

# SNOWFLAKE AI DATA CLOUD FOR DISA

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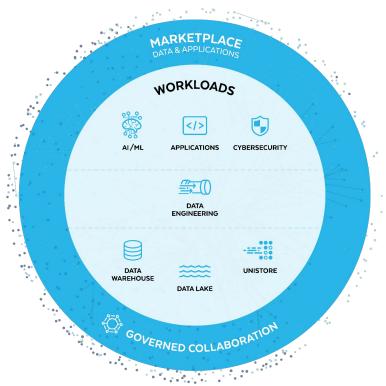
# Agenda

- Introductions
- Questions from Last Overview
- Cost Model
- Value Engineering
- Demo UI Walkthrough & Cortex Al



# By The Numbers

#### **Snowflake Data Cloud**



- Founded 2012 / Product GA 2015
- Largest Software IPO Sep. 2020
- Annual Revenue \$3.6B
- 30%+ YoY Growth
- 10,500+ Customers Globally
- DoD IL2 Authorized
- DoD IL4 P-ATO Issued June '23
- (Snowflakecomputing.mil on NIPR)
- DoD IL5 P-ATO Issued April '25
- DoD IL6 Board Approved

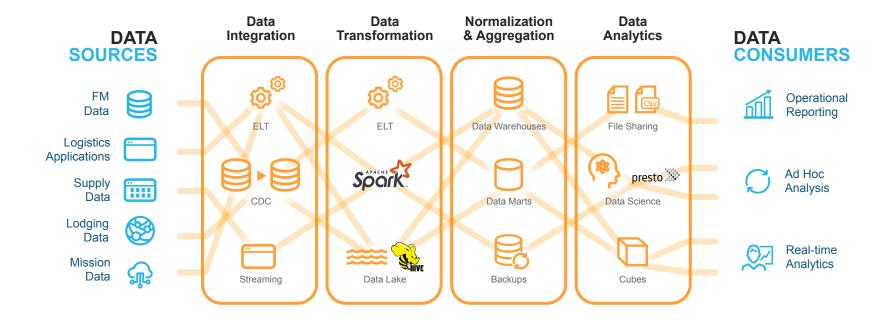
# **Every Organization Struggles with Silos**

