AWS re:Invent

NOV. 28 – DEC. 2, 2022 | LAS VEGAS, NV

ANT205-R

Achieving your modern data architecture

Santosh Chandrachood

General Manager
AWS Glue

Agenda

Modern data architecture on AWS

End-to-end data life cycle on the modern data architecture

Data governance and data mesh in action

Journey towards modern data architecture

Deriving insights from data is hard

AWS CAN HELP

DATA LAKE
DATA WAREHOUSE

Data silos

DATA
PEOPLE

People silos

LEGACY TECH
COST

Business silos

Challenges in data silos

Data is growing exponentially

From new sources

Increasingly diverse

More users needing secure access

Cost and performance

Challenges in people silos

UNIQUE USER SKILLSETS

TOOL PREFERENCES

REQUIRED PROCESSES

Challenges in business silos

COST

LEGACY INFRASTRUCTURE

AGILITY

The five pillars of a modern data architecture

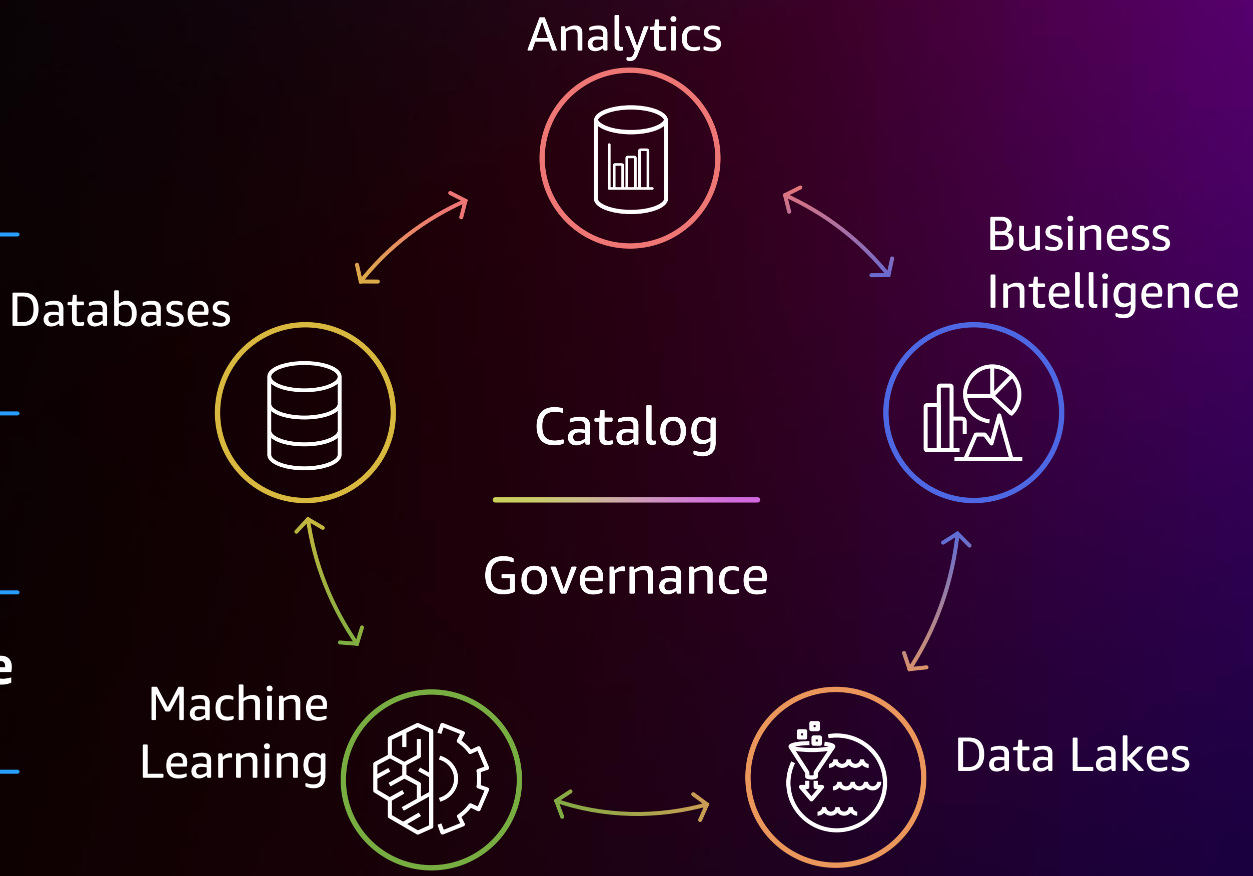
Unified analytics

Highest performance at the lowest cost

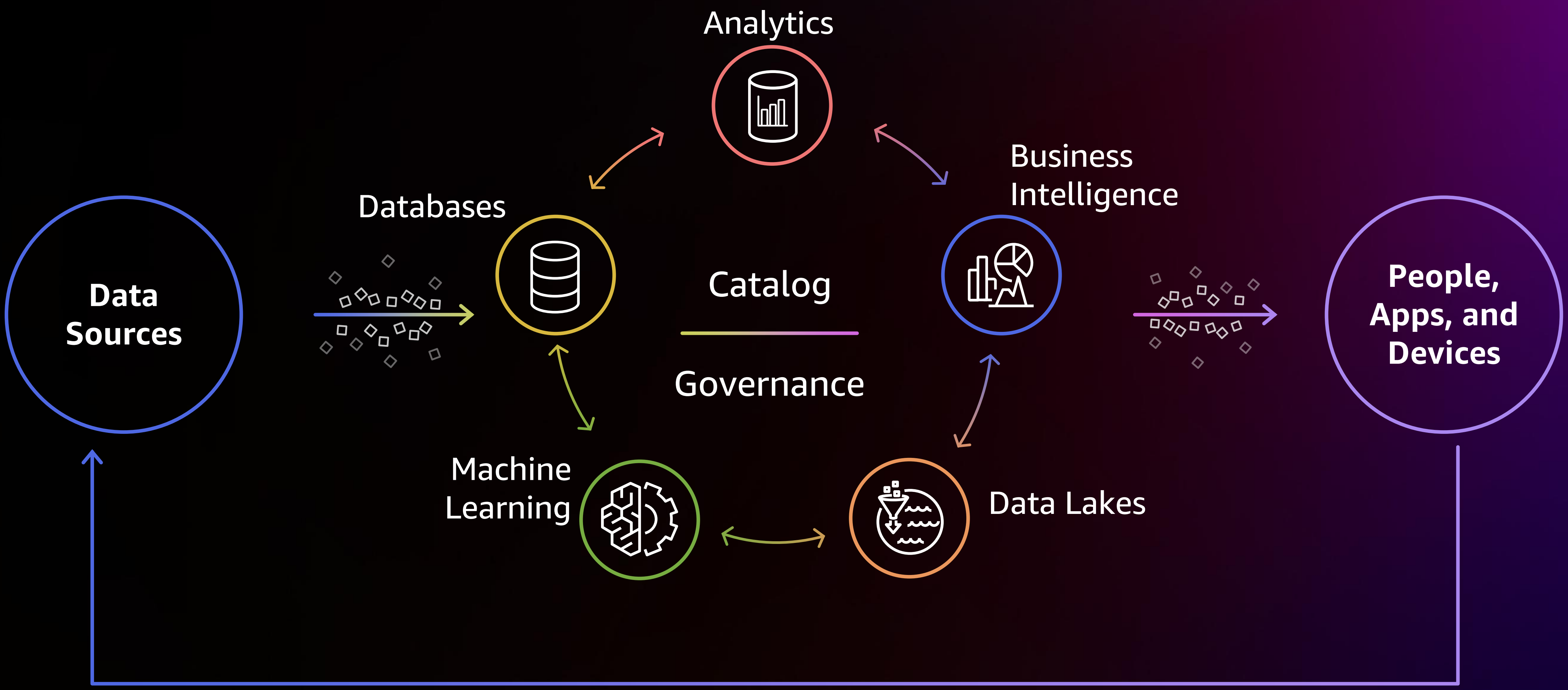
Machine learning integration

Unified data access, security and governance

Insights for everyone



Modern data architecture



Analytics

Business Intelligence

Databases

Data Sources

Catalog

Governance

People, Apps, and Devices

Machine Learning

Data Lakes

Warner Bros. Games scales data analytics

Challenge:

Measure the business and provide meaningful feedback without getting in the way of the creative process. The business isn’t static. They have data velocity, volume, variety, and voracity. They need a scalable infrastructure, data federation and democracy, and a way to act on the data.

Solution:

A modern data architecture with Amazon Redshift, Amazon EMR, and AWS Glue.

Result:

One version of the data for all stakeholders to access with increased scalability, lowered overhead costs, and more compute and memory
for the same cost.

Amazon Redshift AWS Glue Amazon EMR

Modern data architecture's five benefits

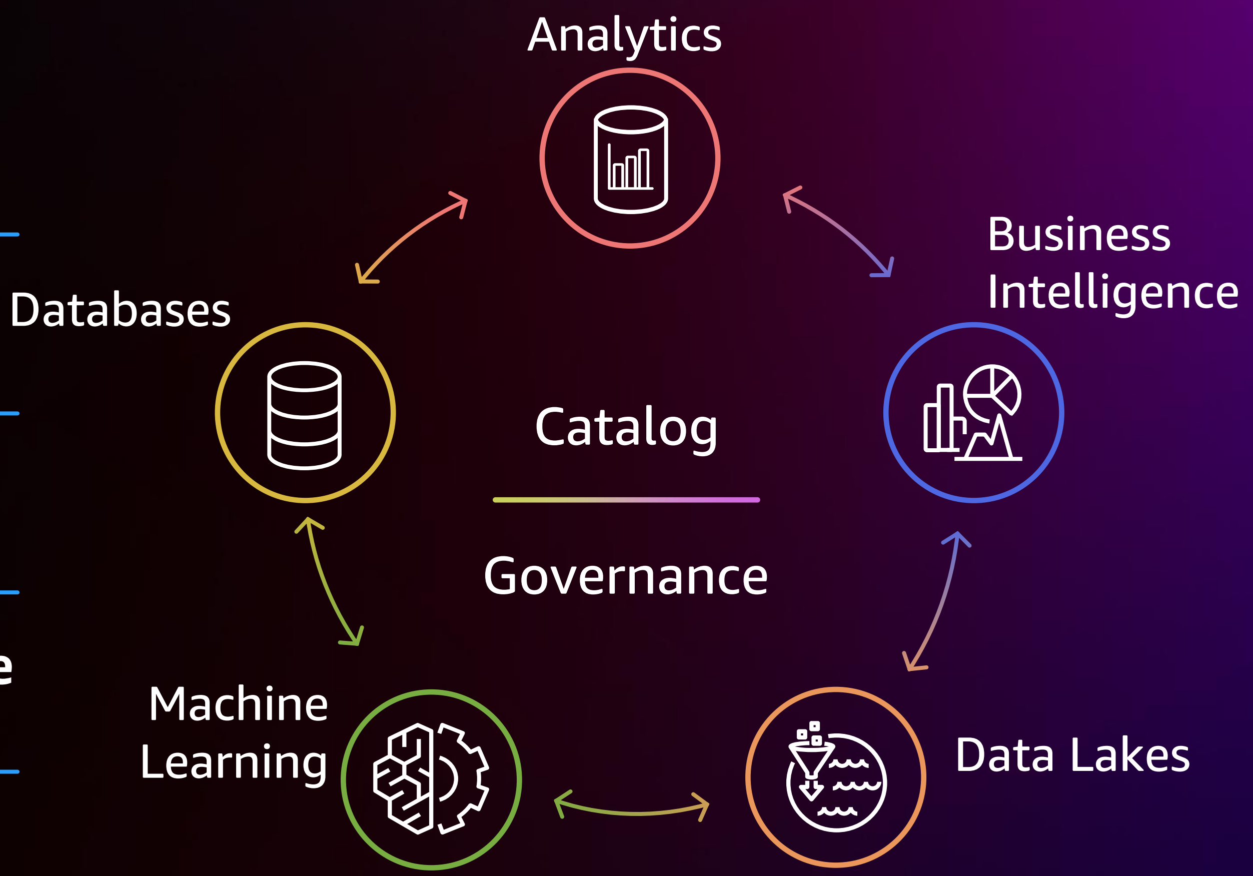
Unified analytics

Highest performance at the lowest cost

Machine learning integration

Unified data access, security and governance

Insights for everyone



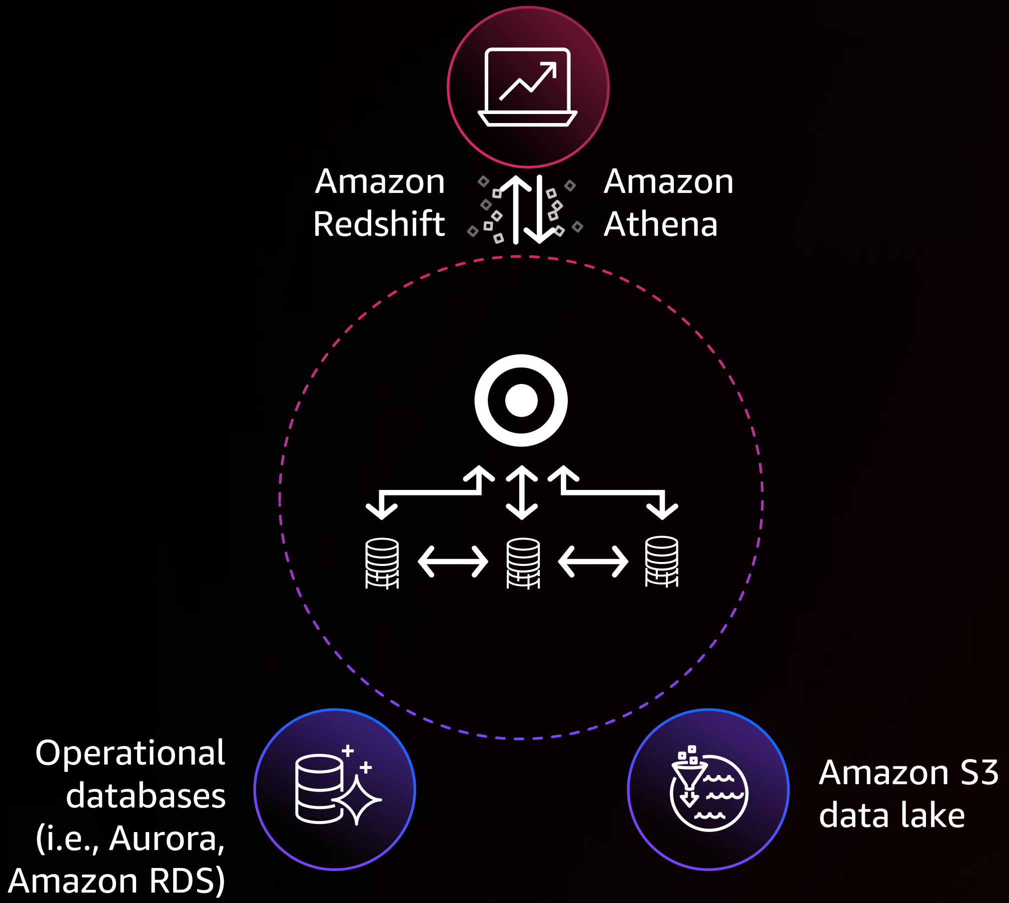
Unified analytics

Data access anywhere

Bringing your data in

Right tools for analytics

Federated query in Amazon Redshift and Amazon Athena



Integrate varied data stores with data warehouse and Amazon S3 data lake

Analytics on combined data **without data movement** and ETL delays

Flexible and easy way to ingest data, avoiding complex ETL pipelines

NEW [PREVIEW]

Amazon Aurora Zero-ETL to Amazon Redshift

Eliminates the need to build and maintain complex ETL pipelines

Run near-real-time analytics and machine learning using Amazon Redshift on petabytes of transactional data from Amazon Aurora

Derive insights using advanced analytics in Amazon Redshift from data consolidated from multiple Amazon Aurora database clusters

NEW [GA]

Amazon Redshift integration for Apache Spark

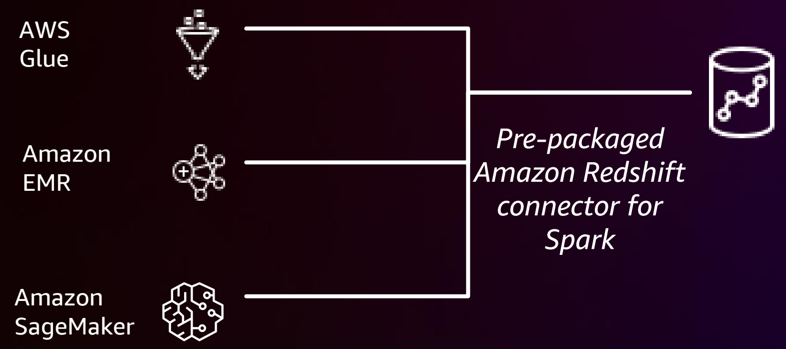
SIMPLIFY AND SPEED UP APACHE SPARK APPLICATIONS ACCESSING AMAZON REDSHIFT DATA FROM AWS ANALYTICS SERVICES

