

A photograph of three business professionals (two women and one man) sitting around a table, engaged in a conversation. The image is overlaid with a blue tint. The text "Data for Breakfast" is written in a white, cursive script across the center of the image.

Data for Breakfast



SNOWFLAKE

THE CLOUD DATA PLATFORM



DATA...THE NEW FRONTIER



NEW TECHNOLOGY CHANGES HOW WE USE DATA

Diversification of Analytics



Analytics is growing in importance, everywhere, and for everyone

Explosion of Data



IoT, mobile, and social open up new opportunities for insight

Rise of the Cloud



Cloud gives us the ability to scale and centralize data



TAKING A PLATFORM APPROACH LEADS TO BIG BUSINESS IMPACT

**Make Better, Quicker
Business Decisions**



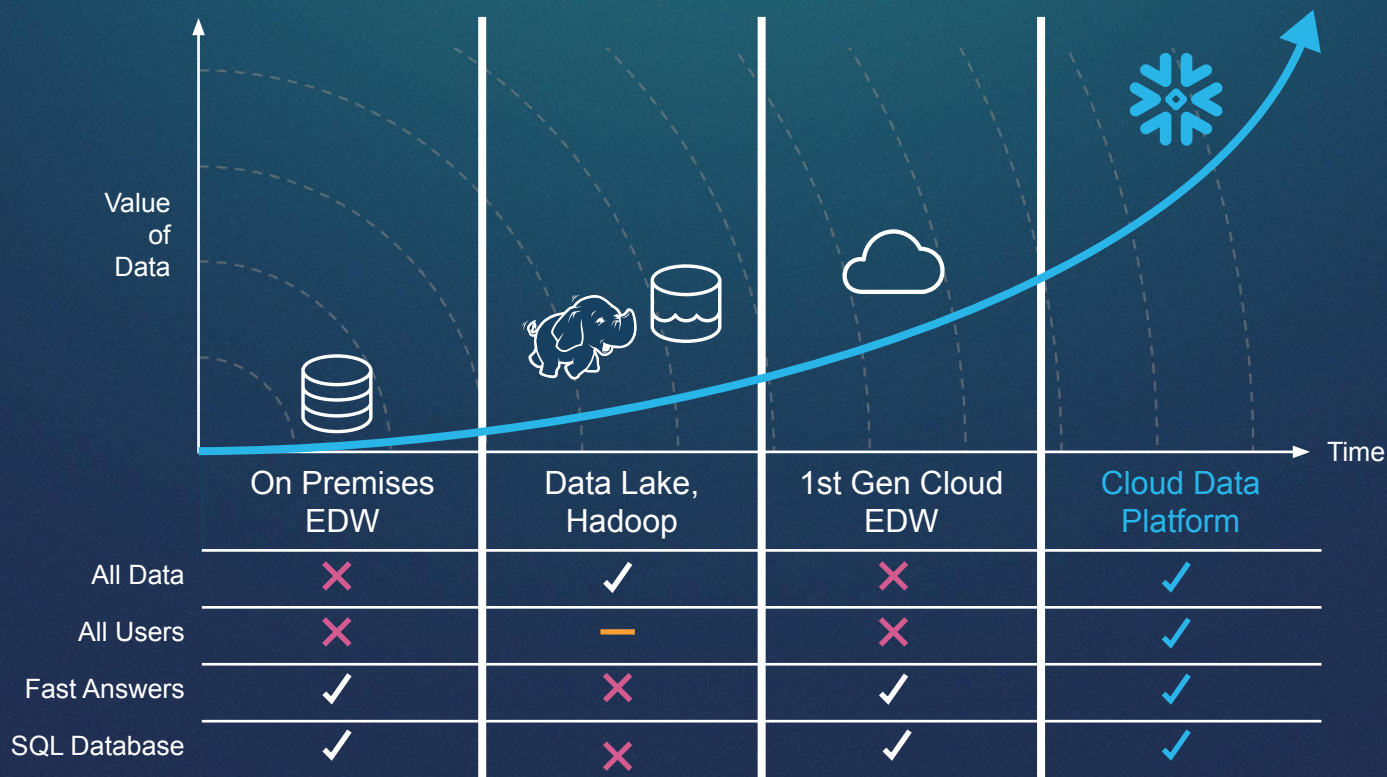
**Reduce the Cost of
Scaling Data Management
and Analytics**



