SAS Viya with SingleStore

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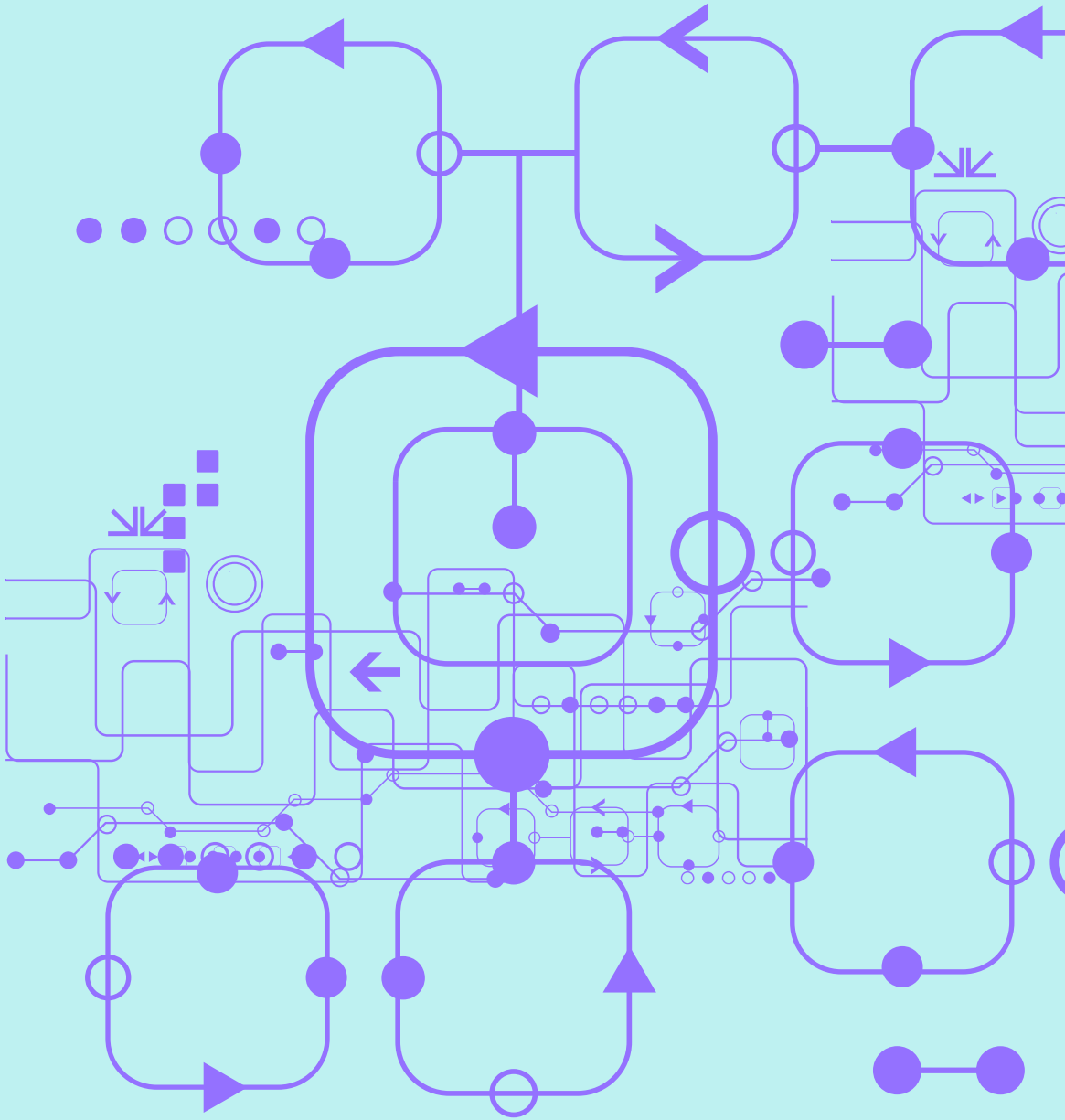

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Agenda

- What is SingleStore ?
  - SingleStore Architecture
- SAS Viya with SingleStore
  - Combined Architecture
- Case Study

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What is SingleStore ?

SingleStore is a highly scalable, fast, distributed, SQL database management system designed to power modern data-intensive applications to deliver maximum performance for both transactional (OLTP) and analytical (OLAP) workloads in a single unified engine.