Author Apache Spark applications using Java, Python, Scala, with access to rich, curated data in your data warehouse

No manual setup and maintenance of uncertified versions of Spark-Amazon Redshift open-source connectors

Advanced pushdown optimizations in the Apache Spark-Amazon Redshift connector accelerate 3 TB out-of-the-box TPC-DS queries by 10x

Improved security with IAM-based credentials



Broadest and most cost-effective set of analytics services

Interactive query
Amazon Athena

Big data processing
Amazon EMR

Operational and log analytics
Amazon OpenSearch Service

Real-time analytics
Amazon Kinesis and Amazon MSK

Business intelligence
Amazon QuickSight

Data warehouse
Amazon Redshift

Governance & data lakes
Amazon S3, AWS Lake Formation, AWS Glue Data Catalog

Data integration & 3P sources
AWS Glue, ADX, and Amazon AppFlow

Modern data architecture's five benefits

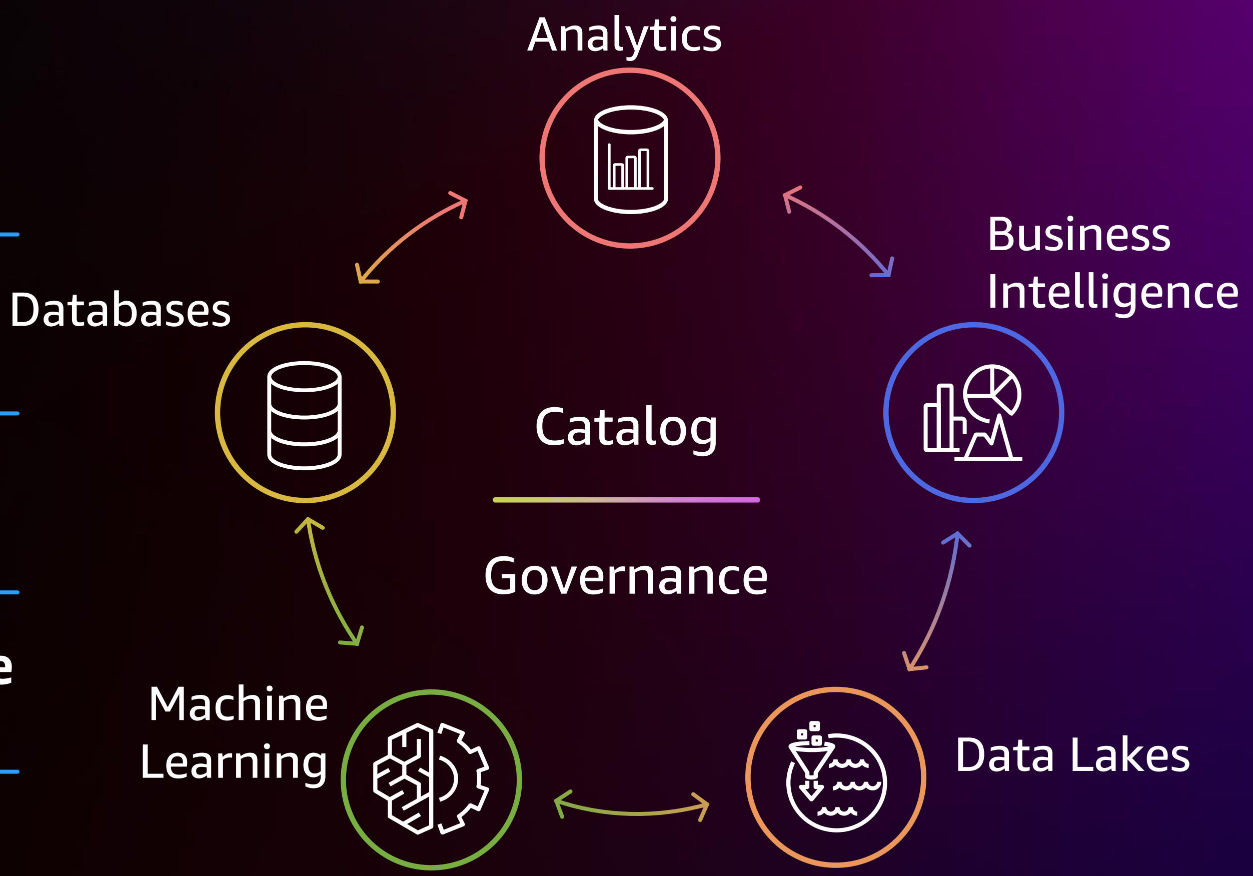
Unified analytics

Highest performance at the lowest cost

Machine learning integration

Unified data access, security and governance

Insights for everyone



Highest performance at the lowest cost

Scale linearly with predictable high performance

Maximize your cost savings

Self-learning, self-tuning system to enhance performance

Price performance innovations in 2022

Amazon EMR

EMR Serverless GA

11-16% performance improvement with Graviton2 at 20%+ reduced cost

68% performance increase for Spark

19% performance boost on Graviton3

Amazon Athena

Applications start up in under a second

AWS Glue

Auto Scaling

Flex Jobs

2.4x performance increase for Spark

Amazon OpenSearch Service

40% query boost on Graviton2

38% indexing boost on Graviton2

Amazon Redshift

Up to 5x better price performance vs. other cloud data warehouses

Up to 7x better price performance vs. other cloud data warehouses on high concurrency

Low latency workloads like dashboarding applications

Amazon Redshift performance improvements

CONTINUOUS OUT-OF-THE-BOX IMPROVEMENTS FOR BETTER PRICE PERFORMANCE AT ANY SCALE

Compute	System	Autonomics
Vectorized scans for Amazon Redshift tables	String-encoding for in-memory perf	Performance mode
Write/Commit performance	CaaS cache pre-warming	Auto WLM enhancements
Snapshot isolation	CaaS region expansion	ATO enhancements
Concurrency scaling writes (GA)	Incremental updates of MVs on datashares	Advisor enhancements

Differentiated performance

ON SPARK, PRESTO, AND HIVE

3.9x

faster than standard Apache Spark 3.0 in TPC-DS 3TB benchmark

4.2x

faster than standard OSS Trino 388 in TPC-DS 3TB benchmarks

11-16%

performance improvement with Graviton2 at **20%+ reduced cost**

100%

open-source API compliant

30%

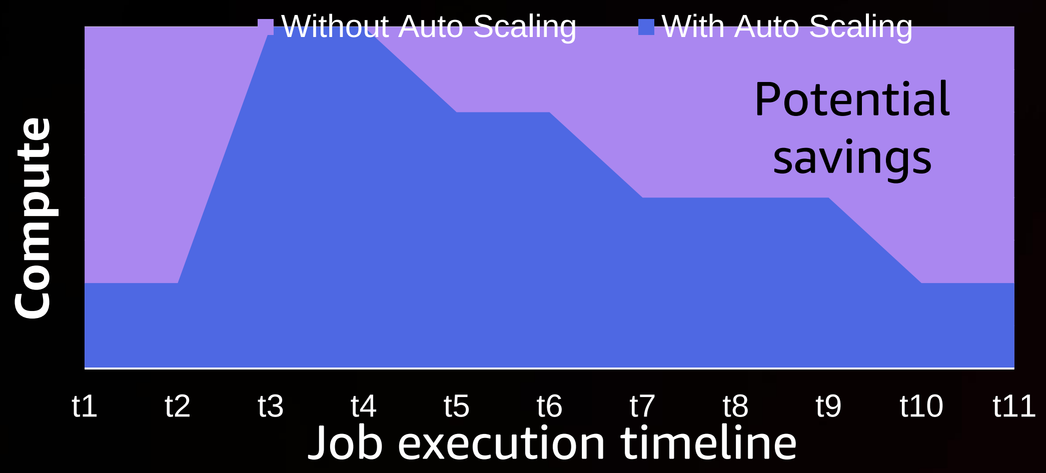
Better price-performance with Graviton2

AWS Glue cost optimization

AWS GLUE JOB RUNS AT LOWER COST

Auto scaling

Automatically resize compute for lower cost



Reduce cost by 20-40%

Simplify capacity and performance planning

Flex

spare capacity execution

Up to

34% cost savings

Cost effective for **one-time data-load** workloads

Modern data architecture's five benefits

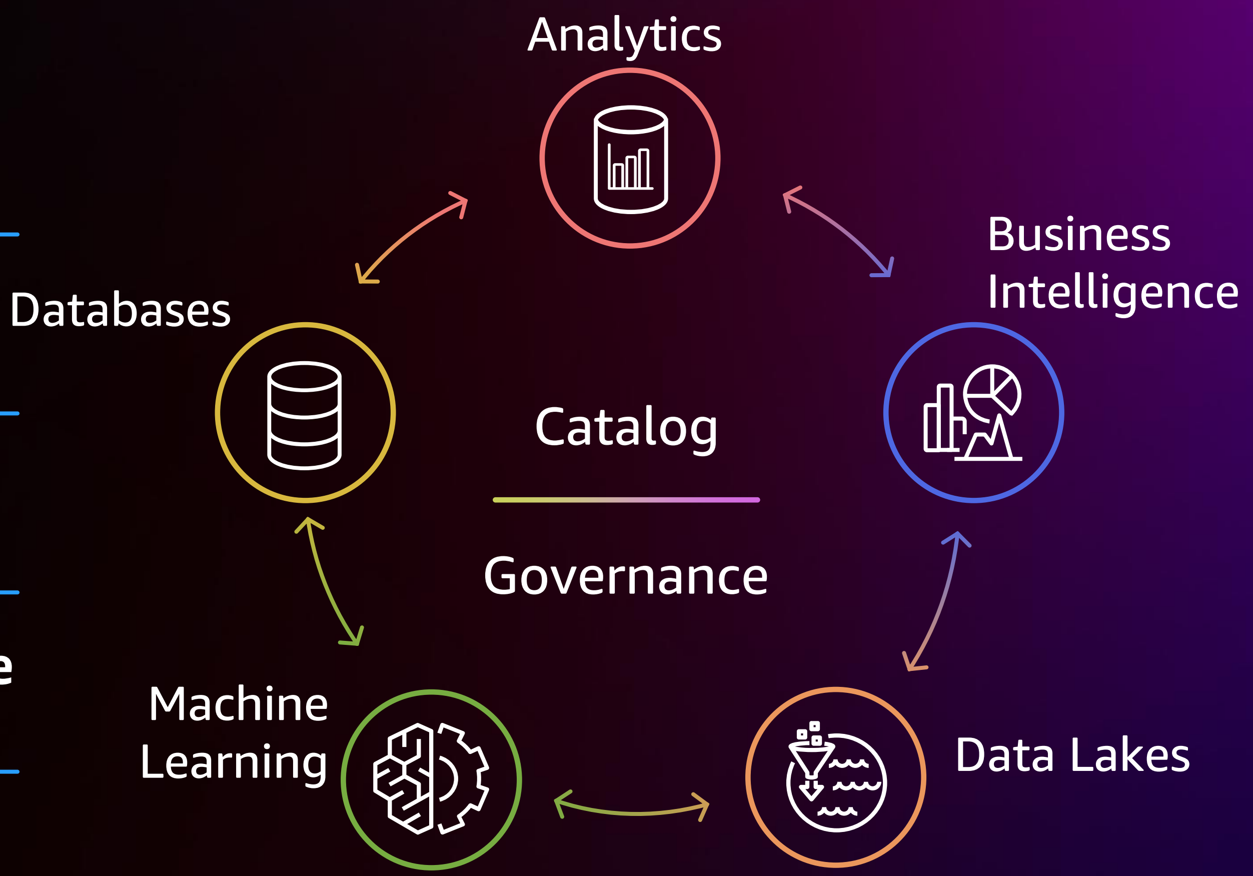
Unified analytics

Highest performance at the lowest cost

Machine learning integration

Unified data access, security and governance

Insights for everyone



Connecting data services and ML to drive more value

Databases

+

Data warehouses and data lakes

+

Business intelligence tools

AMAZON AURORA ML

AMAZON NEPTUNE ML

AMAZON REDSHIFT ML

AMAZON ATHENA ML

AMAZON QUICKSIGHT Q

Amazon Redshift ML

EASILY CREATE AND TRAIN ML MODELS USING SQL QUERIES WITH AMAZON SAGEMAKER

80+ billion

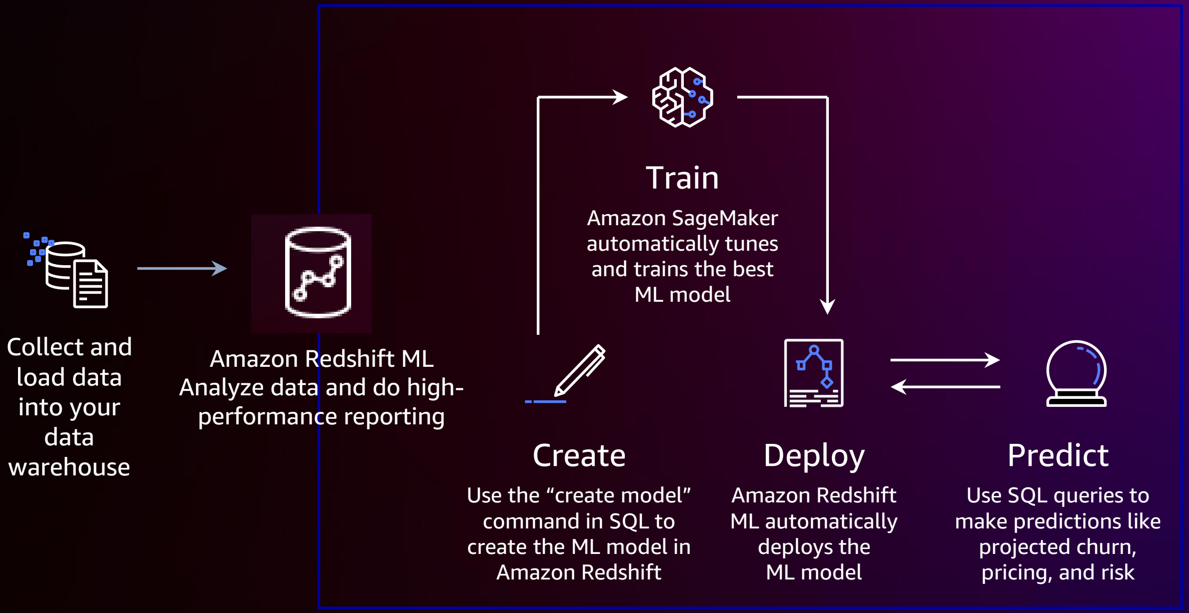
predictions per week

Train and create ML models using SQL

Automatic pre-processing, creation, training, deployment, and inferencing of models

SageMaker models for in-database or remote inference

Supervised and unsupervised trainings



Collect and load data into your data warehouse

Amazon Redshift ML Analyze data and do high-performance reporting

Train
Amazon SageMaker automatically tunes and trains the best ML model

Create
Use the "create model" command in SQL to create the ML model in Amazon Redshift