Silos equate to complexity, higher costs, and security risks

# SNOWFLAKE ELIMINATES SILOS TO DELIVER A SINGLE DATA FOUNDATION



### **Traditional Solutions**



### The Snowflake Data Cloud



FM Data



Logistics Applications



Supply Data



Mission Data





# DATA CONSUMERS



Operational Reporting



Ad Hoc Analysis

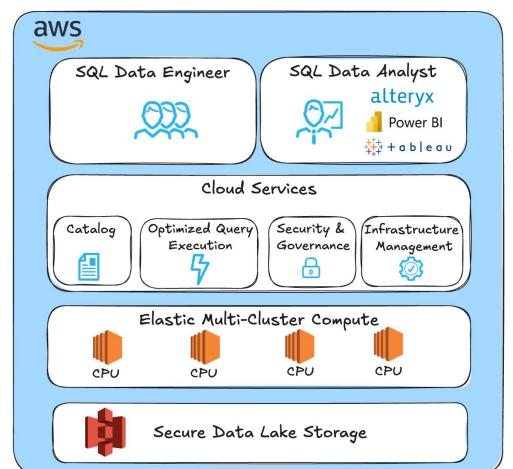


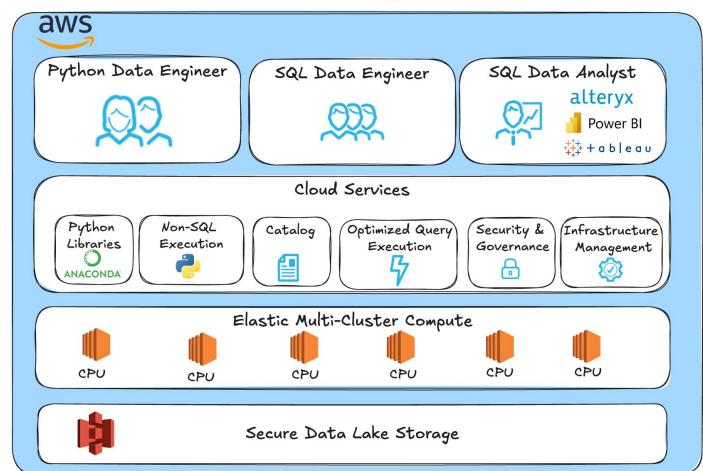
Real-time Analytics













Python Data Engineer



SQL Data Engineer



SQL Data Analyst



alteryx Power BI



Python Data Scientist



#### Cloud Services

Python Libraries

Non-SQL API & Execution ANACONDA



Optimized Query) Execution



Security & Governance



(Infrastructure) Management



CPU

ML APIS | pandas

SnowflakeML

ML Features











CPU



CPU



Hi-Mem



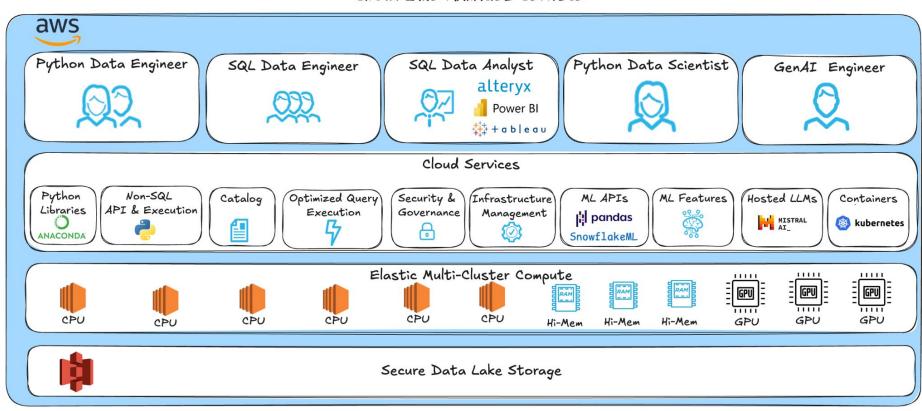
Hi-Mem

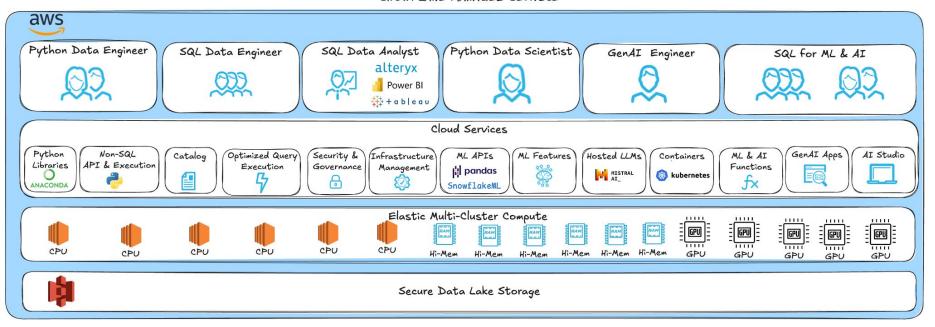


Hi-Mem



Secure Data Lake Storage



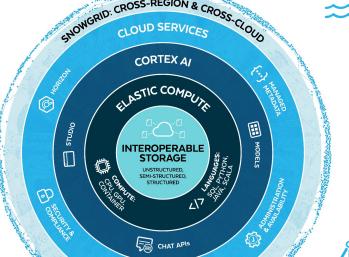


# One Platform. Any Architectural Pattern.

#### **Data Warehouse**

Centralized analytics for structured business data





OPTIMIZATION PERFORMANCE

#### **Data Lake**

Unlimited storage for versatile data types and workloads

#### **Data Lakehouse**

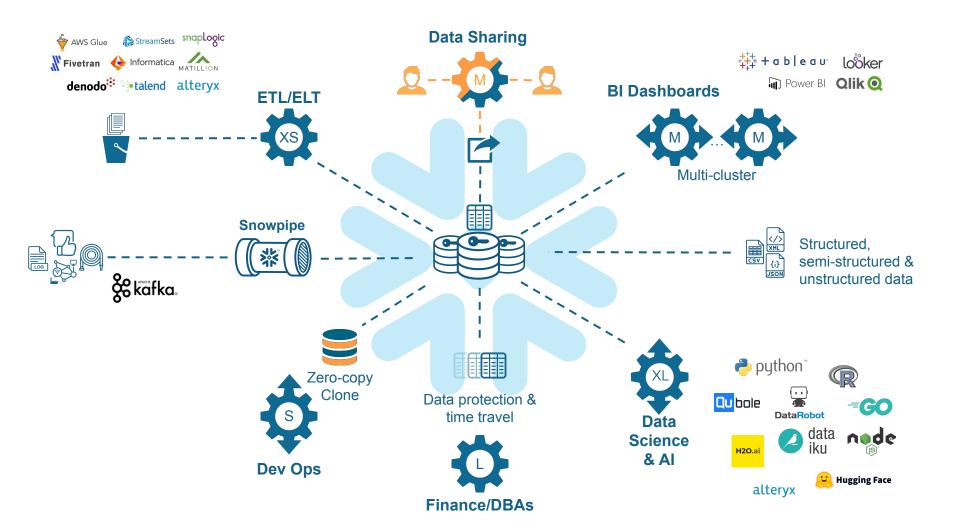
Transactional data lake for unified analytics, AI/ML, collaborative workloads



#### **Data Mesh / Fabric**

Distributed and governed, domain-oriented collaboration

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### **Top Department of Defense Use Cases**

# Data Engineering to Collaboration (Build & Enrich)

- Core Data Platform
- Mission Owner to Advana Data-Sharing

#### Analytics to Al & Machine Learning (Use & Train)

#### Reporting to Models:

- Supply Analytics
- Predictive Maintenance
- FM LLM Chatbot

# Data Applications & Cybersecurity / Management (Extend & Protect)

- Data Applications
- Secure Data Lake
- Data Catalog

















### The Snowflake Differences



#### **It Just Works**

Fully-Managed, unified, secure platform that delivers ease of use and powerful automations



# Optimized Performance at Scale

Scale up and down elastically, and scale out to support massive concurrent users, data volumes, and different workloads



