



Singdata Lakehouse Revolutionizes Your Data Strategy with

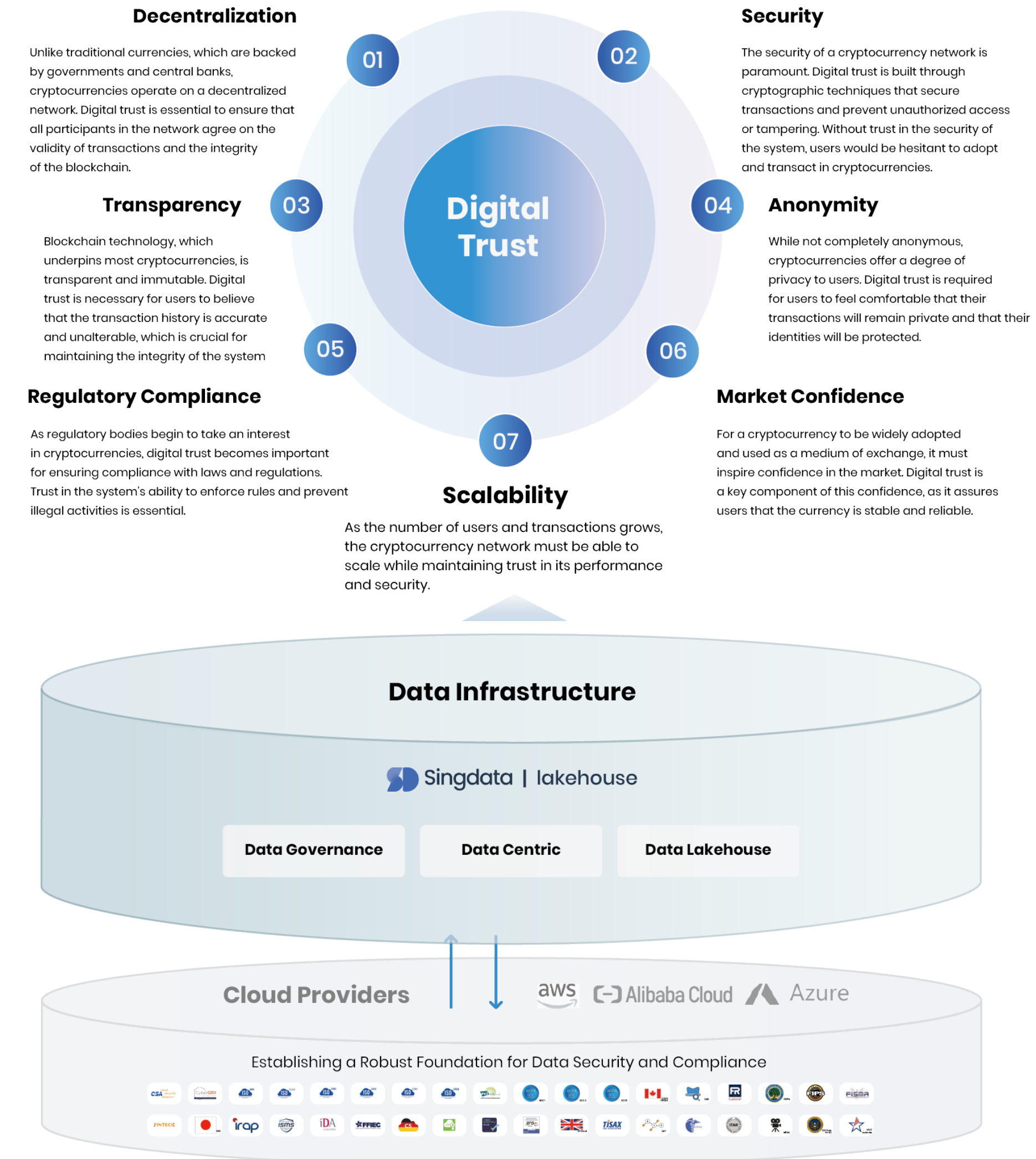
## Holistic Simplified Data Infrastructure

- Multi-Function Unified Engine: Streamline operations and boost efficiency
- RAG-Ready Data Centric Architecture: Unlock the full potential of your data+AI
- Out-of-the-box Data Platform: Accelerate implementation and time-to-value

Empowering Digital Trust with  
Advanced Data Infrastructure !