Deploy
Amazon Redshift ML automatically deploys the ML model

Predict
Use SQL queries to make predictions like projected churn, pricing, and risk

jobcase

Amazon SageMaker Studio Universal Notebooks

PERFORM DATA ENGINEERING, ANALYTICS AND ML IN ONE NOTEBOOK

Built-in data and analytics integration

Connect with Amazon EMR, AWS Glue and data lakes on Amazon S3

Interactive data preparation

Interactively query, analyze and transform wide range of data

Inline debugging and monitoring

Visually debug and monitor Spark jobs inline in same notebook

Build ML workflows

Build end to end ML workflows without leaving the notebook

Modern data architecture’s five benefits

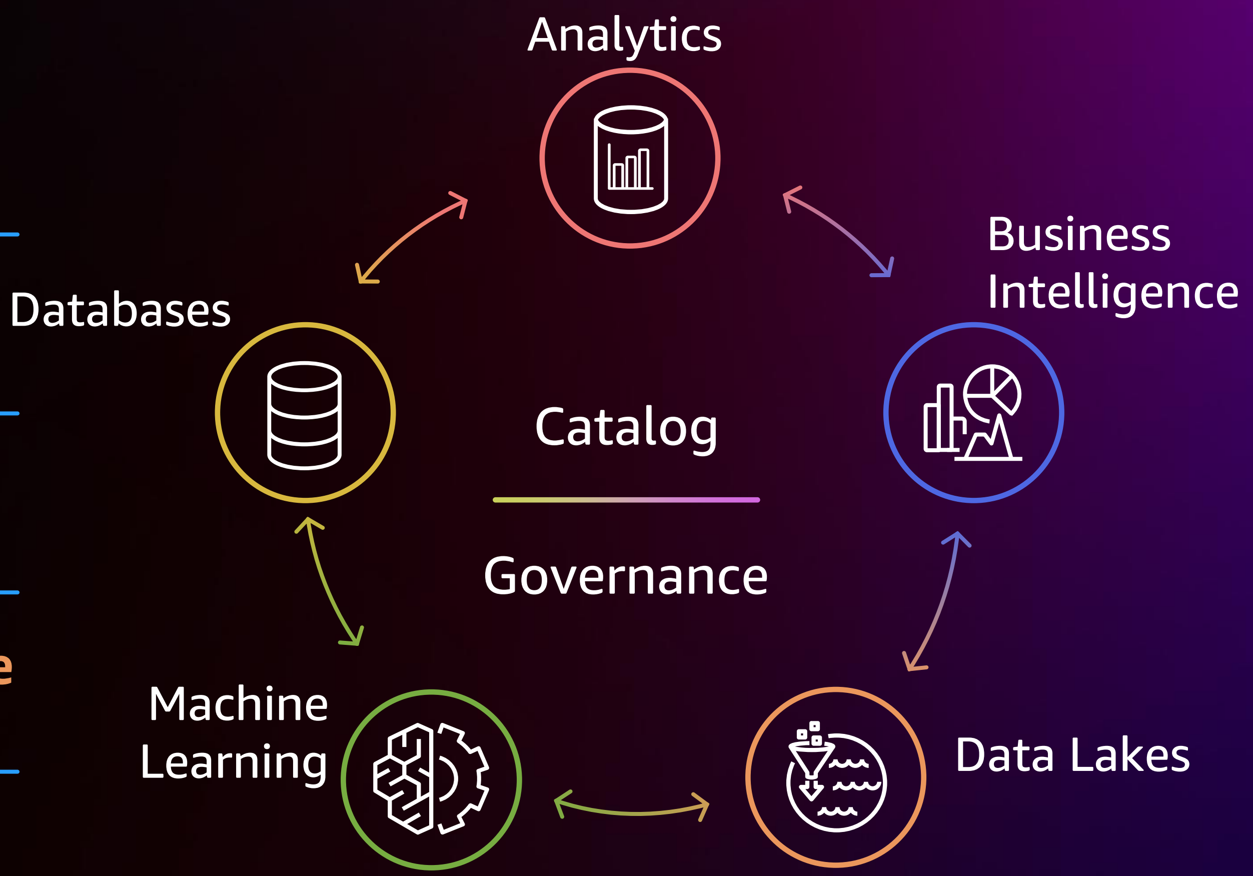
Unified analytics

Highest performance at the lowest cost

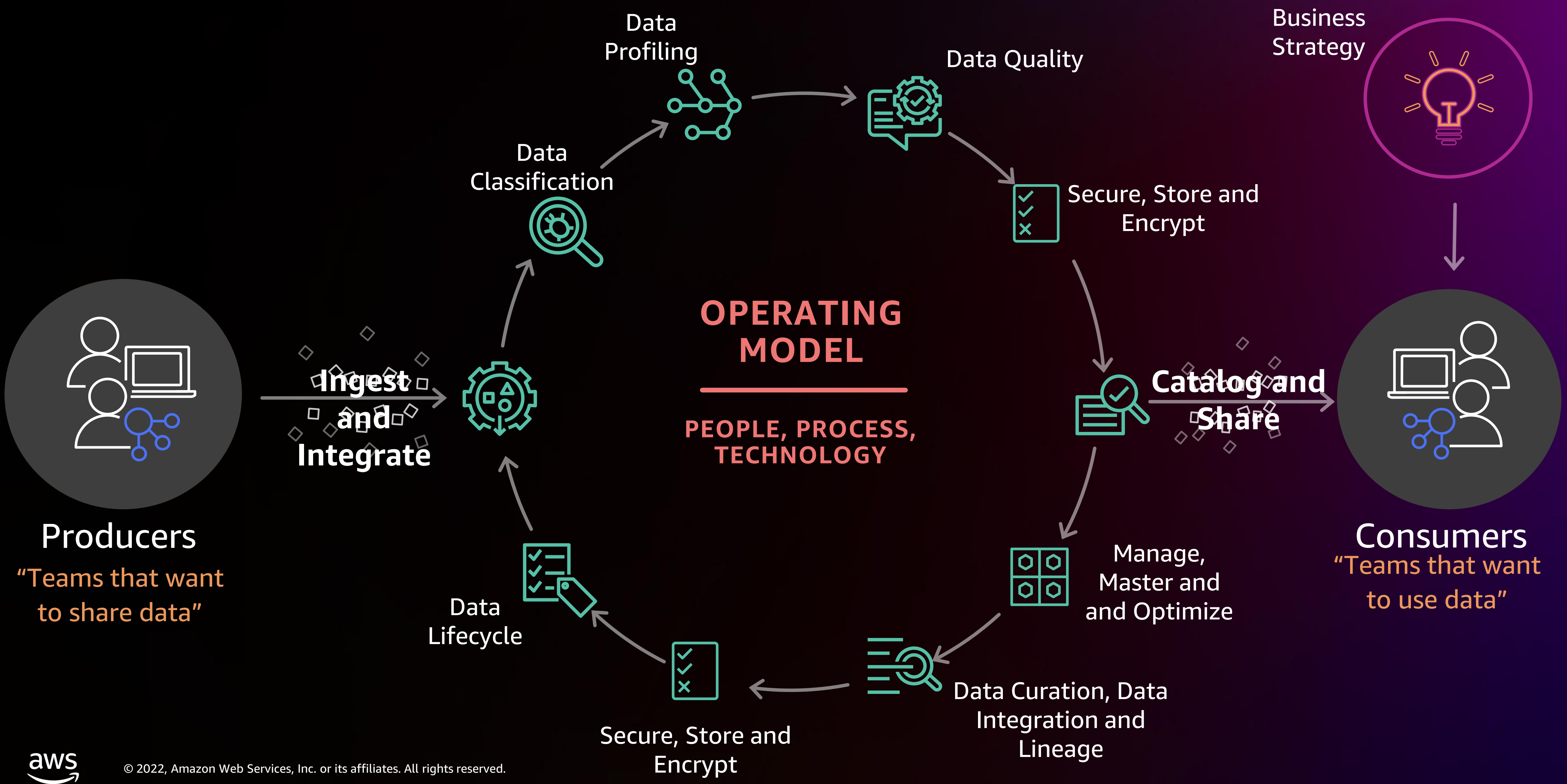
Machine learning integration

Unified data access, security and governance

Insights for everyone

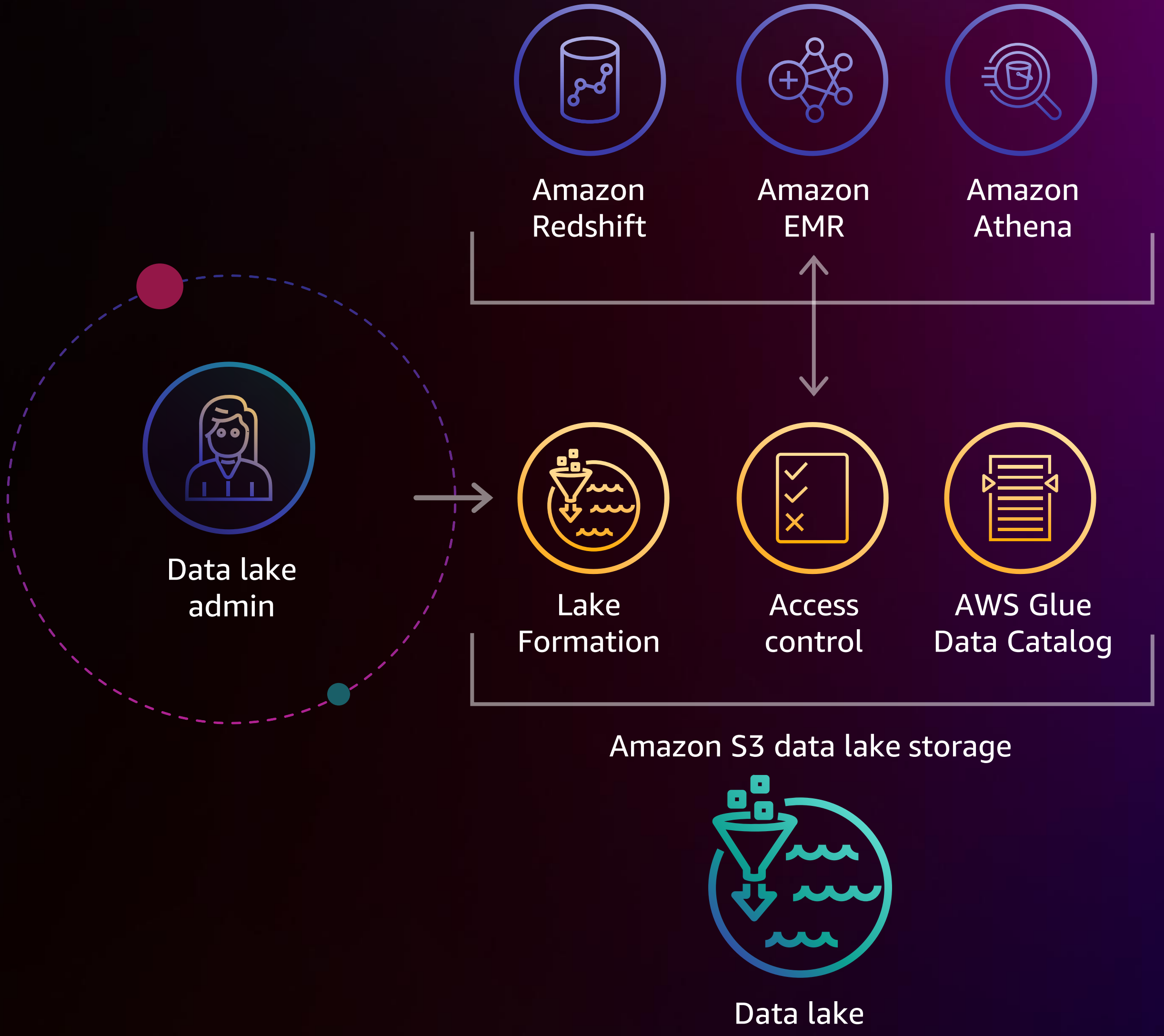


Data Governance starts with business


Business Strategy
Data Profiling
Data Quality
Data Classification
Secure, Store and Encrypt
OPERATING MODEL
PEOPLE, PROCESS, TECHNOLOGY
Ingest and Integrate
Catalog and Share
Producers
"Teams that want to share data"
Consumers
"Teams that want to use data"
Manage, Master and and Optimize
Data Lifecycle
Data Curation, Data Integration and Lineage
Secure, Store and Encrypt

AWS Lake Formation unifies data governance

Simplify security management with **Lake Formation**



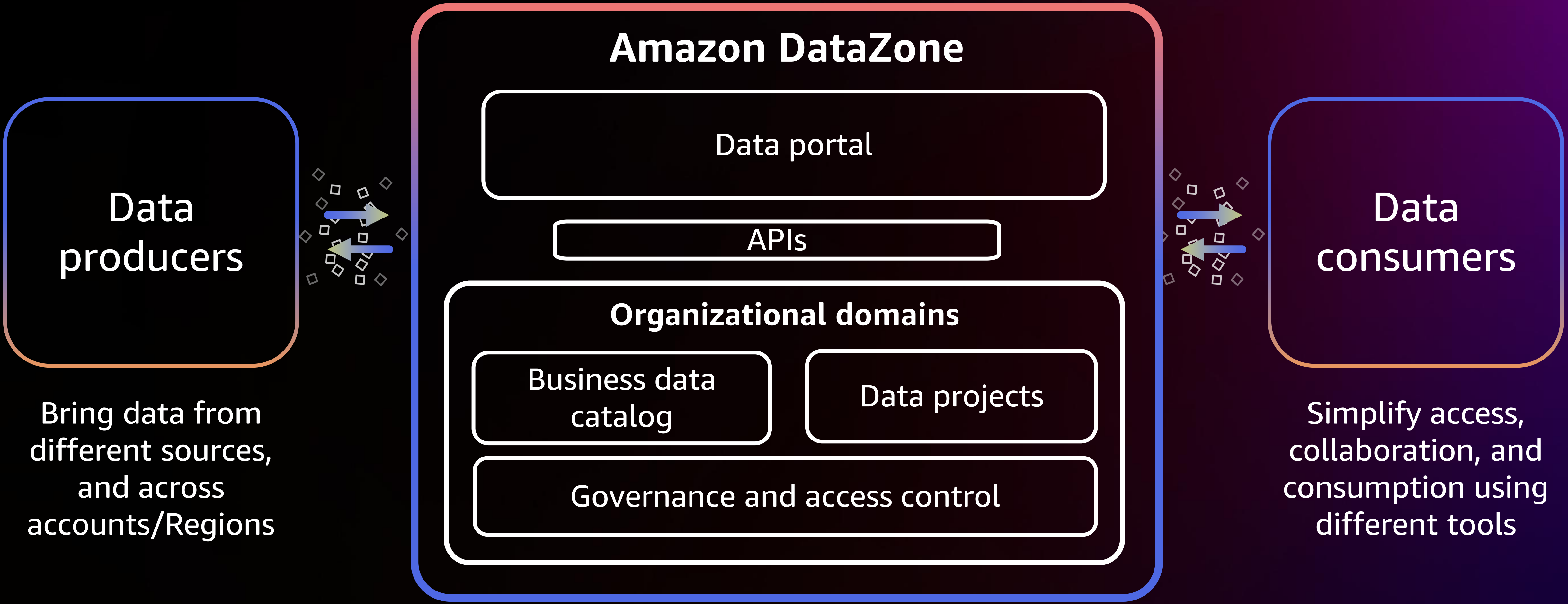
NEW [PREVIEW]

Amazon DataZone

UNLOCK DATA ACCESS FOR ALL USERS WITH TRUSTED AUTONOMY

- Catalog your data with business context
- Manage organization-wide governance in one place
- Simplify access to analytics for everyone in your organization
- Work with data to solve specific business use cases

