Amazon Timestream

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Amazon Timestream

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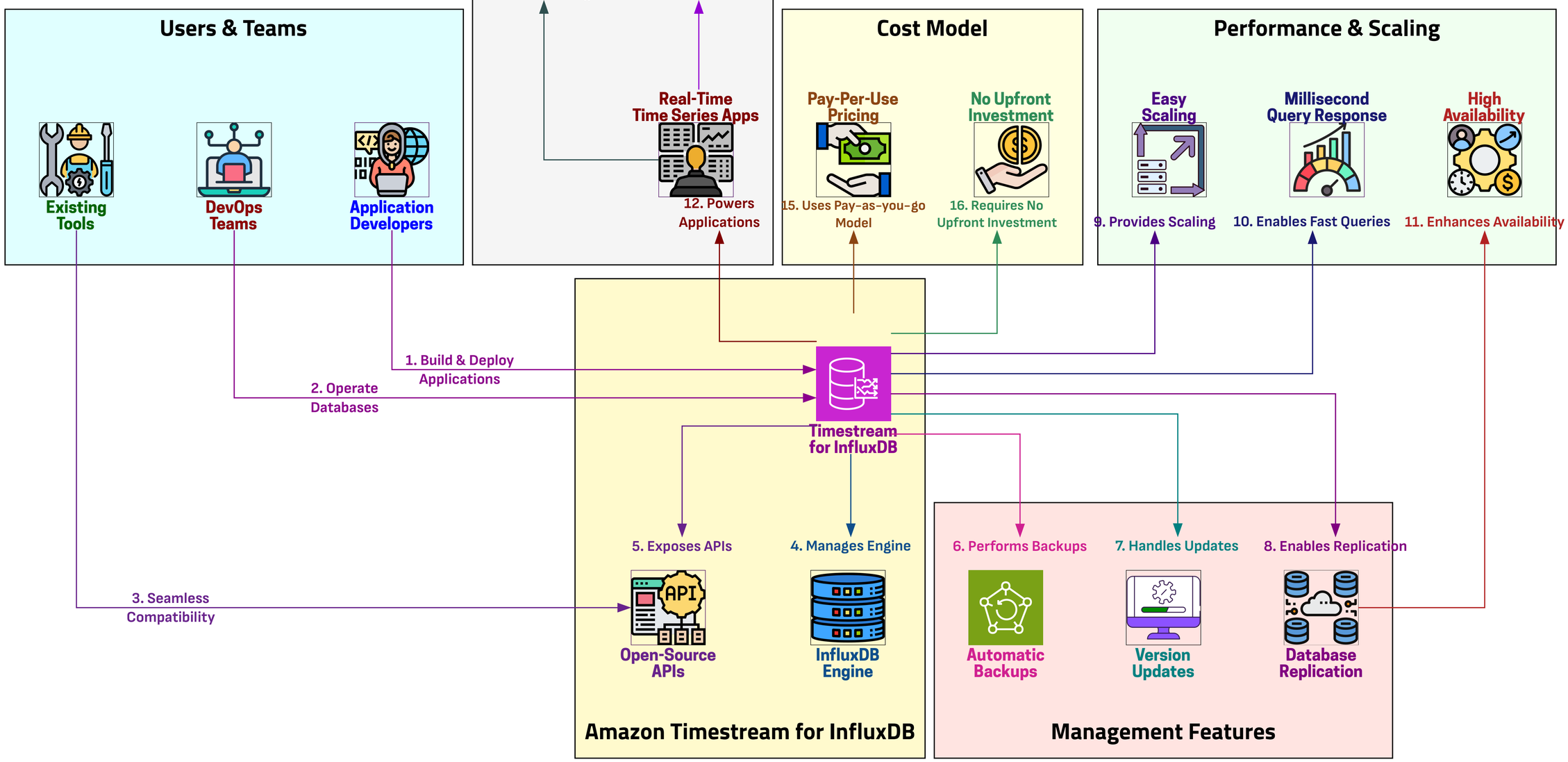
Amazon Timestream for InfluxDB

What is Timestream for InfluxDB?

1. 🏢 Managed time series database engine: For application developers, For DevOps teams, Run InfluxDB on AWS, Real-time time series applications, Uses open-source APIs



What is Timestream for InfluxDB?

2. ⚡ Easy setup and scaling: Scales time series workloads, Single-digit millisecond query response

