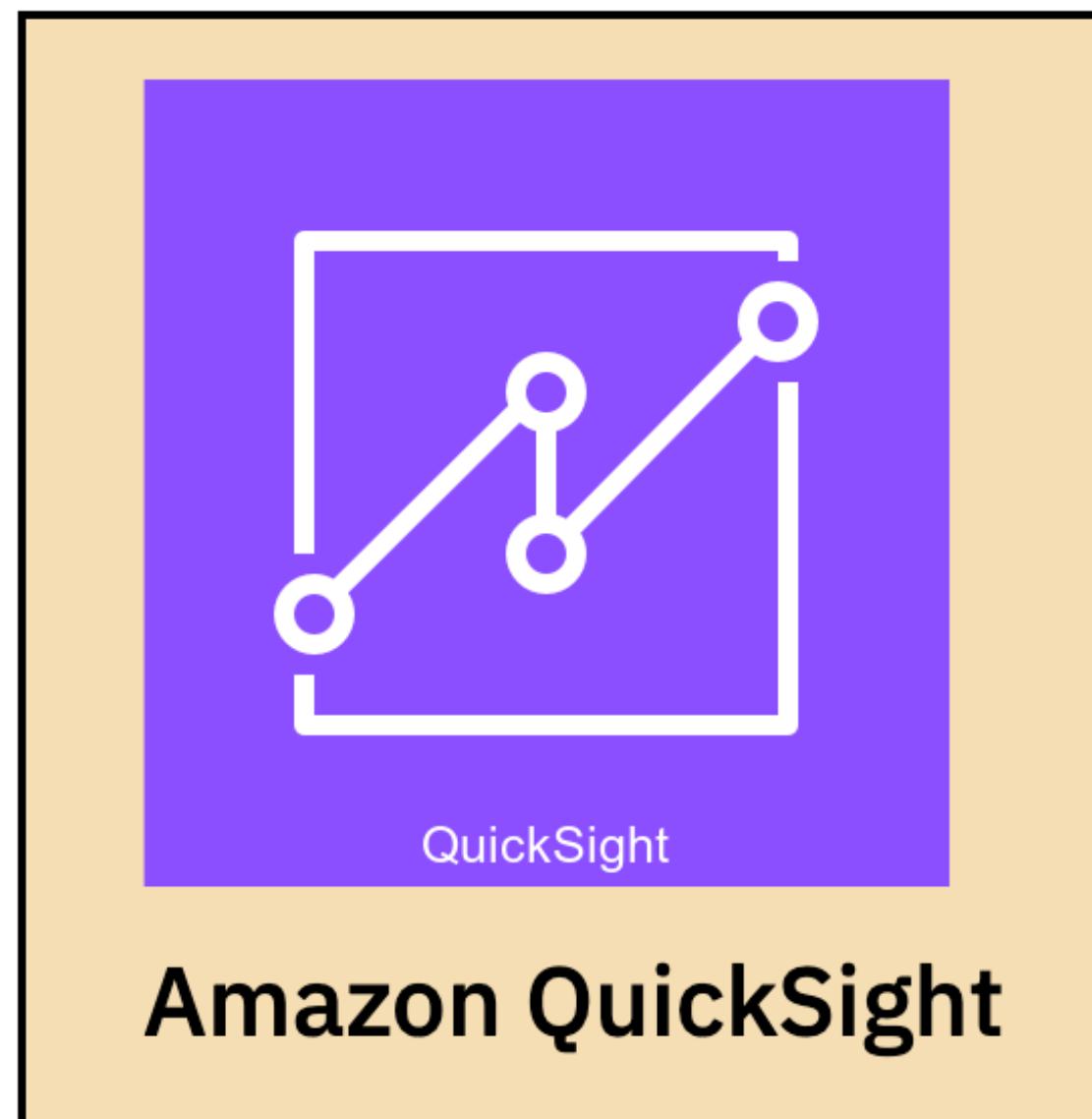




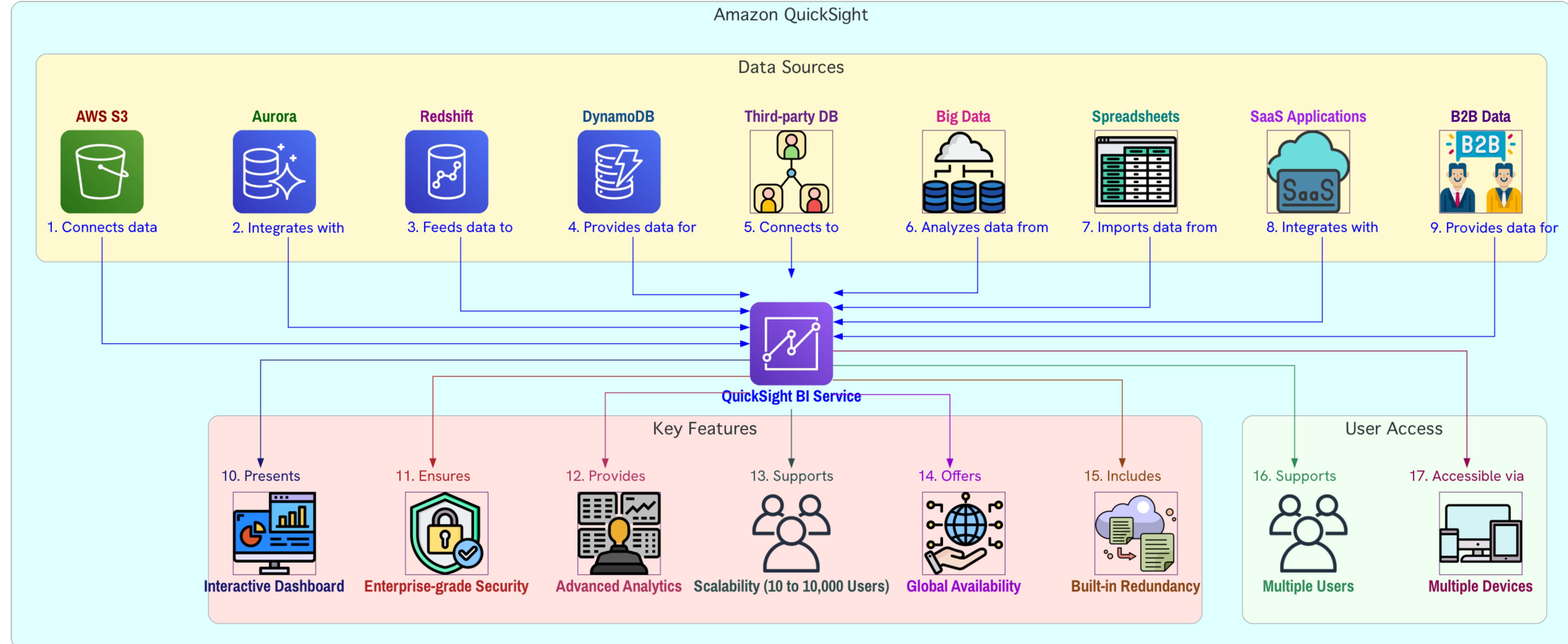
# Amazon QuickSight

# Table of Contents



1. What is Amazon QuickSight?
2. Why QuickSight?
3. How Amazon QuickSight works
4. Terminology
5. Supported Data Stores as Data Source
6. ML Capabilities
7. Row-Level Security