**Create a Great Customer
Experience with Data**

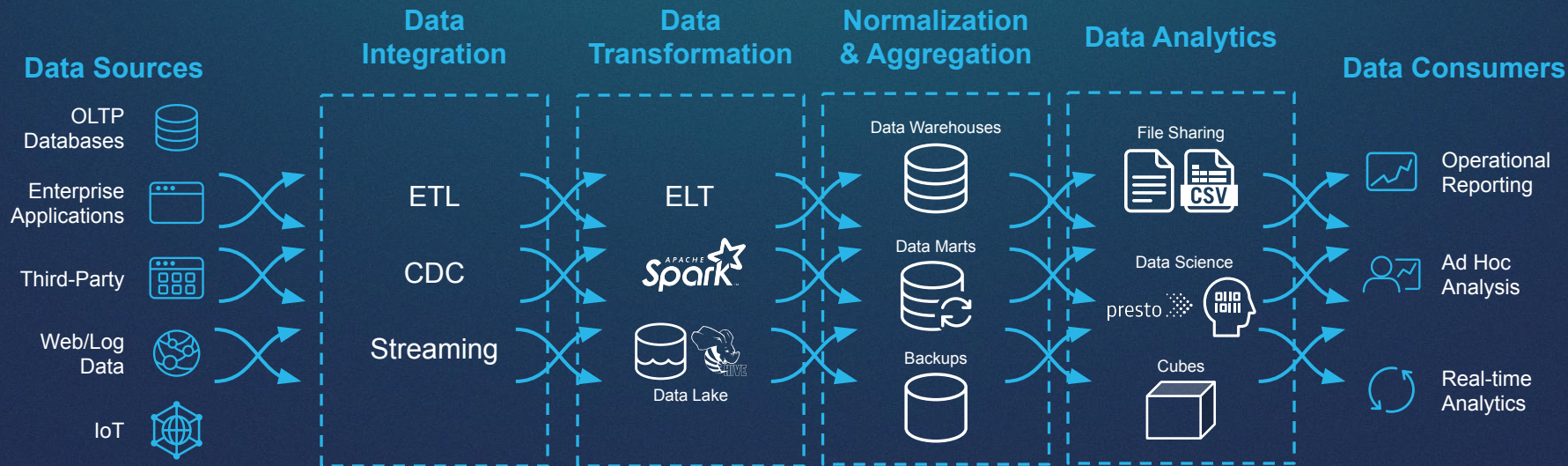


JOURNEY TO A CLOUD DATA PLATFORM



TRADITIONAL DATA ARCHITECTURE

Complex and Costly with Multiple Copies of Data



MODERN DATA ARCHITECTURE WITH SNOWFLAKE



THE VALUE OF A CLOUD DATA PLATFORM



One Platform
One Copy of Data,
Many Workloads

Unlimited
Performance
and Scale



Secure
Governed Access
to All Data

Near-zero
Maintenance,
as a Service



ONE PLATFORM, ONE COPY OF DATA, MANY WORKLOADS



Data Warehouse

Modernize data warehousing to deliver faster analytics at scale



Data Engineering

Rethink transformation with robust and integrated data pipelines



Data Lake

Simplify and accelerate your data lake with one platform for all your data



Data Applications

Develop apps with fast and scalable analytics that delight customers



Data Exchanges

Empower your ecosystem with secure, governed access to all data



Data Science

Simplify and accelerate machine learning and artificial intelligence



THE IMPACT OF A CLOUD DATA PLATFORM





Empowering Healthcare

SITUATION

- Shift to the cloud with focus on speed and value
- Managing infrastructure
- Significant governance, regulatory requirements



VALUE

- 60+ analytics teams served by single cloud data platform
- Migrated in < 90 days
- Load speeds improving 86%
- 5x faster complex queries
- Improved governance and democratized insights



Sainsbury's



SITUATION

- Multiple data warehouses, some end-of-life
- Data silos caused ambiguity and reporting disparities
- Poor consumer insight

VALUE

- Diverse data ingested for analytics, data science
- Improved agility, scalability and analytics performance
- In depth customer knowledge and improved services





SITUATION / PAIN

- Painfully slow analytics cycles
- Limited ability to answer complex questions
- Inability to provide business continuity and ensure security



SOLUTION / VALUE

- Hundreds of newly empowered analysts
- Improved scalability and faster query times
- Guaranteed security and data availability, 24/7/365



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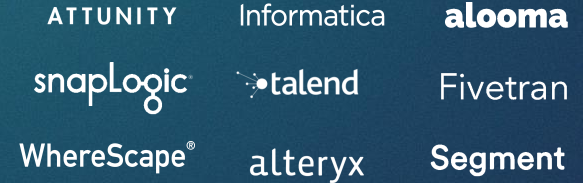
Platform



BI/Analytics



ETL



EVER EXPANDING ECOSYSTEM

Data Science



Services



TECHNICAL DEEP DIVE



HOW IS SNOWFLAKE UNIQUE?