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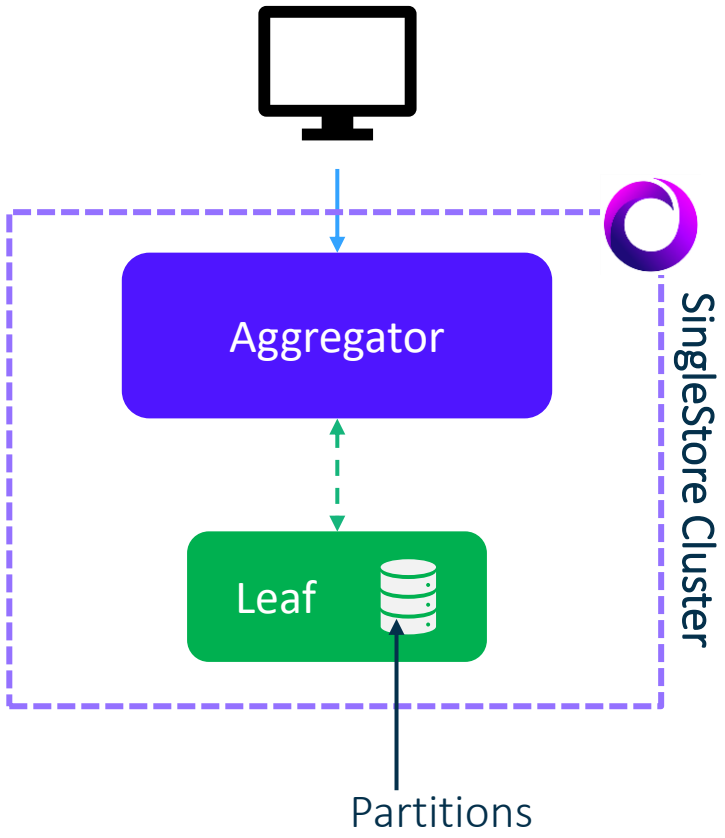
SingleStore Architecture



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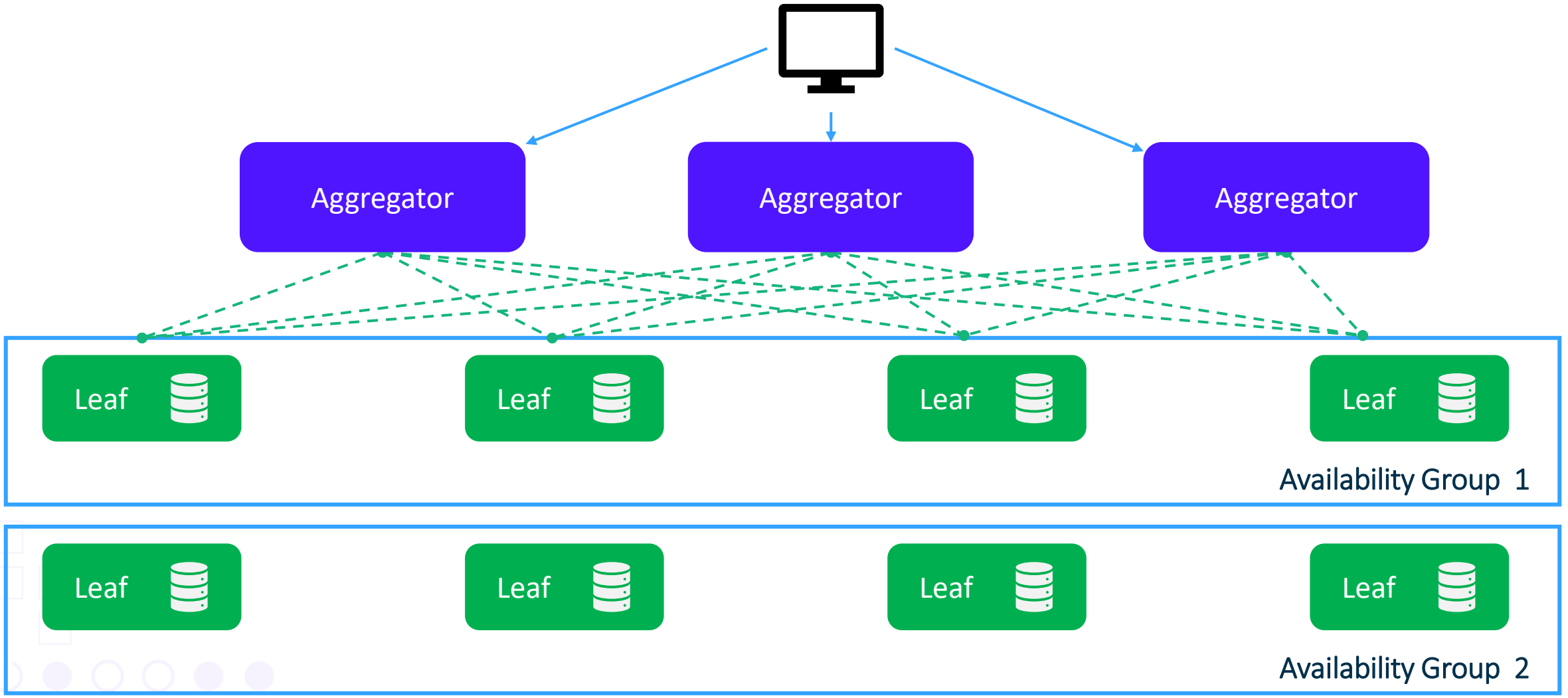
SingleStore Distributed Architecture