# What is Amazon QuickSight?



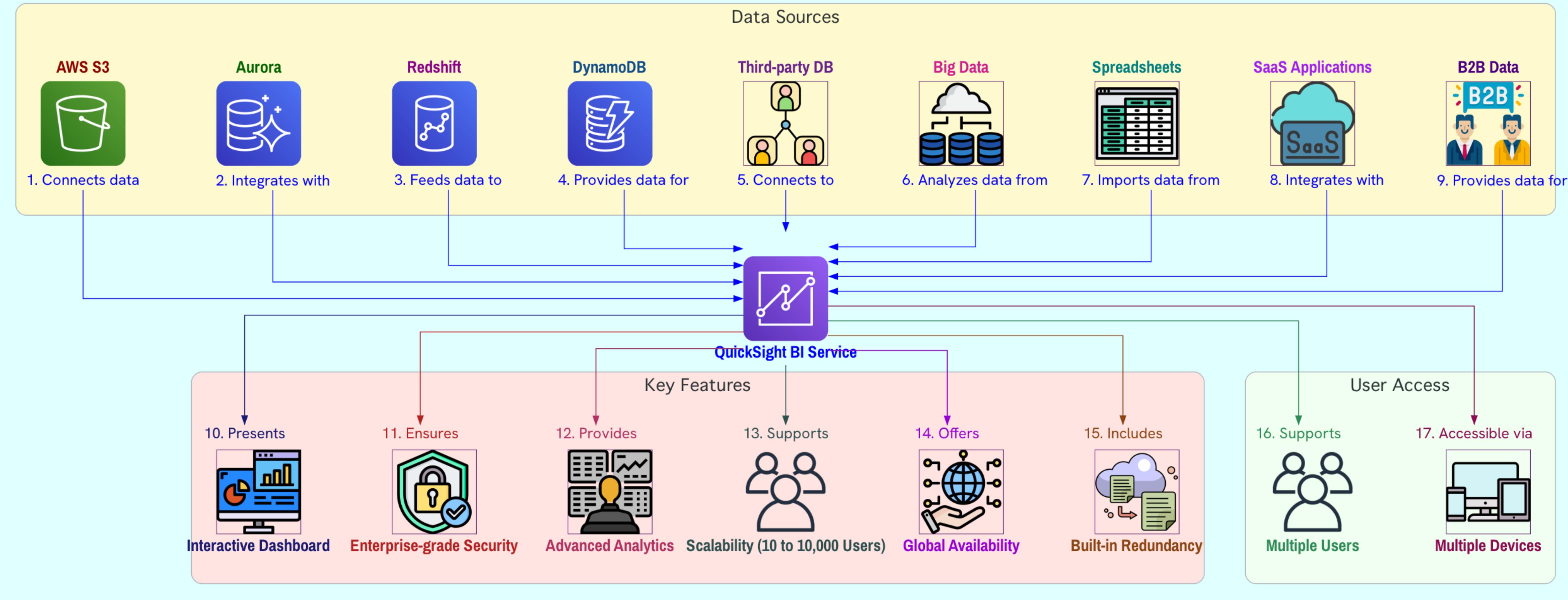
1. Cloud-based, fully managed BI service