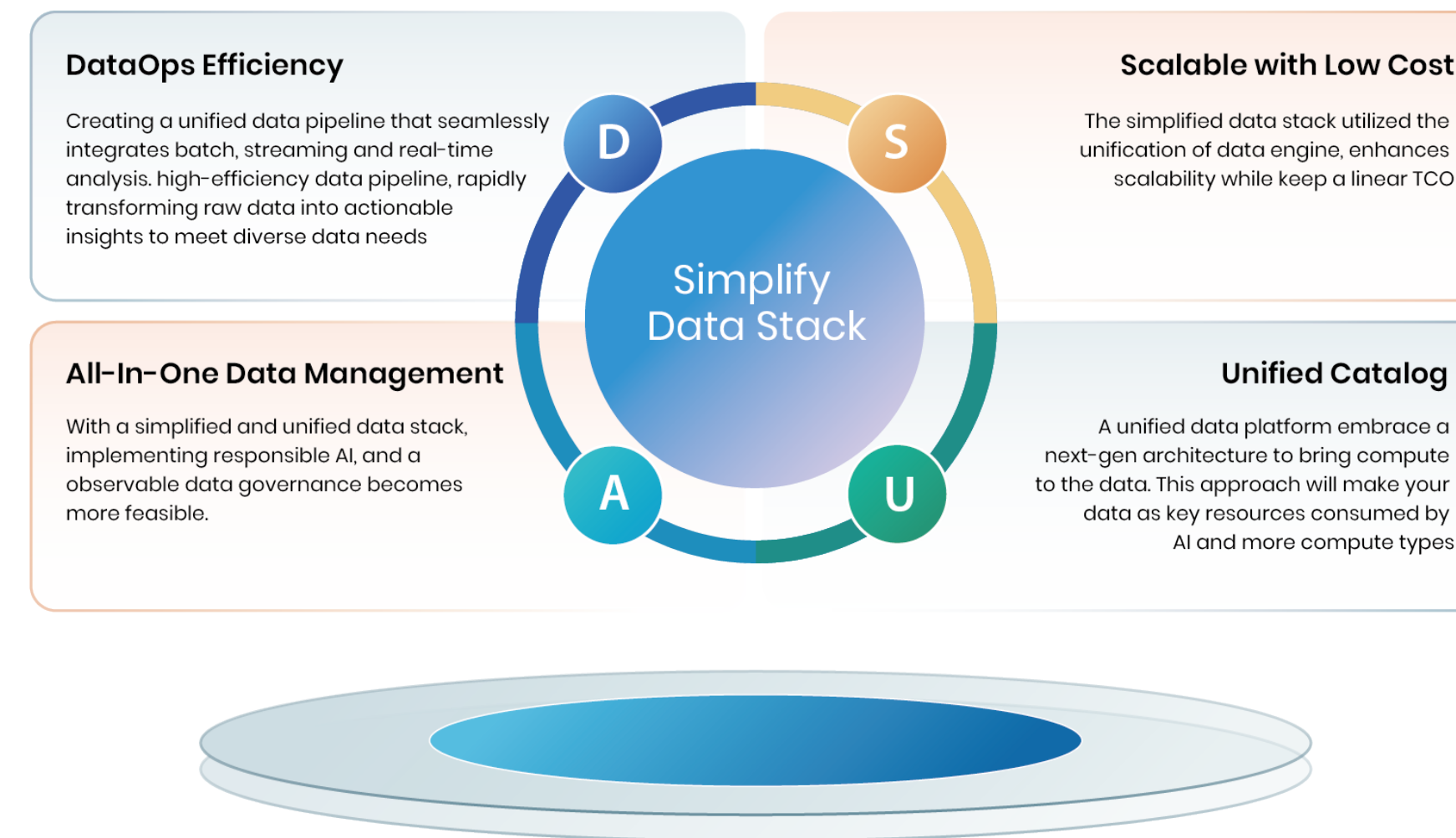


## Why Build Crypto on Data Centric Infrastructure



## Why Simplify Data Stack?

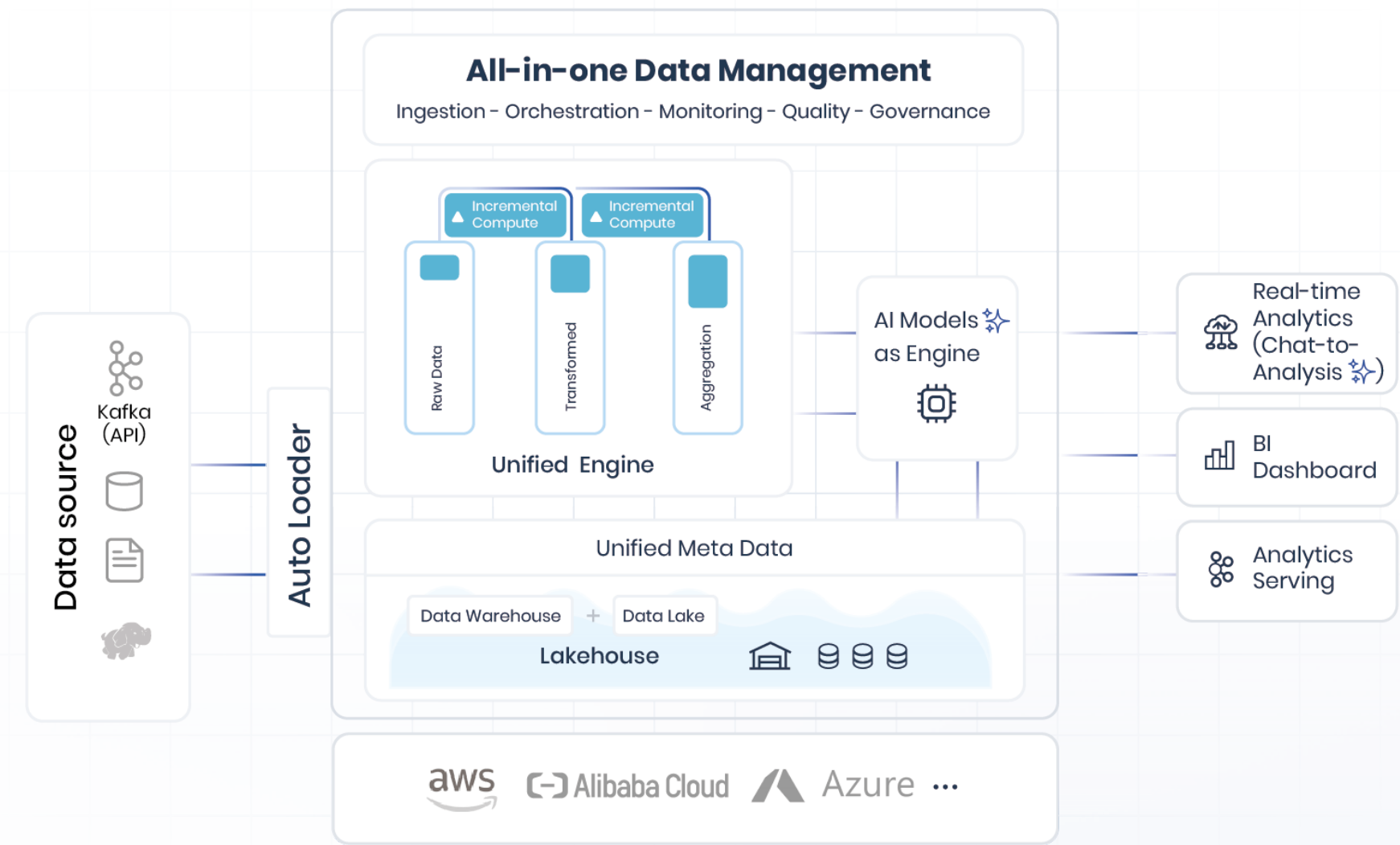
In today's data-driven world, enterprises face mounting challenges with their data infrastructure. The Modern Data Stack (MDS) has become increasingly complex, burdening organizations with multiple engines and redundant data pipelines that are difficult to maintain. Despite efforts to consolidate, data silos persist and often multiply, hindering seamless data flow and insights. Moreover, as AI emerges as a transformative technology, it demands more responsibly managed and accessible data. These challenges underscore the urgent need to simplify and unify the data stack, paving the way for more efficient, scalable, and AI-ready data management solutions.