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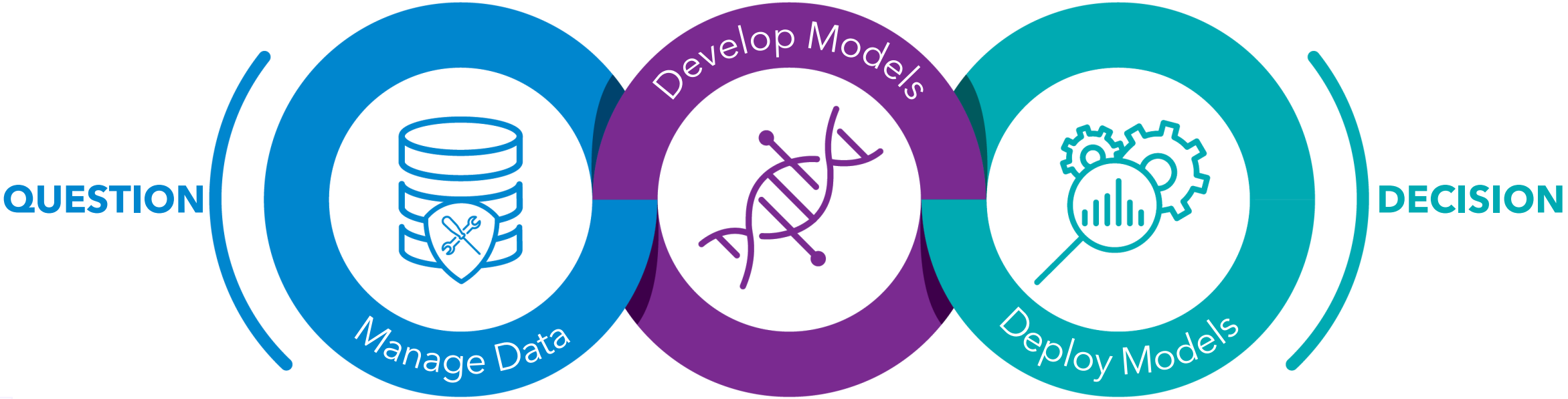
Analytics Life Cycle