#### **Multi-Cloud Connected**

Access data and apps across clouds and regions securely with one consistent experience

# Requirements for Your Data Foundation

#### **Endless Silos**

Silos result in operational complexity and moving data to get value.





#### **Unified Data**

Switch to a single platform to access all data, including data that's unstructured, in open formats, and from third-parties.

#### **Hidden Costs**

Hidden costs come from multiple services and the manual expertise required to optimize.





#### **Superior TCO**

Switch to a fully managed service to efficiently support users and workloads at scale, while reducing time, effort, and expertise required.

#### **Piecemeal Policies**

Inconsistent governance policies across systems and users introduce security risk.





#### **Universal Governance**

Switch to a single governance model with comprehensive compliance, security, and privacy controls that are universally enforced.

### **Innovations to Drive Customer Success**



# STRENGTHEN YOUR DATA FOUNDATION

Unify all data on your terms and unlock more workloads, with superior TCO advantages



# ACCELERATE ENTERPRISE AI

Enable every user to get value from AI and ML securely against their enterprise data



# BUILD & DISTRIBUTE APPLICATIONS

Simplify the development, deployment, and distribution of applications

There is no Al Strategy without a Data Strategy

# Why Snowflake?

# **Easy to Use - No Additional Fees**



For business and technical users with industry-specific workflows and templates such as audience overlap, reach and frequency & more - at no additional license fees

# Open & Interoperable Ecosystem



Offering a neutral platform with turn-key third-party integrations & optionality across cloud, enrichment, identity, and activation providers; connect with all partners even if they aren't yet on Snowflake

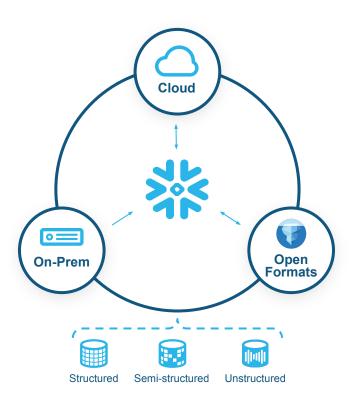
# Built-in Privacy & Governance



Switch to a single governance model with comprehensive compliance, security, and privacy controls that are universally enforced.