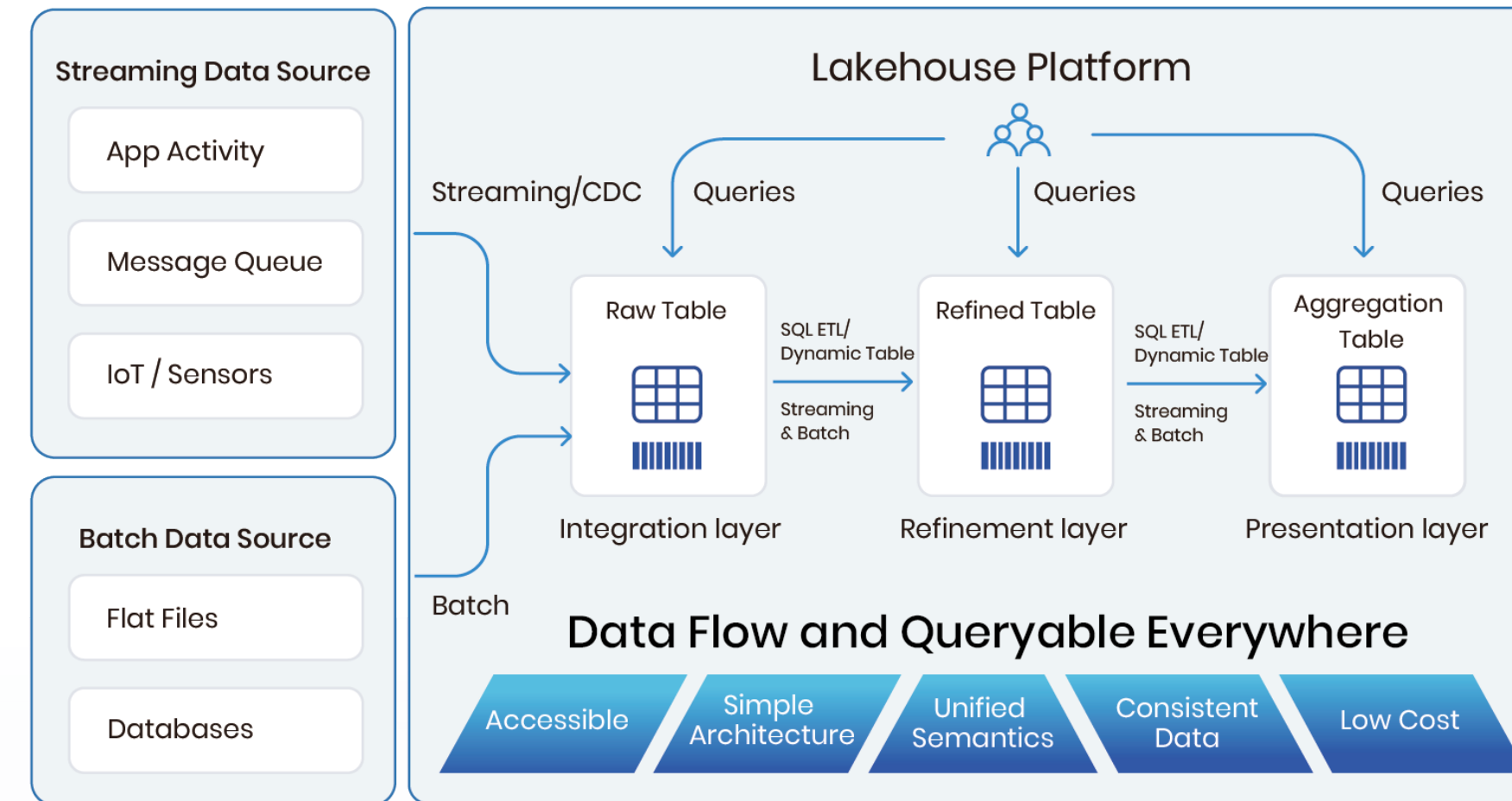
# Singdata Lakehouse Architecture

Singdata Lakehouse offers a groundbreaking all-in-one data platform that seamlessly integrates batch and streaming processes, providing unparalleled efficiency and scalability.



- All-in-One Data Management**  
Manage the full data lifecycle from data ingestion to governance, from development to analysis, in one platform. With domain-based data management and multi-role support, it enhances enterprise-scale teamwork and streamlines operations. This comprehensive platform empowers organizations to efficiently manage and derive value from their data assets.
- Unified Data Engine**  
Seamlessly integrates all data operations into a single platform. It combines batch and streaming processes with a unified engine, with advanced incremental compute capability, dramatically accelerates processing by focusing on new data, saving significant time and resources.
- Data Centric Lakehouse**  
Lakehouse architecture combines the flexibility of data lakes with the structured data warehouses, embracing open data formats like Iceberg and Hudi. This fusion offers unmatched data versatility, allowing organizations to efficiently handle both structured and unstructured data.
- Fully Connected Data and AI**  
Seamlessly integrate powerful AI capabilities directly into your data infrastructure. From SQL-based ML model creation to advanced GenAI and vector embeddings, our solution empowers your data to connect AI effortlessly.

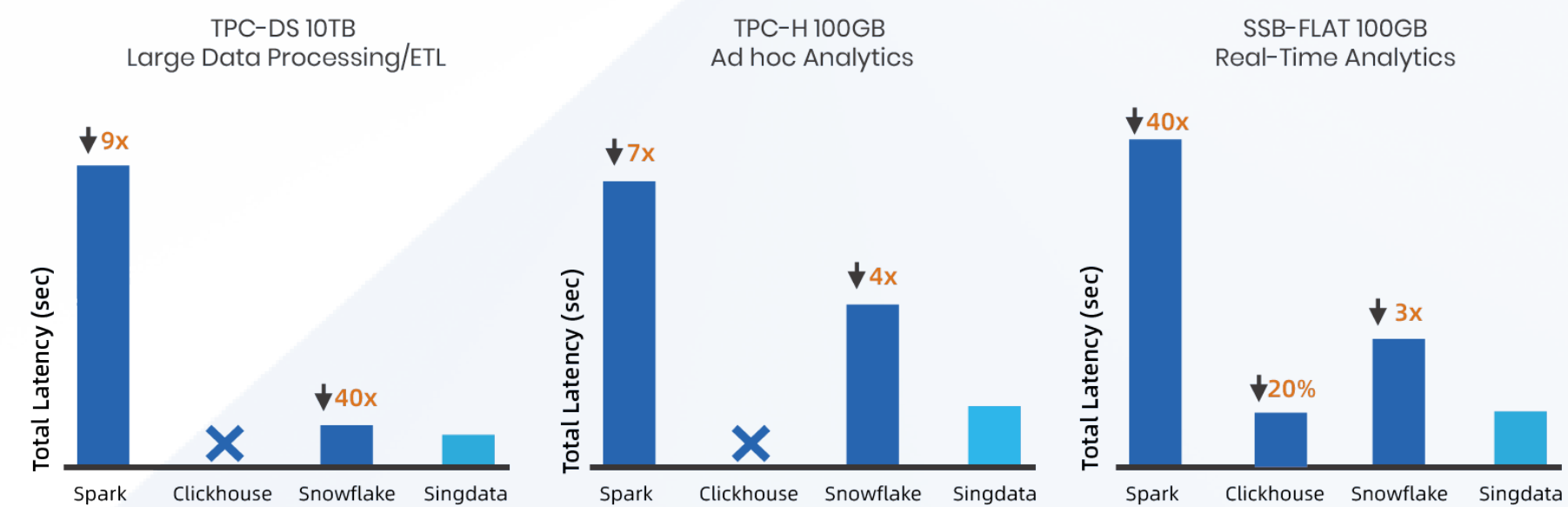
## Unified Batch and Streaming Data Processing and Analysis