Provides accessible insights

No infrastructure deployment

# What is Amazon QuickSight?

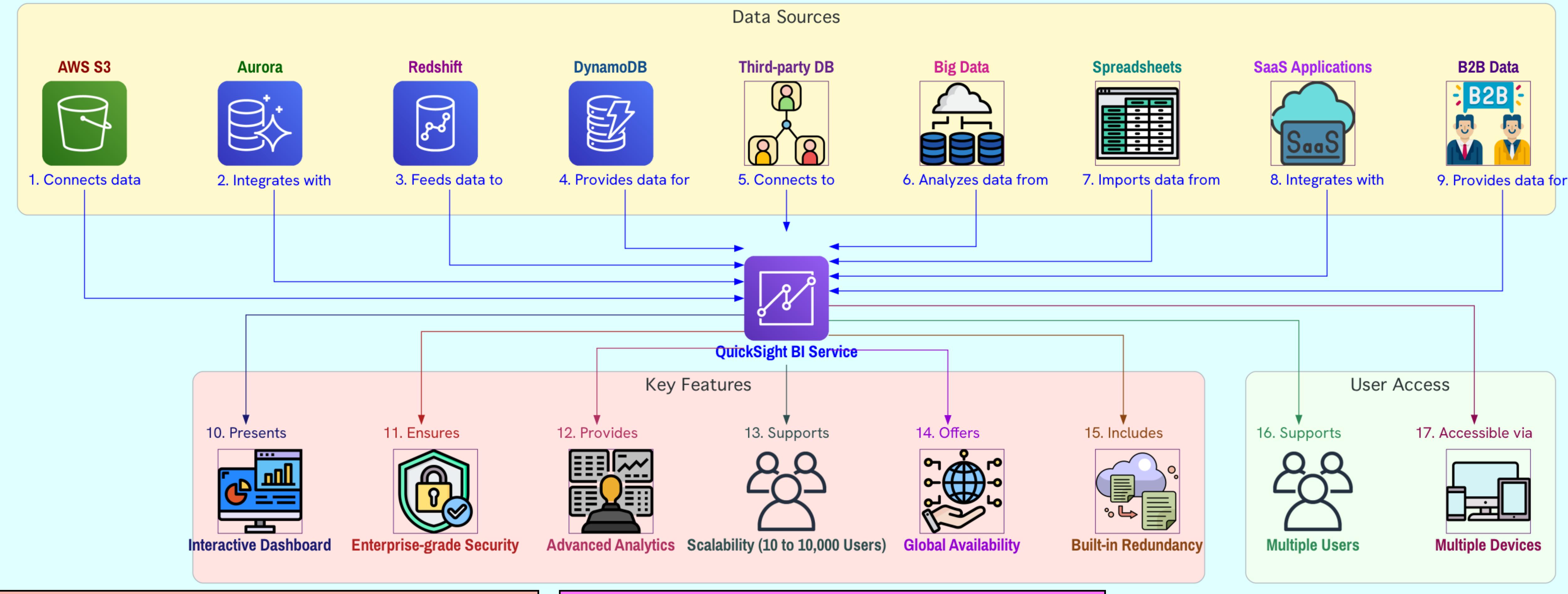
Amazon QuickSight



2. **Connects diverse data sources:** AWS services, Third-party platforms, Big data repositories, Spreadsheets, SaaS applications, B2B data