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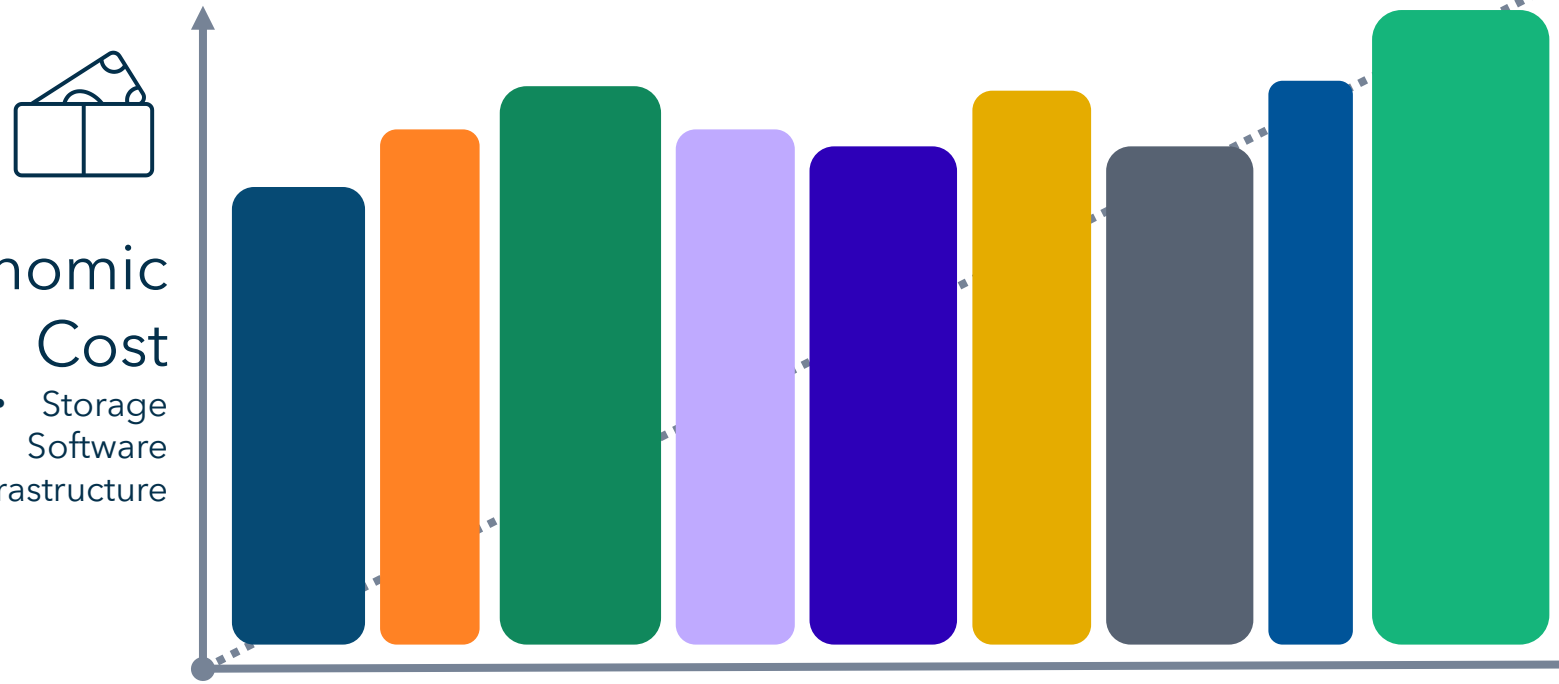
Constraints