# Interoperable Storage



#### **Un-siloed Access to Your Data**

Unstructured, semi-structured, and structured data together with near-infinite scale.

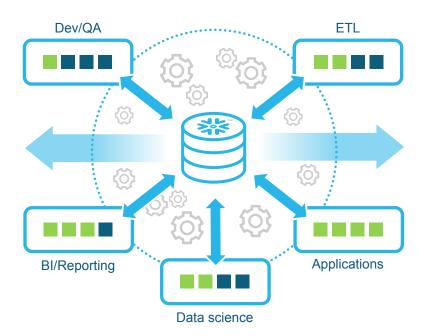
#### **Easily Manage Data at Scale**

Fast and efficient access, optimized compression, and secure data - all automated.

#### Flexibility & Interoperability

Work with data on-premises or in open table formats to remove lock-in and adapt to any architectural pattern.

# O Elastic Compute



#### One Engine for Every Workload

Power streaming pipelines, analytics, AI, interactive apps, and more through a single engine with flexible compute options including GPUs.

#### **Leading Performance & Concurrency**

Fast, reliable performance for virtually all users and jobs with no tuning or contention, delivered through isolated compute.

#### Familiar Languages

Work in SQL, Python, or Java. Run your preferred libraries with Snowpark. All without moving data.

#### Flexible Development

Use native development interfaces, bring your own IDE, or leverage popular third-party tools.

# O Cortex Al

**Document AI GA Soon Snowflake Copilot** Cortex Al Studio PR Chat Structured Data **Documents** Cortex Search PU Cortex Analyst PU Models snowflake Al21 labs Invidia. Meta Mistral Reka Task-Specific & **Foundation** Fine-Tuned Models PU **Embed Models** Models

#### **EFFICIENT**

Streamline development-to-deployment lifecycle with cutting-edge AI models, frameworks and apps running next to the data

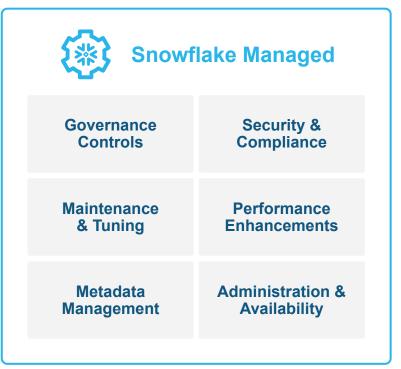
#### **EASY**

Fully managed and tightly integrated data and Al infrastructure accessible via no-code Studio, SQL, Python, and REST APIs interfaces

#### TRUSTED

Protect the value of your IP at scale with industry-leading security and unified governance for data and models trusted by thousands of organizations

# Cloud Services



#### **Fully Managed Service**

Automate costly and complex operations to reduce overheard and improve efficiency. Benefit from near zero maintenance, with no upgrades or downtime.

#### **Unified, Built-In Governance**

Snowflake Horizon Catalog delivers unified compliance, security, privacy, interoperability, and access capabilities, without additional configurations or protocols.

#### Optimized Performance by Default

Benefit from optimized performance by default and transparent performance enhancements automatically applied via releases.

# **Snowgrid Unlocks Data Collaboration**

#### **Traditional Methods**

FTP | APIs | ETL | Federated Protocols



- Unsecure, once data is moved
- Costly to maintain infrastructure / egress
- Delayed access to data
- Heavy implementation to expand beyond a single cloud or region

#### **Snowflake**

Privacy-Preserving Collaboration



- Collaborate across clouds and regions with no ETL or copies
- Discover and access more than just data
- Preserve privacy with robust data governance

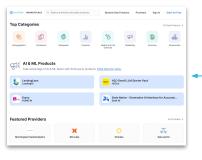
### SHARE AND COLLABORATE IN THE DATA CLOUD