Applications & Use Cases

IoT Monitoring

13. Enables IoT Monitoring

Metrics Collection

14. Facilitates Metrics Collection

Real-Time Time Series Apps

12. Powers Applications

Users & Teams

Existing Tools

DevOps Teams

Application Developers

Cost Model

Pay-Per-Use Pricing

15. Uses Pay-as-you-go Model

No Upfront Investment

16. Requires No Upfront Investment

Performance & Scaling

Easy Scaling

9. Provides Scaling

Millisecond Query Response

10. Enables Fast Queries

High Availability

11. Enhances Availability

1. Build & Deploy Applications

2. Operate Databases

3. Seamless Compatibility

Timestream for InfluxDB

5. Exposes APIs

4. Manages Engine

Open-Source APIs

InfluxDB Engine

Amazon Timestream for InfluxDB

6. Performs Backups

7. Handles Updates

8. Enables Replication

Automatic Backups

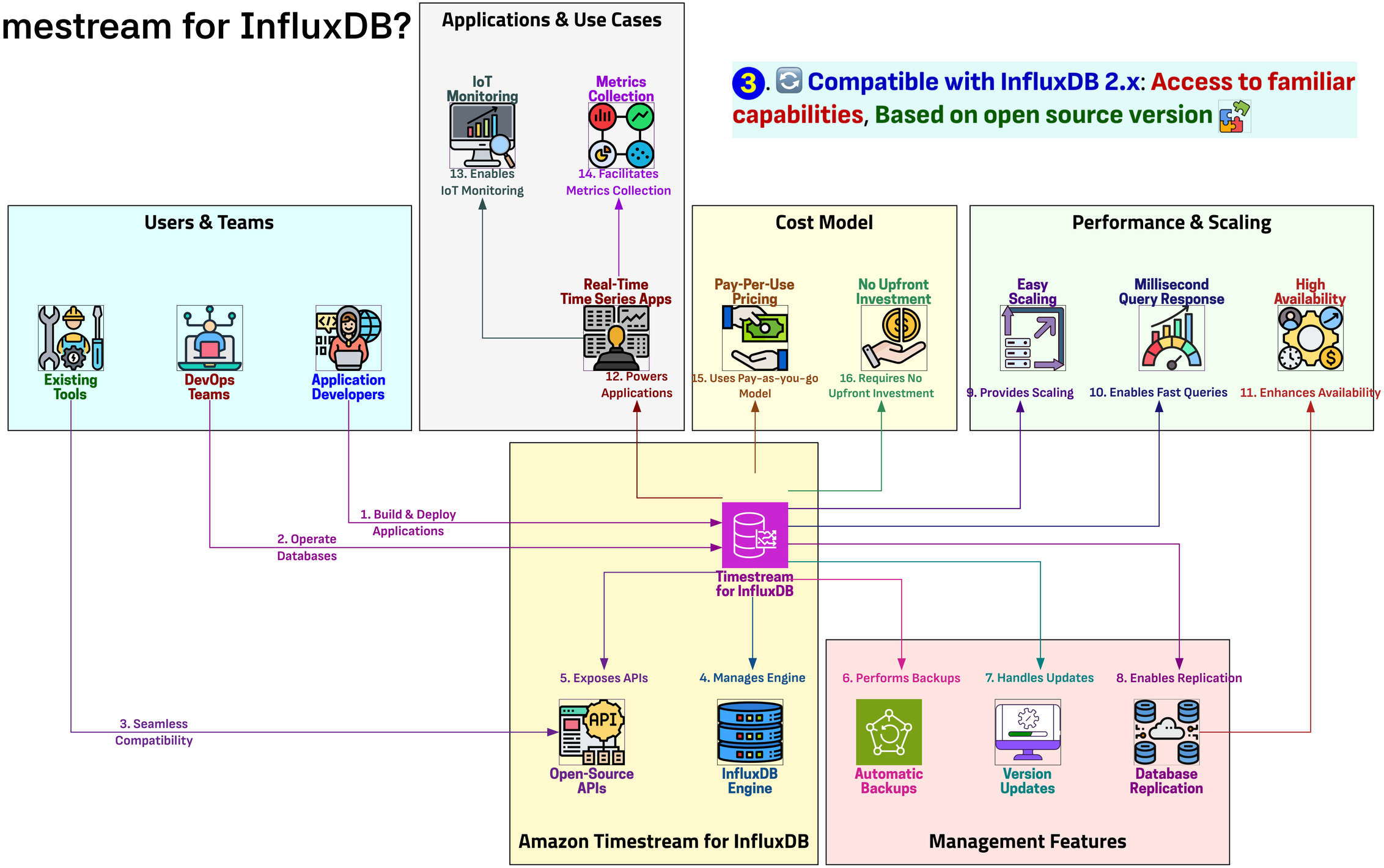
Version Updates

Database Replication

Management Features

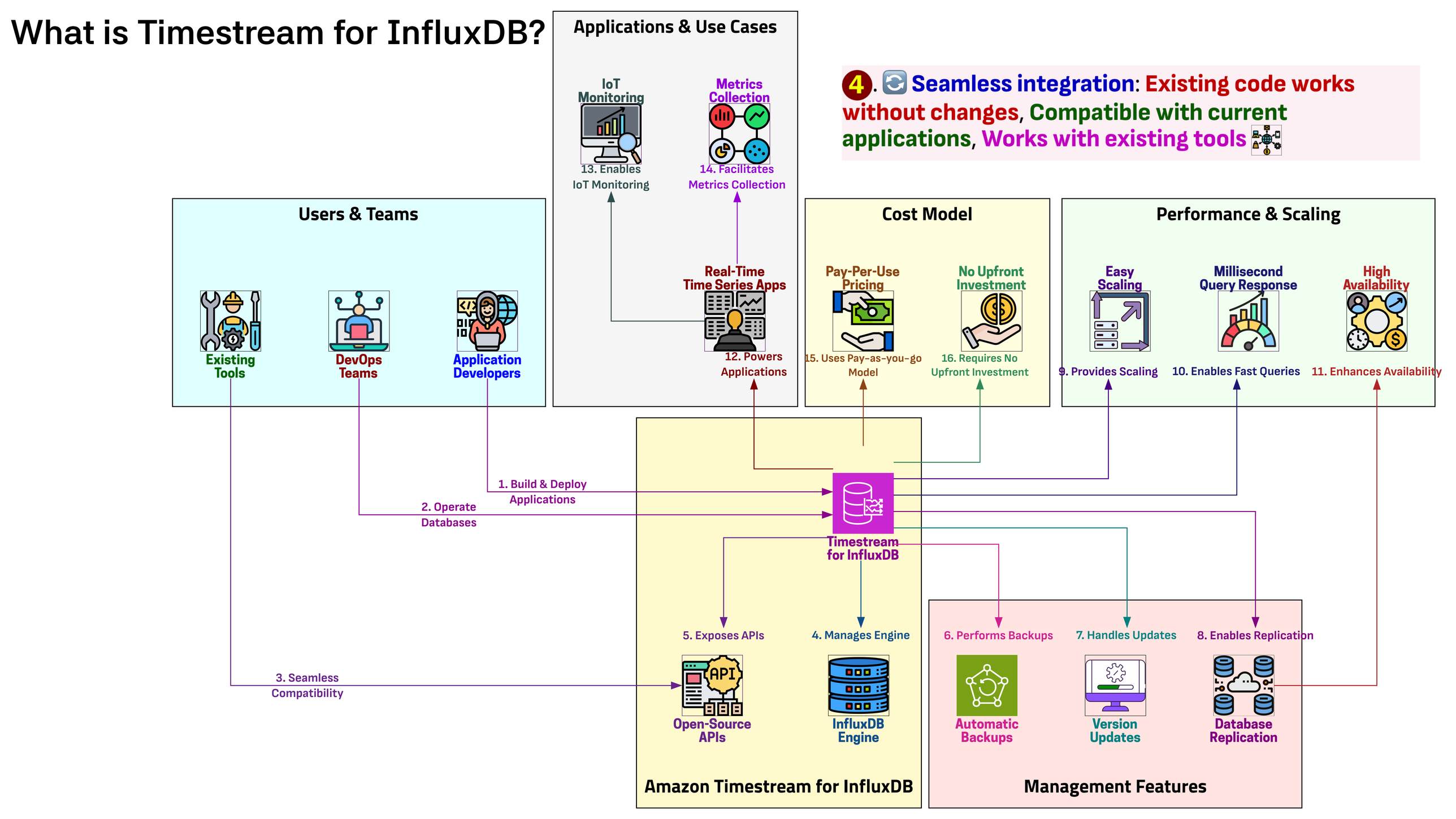
What is Timestream for InfluxDB?

3. 🔄 Compatible with InfluxDB 2.x: Access to familiar capabilities, Based on open source version 🧩



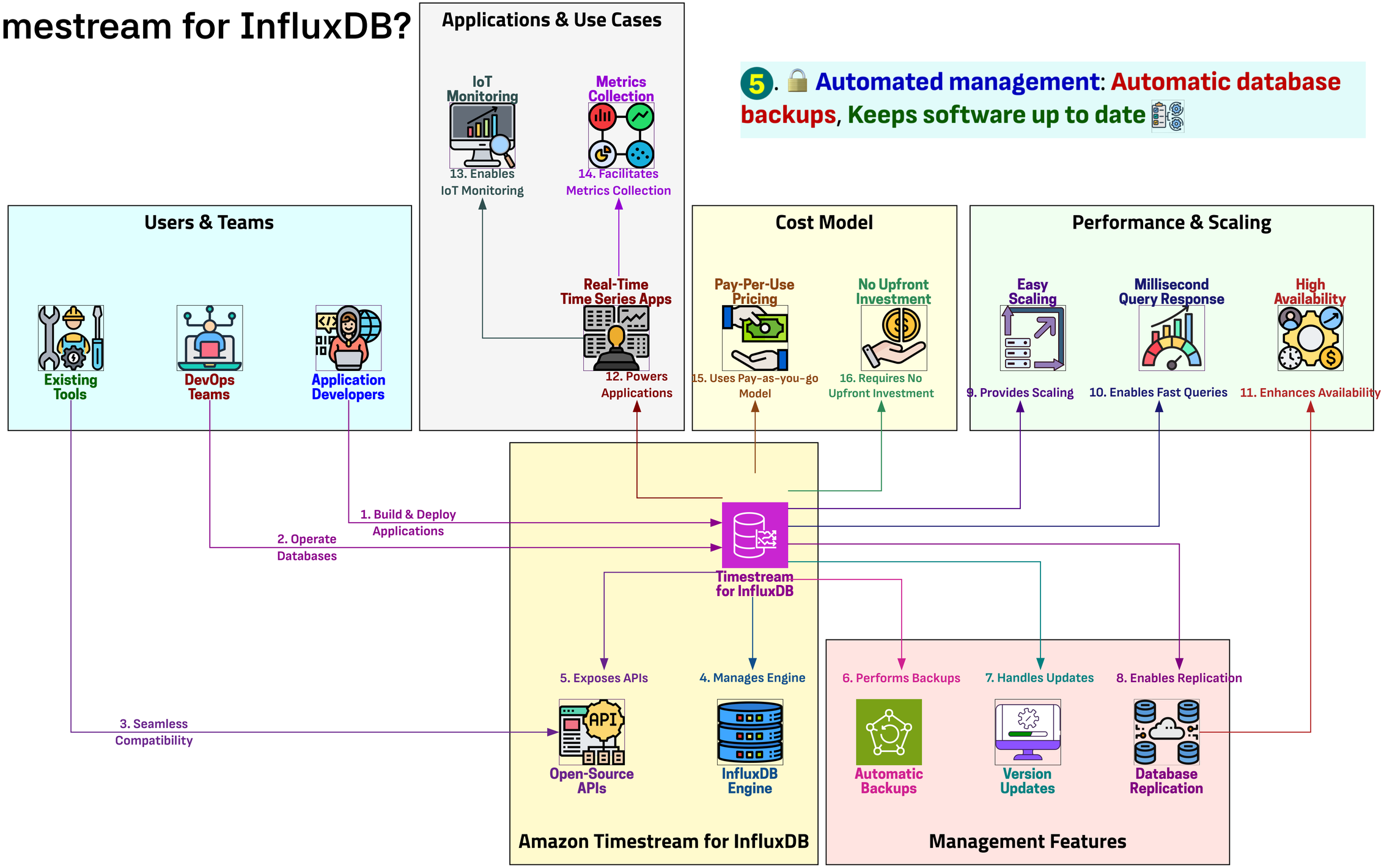
What is Timestream for InfluxDB?

4. 🔄 **Seamless integration**: Existing code works without changes, Compatible with current applications, Works with existing tools



What is Timestream for InfluxDB?

5. 🔒 Automated management: Automatic database backups, Keeps software up to date



What is Timestream for InfluxDB?

6. Enhanced reliability: Easy replication setup, Improved database availability, Better data durability

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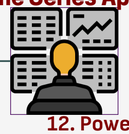

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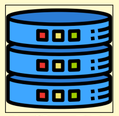
5. Exposes APIs

4. Manages Engine

Open-Source APIs



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Amazon Timestream for InfluxDB

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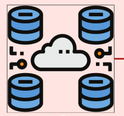
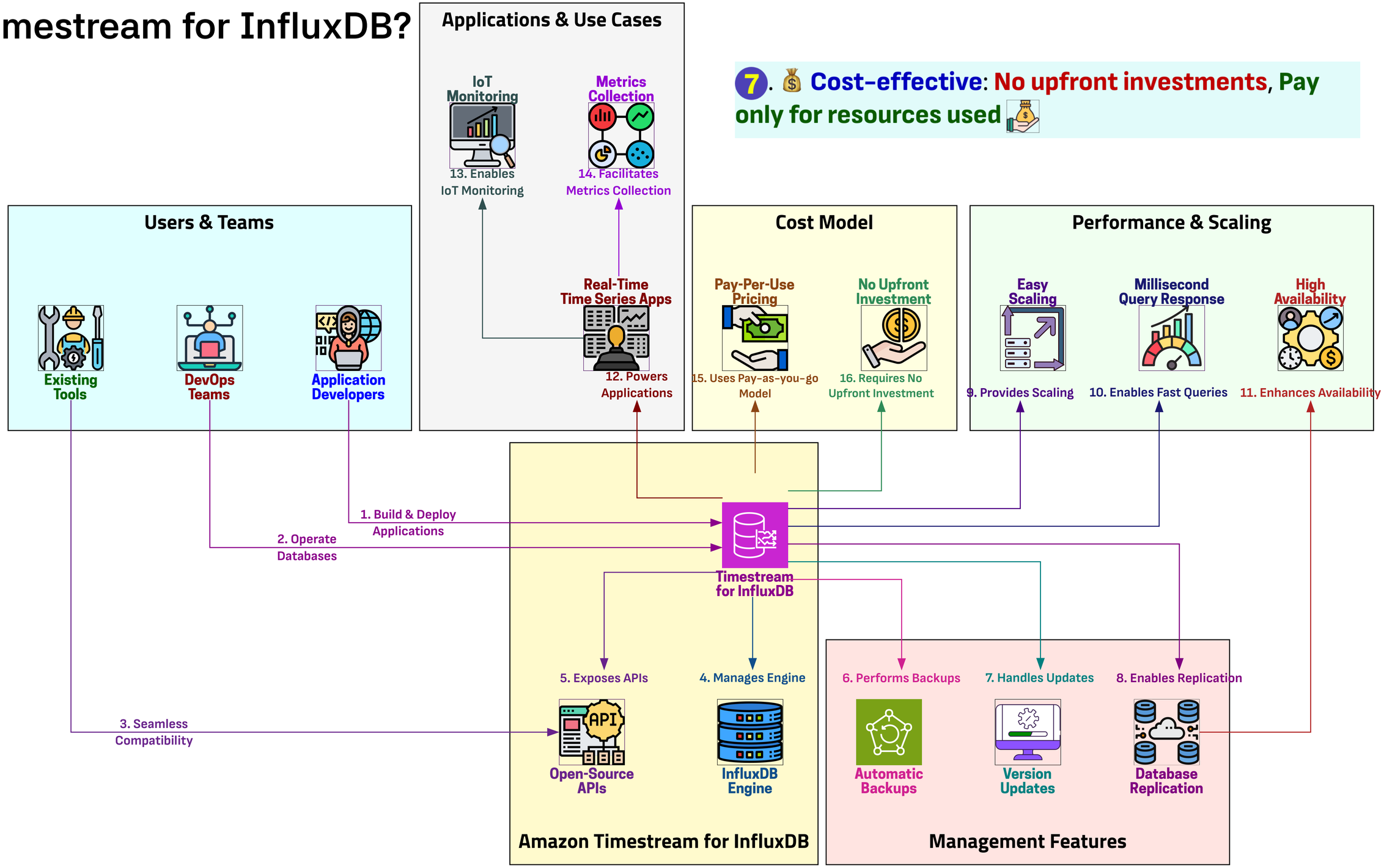


Database Replication

Management Features

What is Timestream for InfluxDB?