Complexity

- Data Integration
- Manual processing
- Multi-/hybrid-cloud



Economic Cost

- Storage
- Software
- Infrastructure

Time Cost

- Make impact
- Compete quickly
- More productive

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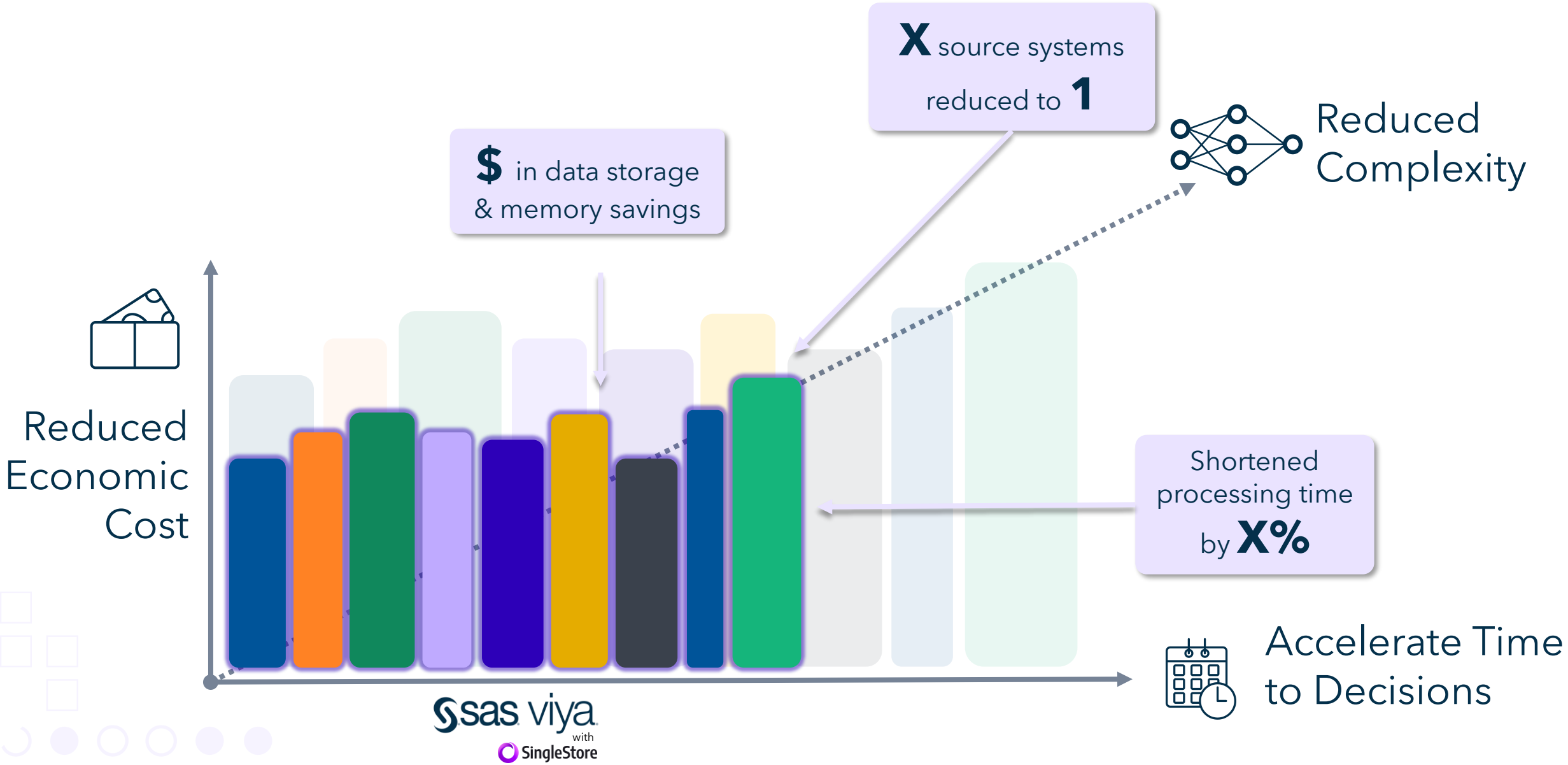

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Key Benefits

Reduce Total Cost of Ownership

- Combine multiple data sources into a single database.
- High compression of data reduces overall infrastructure costs.
- Eliminate complex data management processes

Scalability

- Scale database without compromising on performance.
- Support for high availability.

Productivity

- Ultra-fast ingestion of any type of data
- High Concurrency, low latency queries
- Eliminate data movement
- Built-in encryption
- Easy access to clear data insights

Multi Cloud

- Modern cloud architecture
- Support the customer's cloud journey not matter where they are!
- Supports public cloud, hybrid cloud and on-premises deployments.