ARCHITECTURE



A CLOSER LOOK

Traditional Architectures



Shared-disk

Additional capacity requires forklift upgrade

Reads/Writes at the same time cripples the system

Replication requires additional hardware



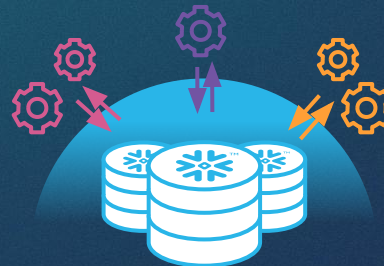
Shared-nothing

Resizing cluster requires redistributing data. Shut down requires unloading.

Each cluster requires its own copy of data (ex: test/dev, HA)

Vacuuming processes needed to maintain sort and distribution for performance

Snowflake

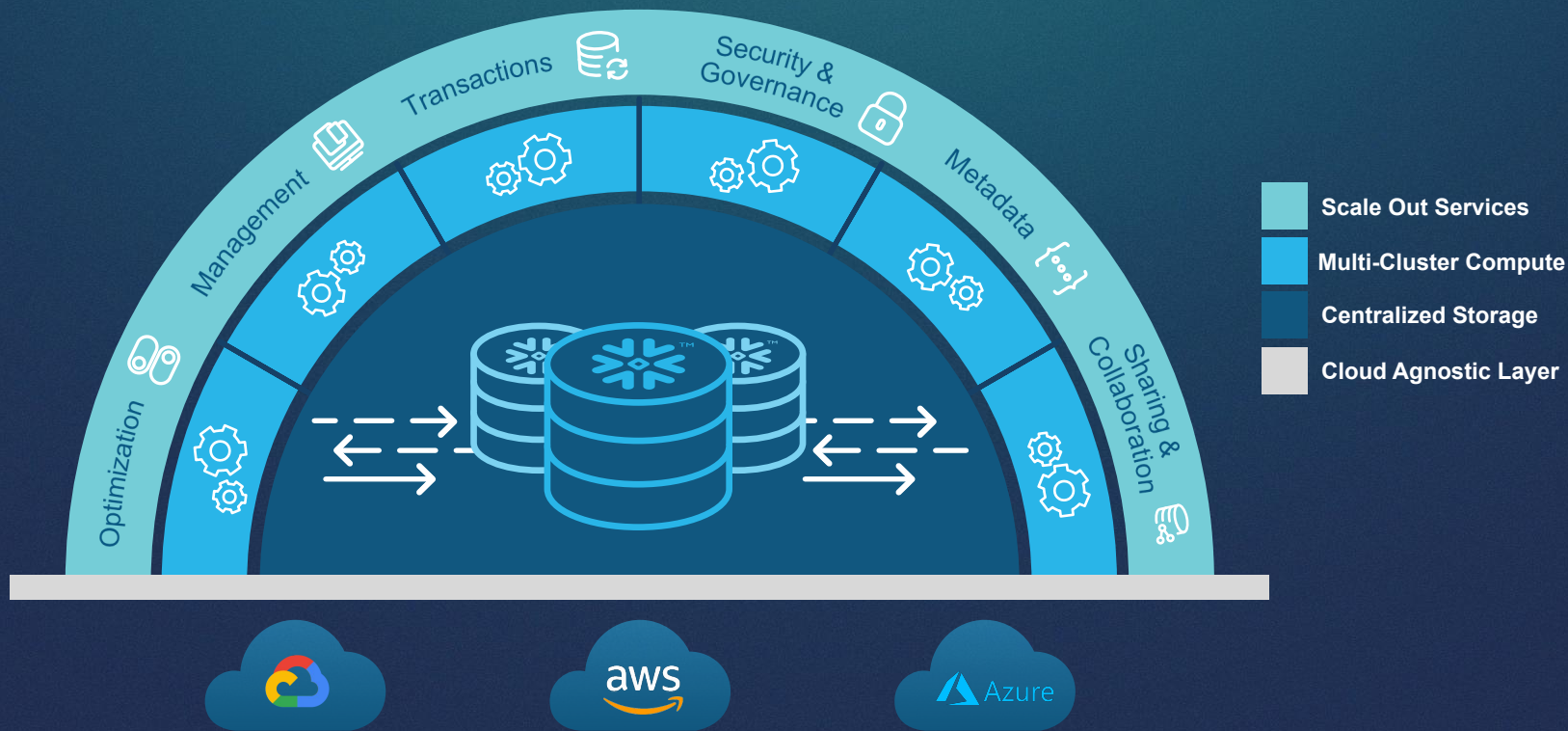


Multi-cluster, shared data

- Centralized, scale-out storage that expands and contracts automatically
- Independent compute clusters can read/write at the same time and resize instantly
- Automated backup across multiple availability zones/regions
- AWS, Azure, GCP