Core components of Amazon DataZone



Bring data from different sources, and across accounts/Regions

Simplify access, collaboration, and consumption using different tools

Modern data architecture’s five benefits

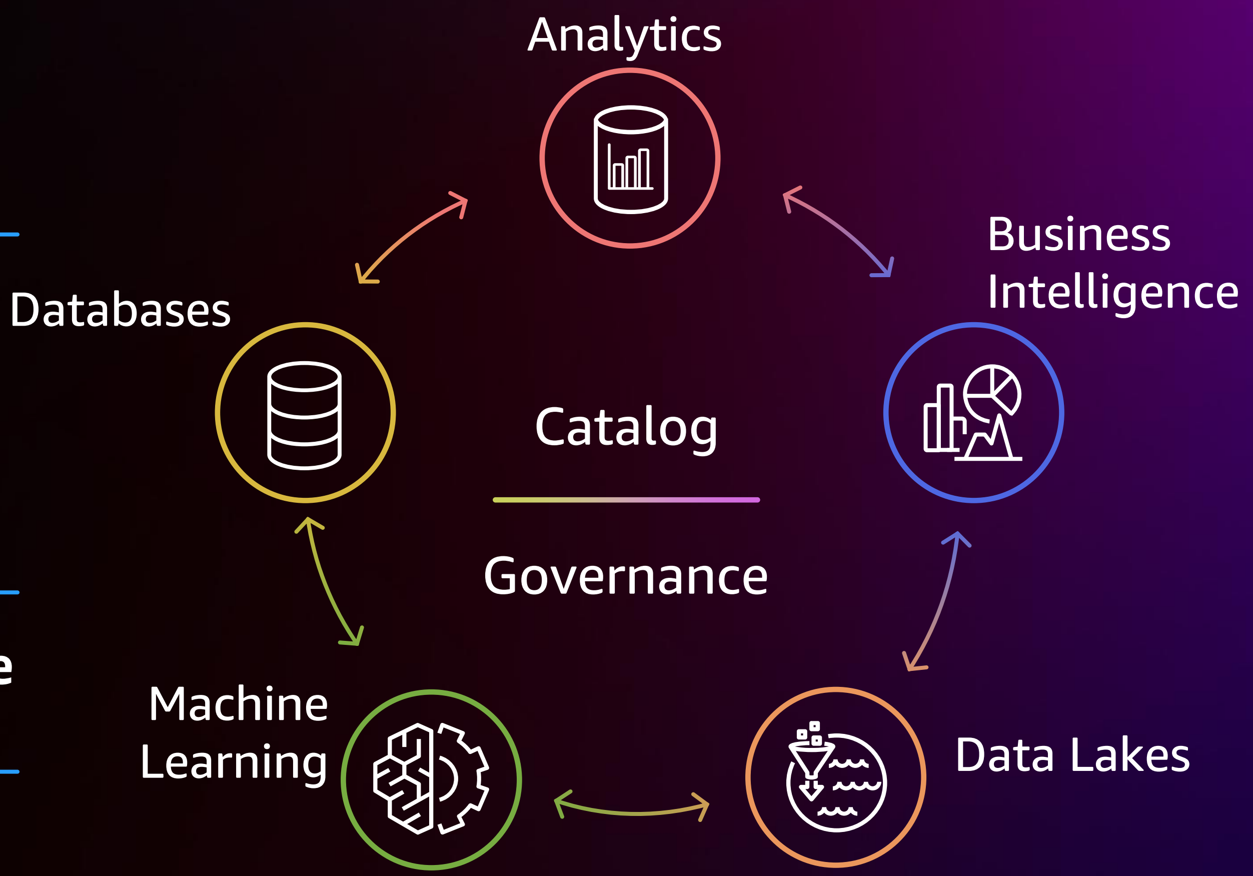
Unified analytics

Highest performance at the lowest cost

Machine learning integration

Unified data access, security and governance

Insights for everyone



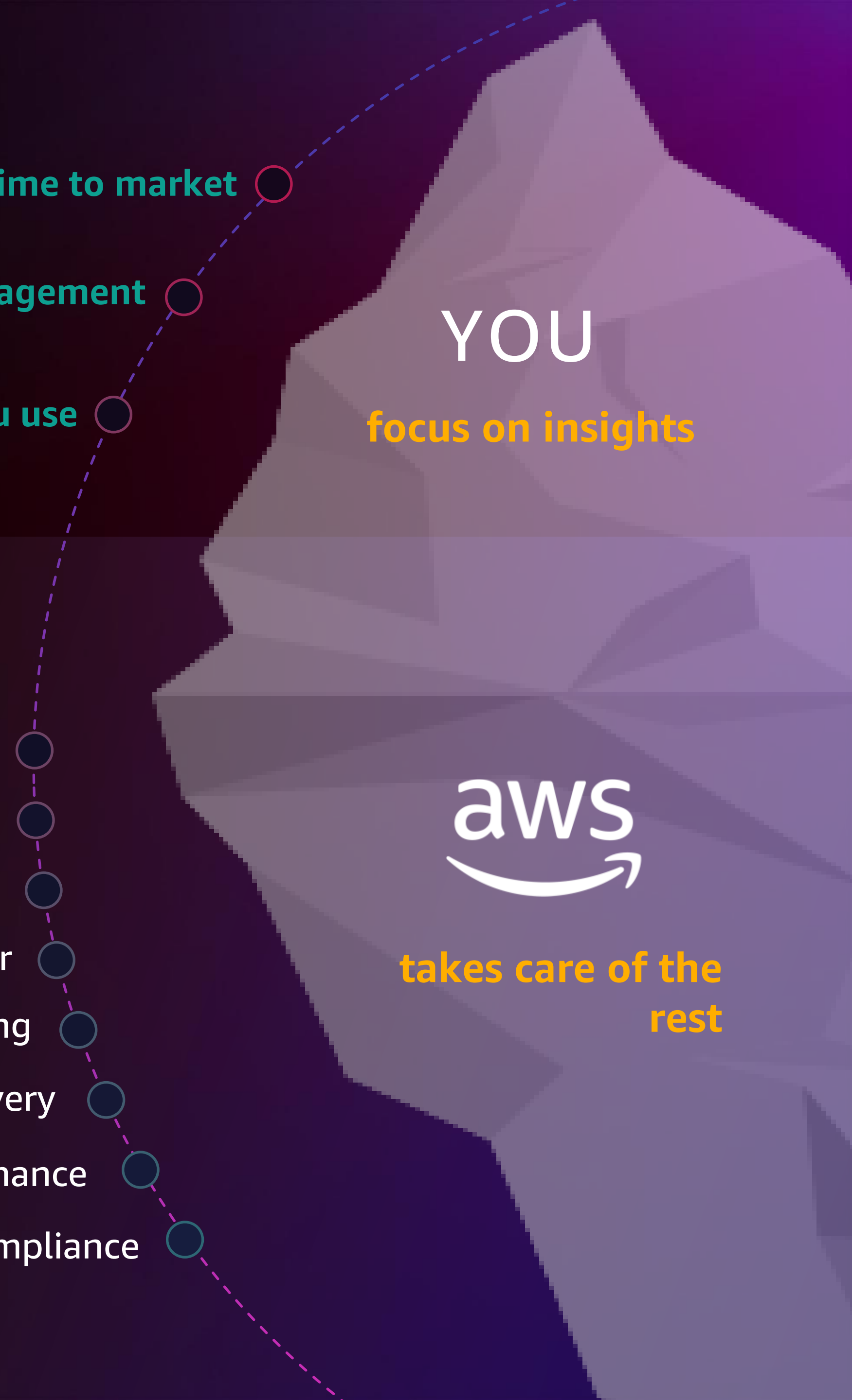
Insights for everyone

Focus on data without managing infrastructure

Choose your tools based on your skillset

Serverless is a key for your data infrastructure

The benefits of serverless



Faster time to market

Zero infrastructure management

Pay for what you use

YOU

focus on insights

Automatic scaling

Compute provisioning

Automated patching

Automatic failover

Advanced monitoring

Backup and recovery

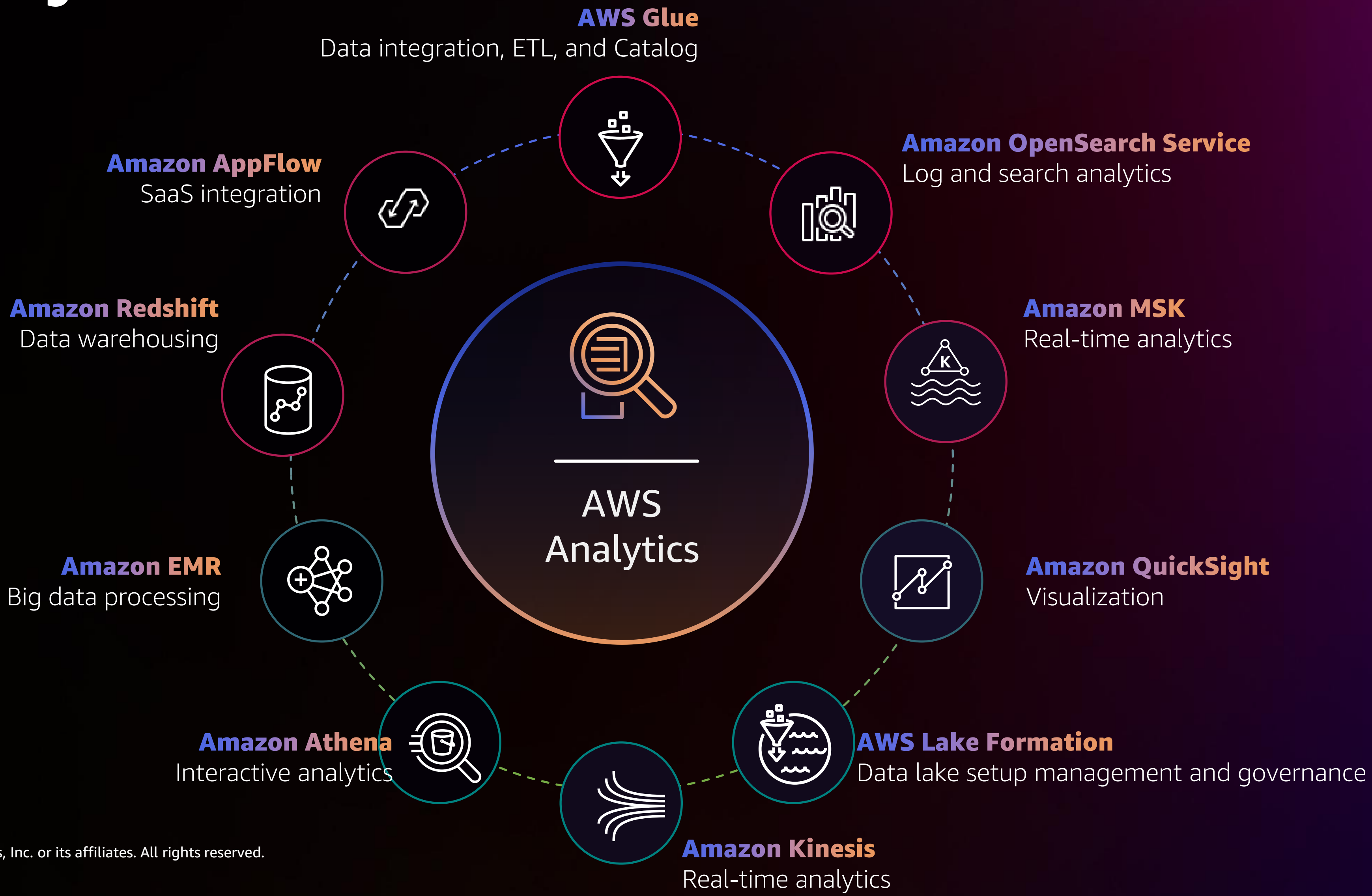
Routine maintenance

Security and industry compliance

aws

takes care of the rest

A full stack of serverless options for data analytics in the cloud



AWS Glue
Data integration, ETL, and Catalog

Amazon AppFlow
SaaS integration

Amazon OpenSearch Service
Log and search analytics

Amazon Redshift
Data warehousing

Amazon MSK
Real-time analytics

AWS Analytics

Amazon EMR
Big data processing

Amazon QuickSight
Visualization

Amazon Athena
Interactive analytics

AWS Lake Formation
Data lake setup management and governance

Amazon Kinesis
Real-time analytics

Amazon OpenSearch Serverless

Amazon OpenSearch Service securely unlocks real-time search, monitoring, and analysis of operational data

Easy to administer

No sizing, scaling, and tuning of clusters, and no shard and index lifecycle management

Fast

Automatically scale resources to maintain consistently fast data ingestion rates and query response times

Ecosystem

Get started in seconds using the same OpenSearch Service clients, pipelines, and APIs

Cost-effective

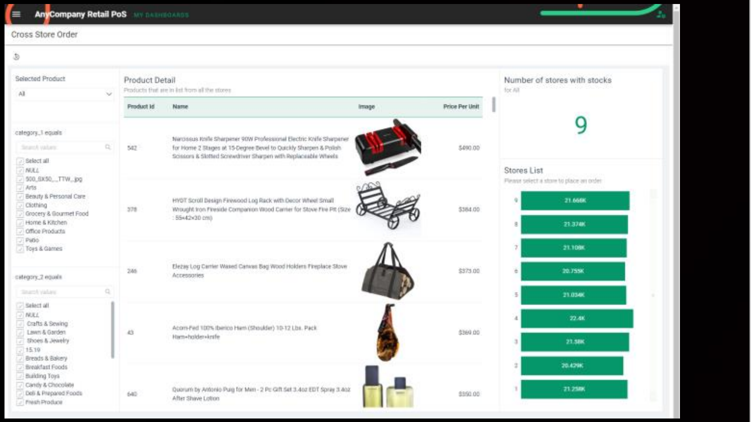
Pay only for the resources consumed

Amazon SageMaker Canvas

Build ML models and generate accurate predictions — no code required

- Quickly access and prepare data for Machine Learning
- Built-in AutoML to build models and generate accurate predictions
- Share ML models and collaborate with data science teams
- Usage-based pricing to avoid licensing fees and reduce TCO

Insights through Amazon QuickSight



Cross Store Order

Selected Product: All

category_1 equals

- Select all
- NULL
- 500_SX50__TTW_.jpg
- Arts
- Beauty & Personal Care
- Clothing
- Grocery & Gourmet Food
- Home & Kitchen
- Office Products
- Patio
- Toys & Games

category_2 equals

- Select all
- NULL
- Crafts & Sewing
- Lawn & Garden
- Shoes & Jewelry
- 15.19
- Breads & Bakery
- Breakfast Foods
- Building Toys
- Candy & Chocolate
- Deli & Prepared Foods
- Fresh Produce

Product Detail

Products that are in list from all the stores

Product Id	Name	Image	Price Per Unit
542	Narcissus Knife Sharpener 90W Professional Electric Knife Sharpener for Home 2 Stages at 15-Degree Bevel to Quickly Sharpen & Polish Scissors & Slotted Screwdriver Sharpen with Replaceable Wheels		$490.00
378	HYDT Scroll Design Firewood Log Rack with Decor Wheel Small Wrought Iron Fireside Companion Wood Carrier for Stove Fire Pit (Size : 55×42×30 cm)		$384.00
246	Elezay Log Carrier Waxed Canvas Bag Wood Holders Fireplace Stove Accessories		$373.00
43	Acorn-Fed 100% Iberico Ham (Shoulder) 10-12 Lbs. Pack Ham+holder+knife		$369.00
640	Quorum by Antonio Puig for Men - 2 Pc Gift Set 3.4oz EDT Spray 3.4oz After Shave Lotion		$350.00

Number of stores with stocks

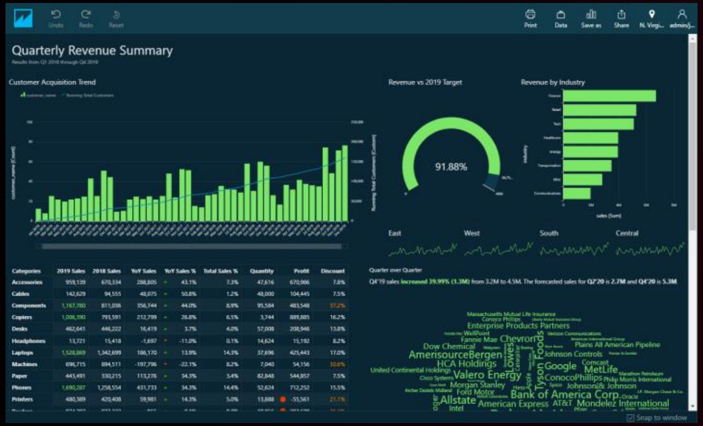
for All

9

Stores List

Please select a store to place an order

9	21.668K
8	21.374K
7	21.108K
6	20.755K
5	21.034K
4	22.4K
3	21.58K
2	20.429K
1	21.258K



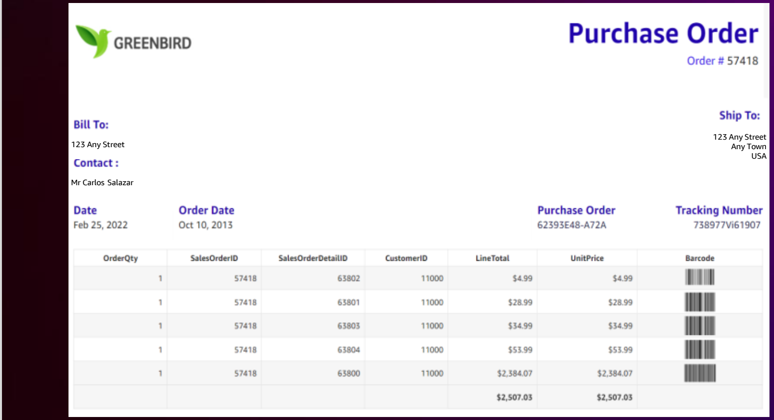
Quarterly Revenue Summary

Results from Q1 2018 through Q4 2019

Categories	2019 Sales	2018 Sales	YoY Sales	YoY Sales %	Total Sales %	Quantity	Profit	Discount
Accessories	959,139	670,334	288,805	43.1%	7.3%	47,616	670,986	7.8%
Cables	142,629	94,555	48,075	50.8%	1.2%	48,000	104,445	7.5%
Components	1,167,780	811,036	356,744	44.0%	8.9%	95,584	483,548	37.2%
Copiers	1,006,390	793,591	212,799	26.8%	6.5%	3,744	889,885	16.2%
Desks	462,641	446,222	16,419	3.7%	4.0%	57,008	208,946	13.8%
Headphones	13,721	15,418	-1,697	-11.0%	0.1%	14,624	15,192	8.2%
Laptops	1,528,869	1,342,699	186,170	13.9%	14.3%	37,696	425,443	17.0%
Machines	696,715	894,511	-197,796	-22.1%	8.2%	7,040	54,156	30.8%
Paper	443,491	330,215	113,276	34.3%	3.4%	82,848	544,857	7.5%
Phones	1,690,287	1,258,554	431,733	34.3%	14.4%	52,624	712,252	15.5%
Printers	480,389	420,408	59,981	14.3%	5.0%	13,888	-55,561	21.1%

Quarter over Quarter

Q4'19 sales increased 39.99% (1.3M) from 3.2M to 4.5M. The forecasted sales for Q2'20 is 2.7M and Q4'20 is 5.3M



Purchase Order

Order # 57418

Bill To:

123 Any Street

Contact :

Mr Carlos Salazar

Ship To:

123 Any Street
Any Town
USA

Date	Order Date	Purchase Order	Tracking Number
Feb 25, 2022	Oct 10, 2013	62393E48-A72A	738977Vi61907

OrderQty	SalesOrderID	SalesOrderDetailID	CustomerID	LineTotal	UnitPrice	Barcode
1	57418	63802	11000	$4.99	$4.99	
1	57418	63801	11000	$28.99	$28.99	
1	57418	63803	11000	$34.99	$34.99	
1	57418	63804	11000	$53.99	$53.99	
1	57418	63800	11000	$2,384.07	$2,384.07	
				$2,507.03	$2,507.03	

Embedded insights

Enhance customer-facing products and monetize data assets

Interactive dashboards, meaningful insights

Dashboards, visualizations, and ad-hoc analysis primarily for internal audiences

Enterprise reporting

Static, highly formatted, email-based reporting distributed to large internal or external audiences