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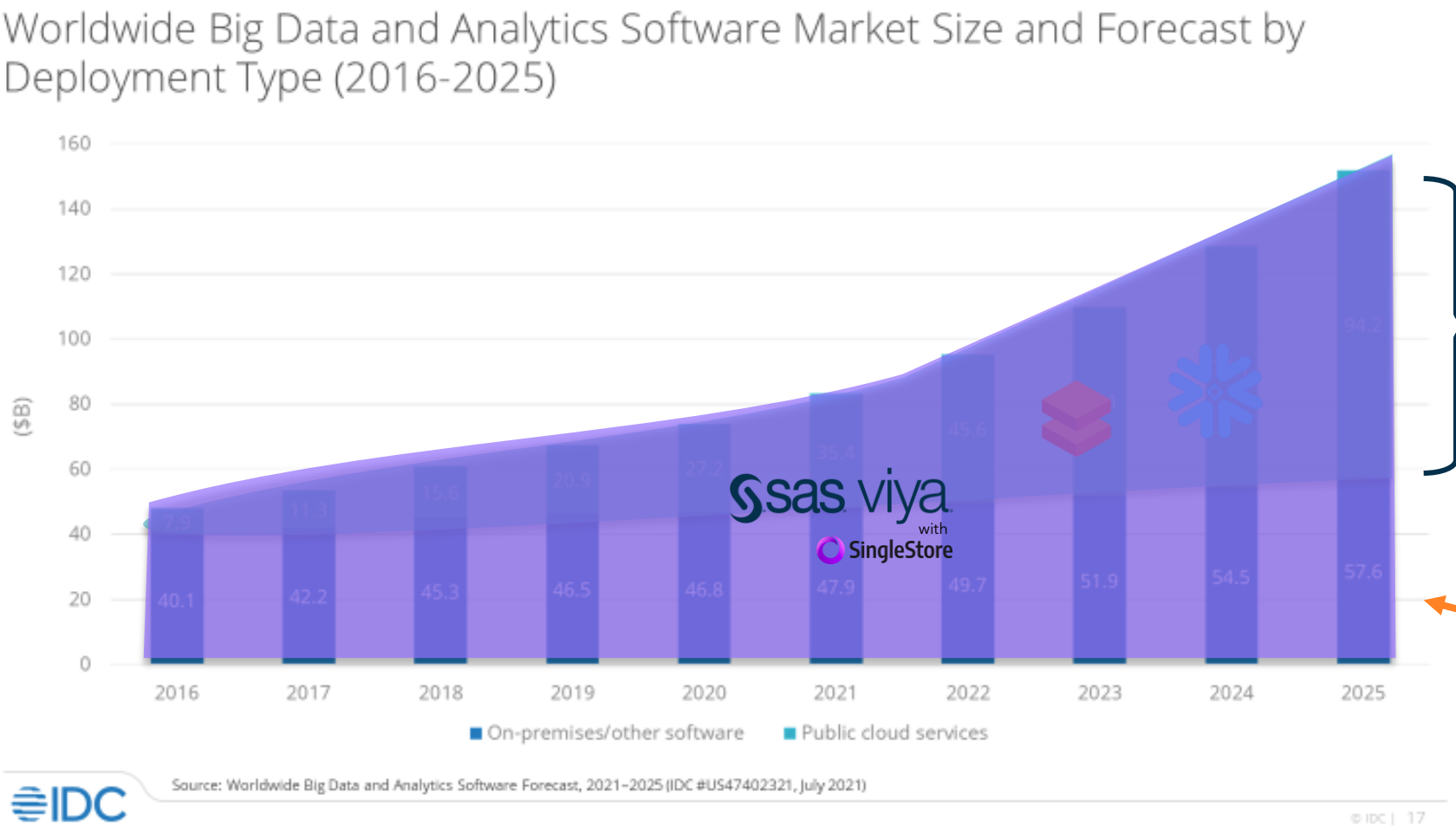
Cloud is Growing Fast! But On-Prem is Not Going Away!



"Everybody is moving to the cloud!"

How to address the **other 38% of your data management and analytics on premises?**

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Microservices and Web Apps

Service A_1 | Service B_1 | Service C_1

Service A_2 | Service B_2 | Service C_2

STATELESS NODE POOL

Commodity Services

Postgres | Consul | RabbitMQ

STATEFUL NODE POOL

SAS Compute Services

SAS Compute | SAS Compute | SAS Compute

COMPUTE NODE POOL

Cloud Analytic Services (CAS)

CAS Controller

CAS Worker | CAS Worker | CAS Worker

SingleStore | Aggregator | Aggregator

Leaf | Leaf | Leaf | Leaf

Distributed, Highly-Scalable SQL Database

Ingress

Monitoring + Logs

Prometheus

Grafana

kibana

fluentbit

elastic

kubernetes

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$8M

saved on data storage

PROBLEM

This bank wanted to modernize its grid workloads while managing the cost of storing and protecting massive volumes of data.

SOLUTION

Migrating grid workloads to SAS Viya allowed them to continue benefiting from their SAS 9 investments while gaining improved performance and governance on Viya. SingleStore was used to compress and encrypt all the data, enabling the bank to **reduce storage infrastructure by 50%.**

Large Multinational Bank

Big data. Lighter footprint.

sas viya

Confident decisions just got better.