SNOWFLAKE ARCHITECTURE



MODERN DATA ARCHITECTURE WITH SNOWFLAKE CLOUD DATA PLATFORM



ONE PLATFORM, ONE COPY OF DATA, MANY WORKLOADS



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Data Exchanges

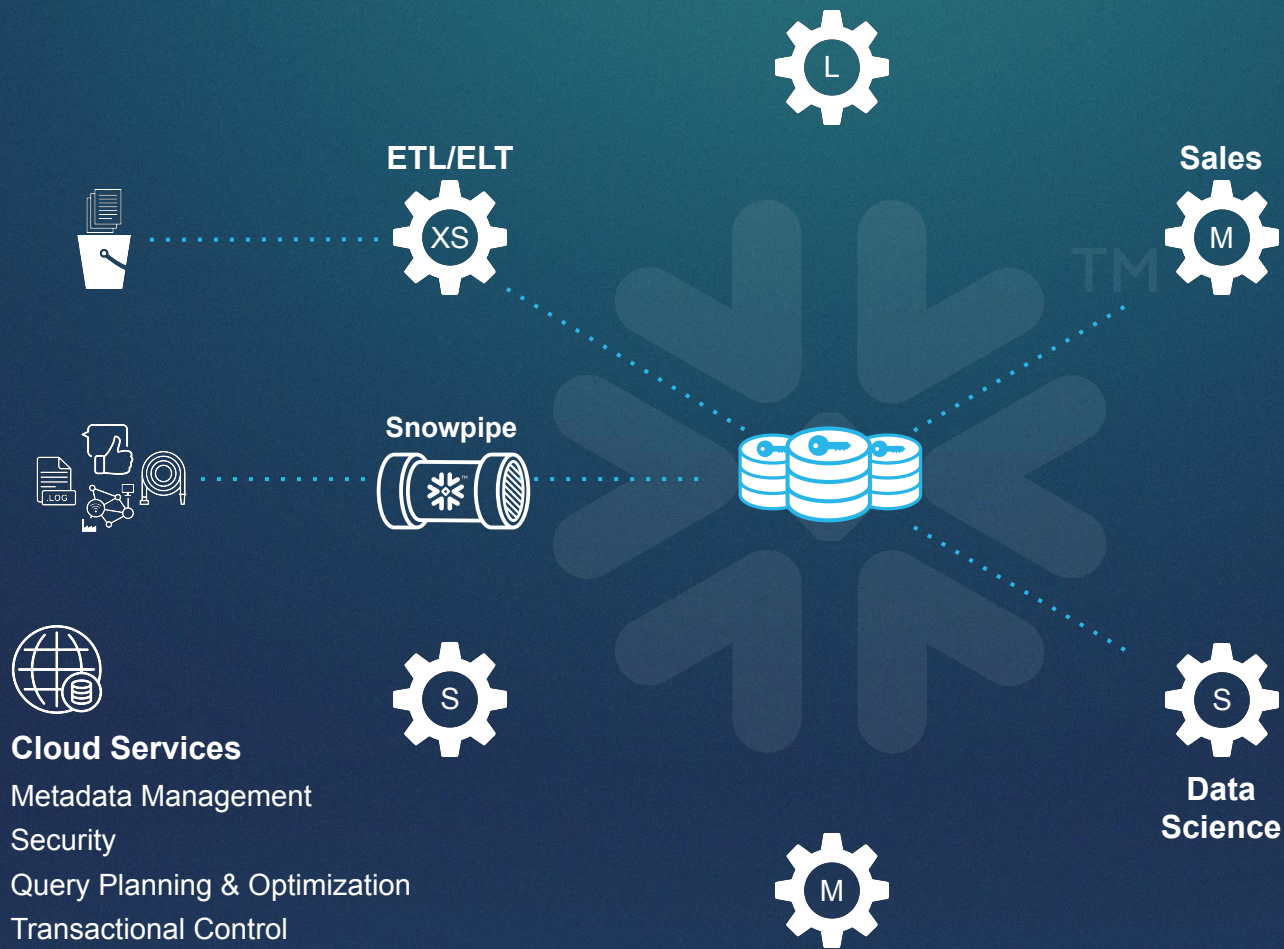
Empower your ecosystem with secure, governed access to all data

