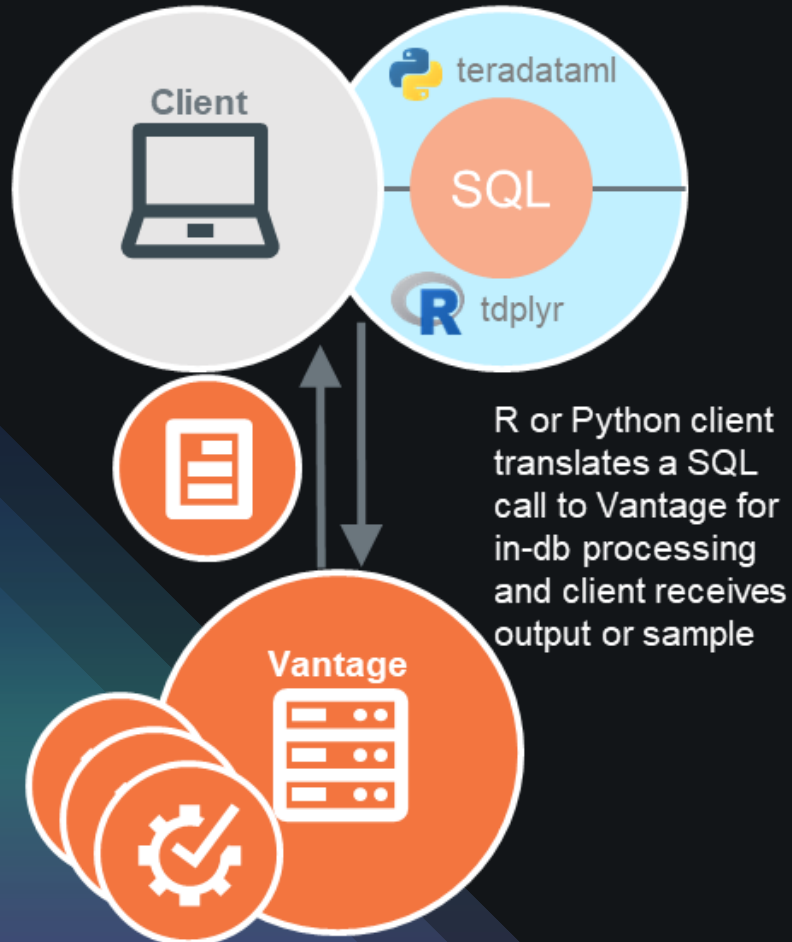
情緒分析

敘述統計

使用 Python 語法進行機器學習

1

In-Vantage Processing



teradataml 17.20.0.7

```
pip install teradataml
```

```
from teradataml import GLM, TDGLMPredict

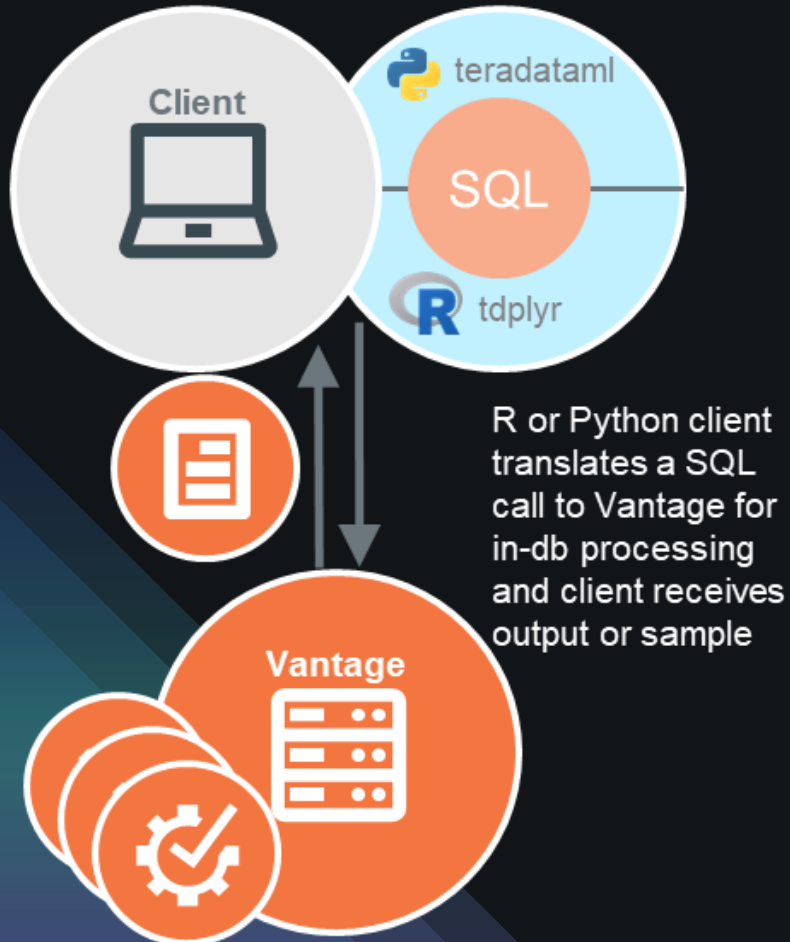
glm_model = GLM(data = df_train,
                 input_columns = ['1:8', '10:33'],
                 response_column = 'Churn',
                 family = 'Binomial')
```

glm_model.result

attribute	predictor	estimate	value
2	Tenure	-1.0887627472071193	None
4	Contract	-3.2532276716641824	None
3	InternetService	2.3047317116742194	None
1	SeniorCitizen	0.8426370149395598	None
0	(Intercept)	2.402976899032699	None