- Lower cost of analytic decisions
- Manage data complexities at scale and improve productivity
- Easy and simplified access to data and usage
- Built from the ground-up for your cloud journey

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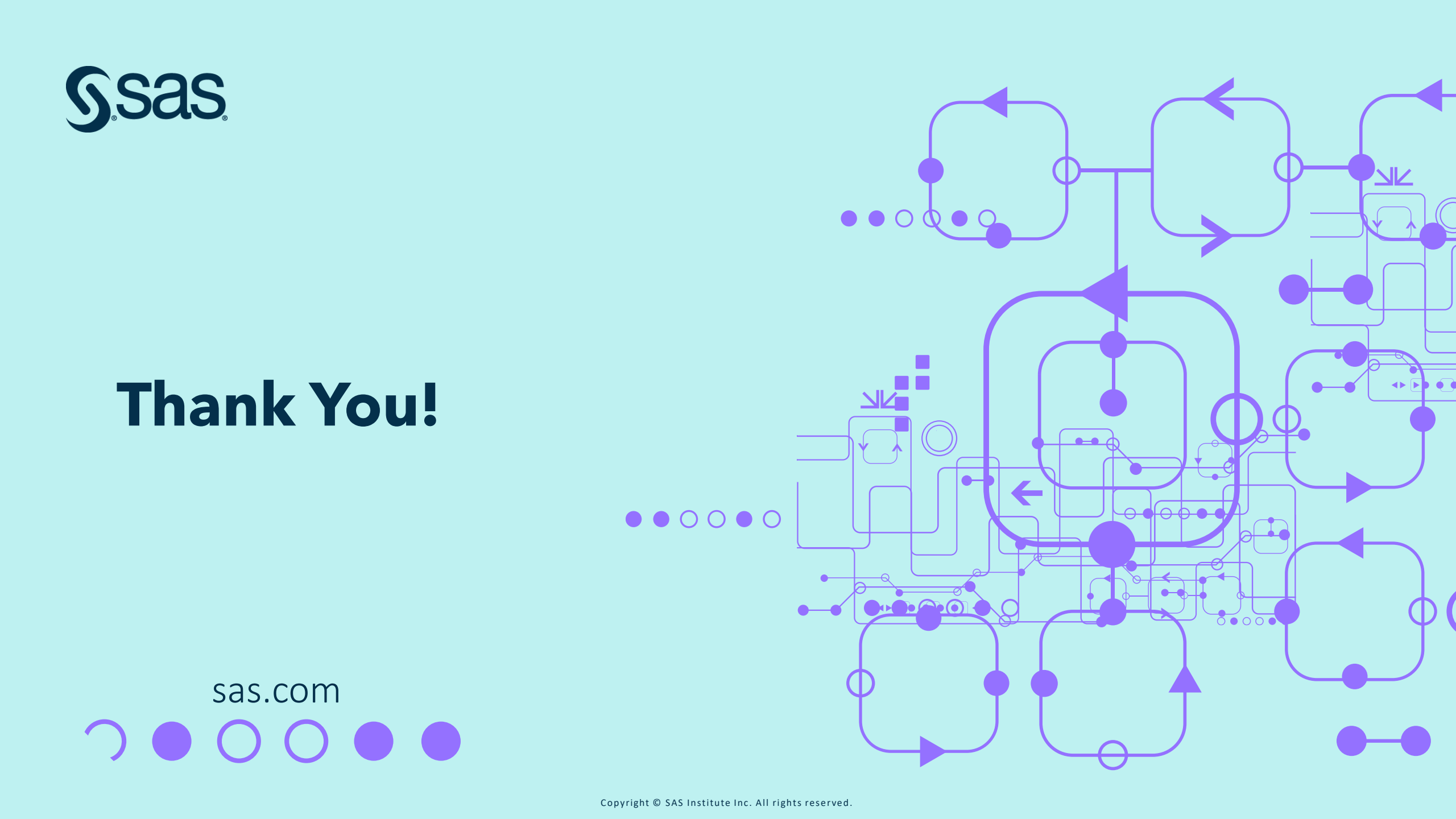

Thank You!

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