Amazon QuickSight Q

Ask natural language questions about your data and get answers in seconds

Type your question and get instant answer

Modern Data Architecture is making it easier to unlock the value of data across the end-to-end data journey

Scalable

Performance
at scale

Unified

Connect to
all your data

Comprehensive

Tools for all
your workloads

Governed

End-to-end
governance

Agenda

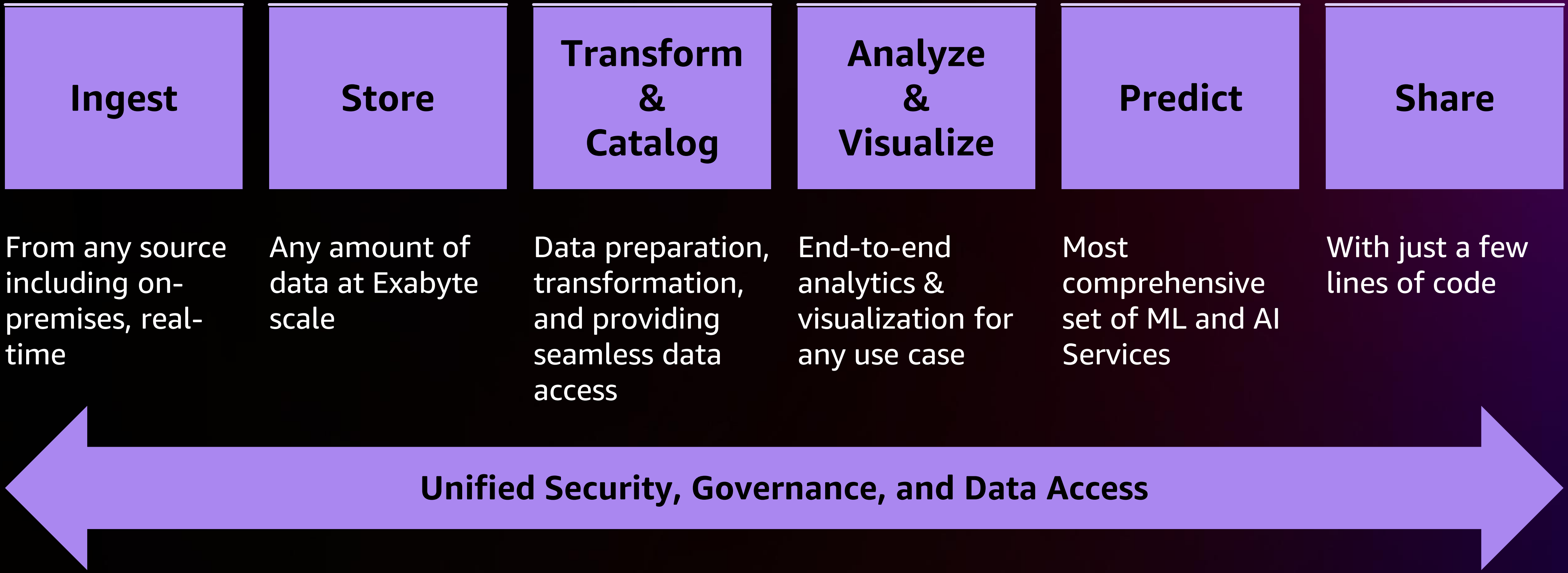
Modern data architecture on AWS

End-to-end data life cycle on the modern data architecture

Data governance and data mesh in action

Journey towards modern data architecture

End to end data life cycle



Ingest

From any source including on-premises, real-time

Store

Any amount of data at Exabyte scale

Transform & Catalog

Data preparation, transformation, and providing seamless data access

Analyze & Visualize

End-to-end analytics & visualization for any use case

Predict

Most comprehensive set of ML and AI Services

Share

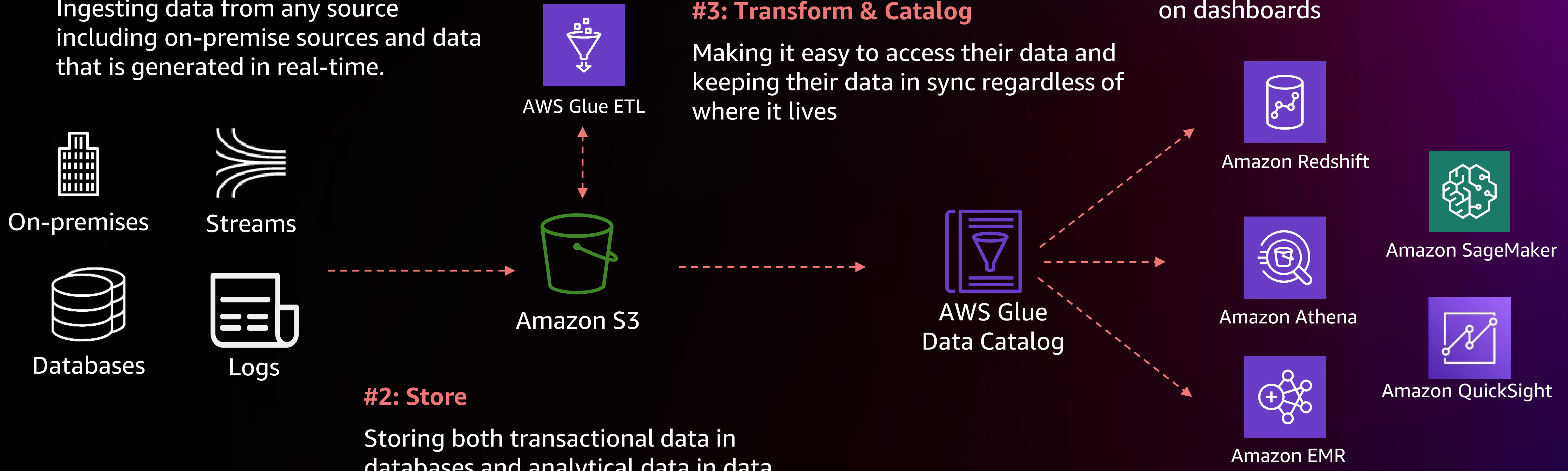
With just a few lines of code

Unified Security, Governance, and Data Access

Typical architecture

#1: Ingest

Ingesting data from any source including on-premise sources and data that is generated in real-time.



#2: Store

Storing both transactional data in databases and analytical data in data warehouses and data lakes at any scale.

#3: Transform & Catalog

Making it easy to access their data and keeping their data in sync regardless of where it lives

#4: Analyze & Visualize

Analyzing data using any of ad hoc queries, distributed frameworks and search engines, and visualize the data on dashboards

#5: Predict

Adding ML-based intelligence to applications without needing ML skills

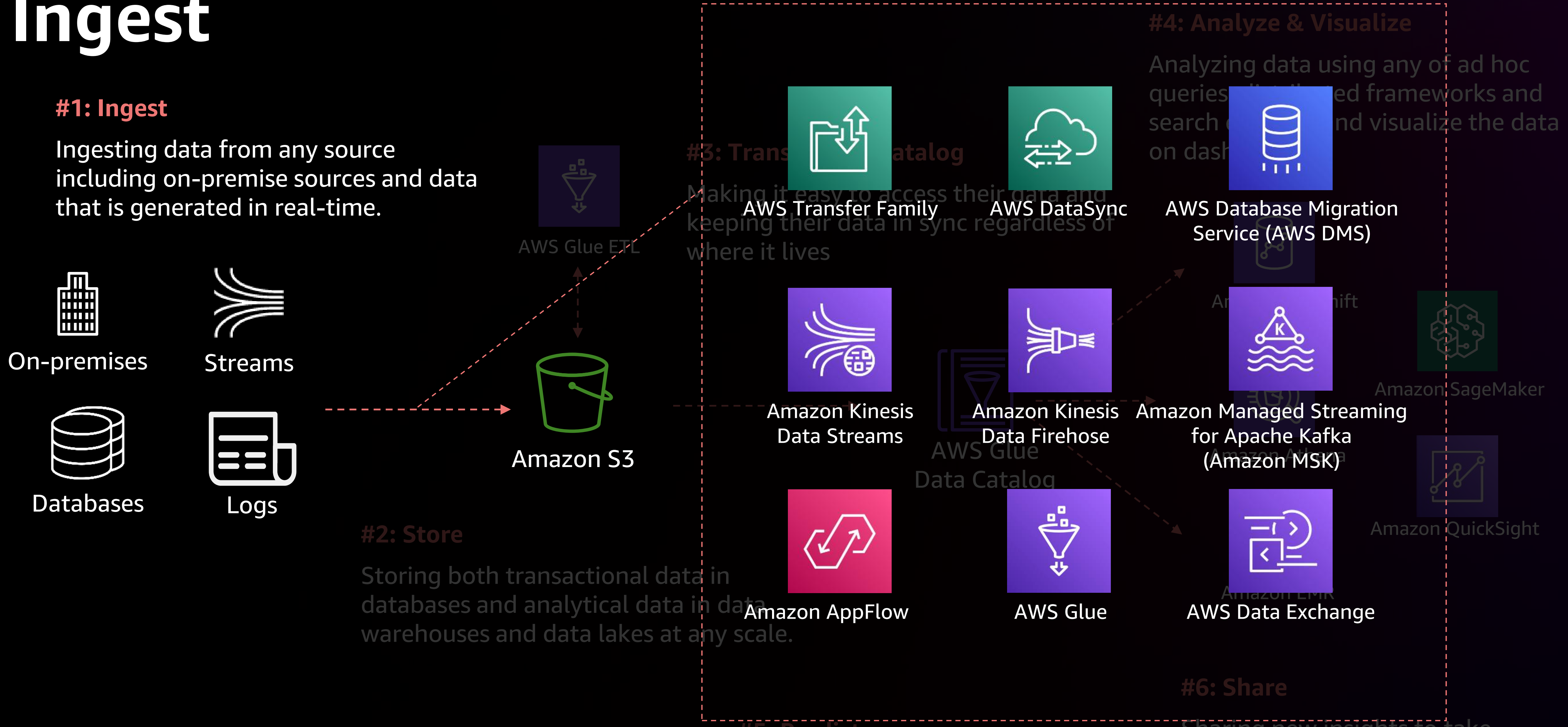
#6: Share

Sharing new insights to take intelligent, data-driven actions

Ingest

#1: Ingest

Ingesting data from any source including on-premise sources and data that is generated in real-time.



#3: Trans atalog

Making it easy to access their data and keeping their data in sync regardless of where it lives

#4: Analyze & Visualize

Analyzing data using any of ad hoc queries ed frameworks and search nd visualize the data on dash

#2: Store

Storing both transactional data in databases and analytical data in data warehouses and data lakes at any scale.

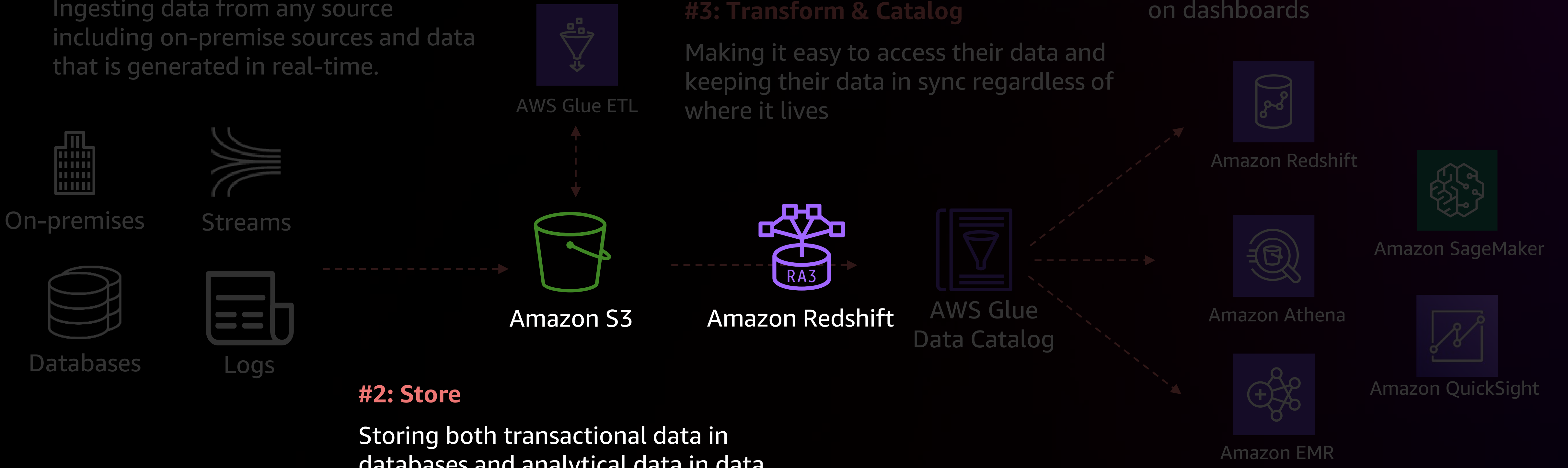
#5: Predict

Adding ML-based intelligence to applications without needing ML skills

#6: Share

Sharing new insights to take intelligent, data-driven actions

Store



#1: Ingest

Ingesting data from any source including on-premise sources and data that is generated in real-time.

#3: Transform & Catalog

Making it easy to access their data and keeping their data in sync regardless of where it lives

#4: Analyze & Visualize

Analyzing data using any of ad hoc queries, distributed frameworks and search engines, and visualize the data on dashboards

#2: Store

Storing both transactional data in databases and analytical data in data warehouses and data lakes at any scale.

#5: Predict

Adding ML-based intelligence to applications without needing ML skills

#6: Share

Sharing new insights to take intelligent, data-driven actions

Amazon S3 for data lakes

AN OBJECT STORAGE SERVICE OFFERING INDUSTRY-LEADING SCALABILITY, DATA AVAILABILITY, SECURITY, AND PERFORMANCE

Durability, availability, and **scalability**

Easy to use with **cost optimization:** Intelligent tiering

Most ways to **get data in**

Most **object-level controls**

Broad portfolio of analytics tools

Security, compliance, and **audit** capabilities

Cold storage and archive capabilities

Transform & Catalog

#1: Ingest

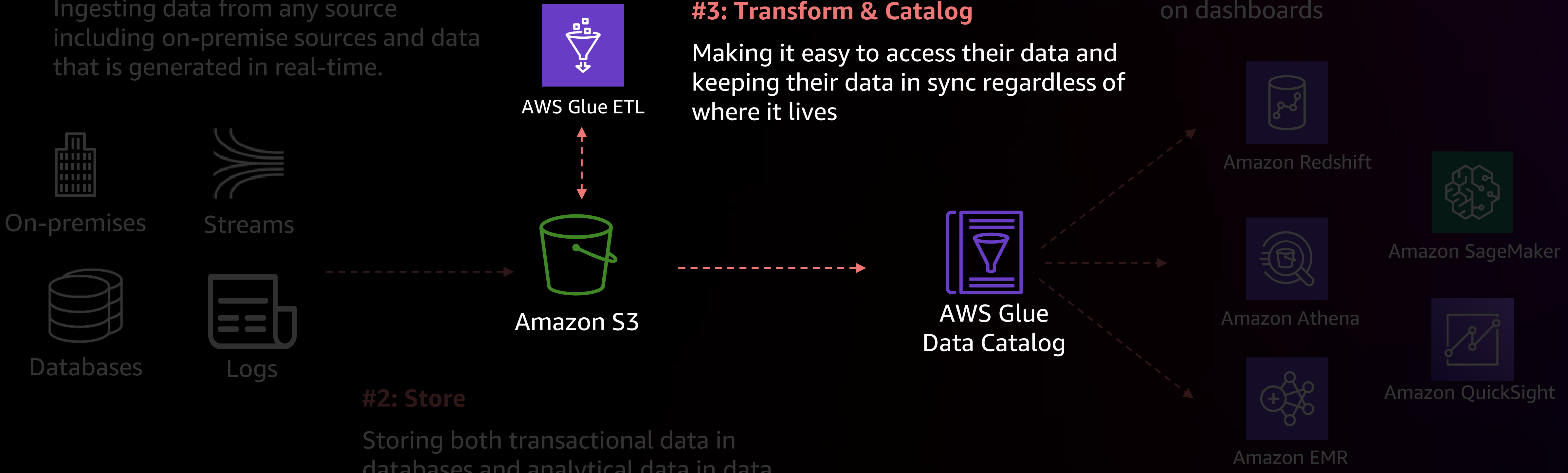
Ingesting data from any source including on-premise sources and data that is generated in real-time.

#3: Transform & Catalog

Making it easy to access their data and keeping their data in sync regardless of where it lives

#4: Analyze & Visualize

Analyzing data using any of ad hoc queries, distributed frameworks and search engines, and visualize the data on dashboards



#2: Store

Storing both transactional data in databases and analytical data in data warehouses and data lakes at any scale.