# What is Amazon QuickSight?

Amazon QuickSight



3. Integrates data into comprehensive dashboards

Single, holistic view

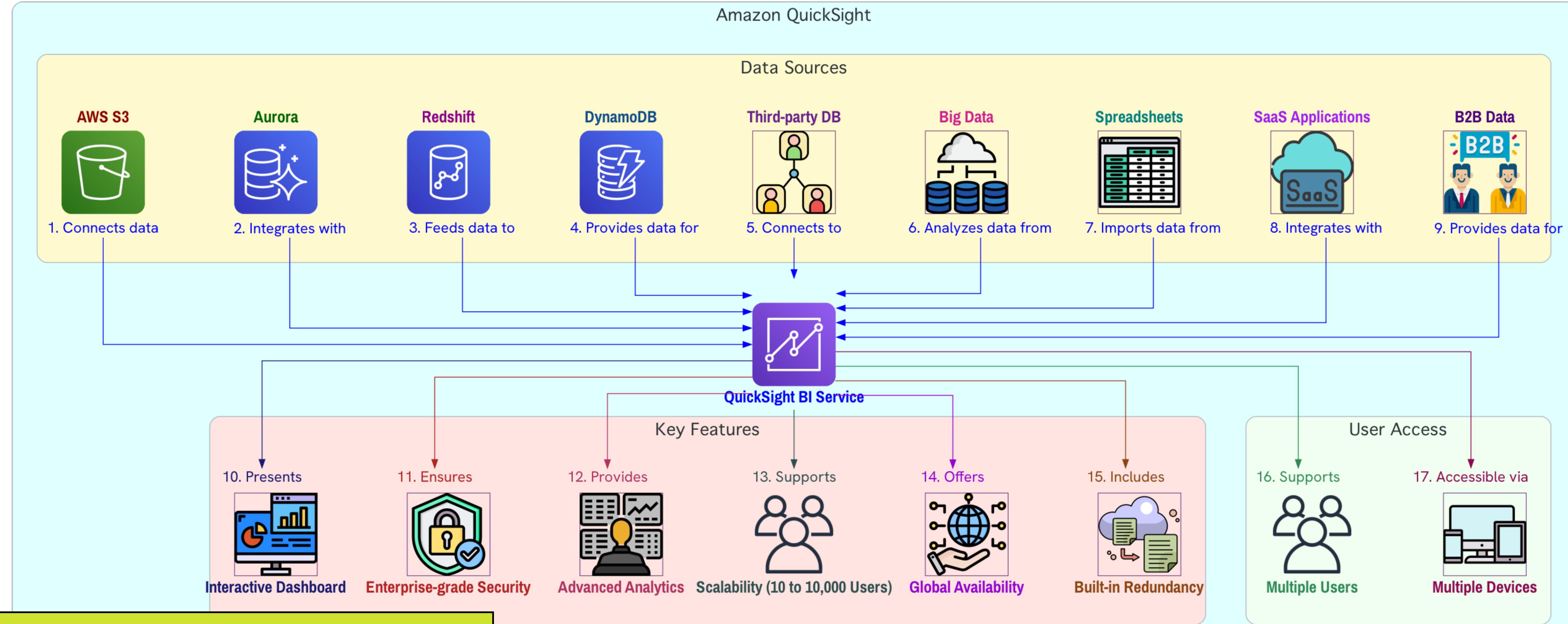
Enables informed decision-making

4. Scales from 10 to 10,000 users

No additional infrastructure

Suitable for various organization sizes

# What is Amazon QuickSight?



## 5. 🔒 Enterprise-grade security & global availability

Protects sensitive data

Global access

Built-in redundancy

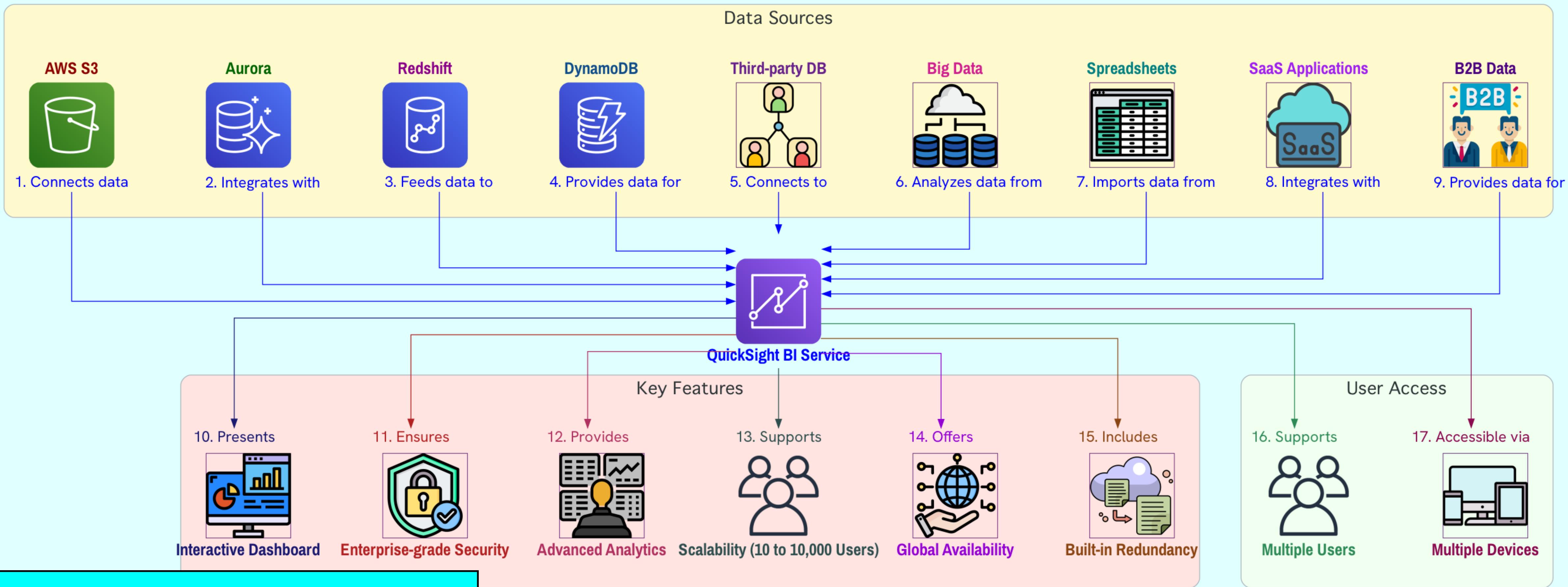
## 6. 🖥️ Interactive visual environment

Dynamic data exploration

Uncovers hidden insights

# What is Amazon QuickSight?

Amazon QuickSight



## 7. Multi-device accessibility



# Why QuickSight?

## 1. 📊 Powerful BI tool

🎯 Facilitates data-driven decision-making

🔧 Accessible analytics, visualization, reporting