# DISCOVER AND LEVERAGE THE DATA CLOUD

Access data and services from 150+ providers

### SNOWFLAKE DATA MARKETPLACE

Gain immediate access to hundreds of data sets and applications



# SHARE ACROSS YOUR BUSINESS ECOSYSTEM



Share with other Snowflake customers

#### **READER ACCOUNTS**

Share with companies not yet on Snowflake

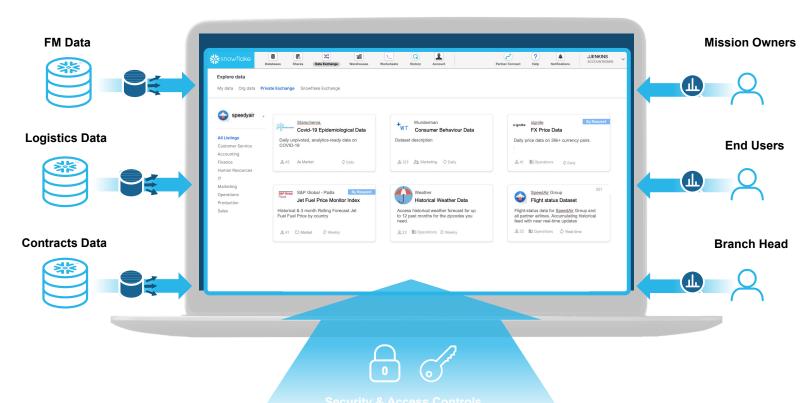
#### **DATA EXCHANGE**

Administer group sharing and data discovery across business units



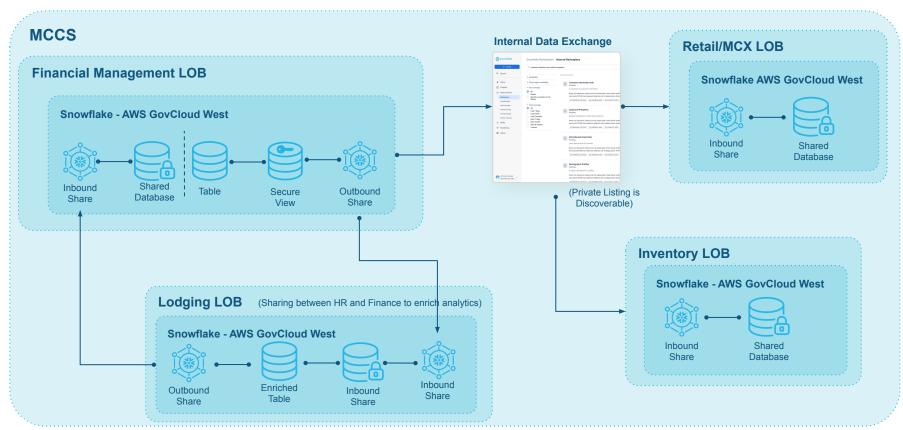


# **DISA DATA EXCHANGE**

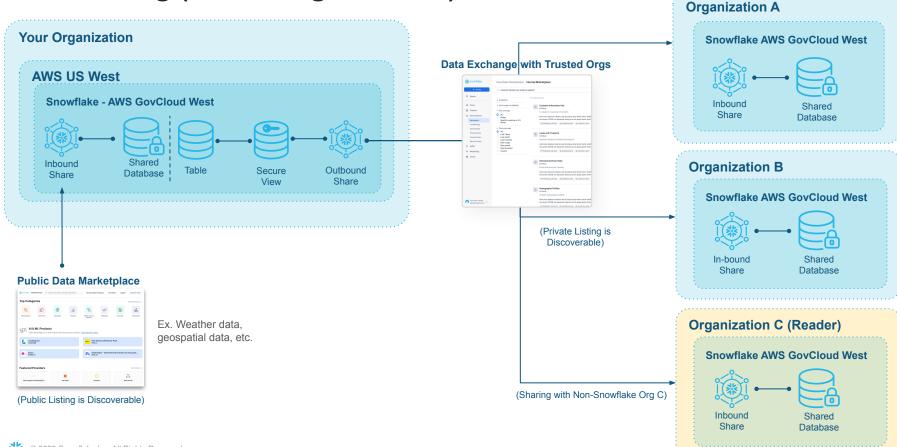




## **Data Sharing (Intra-Organization)**



# **Data Sharing (Cross-Organization)**



## What's New: Innovations to Drive Customer Success



# STRENGTHEN YOUR DATA FOUNDATION

Unify all data on your terms and unlock more workloads, with superior TCO advantages