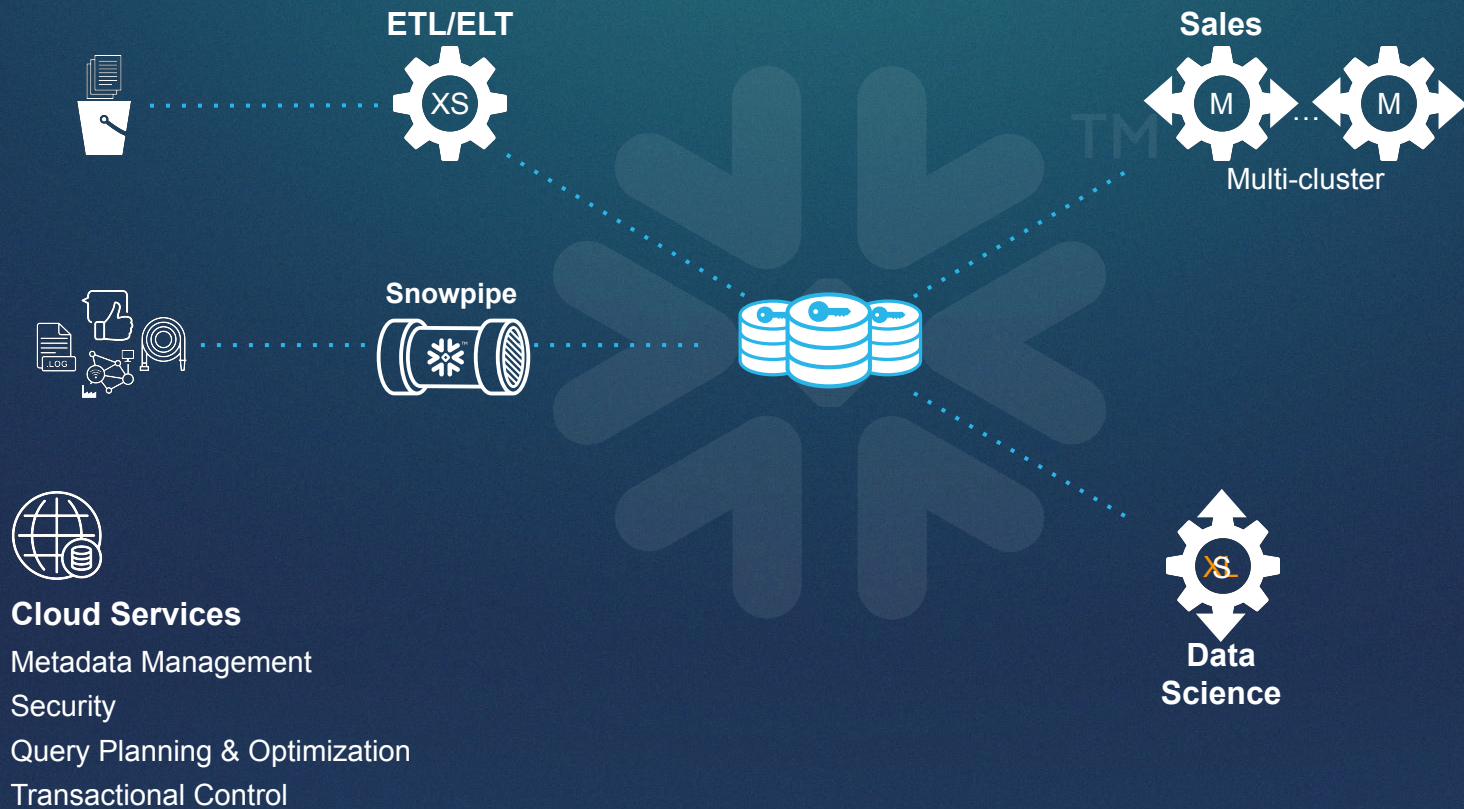


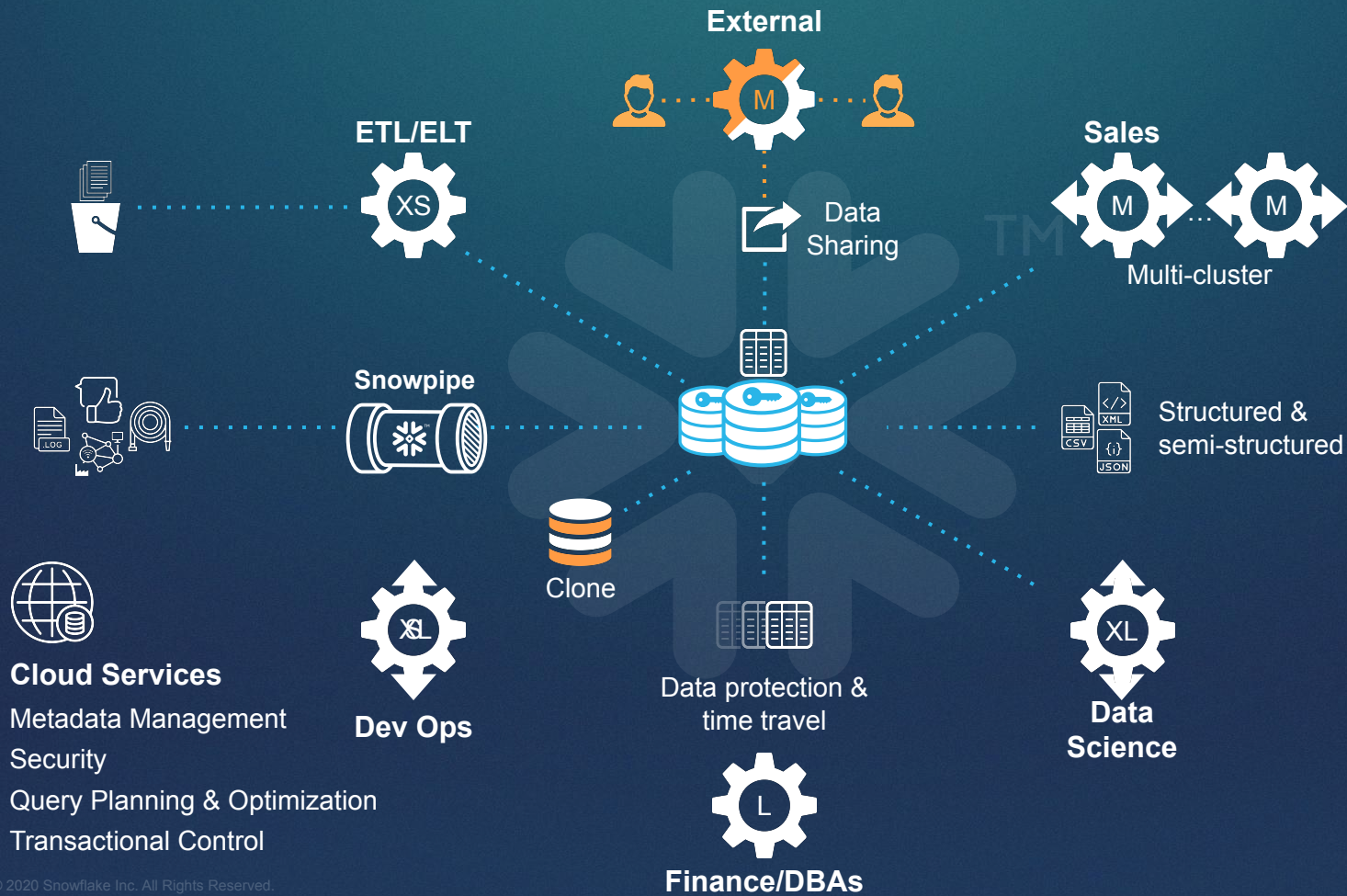
Data Science

Simplify and accelerate machine learning and artificial intelligence









SECURE BY DESIGN, DATA AVAILABILITY

Authentication



- Embedded multi-factor authentication
- Key Pair authentication
- Federated authentication / SSO supported

Access Control



- IP whitelisting
- Roles-based access control model
- Granular privileges on all objects & actions

Data Encryption



- All data encrypted, always, end-to-end
- Encryption keys managed automatically

External Validation



- Certified against enterprise-class requirements
- PCI and HIPAA available

Data Availability



- User error: Time Travel, Failsafe, Cloning
- Zone failure: Data replicated to multiple zones in a region
- Region/Provider failure: Data replication & failover



MORE ON WORKLOADS



**Data
Lake**



**Data
Exchange**



**Data
Engineering**



**Data
Science**



HOW DOES SCALABLE CLOUD DATA PLATFORM ENABLE DATA LAKES?