## Unified Real-time Analytics and ETL Processing with Uncompromised Performance

Milliseconds data processing

**2x~5x** batch query performance improvement (by native vector engine)

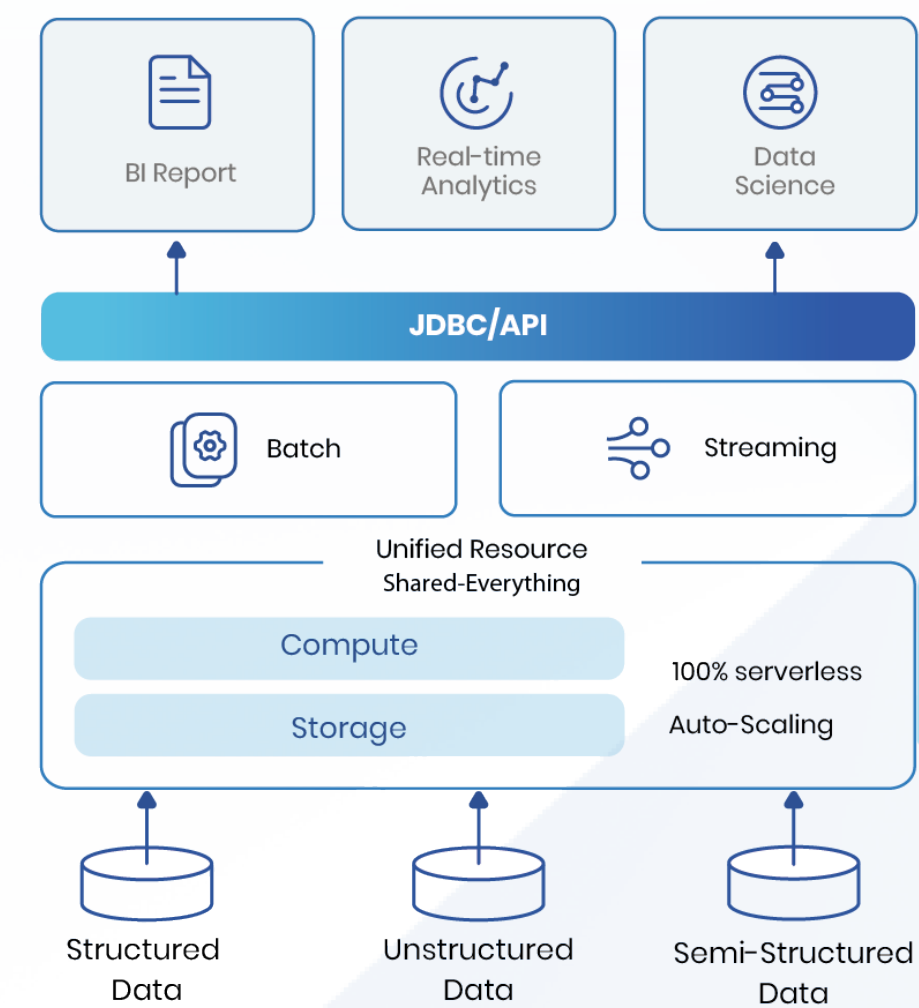


## Pioneering the Next-Generation Data Architecture

**Singdata Lakehouse** revolutionizes data management by seamlessly integrating the strengths of data lakes and warehouses. This innovative architecture offers:

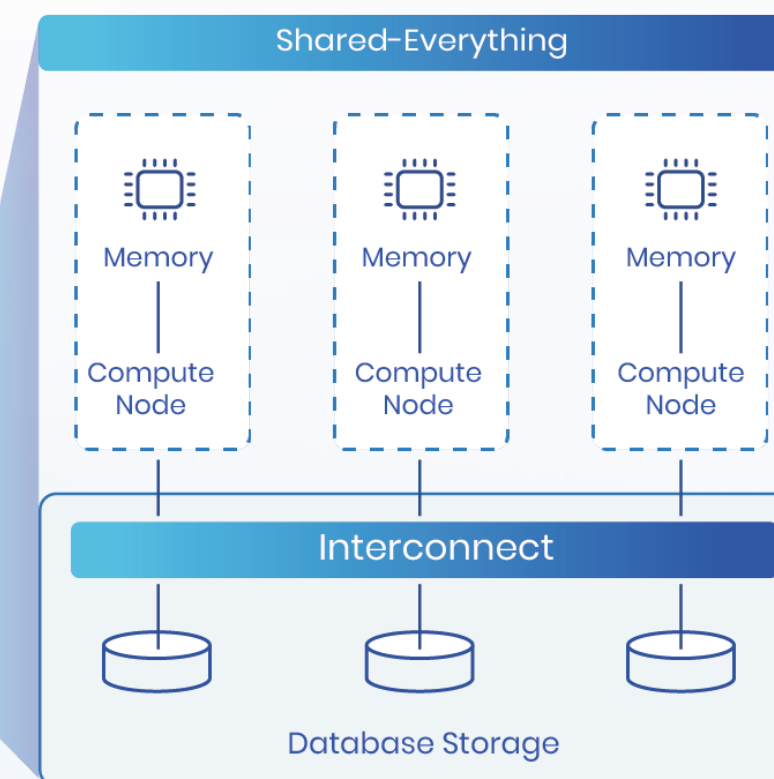
- **Lakehouse:** Manages structured, semi-structured, and unstructured data under a single, cohesive system with a unified catalog.
- **Open Data Format:** Embraces open data formats like Iceberg and Hudi, ensuring flexibility and interoperability.
- **Cloud-Native Storage:** Leverages object storage services (S3, OSS) for scalable and cost-effective data storage.
- **Unified Compute Layer:** Employs a shared-everything architecture, enabling efficient processing across batch and streaming workloads.
- **Advanced Infrastructure:** Offers 100% serverless, auto-scaling capabilities for both compute and storage, optimizing resource utilization and cost.