# ACCELERATE ENTERPRISE AI

Enable every user to get value from AI and ML securely against their enterprise data



# BUILD & DISTRIBUTE APPLICATIONS

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### Snowflake for AI / ML: Platform Overview

# Use Al in everyday analytics within seconds

No AI expertise or integrations needed. Access via Snowsight using pre-built UIs or SQL / Python functions.

# Build and deploy Al apps in as little as minutes

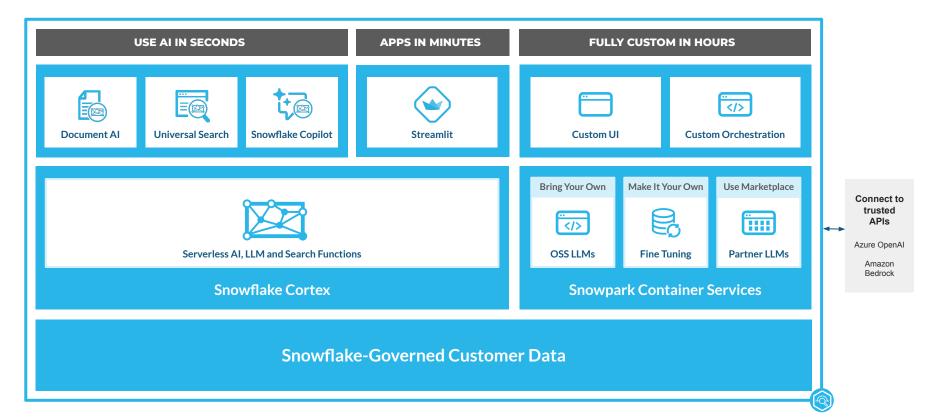
Accelerate delivery of innovation with scalable infrastructure and app stack primitives. Build apps in minutes or go fully custom in hours.

#### Keep data and models secure and governed

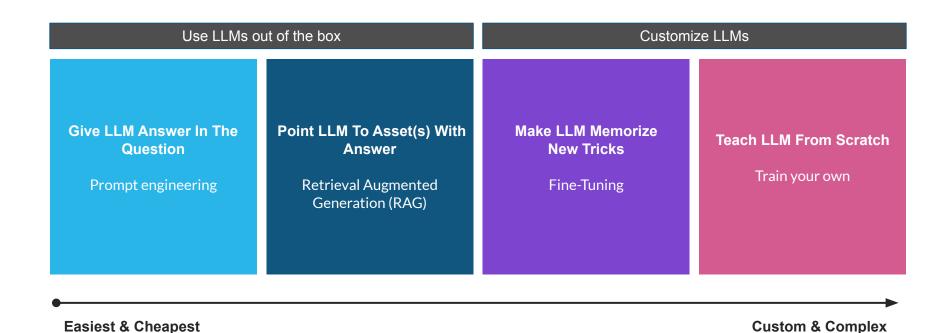
Robust foundation to safeguard your IP from unintended use with role-based access definitions on data, models and apps in Snowflake.