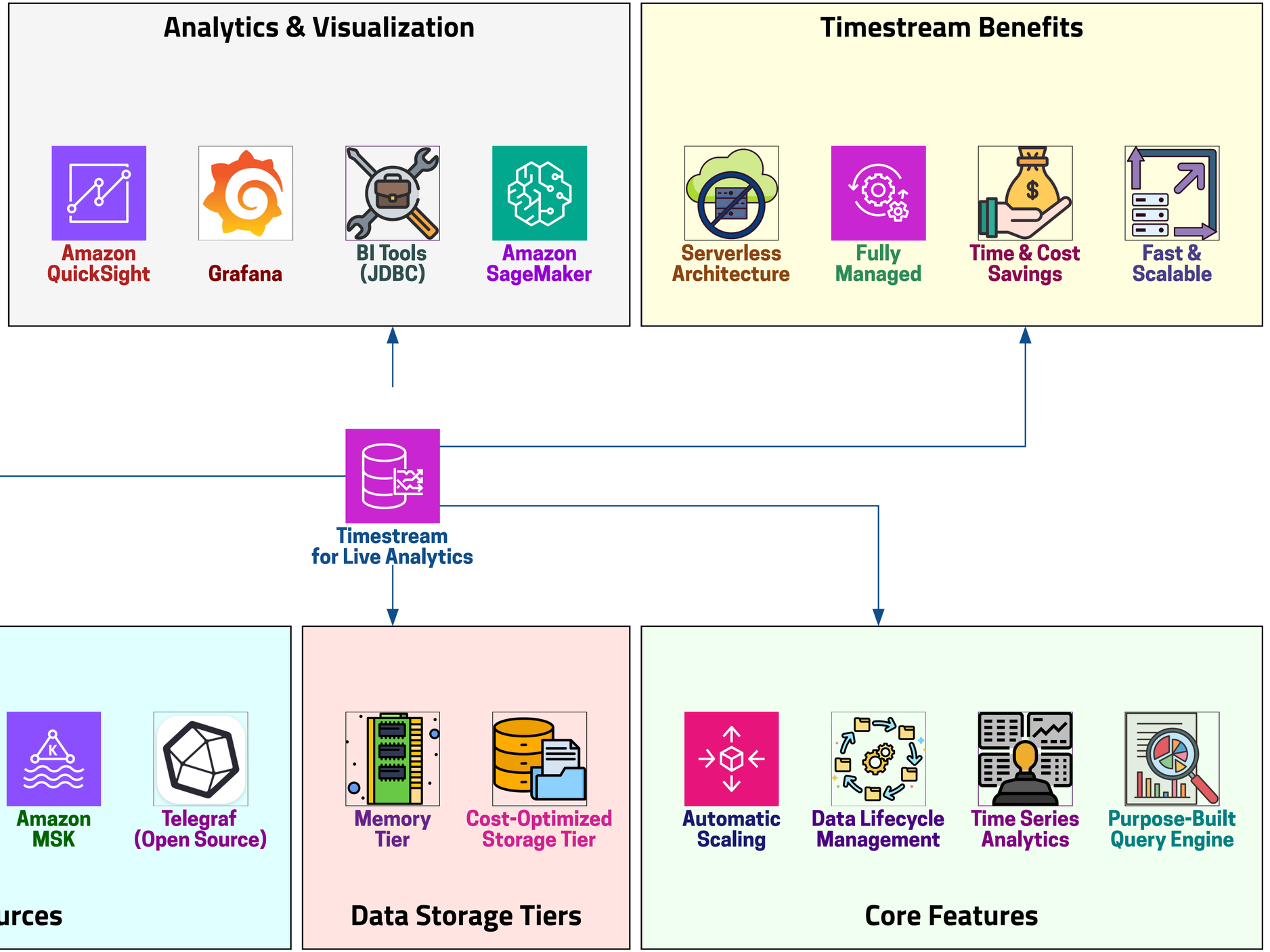
7. 💰 Cost-effective: No upfront investments, Pay only for resources used



Amazon Timestream for LiveAnalytics

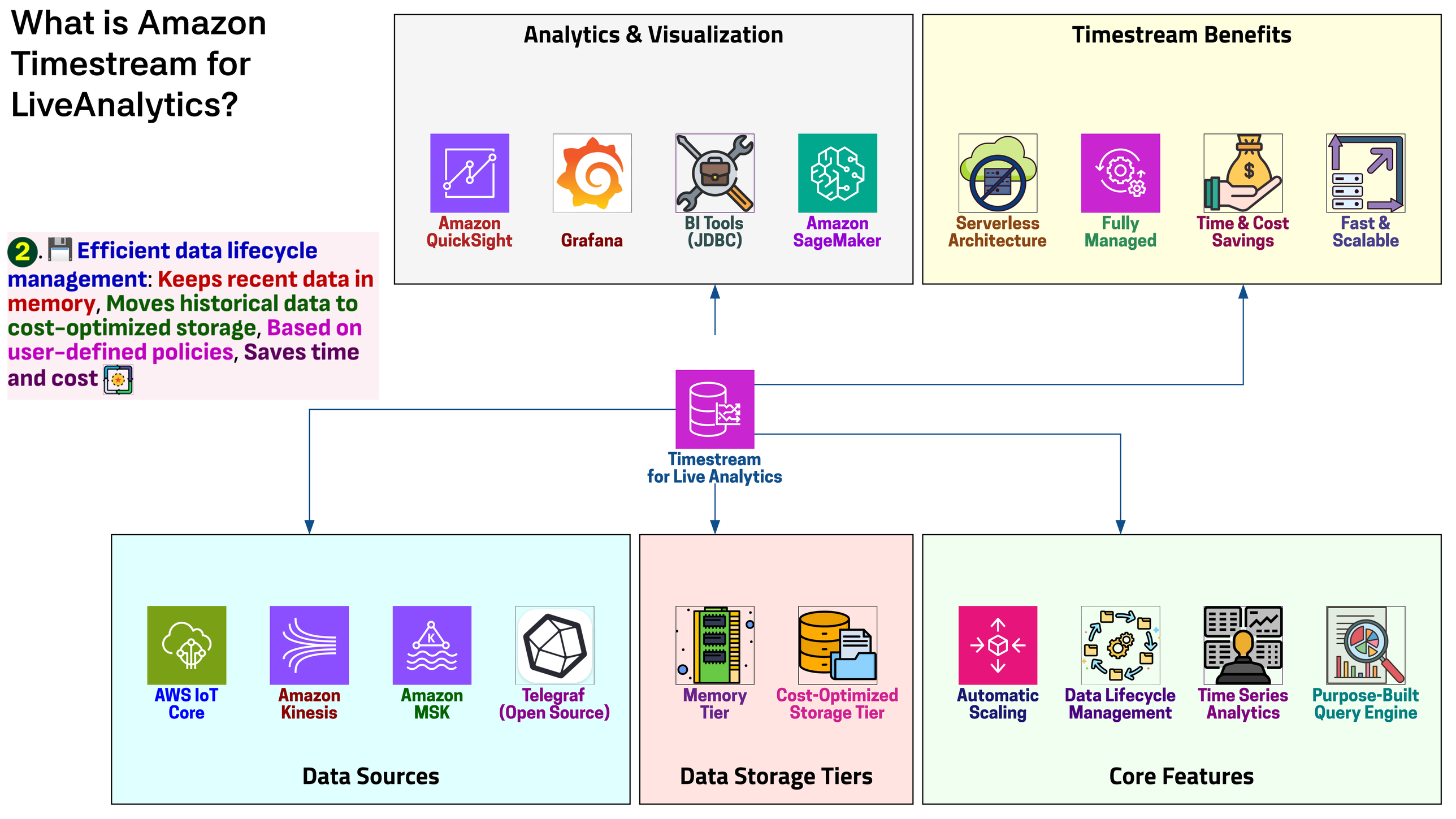
What is Amazon Timestream for LiveAnalytics?