### Lakehouse



### 100% Serverless

Shared-Everything cloud native architecture





## Solution: IoT Data Management

### Scenario

**Massive-scale IoT data handling:** Efficiently process and transmit data from millions of IoT devices, managing tens of terabytes daily.

**Real-time analytics for critical operations:** Enable immediate insights for vehicle monitoring, operational analysis, and predictive maintenance with minute-level data freshness.

### Value to Customer

#### Cost Efficiency

Dramatically slashes infrastructure expenses, delivering **over 50%** reduction in storage and compute costs. This optimization significantly enhances operational efficiency and resource utilization across data processes.

#### Linear Cost Scaling

Providing predictable and manageable expenses while handling tens of millions of data analysis per second in real time, costs increase linearly rather than exponentially

#### Data in Real-time

Expand real-time capability to all data pipeline previously unfeasible

**50%↓**

Reduction in Storage Cost

**3x↑**

Performance for Adhoc Queries

**300K→10M**

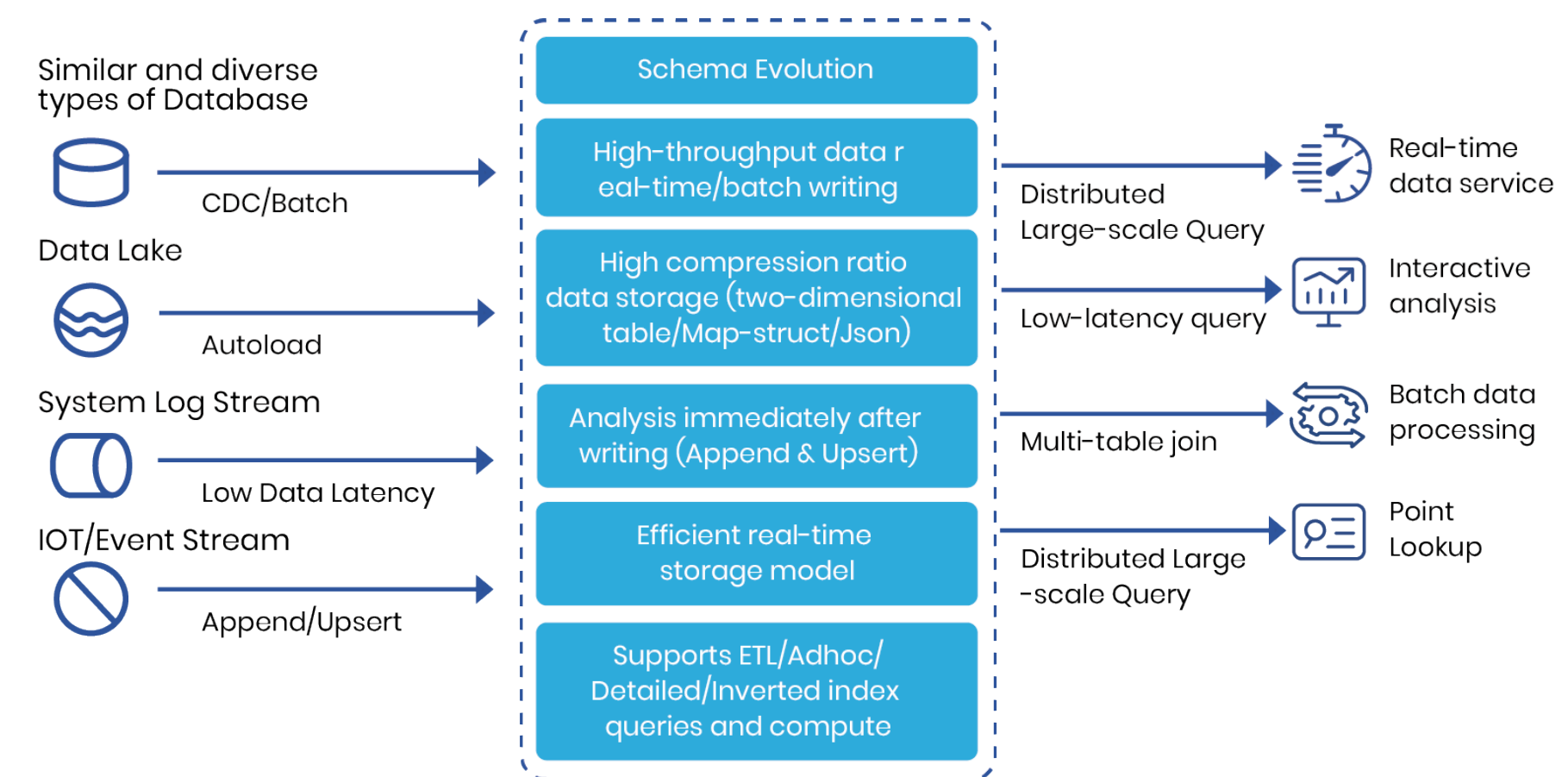
TPS of Data Ingestion

\*All improvements and measurements are from actual case of Singdata Lakehouse implementation