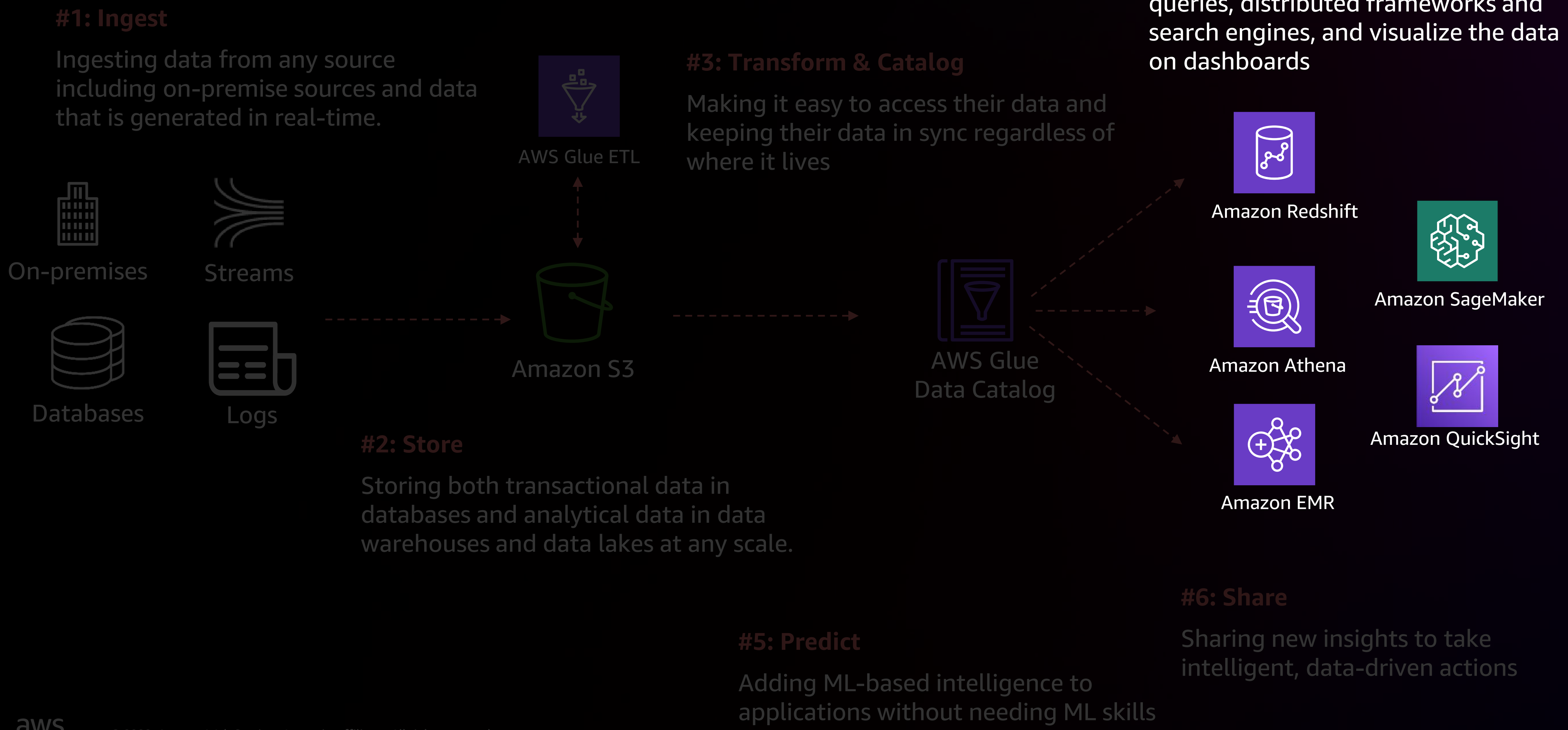
#5: Predict

Adding ML-based intelligence to applications without needing ML skills

#6: Share

Sharing new insights to take intelligent, data-driven actions

Analyze & Visualize


#1: Ingest
Ingesting data from any source including on-premise sources and data that is generated in real-time.
AWS Glue ETL
#3: Transform & Catalog
Making it easy to access their data and keeping their data in sync regardless of where it lives
On-premises
Streams
Amazon S3
AWS Glue Data Catalog
Databases
Logs
Amazon Redshift
Amazon SageMaker
Amazon Athena
Amazon QuickSight
Amazon EMR
#2: Store
Storing both transactional data in databases and analytical data in data warehouses and data lakes at any scale.
#6: Share
Sharing new insights to take intelligent, data-driven actions
#5: Predict
Adding ML-based intelligence to applications without needing ML skills

#4: Analyze & Visualize

Analyzing data using any of ad hoc queries, distributed frameworks and search engines, and visualize the data on dashboards

Predict and share

#1: Ingest

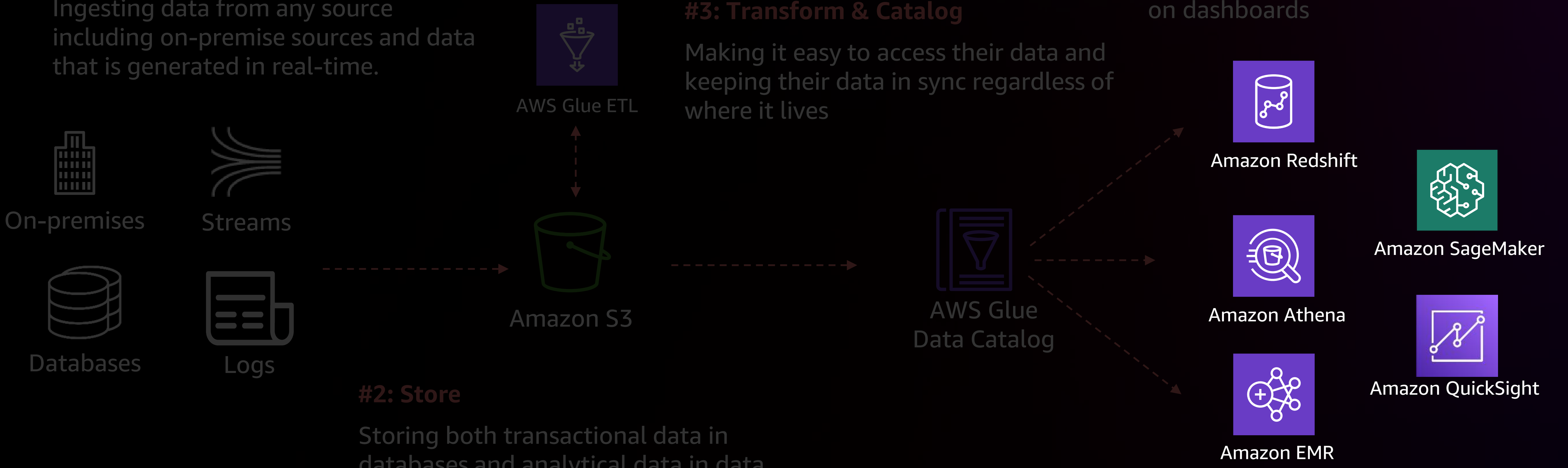
Ingesting data from any source including on-premise sources and data that is generated in real-time.

#3: Transform & Catalog

Making it easy to access their data and keeping their data in sync regardless of where it lives

#4: Analyze & Visualize

Analyzing data using any of ad hoc queries, distributed frameworks and search engines, and visualize the data on dashboards



#2: Store

Storing both transactional data in databases and analytical data in data warehouses and data lakes at any scale.

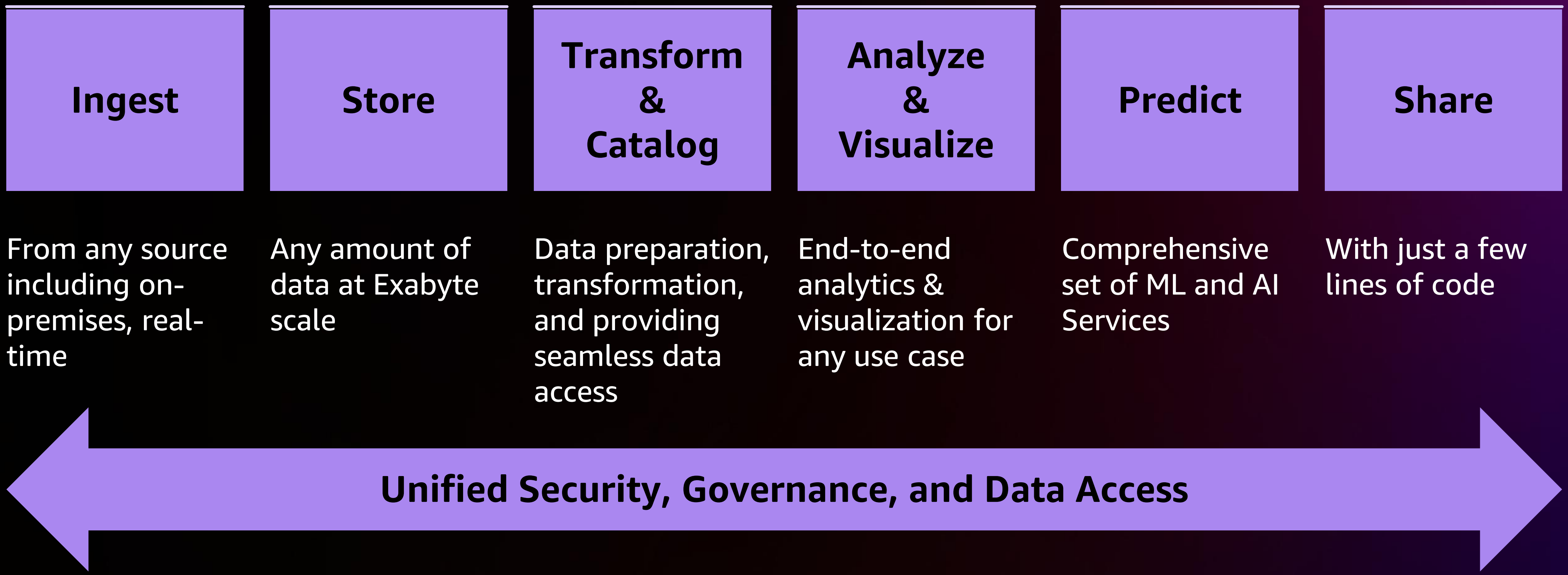
#5: Predict

Adding ML-based intelligence to applications without needing ML skills

#6: Share

Sharing new insights to take intelligent, data-driven actions

Unified Security, Governance, and Data Access



Ingest

From any source including on-premises, real-time

Store

Any amount of data at Exabyte scale

Transform & Catalog

Data preparation, transformation, and providing seamless data access

Analyze & Visualize

End-to-end analytics & visualization for any use case

Predict

Comprehensive set of ML and AI Services

Share

With just a few lines of code

Unified Security, Governance, and Data Access

Agenda

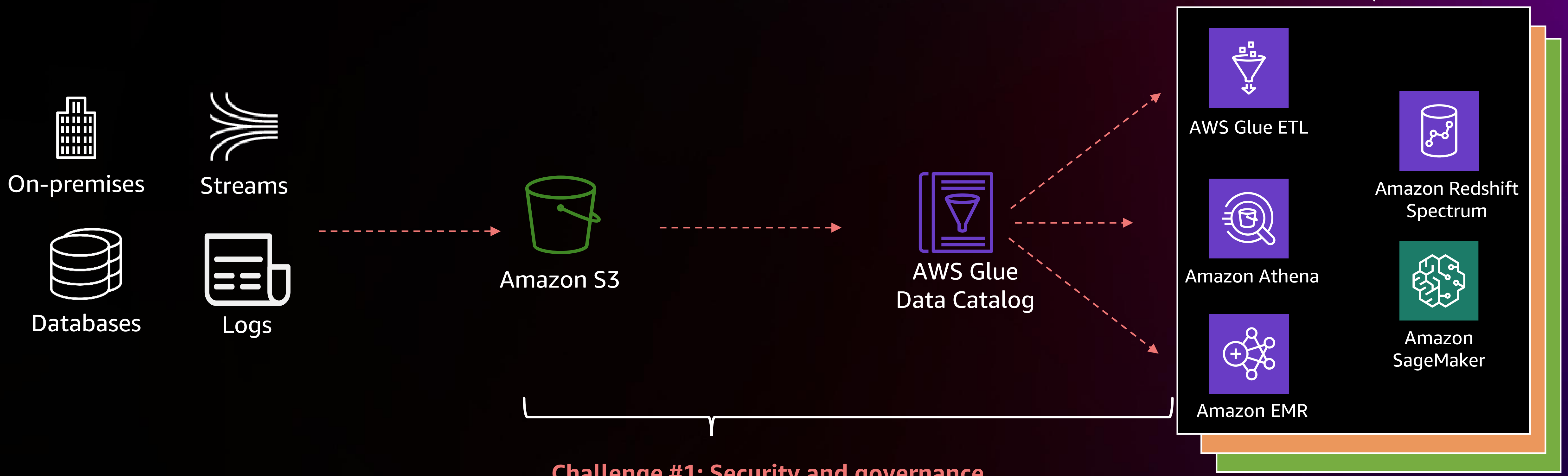
Modern data architecture on AWS

End-to-end data life cycle on the modern data architecture

Data governance and data mesh in action

Journey towards modern data architecture

Challenges securing and sharing data



Challenge #2: Data sharing

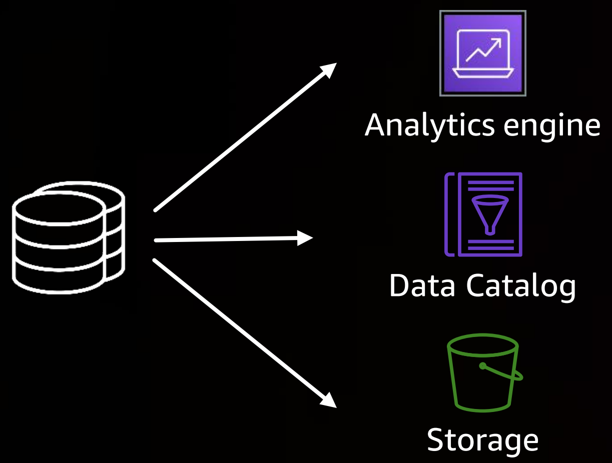
Sharing across accounts and organizations is cumbersome

Challenge #1: Security and governance

Managing fine grained permissions at scale is difficult and error-prone

Why is managing data lake permissions hard?

Unifying permissions across the data lake stack

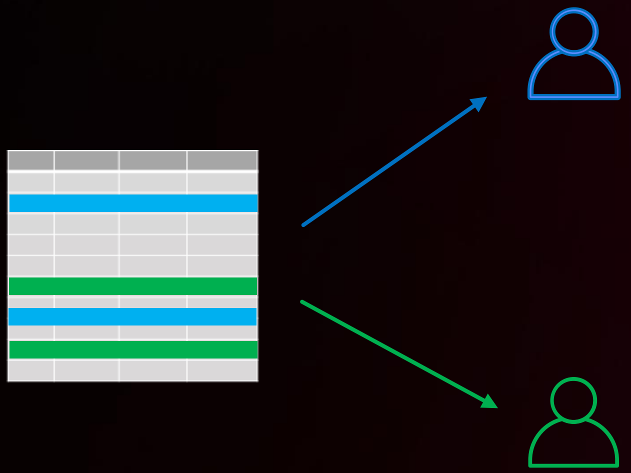


Split storage, metadata, and compute

Each system has different permissions

Syncing permissions is error-prone

Enforcing fine-grained permissions to restrict access



Data lakes contain a lot of data

Users should only access portions

Thousands of resources and tens of thousands of users

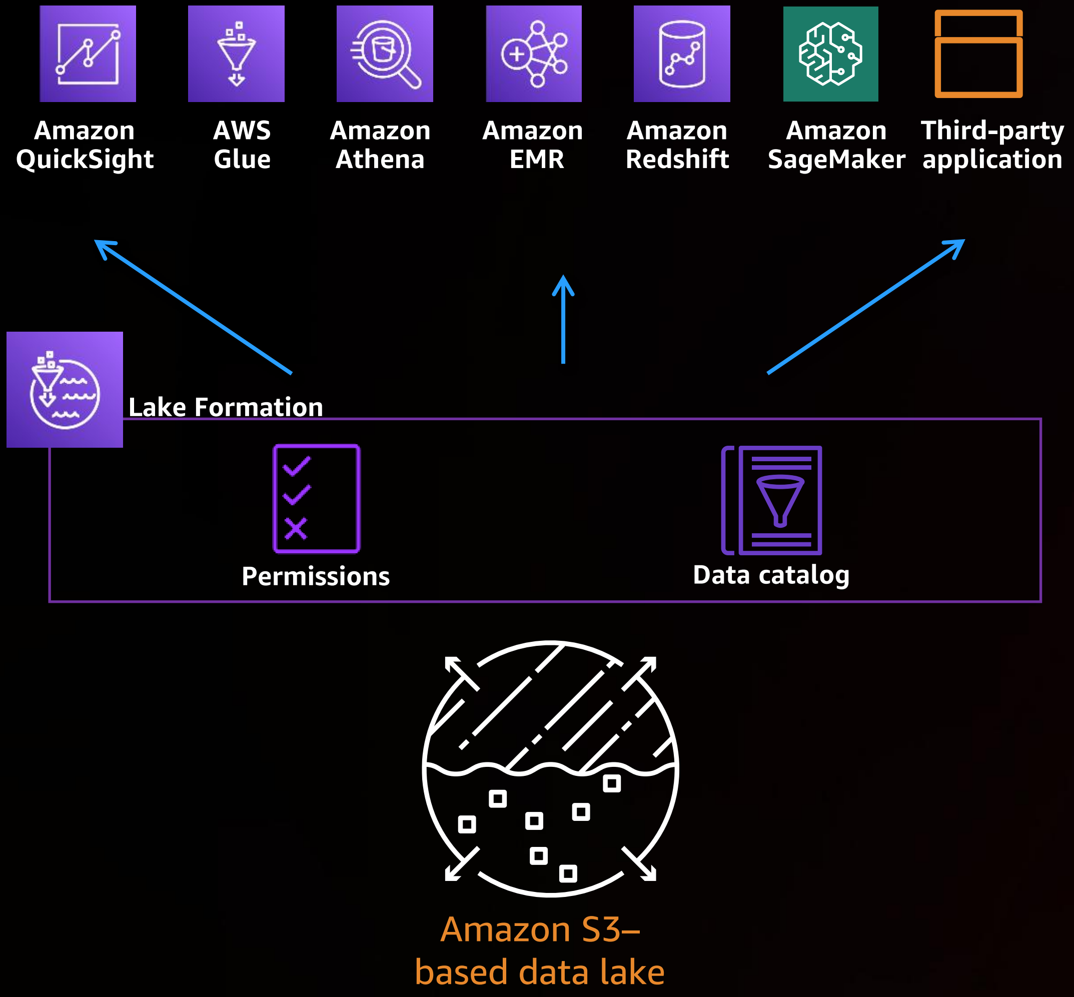
Ensuring that data access complies with regulations