1. ⚡ Fast, scalable time series database: Fully managed, Purpose-built for time series, Stores trillions of data points daily



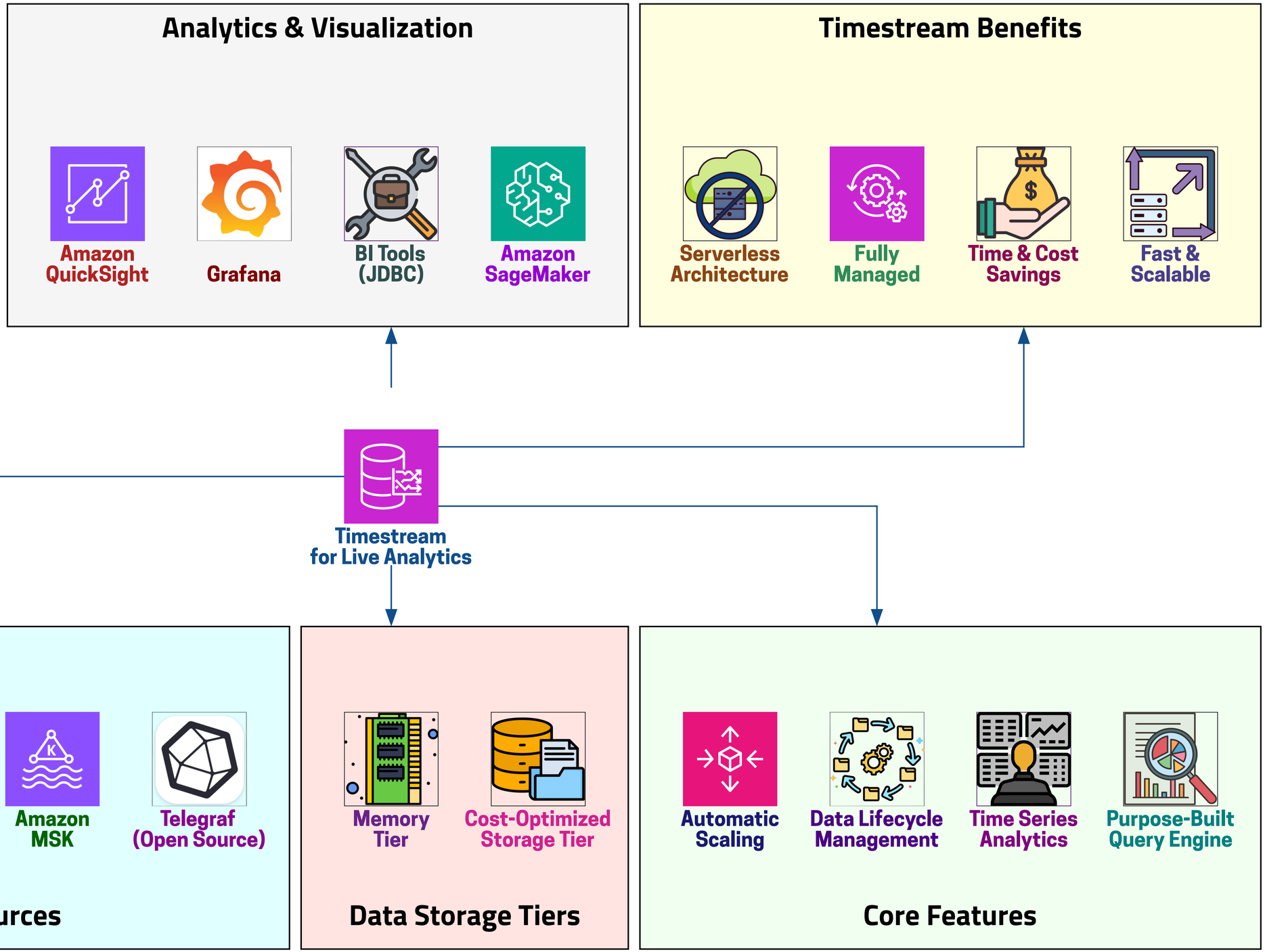
What is Amazon Timestream for LiveAnalytics?

2. 💾 **Efficient data lifecycle management**: **Keeps recent data in memory**, **Moves historical data to cost-optimized storage**, **Based on user-defined policies**, **Saves time and cost** 🔧



What is Amazon Timestream for LiveAnalytics?

3. 🔍 **Unified access to all data**: **Purpose-built query engine**, **Analyzes recent and historical data together**, **No need to specify data location** 



What is Amazon Timestream for LiveAnalytics?

4. 📈 **Built-in time series analytics**: **Identifies trends and patterns**, **Near real-time analysis**

Analytics & Visualization

- Amazon QuickSight
- Grafana
- BI Tools (JDBC)
- Amazon SageMaker

Timestream Benefits

- Serverless Architecture
- Fully Managed
- Time & Cost Savings
- Fast & Scalable

Timestream for Live Analytics

Data Sources

- AWS IoT Core
- Amazon Kinesis
- Amazon MSK
- Telegraf (Open Source)

Data Storage Tiers

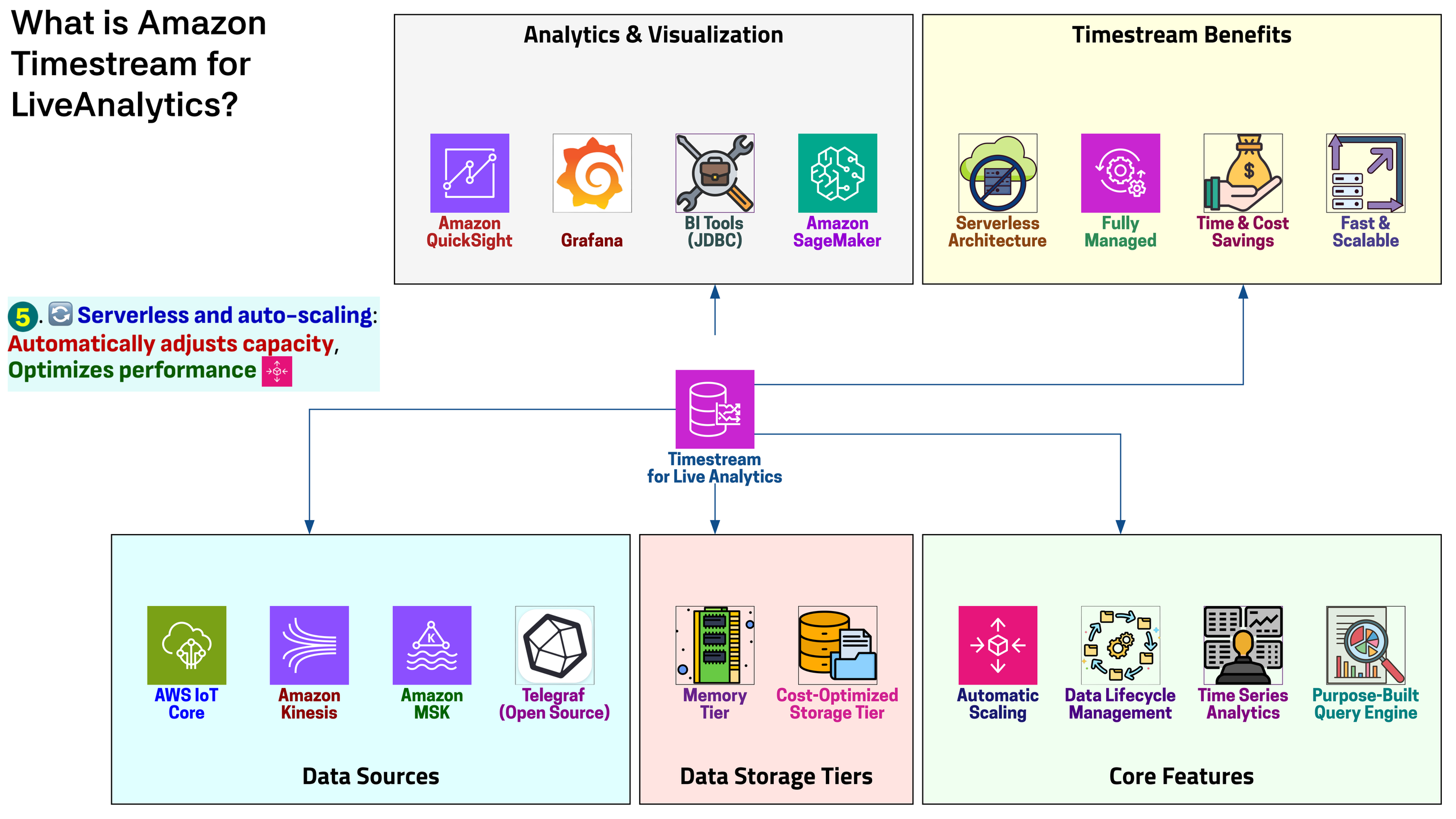
- Memory Tier
- Cost-Optimized Storage Tier

Core Features

- Automatic Scaling
- Data Lifecycle Management
- Time Series Analytics
- Purpose-Built Query Engine

What is Amazon Timestream for LiveAnalytics?

5. 🔄 **Serverless and auto-scaling**: **Automatically adjusts capacity**, **Optimizes performance**



What is Amazon Timestream for LiveAnalytics?

6. 🚀 **Focus on application development**: **No infrastructure management needed**, **Concentrate on optimization and building** 

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Core Features

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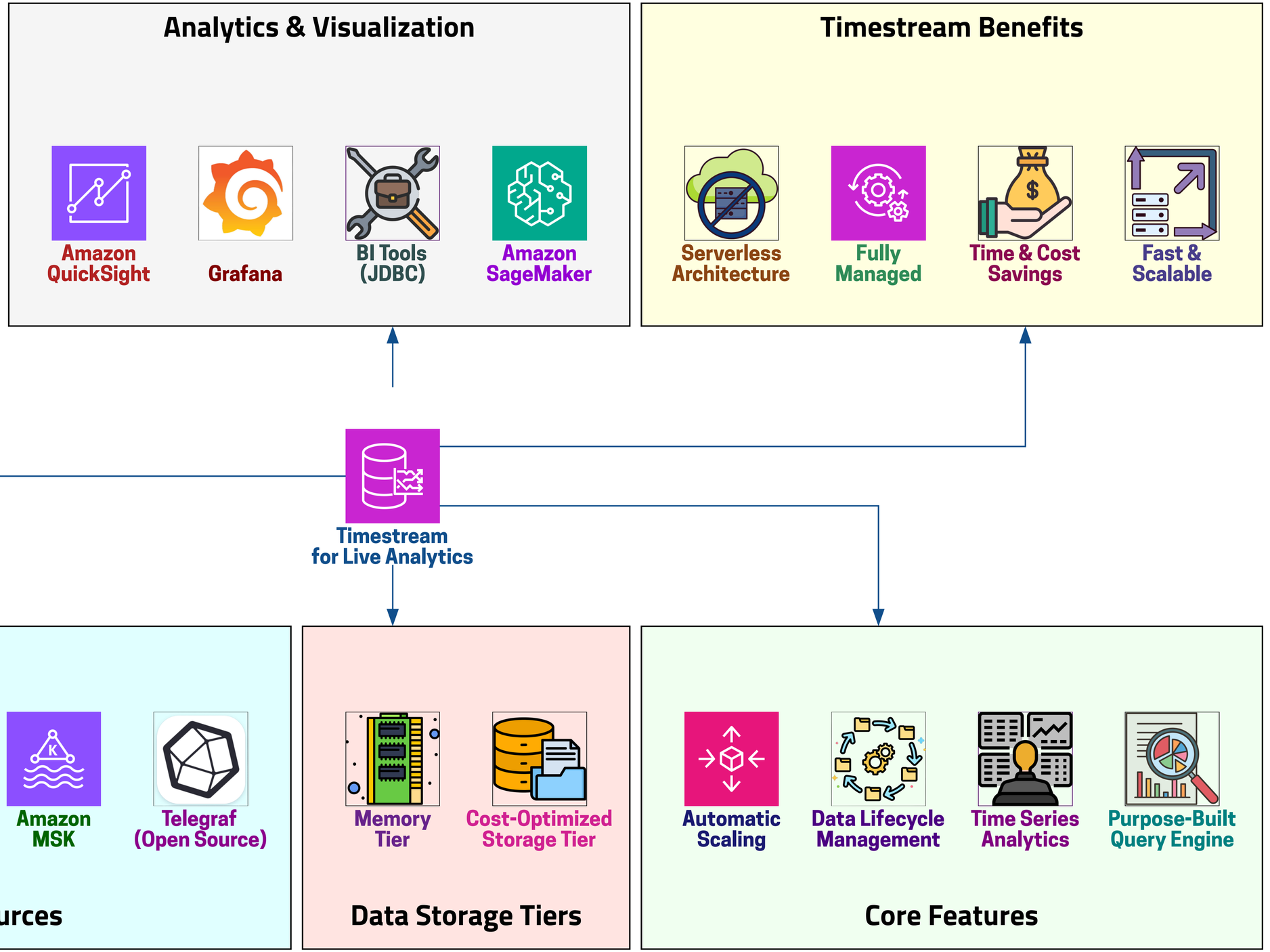
- Time Series Analytics
- Purpose-Built Query Engine