👥 Suitable for varying technical expertise

## 2. ⚡ High-performance and cost-effective

🚀 SPICE: In-memory engine for rapid response

💰 No upfront licensing fees

⚡ Low total cost of ownership

🤝 Enables collaborative analytics

💻 No software installation required

🔗 Combines data from various sources

## 3. 📈 Dashboard functionality

💻 Publish and share analyses

🎛 Control over available features

🔒 Simplified data access management

🚫 No granular database permissions needed

👀 Viewers see only shared content

## 4. 🧠 Enterprise edition: ML-powered capabilities

📈 Automated forecasting

🔍 Outlier detection

📊 Trend identification

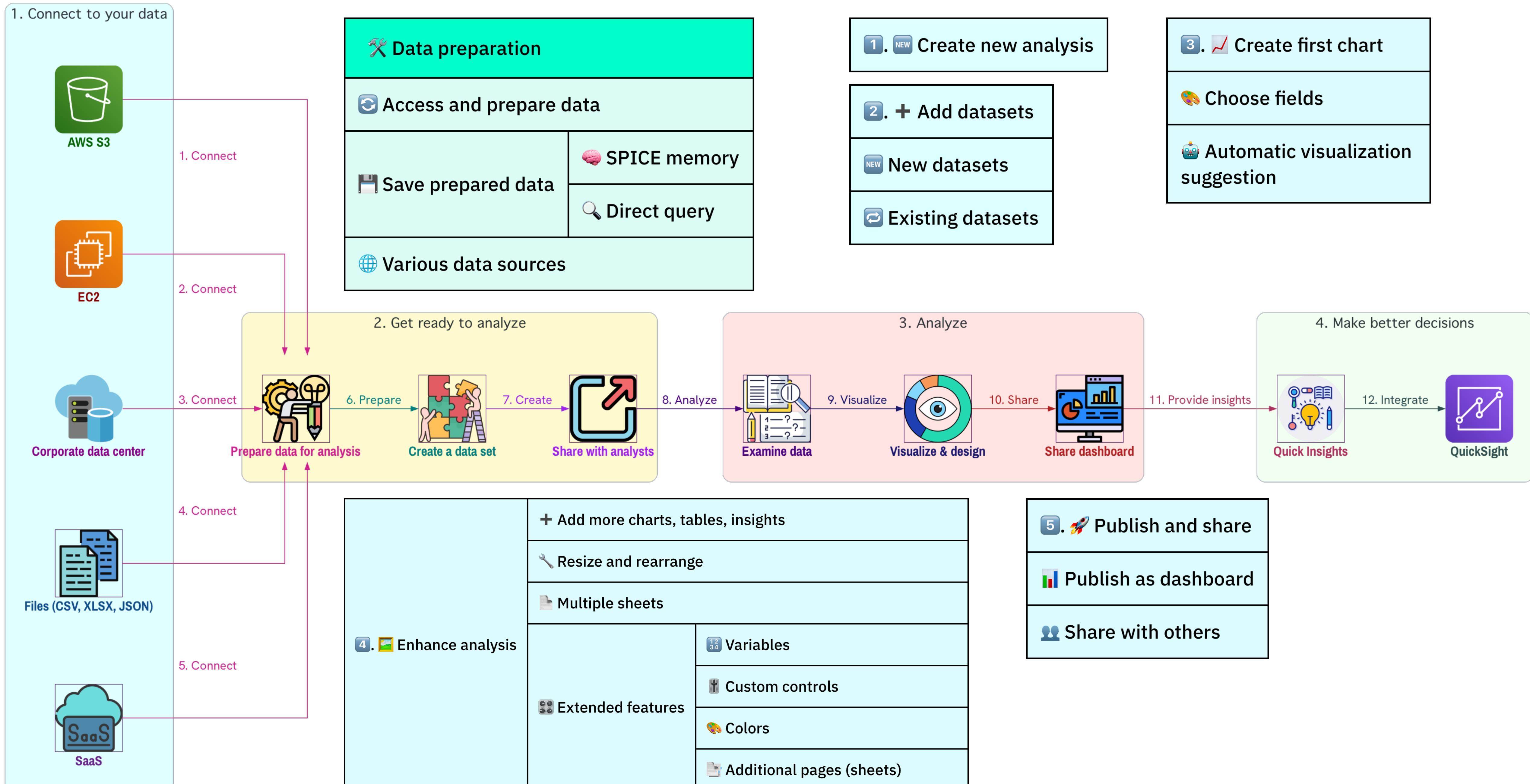
🔑 Key business driver analysis

📝 Data translation to readable narratives

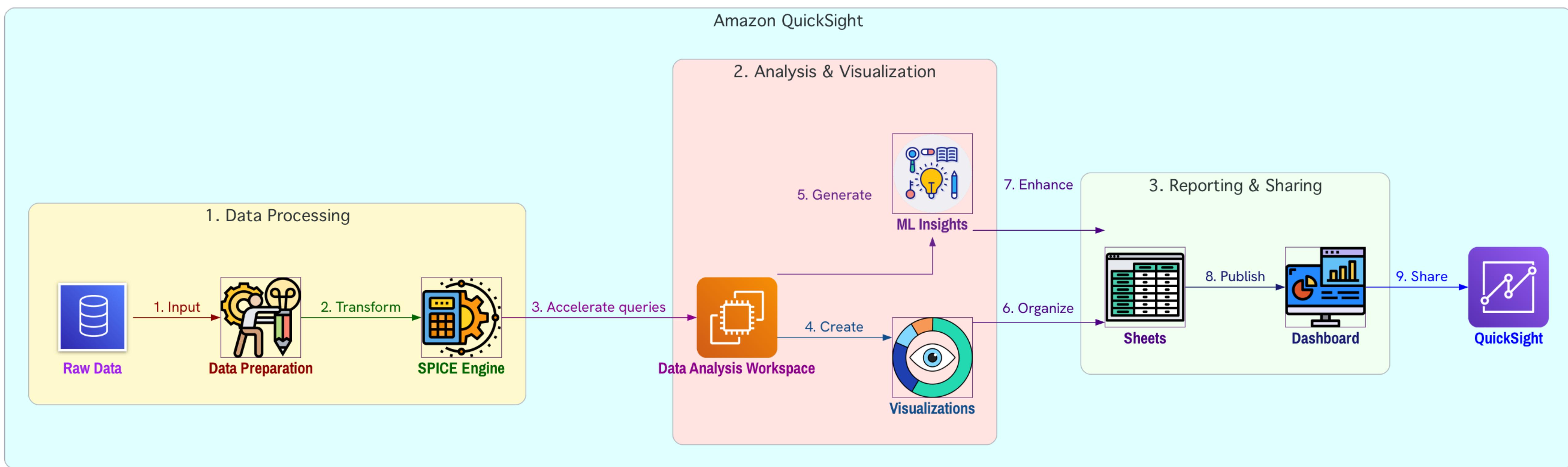
# Why QuickSight?

<p>5.  Enhanced security features</p>	<p>6.  Flexible pricing and integration</p> <ul style="list-style-type: none"><li> Pay-per-session for 'reader' role</li><li> Embed analytics in external sites/apps</li></ul>	<p>7.  Features for value-added resellers</p> <ul style="list-style-type: none"><li> Multitenancy features</li><li> Programmatic dashboard template scripting</li><li> Shared and personal folders for assets</li></ul>	<p>8.  Enhanced data handling (Enterprise)</p> <ul style="list-style-type: none"><li> Larger data import quotas for SPICE</li><li> More frequent scheduled data refreshes</li></ul>
Federated user management			
Single sign-on capabilities			
Granular AWS data access permissions			
Row-level security			
Data encryption at rest			
Supports AWS and on-premises data in VPC			