Democratize data access

Regulations and governance

Monitor and audit data access

Lake Formation permissions model



DB-style fine-grained permissions on resources

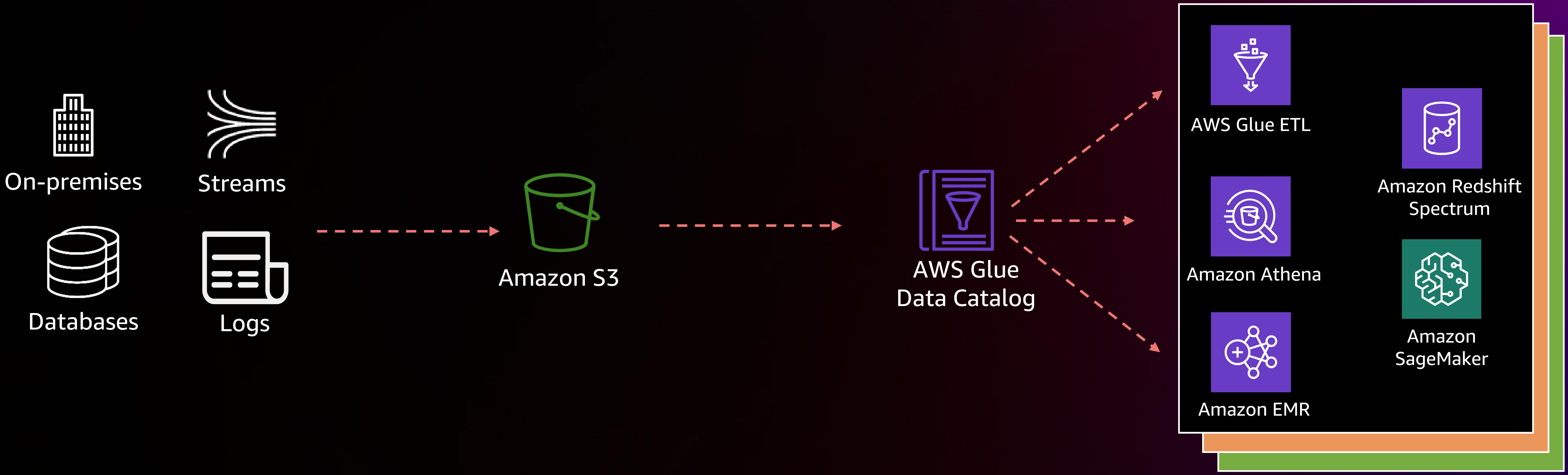
Scale permissions management Lake Formation Tag-Based Access Control (LF-TBAC)

Unified Amazon S3 permissions

Integrated with services and tools

Easy to audit permissions and access

Challenge: Data sharing

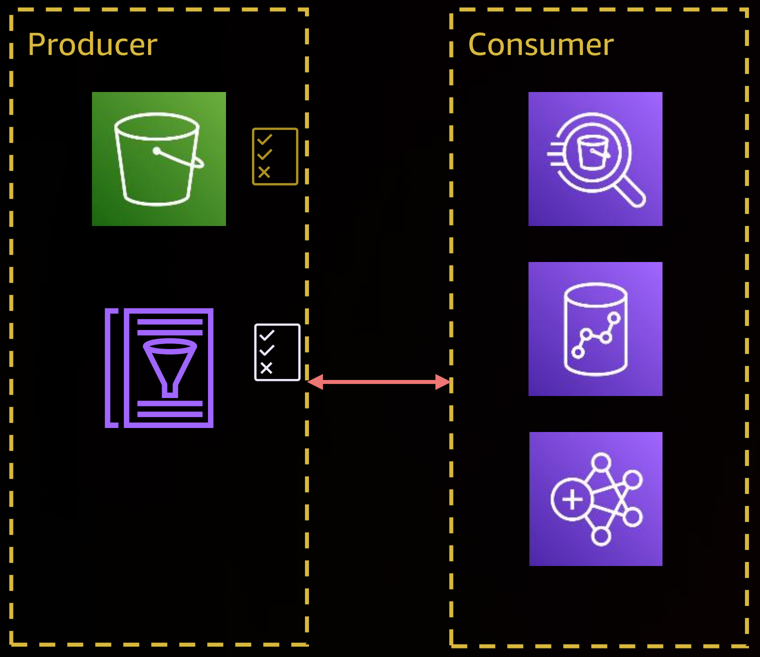


Challenge #2: Data sharing

Sharing across accounts and organizations is cumbersome

Why is sharing data across accounts hard?

To share data

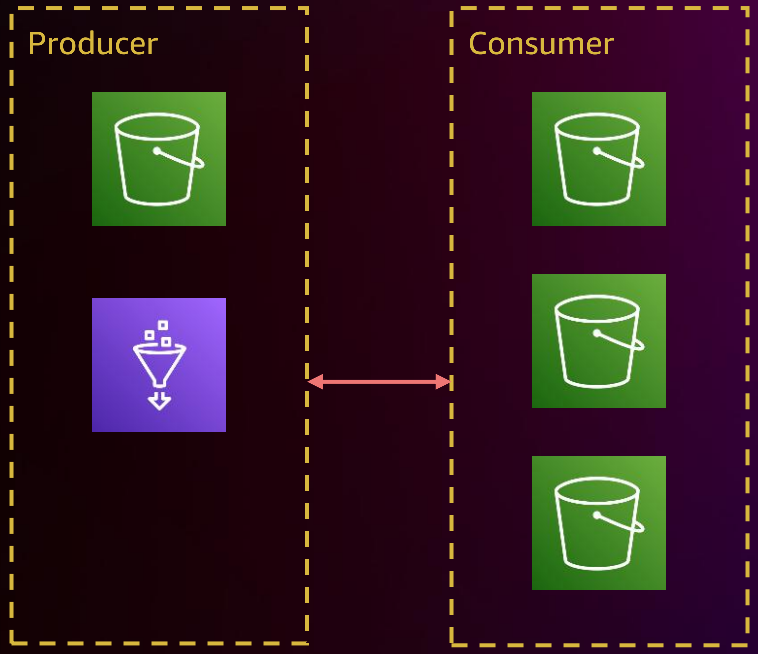


Manges multiple Amazon S3 and IAM policies

Lacks discoverability

Policy size limits (coarse grained)

Duplicating data



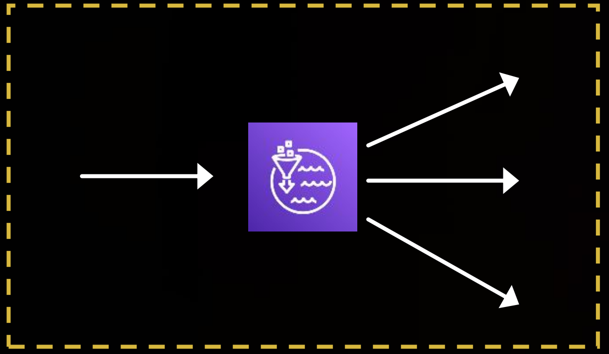
ETL pipelines

Multiple redacted copies

Expensive, brittle, and error-prone

Common data sharing patterns

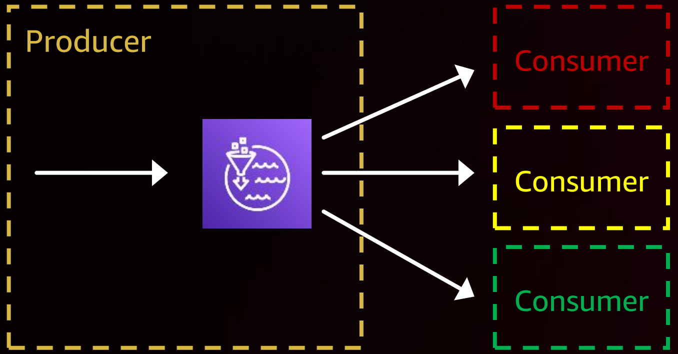
Single account



Centralized single account

Simple to get started

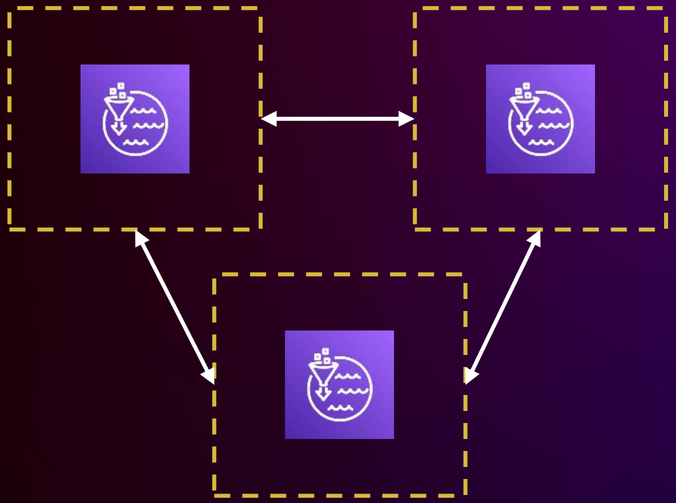
Centralized solution (Hub and spoke)



Hub and spoke multi-account

Cross-organization

Data mesh



Data mesh central governance

Organizational autonomy

Centralized solution challenges

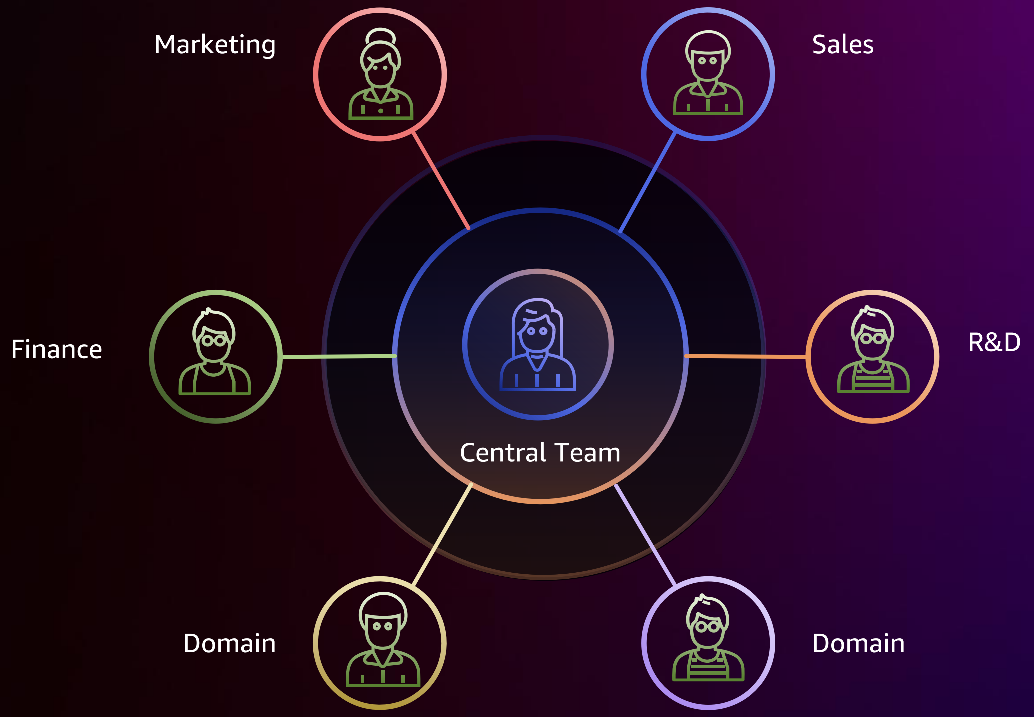
Central data team becomes the bottleneck

Fail to scale data consumers

Unable to discover and consume the data

No central Data Governance

Lack of data auditability



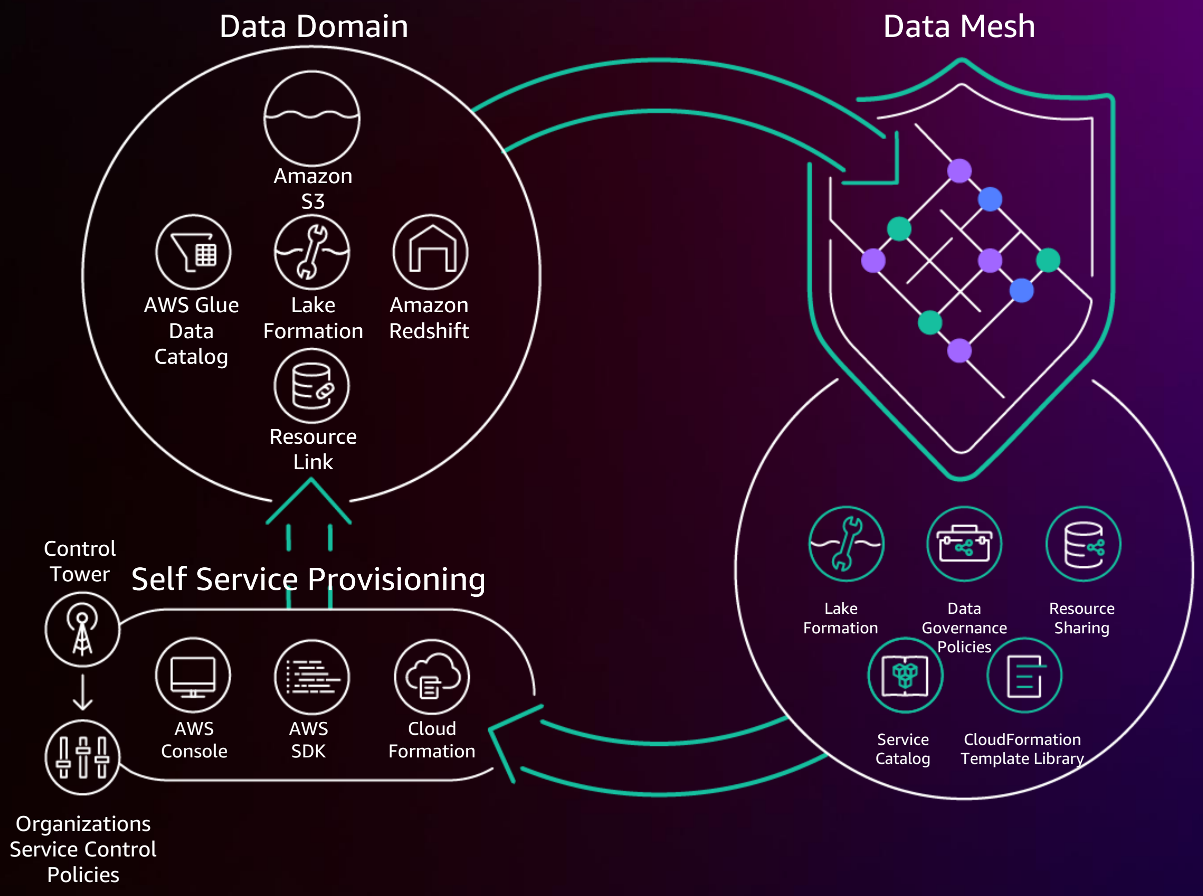
Why data mesh?