Snowflake

Data Lake

Attributes

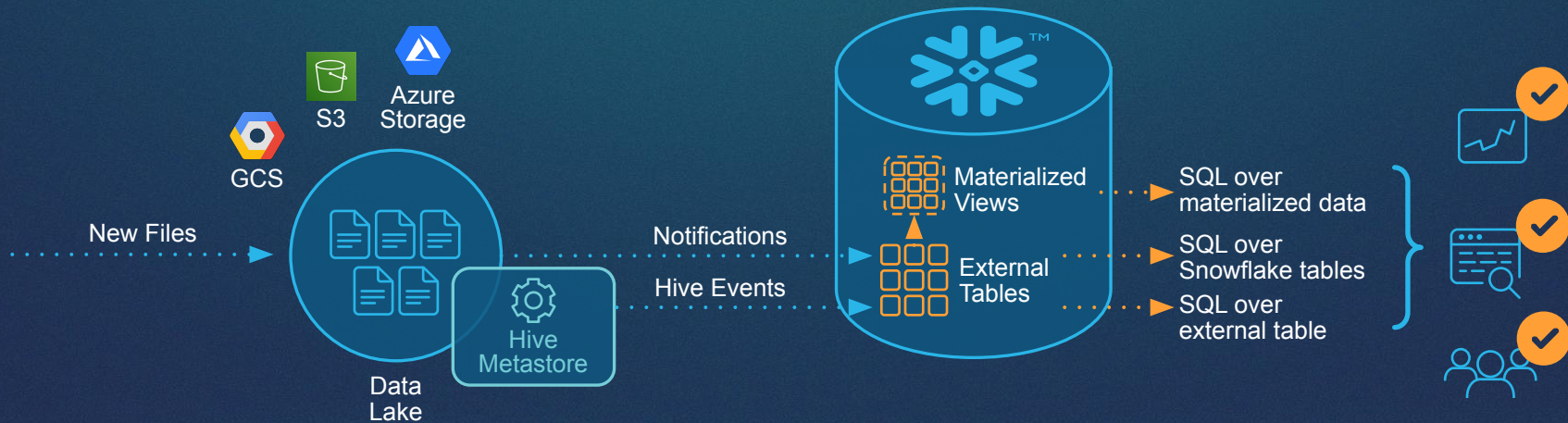
- ❄ No silos – all data
- ❄ Open formats
- ❄ Raw Representation
- ❄ Multiple workloads
- ❄ Cheap storage
- ❄ Schema on read

Additional Benefits

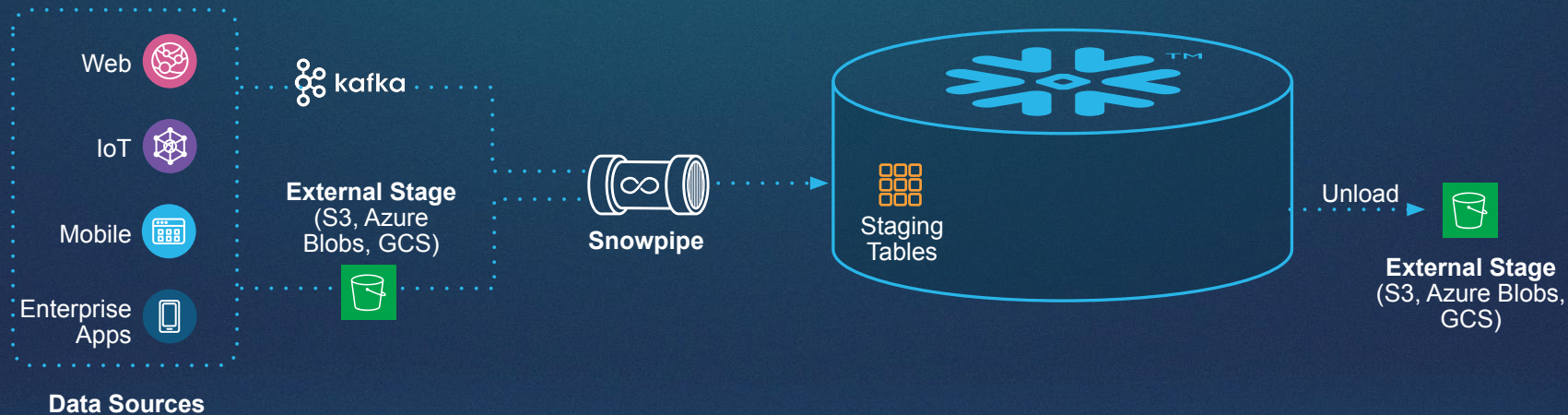
- ❄ Governance
- ❄ Transactional
- ❄ Data sharing
- ❄ Global
- ❄ Performance
- ❄ Managed service