### Addressed Pain Points:

- Simplified architecture, reducing operational and maintenance costs
- Ultra-fast response times meeting stringent business requirements
- Cost-effective real-time processing across all data flows
- Dramatic reduction in storage costs without compromising data integrity

### Upgrade to Singdata Lakehouse



**35%↓**

Reduction in Compute Cost

**x 10**

Increase in Data Scenario Coverage

**5% → 100%**

Expansion of Real-time Data Analysis Capabilities

## Solution: Enterprise Real-Time Data as a Service

### Scenario

Large-scale & real-time data integration from diverse sources (i.e. operational systems, IoT devices, customer interactions)

Need for immediate insights and reporting service for both internal operation and external customers

### Value to Customer

#### Real-time Data as a Service

Transform your enterprise's ability to improve customers experience. Our Data as a Service solution upgrades your capabilities to instant, actionable intelligence.

#### Cost Optimization

Achieve significant cost savings with a 70%+ reduction in storage and compute costs, allowing reallocation of resources to strategic initiatives.

#### Hassle-Free Operations

Fully managed service minimizing operational overhead, freeing your team to concentrate on deriving value from data rather than maintaining systems.

**5.1X**

Reduction in  
End-to-end ETL  
Latency

**+70%**

Boost in Data  
Development  
Efficiency

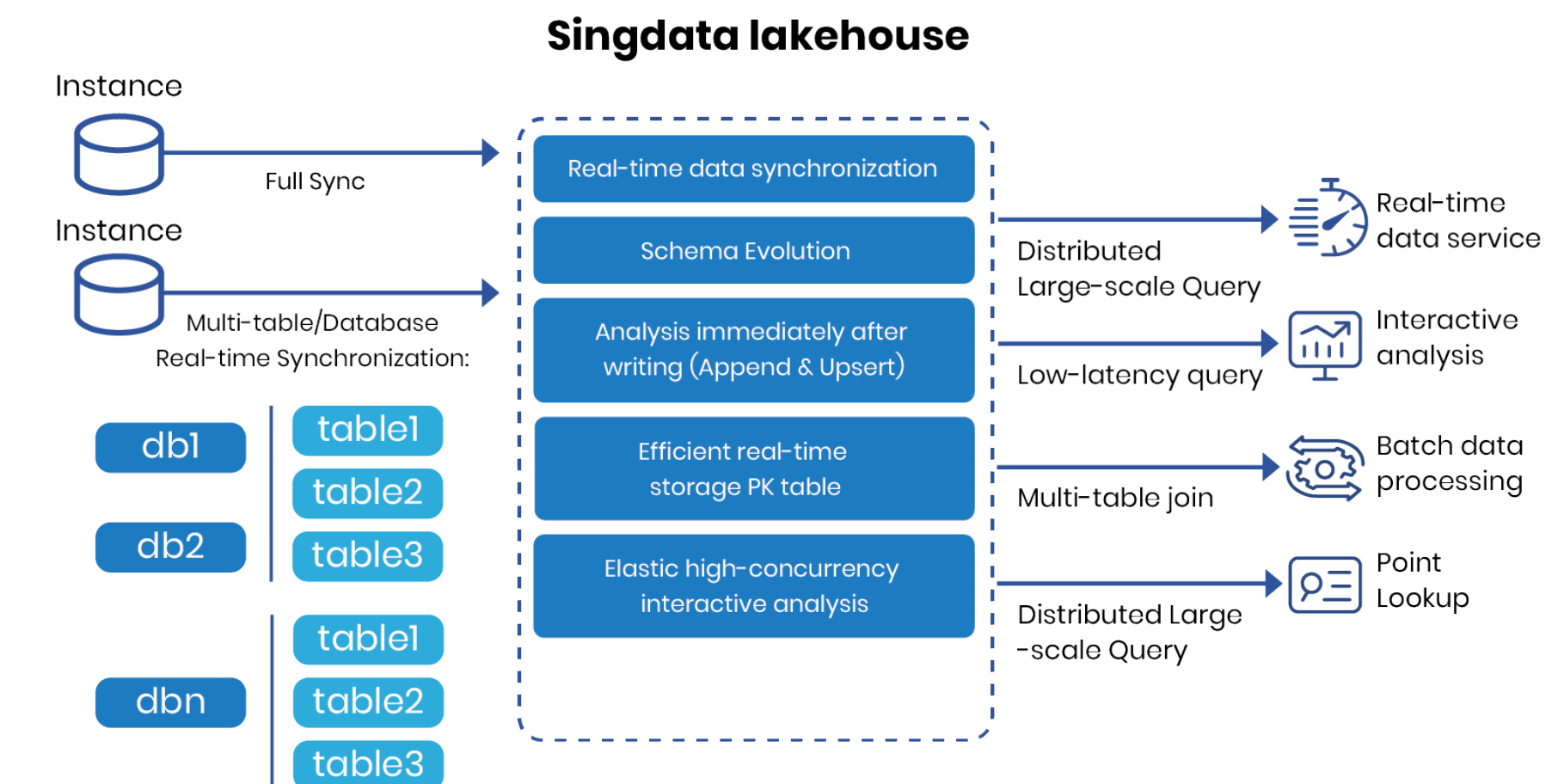
**50% Off**

Decrease in  
Compute Costs

\*All improvements and measurements are from actual case of Singdata Lakehouse implementation

### Addressed Pain Points:

- Streamlined data management with a unified batch and real-time analytical platform, dramatically reducing complexity and maintenance costs.
- Enabled real-time access to fresh data in all domain, empowering timely and informed decision-making across the organization, and enabling up-to-date information service to customers.