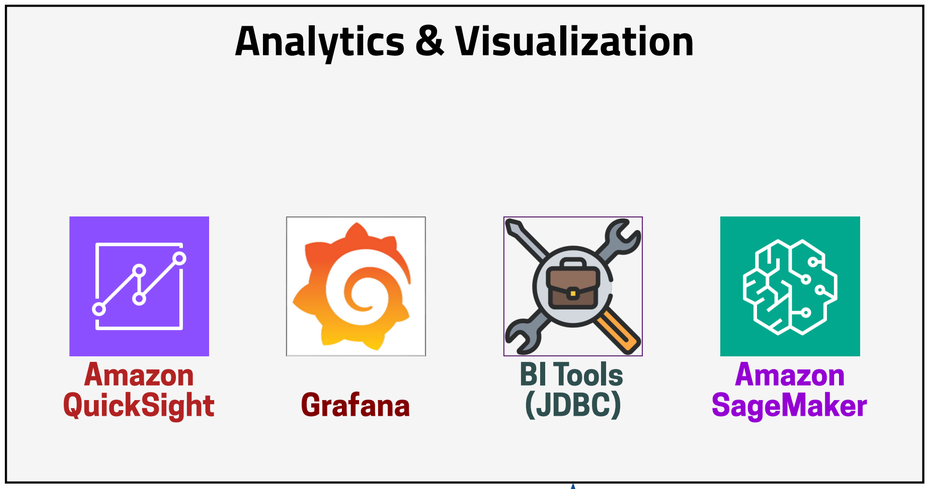
What is Amazon Timestream for LiveAnalytics?

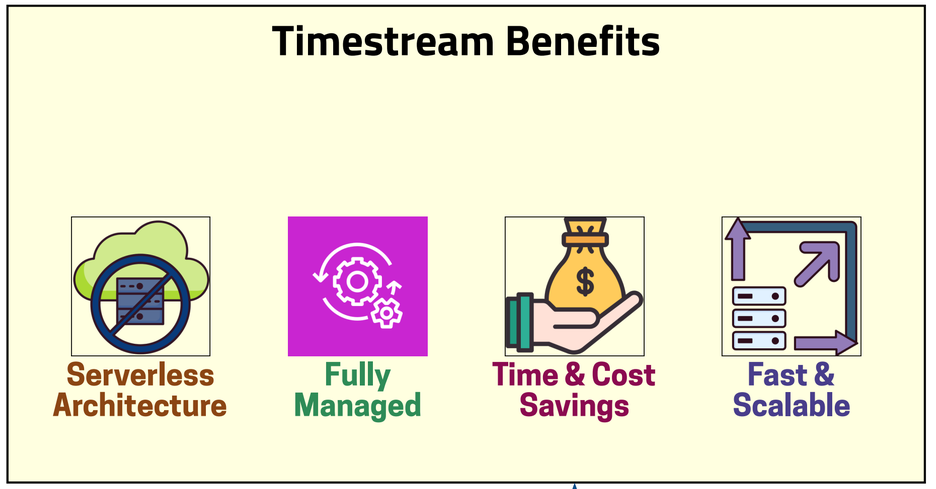
7. 🔌 Integration with common services: Data collection integration, Visualization integration, Machine learning integration

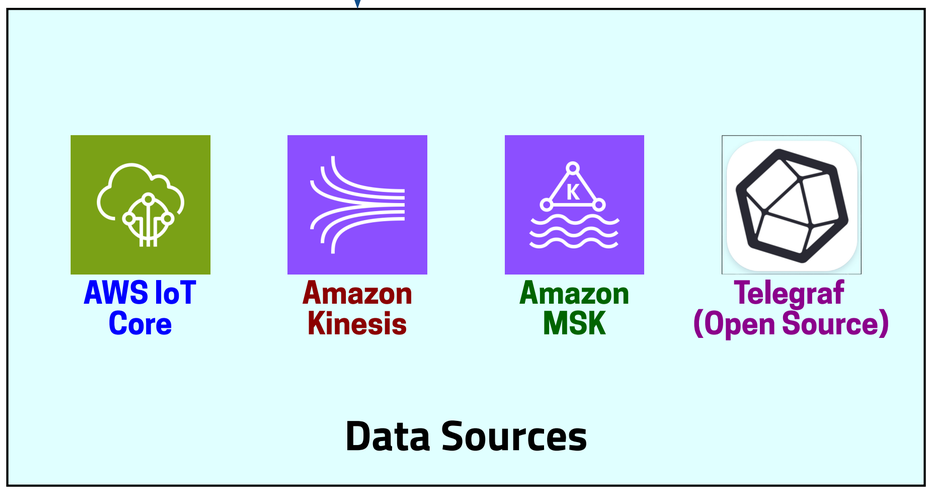


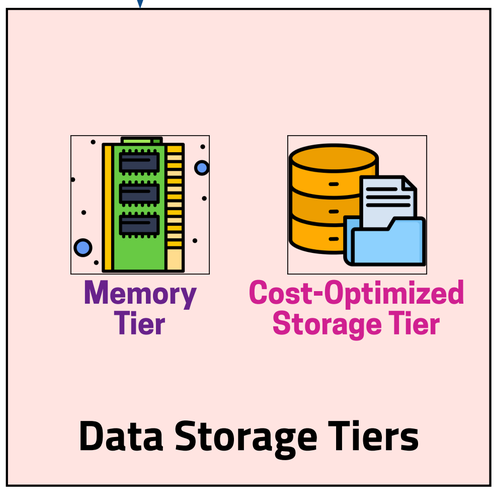
What is Amazon Timestream for LiveAnalytics?

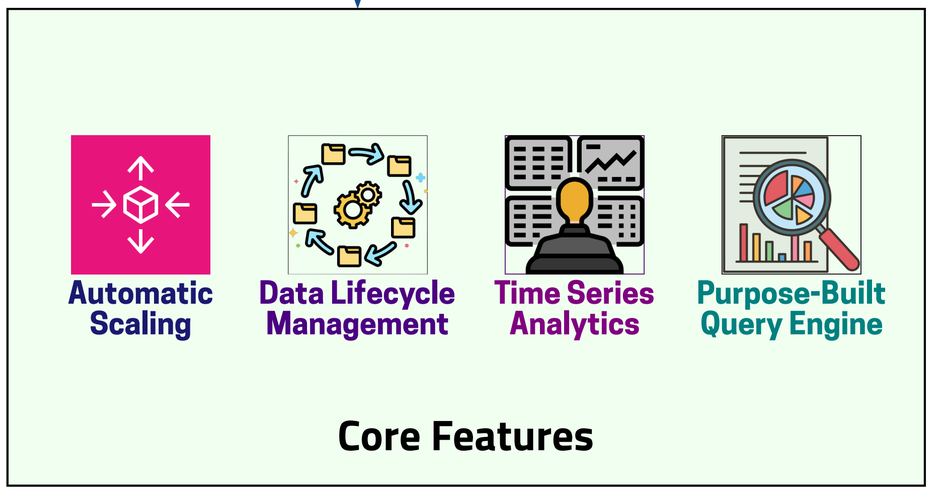
8. 📩 **Multiple data input options**: AWS IoT Core, Amazon Kinesis, Amazon MSK, Open source Telegraf