使用 SQL 語法進行機器學習

1 In-Vantage Processing



```
create multiset table linear_regression_model_ase as (  
  select * from td_glm ( -- 1. 選擇 AI 演算法  
    on VAL.VAL_ADS -- 2. 設定分析資料庫及資料表  
    using -- 3. AI 演算法參數設定  
      InputColumns('tot_age',..., 'oh_resident_ind')  
      ResponseColumn('cc_avg_bal')  
      Family('Gaussian')  
    ) as dt  
  ) with data;
```

建立AI數據中台已成為企業落實 AI 的主要趨勢

Teradata Vantage Analytics Platform

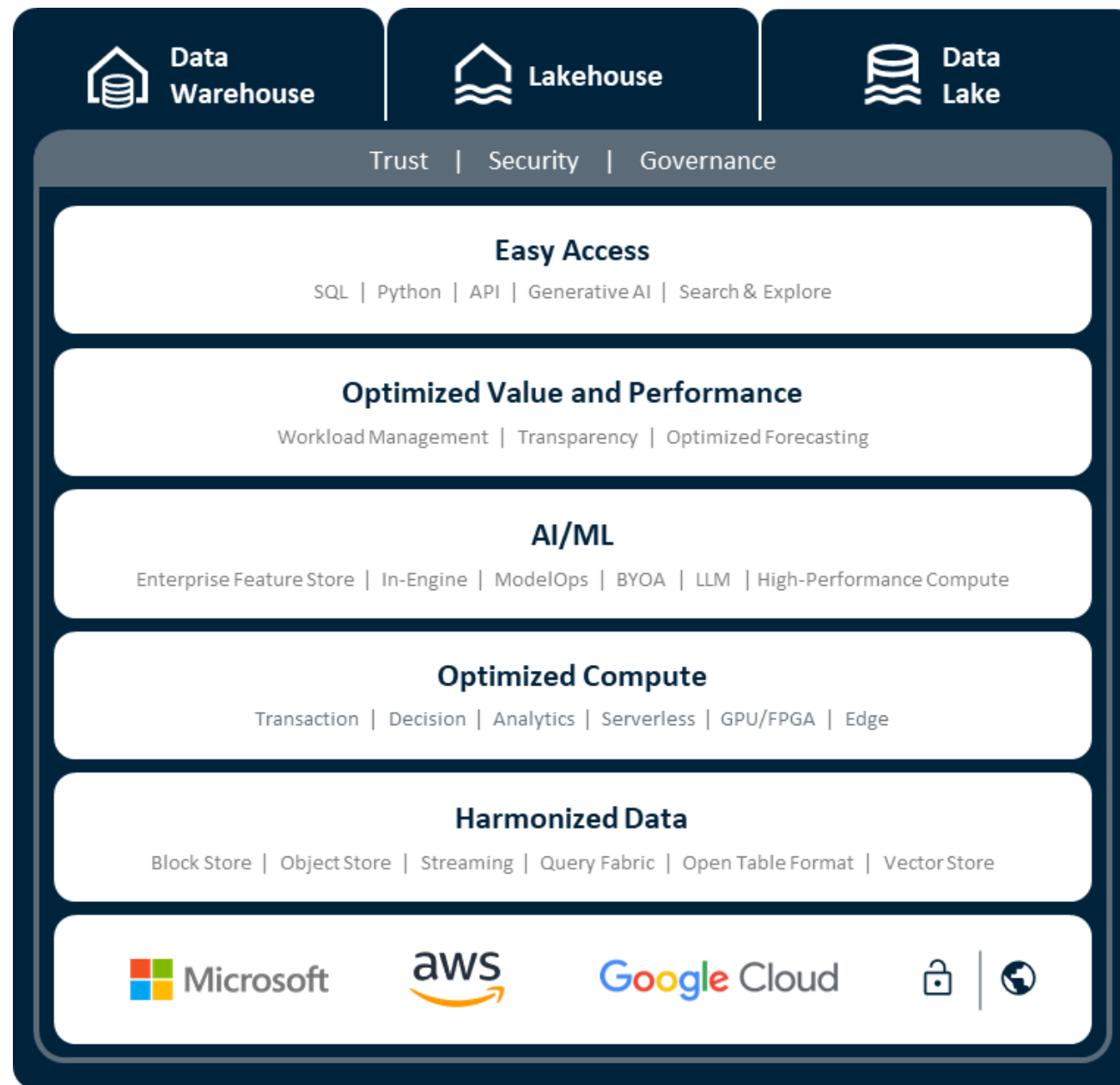
The most powerful, open, and connected end-to-end **AI/ML** capabilities

Teradata's ClearScape Analytics shows nearly 250% ROI, according to Total Economic Impact study



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