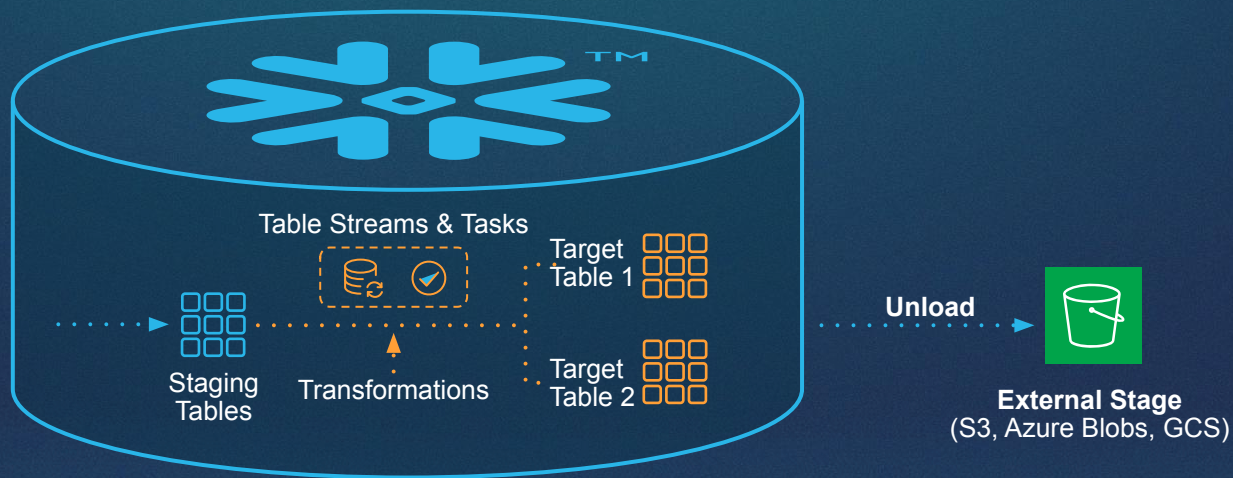
AUGMENTING EXISTING DATA LAKES



LOW LATENCY INGEST



SCALABLE TRANSACTIONAL TRANSFORMATIONS



SECURE DATA SHARING

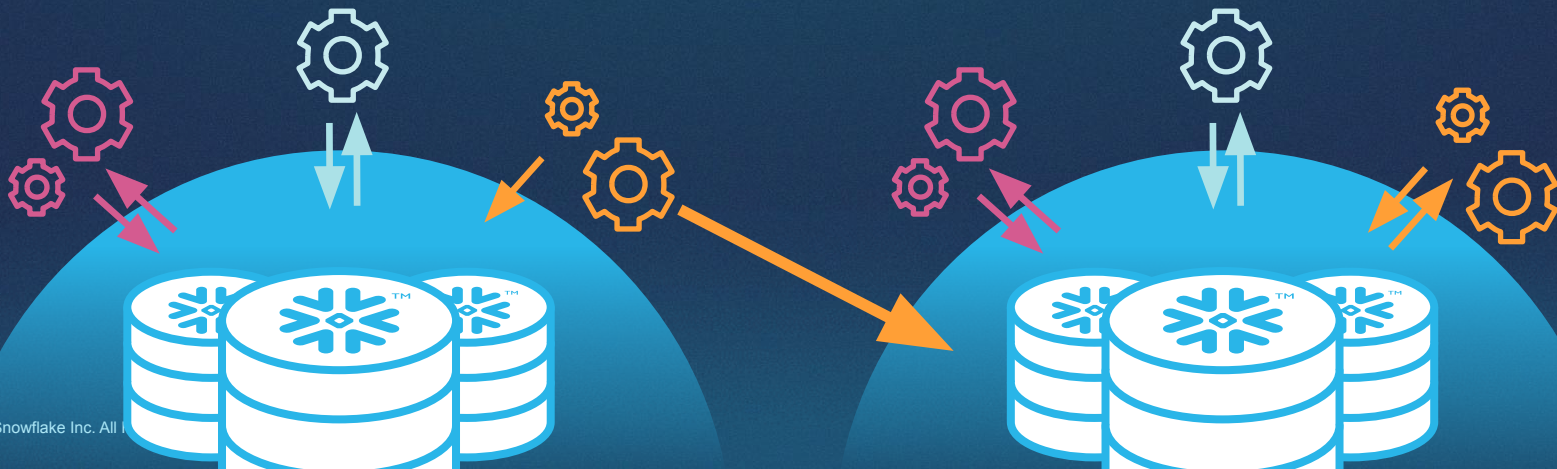
Secure

Live

Frictionless

Personalized

Global



ENABLING AI, ML, AND DATA SCIENCE

- Improving data science speed and efficiency with centralized source of high performance data
- Accelerating data exploration and preparation by 10-100x
- Connectors to leading and emerging technologies
- First class ecosystem of partners



Amazon SageMaker



SPEAKER Q&A



JOIN US AFTER THE BREAK

FROM ZERO TO 
SNOWFLAKE

in 90 minutes

powered by
aws




THANK YOU

Data for Breakfast