Treats existing data platforms as **independent** domains

Improves **data governance** by pushing access policy to data domains

Establishes a **central** mechanism for **data discovery**

Provides **self-service data sharing** features



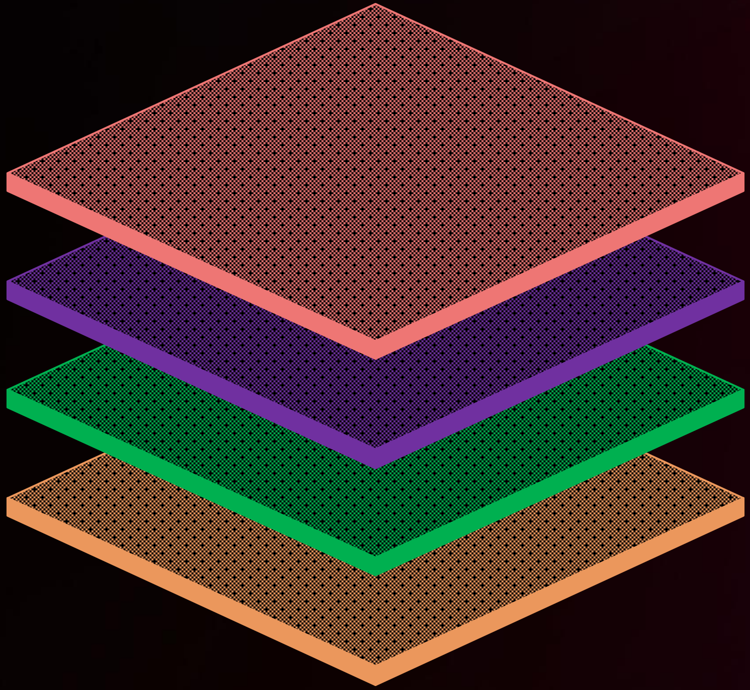
Data mesh – Four core principles

Data Owner

Data Domain Ownership

Data Steward

Federated Computational Governance



Data Engineer

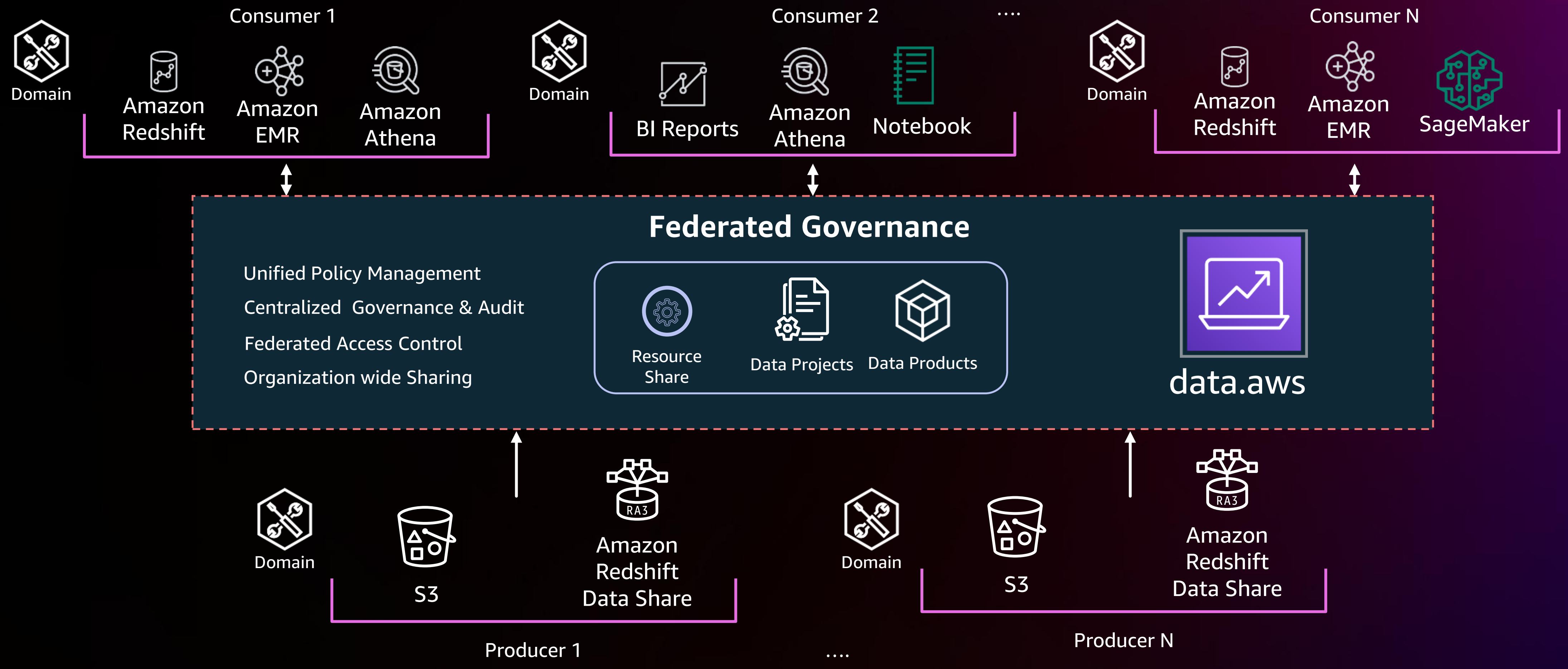
Data as a Product

Data Consumer

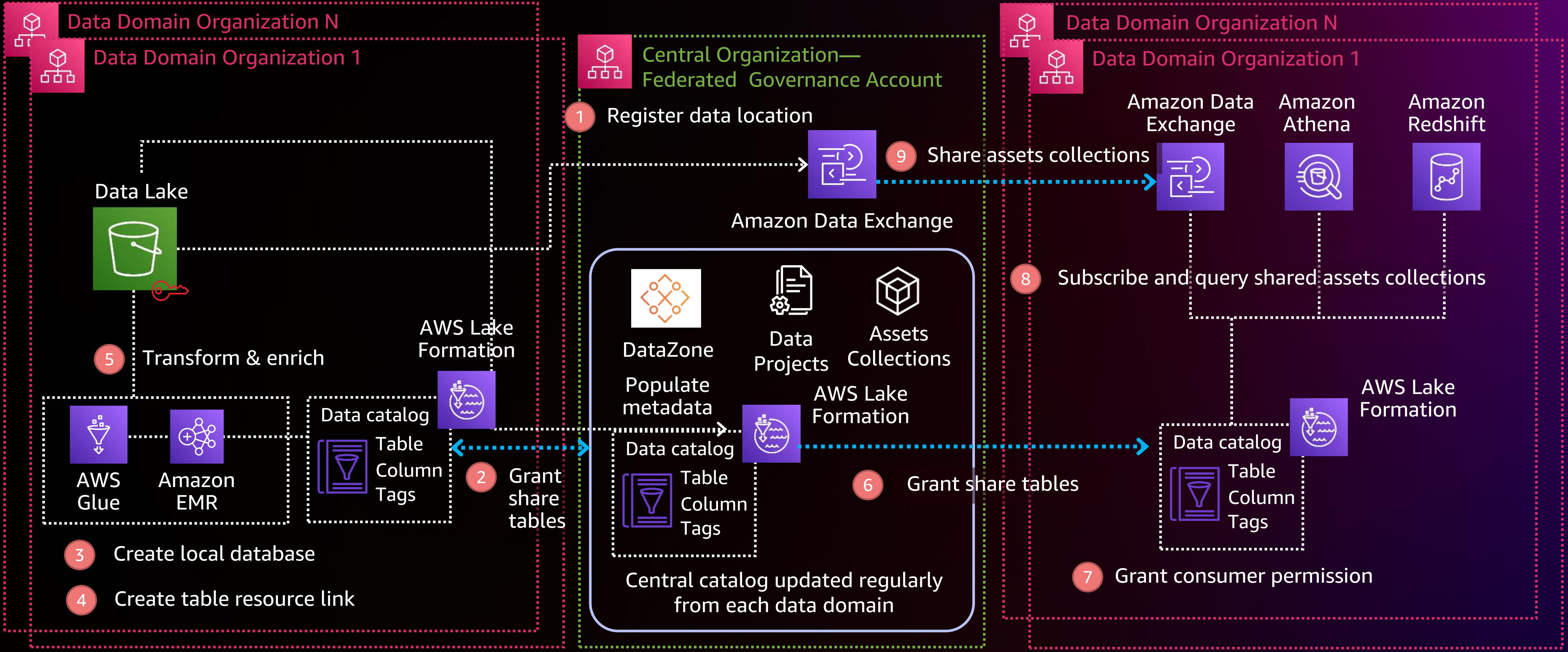
Self-Serve Sharing

Data mesh architecture

DECENTRALIZED, LIGHTWEIGHT FEDERATED GOVERNANCE ACROSS DOMAIN-ORIENTED DATA SYSTEMS TO DRIVE GOVERNED SHARING

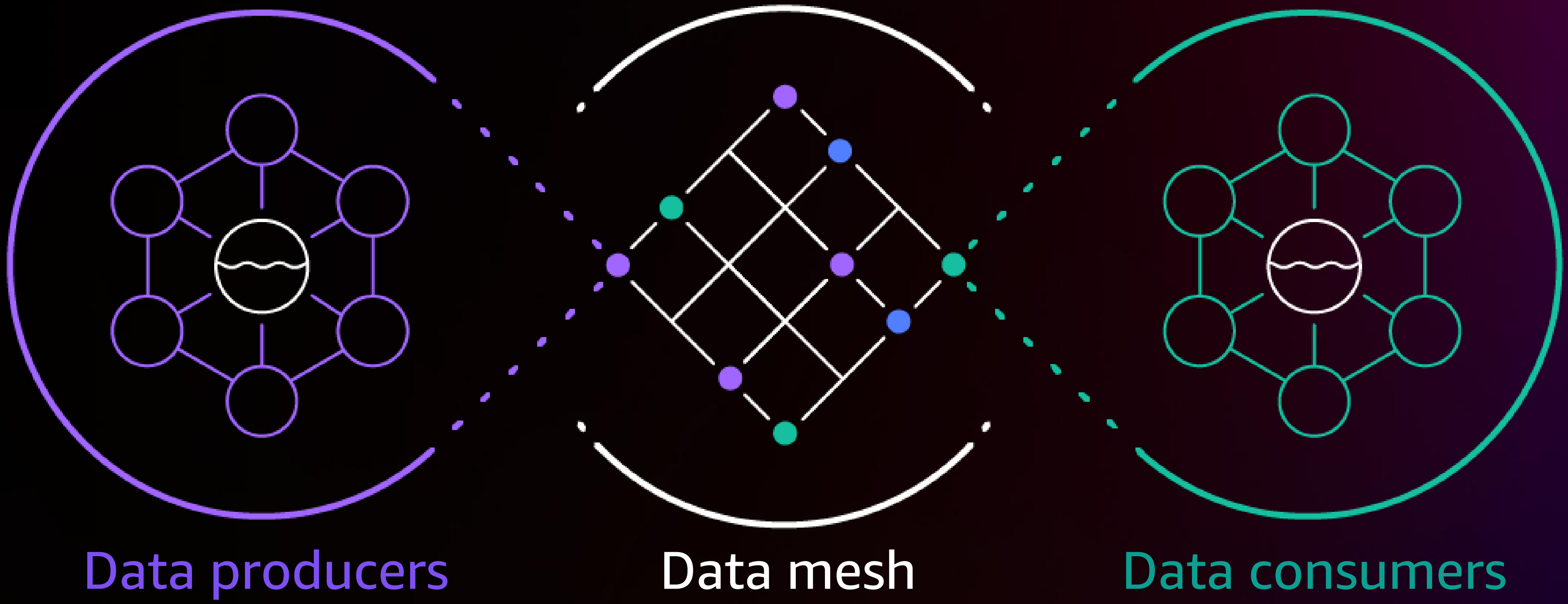


Data mesh architecture pattern: data lake assets collections sharing



Security, Governance and Data Access with Data Mesh

Data mesh **unifies** Security, Governance, and Data Access of modern data architecture



Agenda

Modern data architecture on AWS

End-to-end data life cycle on the modern data architecture

Data governance and data mesh in action

Journey towards modern data architecture

Journey towards modern data architecture

Start small

Scale fast

Think big

Journey towards modern data architecture

Start small

Start from **small subset** in your data platform

Journey towards modern data architecture

Scale fast

Scale **fast** to achieve your business goal based on data

Journey towards modern data architecture

Think big

Expand your data platform to support **more workload** and **advanced goals**

Conclusion

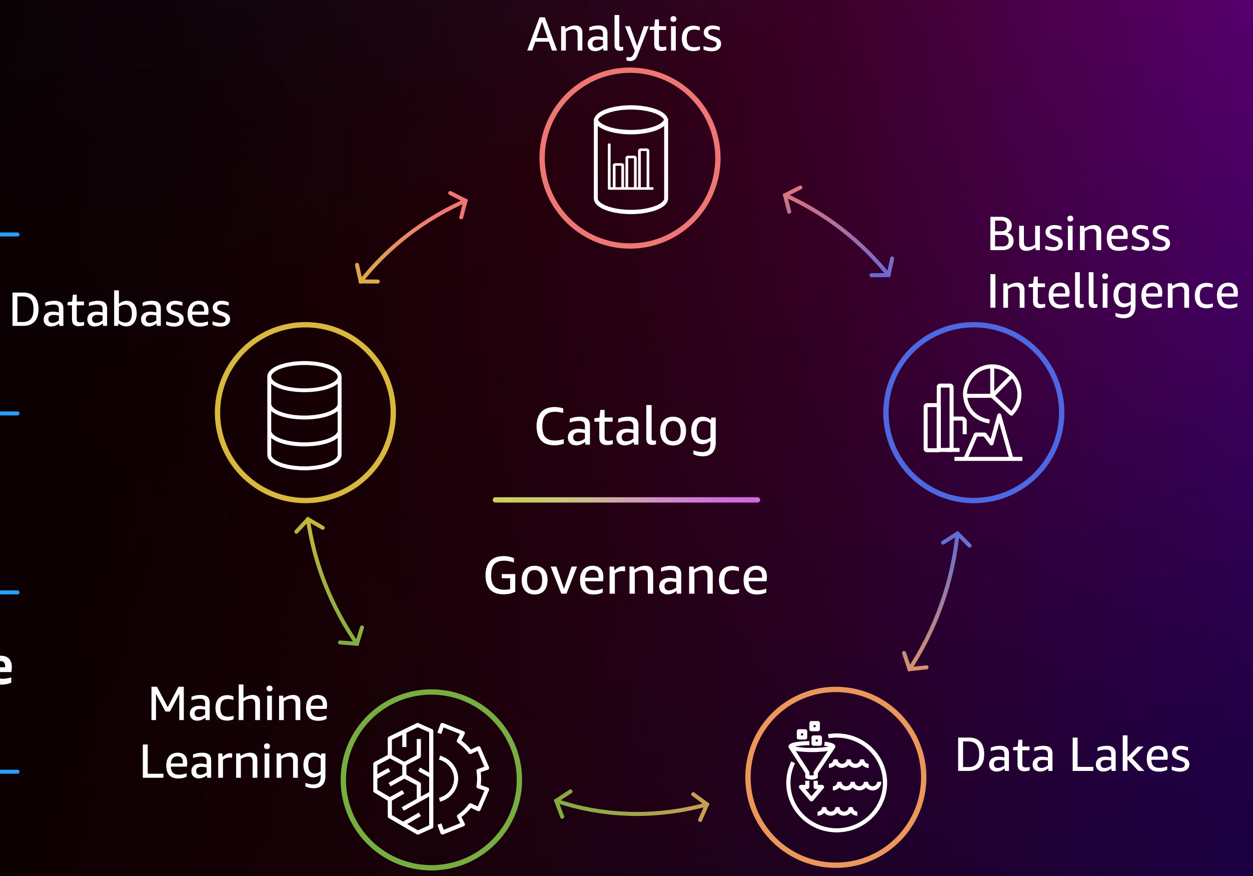
Unified analytics

Highest performance at the lowest cost

Machine learning integration

Unified data access, security and governance

Insights for everyone



Learn more at re:Invent 2022

SESSIONS RELATED TO MODERN DATA ARCHITECTURE

Swami Sivasubramanian, Vice President of AWS Data and Machine Learning – Keynote
Wednesday November 30 | 8:30 AM – 10:30 AM PST | The Venetian

ANT203-L (LVL 200) Unlock the value of your data with AWS analytics
Wednesday November 30 | 2:30 PM – 3:30 PM PST | The Venetian

ANT223 (LVL 200) Simplify and accelerate data integration & ETL modernization with AWS Glue
Wednesday November 30 | 12:15 PM – 1:15 PM PST | MGM Chairmans 368

ANT310 (LVL 300) Build a data mesh with AWS Lake Formation and AWS Glue
Wednesday November 30 | 05:30 PM – 07:30 PM PST | MGM Grand

ANT344 (LVL 300) Democratize data with governance – Connect people, data, and tools with Amazon DataZone
Wednesday November 30 | 02:30 PM – 03:30 PM PST | MGM Grand

Thank you!

Santosh Chandrachood

sanchas@amazon.com

Please complete the session survey in the mobile app