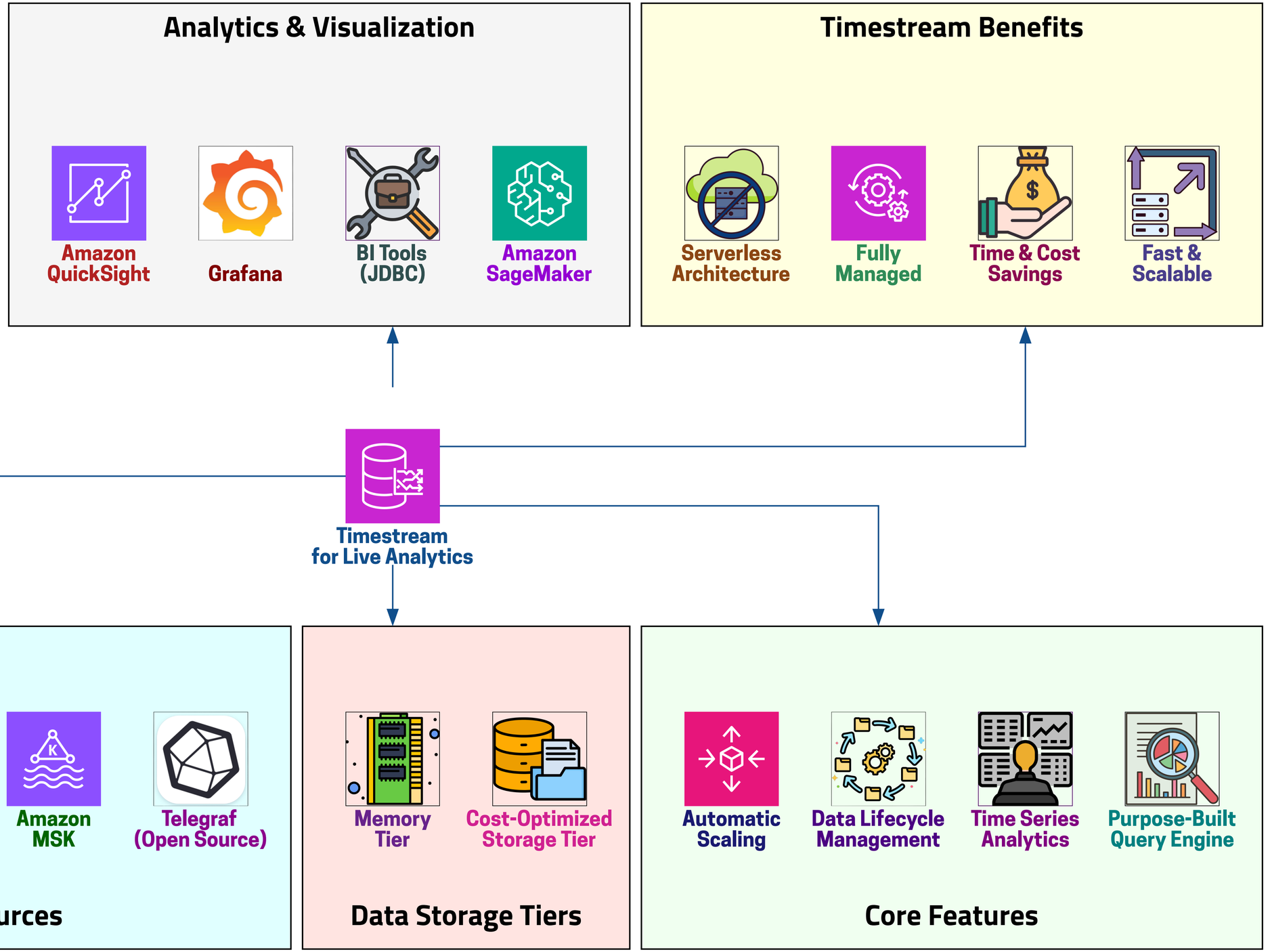






What is Amazon Timestream for LiveAnalytics?

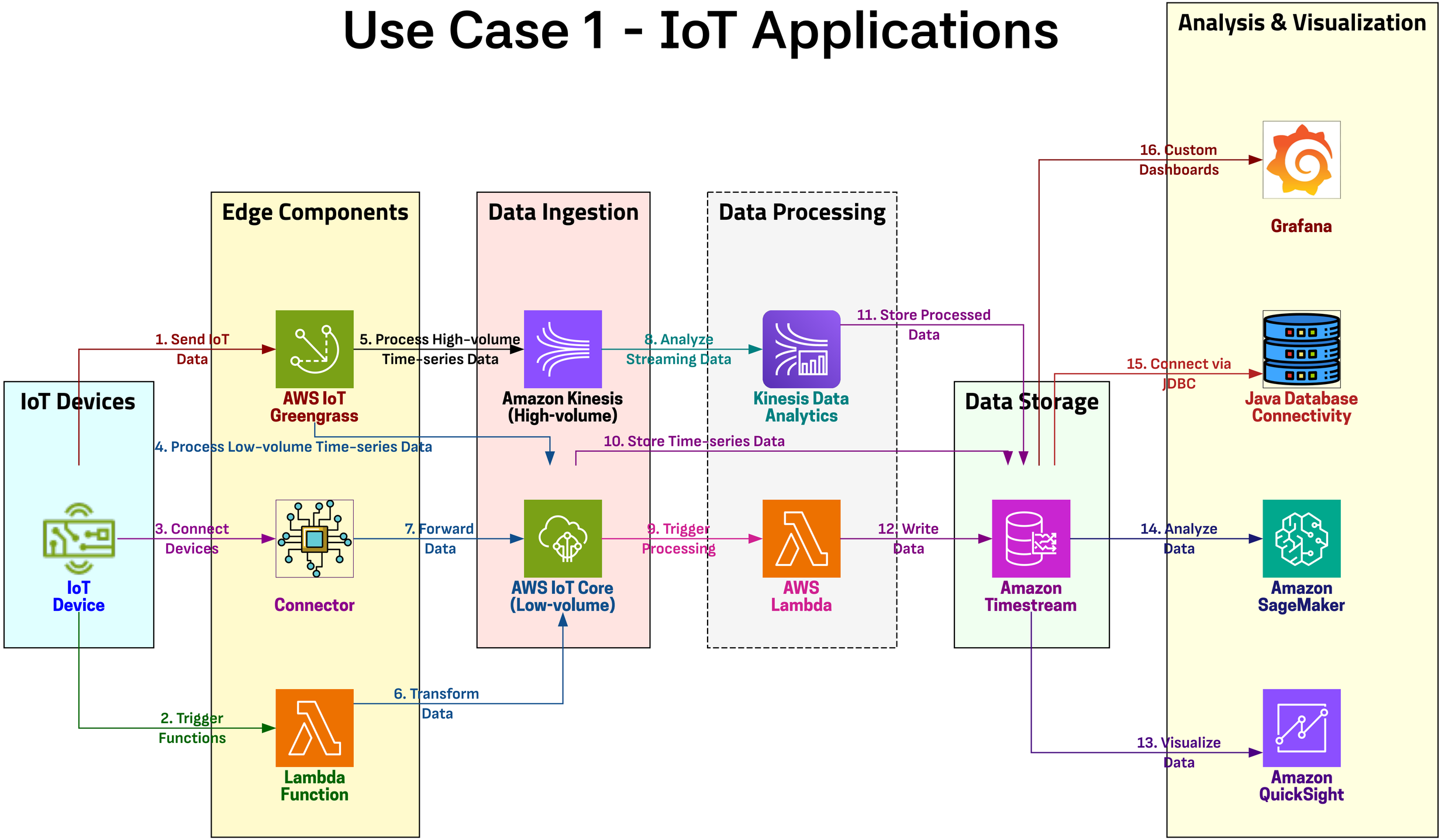
9. 📊 Visualization capabilities:
Amazon QuickSight, Grafana, BI tools via JDBC



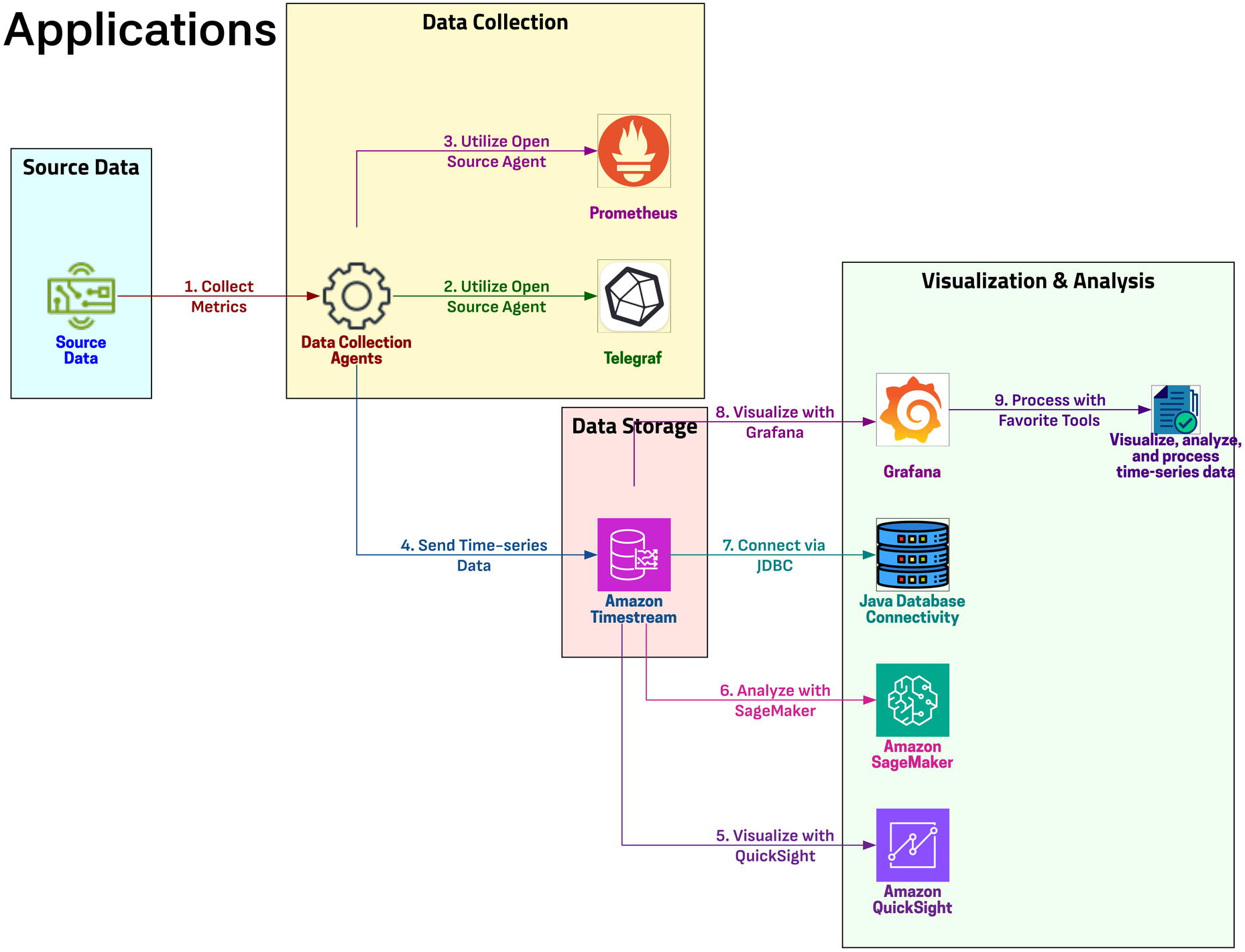
What is Amazon Timestream for LiveAnalytics?