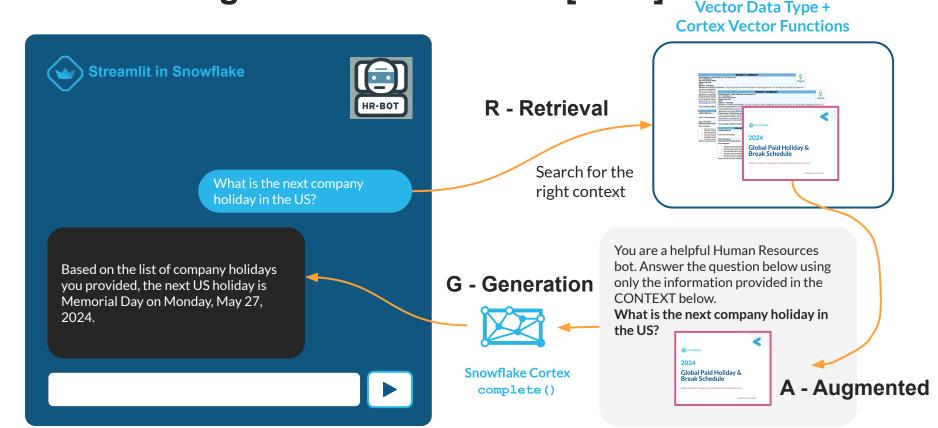
### Snowflake for Gen AI & LLMs: Platform Overview



# **Ways To Bring In New Information**



# **Retrieval Augmented Generation [RAG]**



### Foundation Models in Cortex Al



Available in Snowflake Cortex Al

- Flexibility to choose the state-of-the-art model that best fits your task and cost goals
- Run batch operations using SQL or Python serverless functions inside Snowflake
- Use from any application via REST API
- No GPU infrastructure management
- Data stays in Snowflake and is never shared with third-party LLM provider
- RBAC policies limit data access to appropriate roles

## **Foundation Models in Cortex Al**

- Snowflake Al Pricing Table
- Full pricing available <a href="here">here</a>

Feature	Snowflake-managed compute <sup>6</sup>
Cortex Complete – reka-core	5.50 Credits / 1M Tokens
Cortex Complete – mistral-large	5.10 Credits / 1M Tokens
Cortex Complete – Ilama3.1-405b	5 Credits / 1M Tokens
ortex Complete – Ilama3-70b	1.21 Credits / 1M Tokens
ortex Complete – Ilama3.1-70b	1.21 Credits / 1M Tokens
Cortex Complete – snowflake-arctic	0.84 Credits / 1M Tokens
Cortex Complete – Ilama2-chat-70b	0.45 Credits / 1M Tokens
Cortex Complete – reka-flash	0.45 Credits / 1M Tokens
Cortex Complete – mixtral-8x7b	0.22 Credits / 1M Tokens
ortex Complete – Ilama3-8b	0.19 Credits / 1M Tokens
Cortex Complete – Ilama3.1-8b	0.19 Credits / 1M Tokens
Cortex Complete – mistral-7b	0.12 Credits / 1M Tokens
ortex Complete – gemma-7b	0.12 Credits / 1M Tokens
Cortex Translate	0.33 Credits / 1M Tokens
Cortex Guard	0.25 Credits / 1M Tokens
Cortex Summarize	0.10 Credits / 1M Tokens
Cortex Extract Answer	0.08 Credits / 1M Tokens
Cortex Sentiment	0.08 Credits / 1M Tokens
cortex Embed Text 1024 - nv-embed-qa-4	0.05 Credits / 1M Tokens
ortex Embed Text 768 – snowflake-arctic-embed-m	0.03 Credits / 1M Tokens
ortex Embed Text 768 – e5-base-v2	0.03 Credits / 1M Tokens
Cortex Search v. vi	0 Credits per GB/mo of indexed data
Document Al v	8 Credits per hour of compute

	Snowflake-man	Snowflake-managed compute <sup>6</sup>	
Feature	Fine-Tuning (Training)	Cortex Complete (Fine-Tuned Inference)	
Cortex Fine-Tuning – Ilama3-70b	3.40 Credits / 1M Tokens	2.42 Credits / 1M Tokens	
Cortex Fine-Tuning – mixtral-8x7b	3.40 Credits / 1M Tokens	0.44 Credits / 1M Tokens	
Cortex Fine-Tuning – Ilama3-8b	0.64 Credits / 1M Tokens	0.38 Credits / 1M Tokens	
Cortex Fine-Tuning – mistral-7b	0.64 Credits / 1M Tokens	0.24 Credits / 1M Tokens	

# One Fully Managed Platform. Many Use Cases.





# THANK YOU