**70% Off**

Reduction in  
Maintenance Costs

**T+1 -> In Minute**

Data Freshness Improved  
from Daily to  
Minute-level Updates



## Solution: Building Digital Trust with a Centralized Data Lakehouse

### Scalability and Real-time Processing:

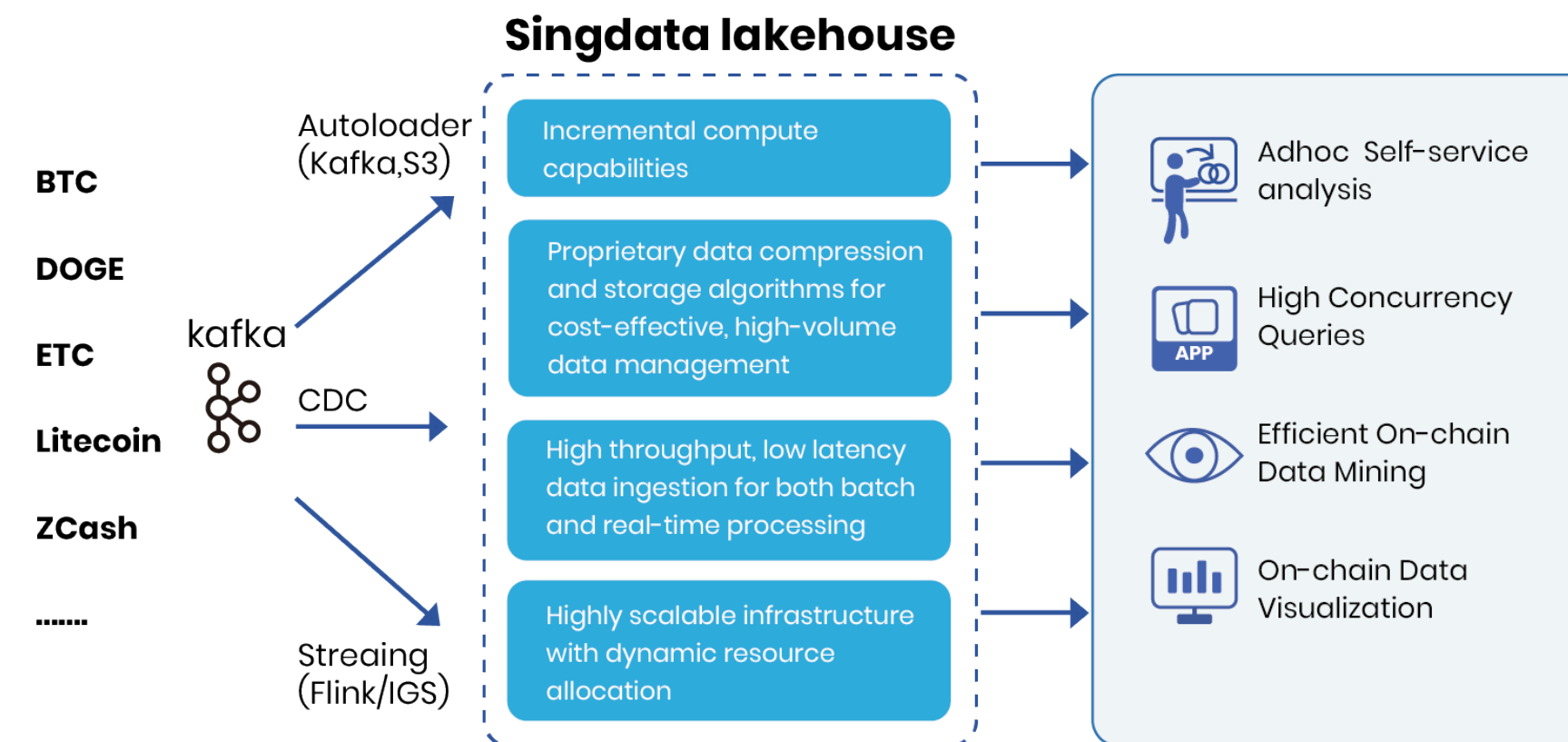
Cost-effective solutions are needed to track transactions across numerous blockchain networks and cryptocurrencies, enabling real-time data collection and analysis for timely insights.

### Low-cost Processing and Storage:

Blockchain systems require the storage and processing of tens of thousands of data. This necessitates petabytes of storage capacity and demands cost-effective solutions for both storage and data processing.

### Data Security and Privacy:

Customers require robust protection for sensitive blockchain data and personal information. Solutions must offer multi-layered encryption, secure transmission, and data desensitization to ensure compliance and maintain trust.



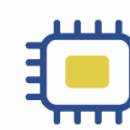
**1000W**  
TPS of Data Ingestion



**50%↓**  
Storage Cost



**100%**  
Real-time Data Processing



**35%↓**  
Compute Cost



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