10. 🧠 Machine learning capabilities: Amazon SageMaker AI integration

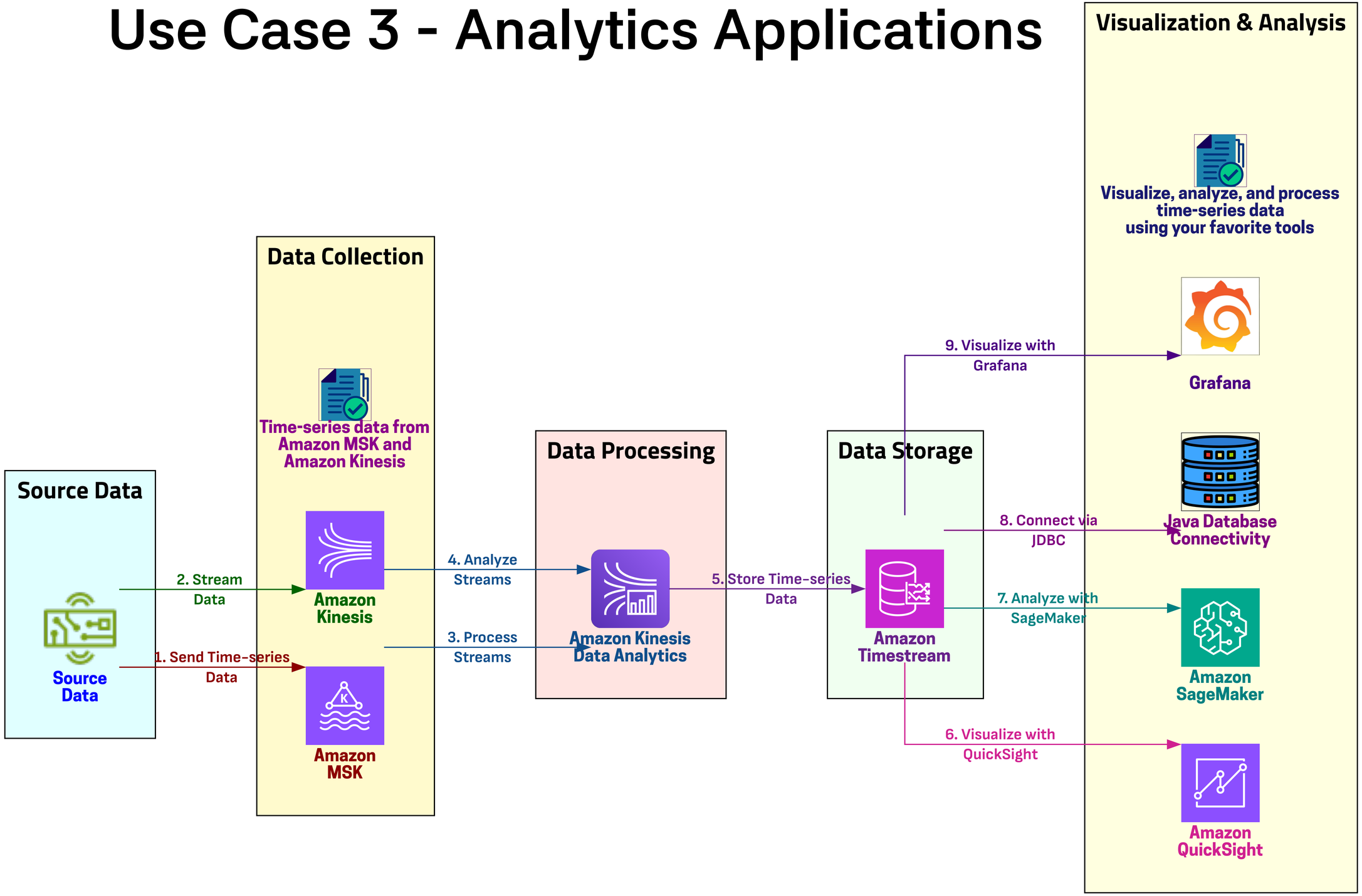
Use Case 1 - IoT Applications



Use Case 2- DevOps Applications

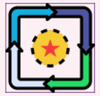


Use Case 3 - Analytics Applications



Timestream for LiveAnalytics key benefits

1. 🤖 **Serverless with auto-scaling**: **No servers to manage**, **Automatic capacity adjustment**, **Scales with application needs** 

2. 💾 **Data lifecycle management**: **Storage tiering system**, **Memory store for recent data**, **Magnetic store for historical data**, **Automated data transfer**, **User-configurable policies** 

3. 🔍 **Simplified data access**: **Purpose-built query engine**, **Transparent access across tiers**, **No need to specify data location** 

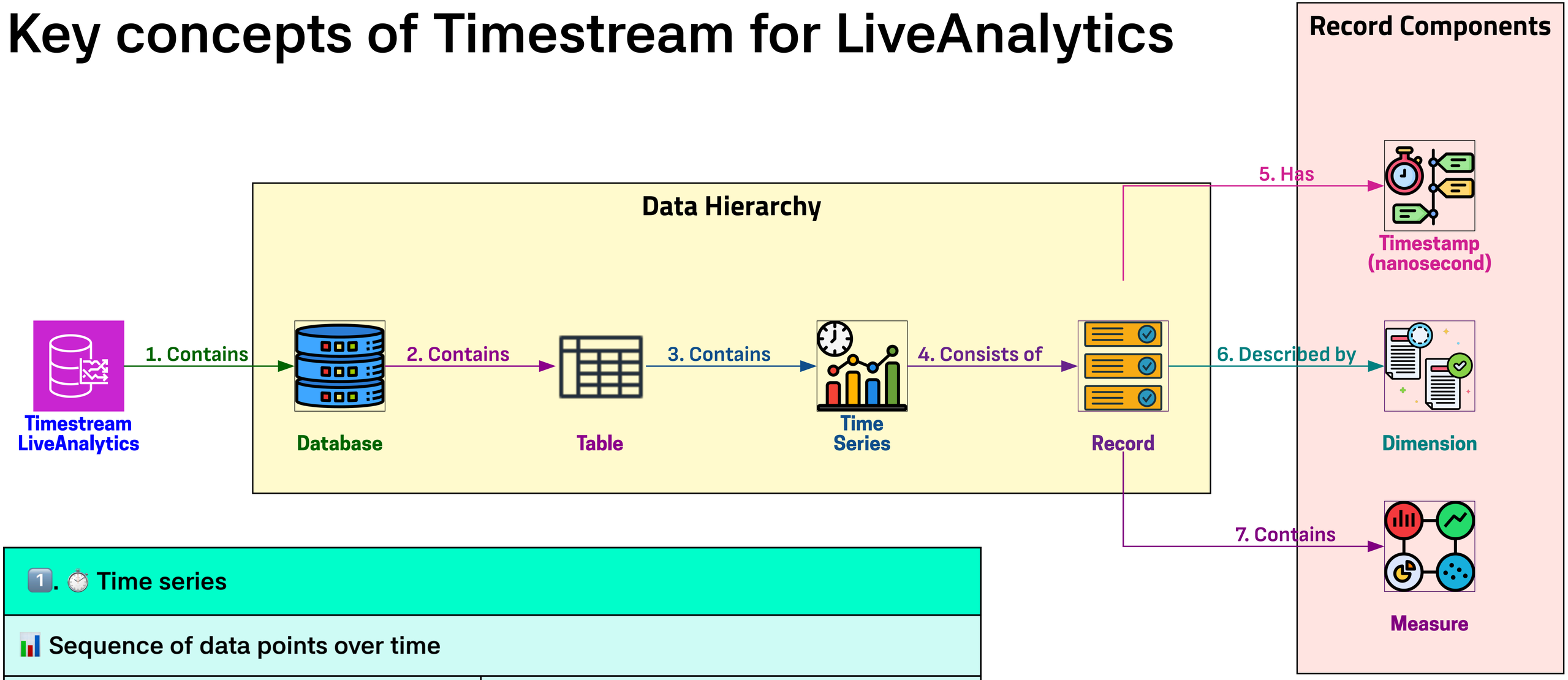
Timestream for LiveAnalytics key benefits

4. ⏱️ **Purpose-built for time series**: SQL analysis capabilities, Built-in time series functions (Smoothing, Approximation, Interpolation), Advanced aggregates support, Window functions, Complex data types (Arrays, Rows) 

5. 🔒 **Always encrypted**: Encryption at rest, Encryption in transit, AWS KMS customer managed key option 

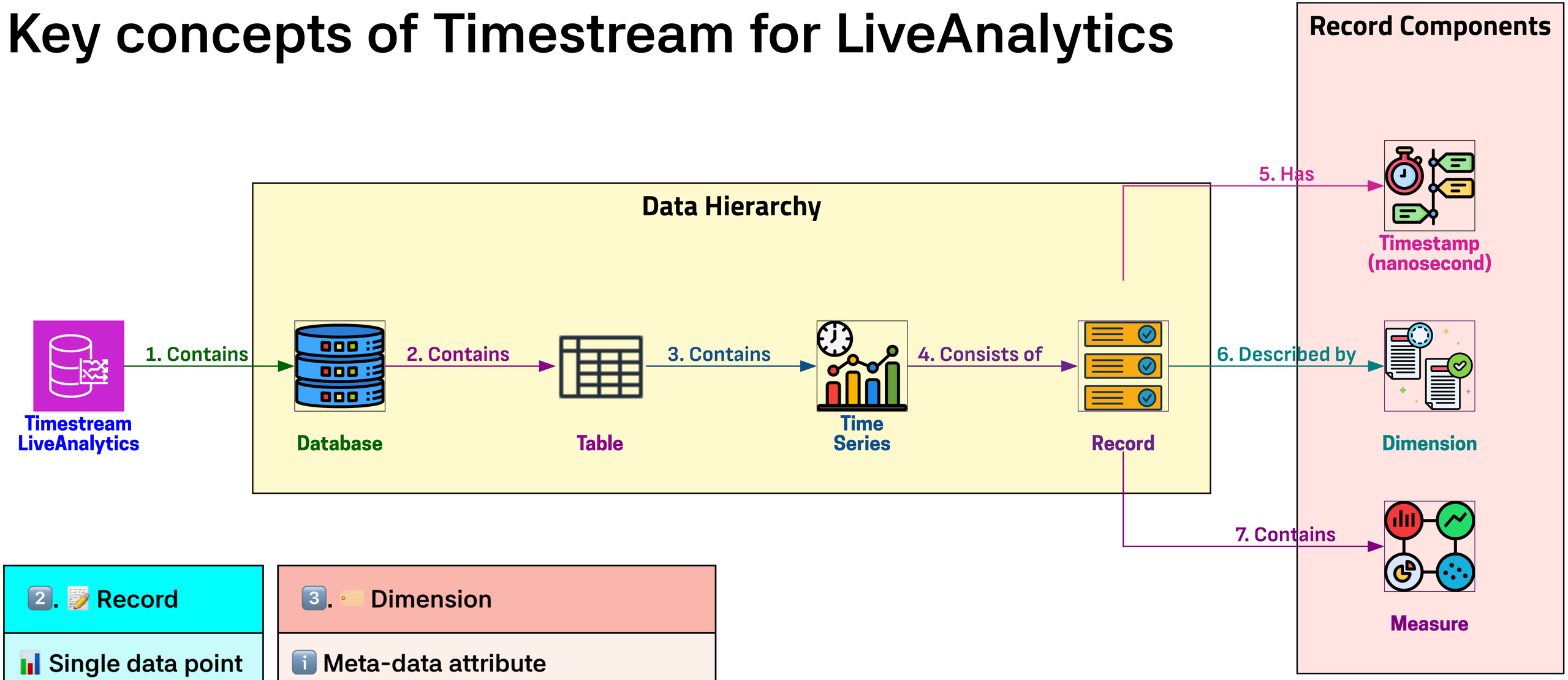
6. 🛡️ **High availability**: Reliable write requests, Reliable read requests, Automatic data replication, Across 3+ Availability Zones, Within single AWS Region 

Key concepts of Timestream for LiveAnalytics



1. ⏱️ Time series	
📊 Sequence of data points over time	
📈 Examples	💹 Stock price over time
	💻 EC2 instance CPU/memory utilization
	🌡️ IoT sensor temperature/pressure

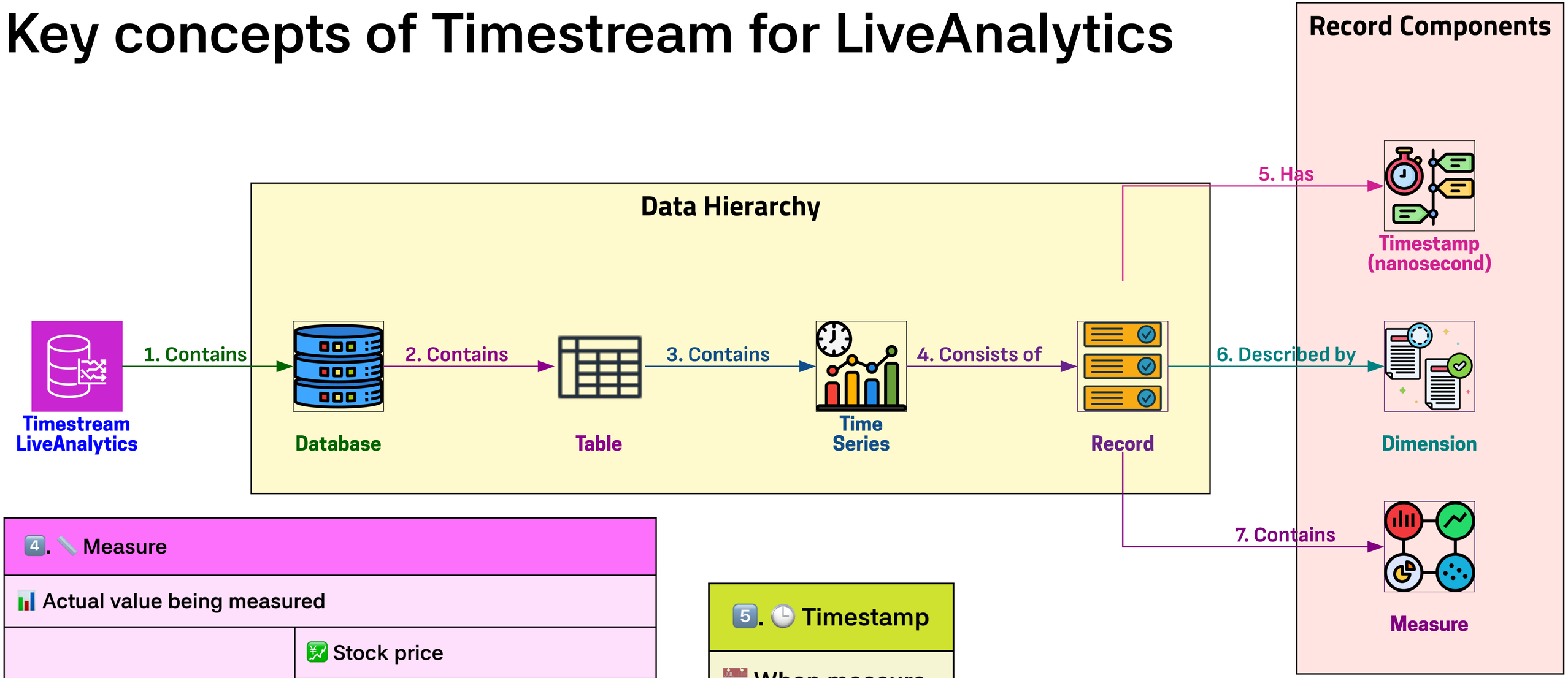
Key concepts of Timestream for LiveAnalytics



2. 📝 Record
📊 Single data point in time series

3. 🏷️ Dimension	
ℹ️ Meta-data attribute	
🔤 Consists of	🔴 Dimension name
	📊 Dimension value

Key concepts of Timestream for LiveAnalytics



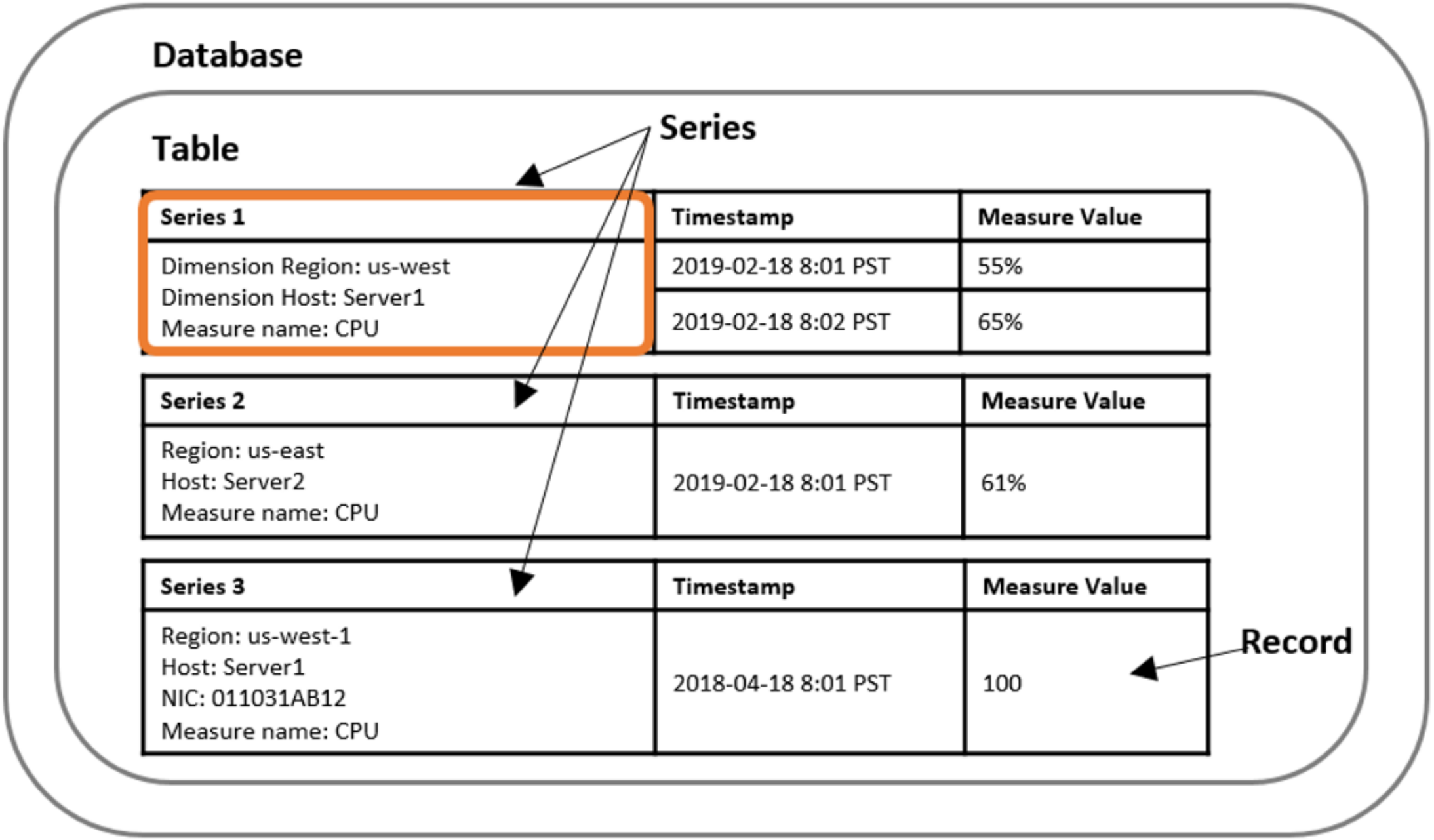
4. 🔪 Measure	
📊 Actual value being measured	
📈 Examples	💹 Stock price
	💻 CPU/memory utilization
	🌡️ Temperature/humidity
🔤 Consists of	📛 Measure name
	📊 Measure value

5. 🕒 Timestamp
📅 When measure was collected
⚪ Supports nanosecond granularity

6. 📋 Table
📦 Container for related time series

7. 🗃️ Database
📚 Top level container for tables

Database Model



Thanks for Watching