# How Amazon QuickSight works

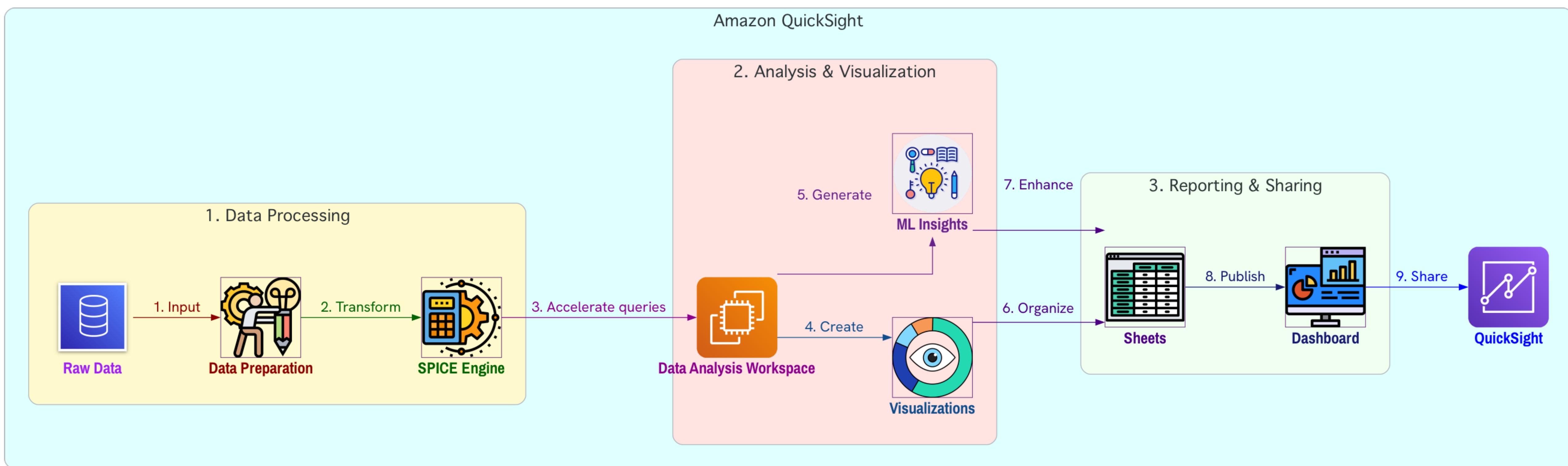


# Terminology



1. **Data Preparation:** Transform raw data, Filter data, Rename fields, Change data types, Add calculated fields, Create SQL queries
2. **SPICE (Super-fast, Parallel, In-memory Calculation Engine):** In-memory engine, Rapid calculations, Accelerate analytical queries, Eliminate repeated data retrieval
3. **Data Analysis Workspace:**
  - Create visualizations: Diagrams, Charts, Graphs, Tables
  - AutoGraph mode: Automatic visualization selection
  - Advanced features: Filters, Color adjustments, Parameter controls, Custom click actions

# Terminology



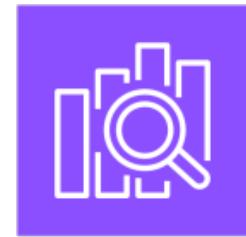
4. 🧠 Machine Learning (ML) Insights: 📝 Narrative add-ons, 🌟 Forecasting, 💡 Anomaly detection, 🎨 Custom insights: 🗤️ Calculations, 📖 Narrative text, 🎨 Colors, 🖼️ Images, 🚪 User-defined conditions
5. 📄 Sheets: 📰 Analogous to newspaper pages, 📊 Display visualizations and insights, 🔗 Multiple sheets: ⚡ Independent use, 🔗 Conjunctive use
6. 📊 Dashboard: 🔊 Published version of analysis, 🔗 Shareable with other users, 🔒 Access and permissions control



Amazon Athena



Amazon Aurora



OpenSearch



Amazon Redshift



Redshift Spectrum



Amazon S3



S3 Analytics



Apache Spark



AWS IoT Analytics



Databricks



Exasol



Google BigQuery



MariaDB



Microsoft SQL Server



MySQL



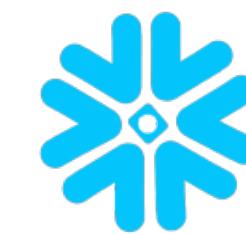
Oracle



PostgreSQL



Presto



Snowflake



Starburst



Trino



Teradata

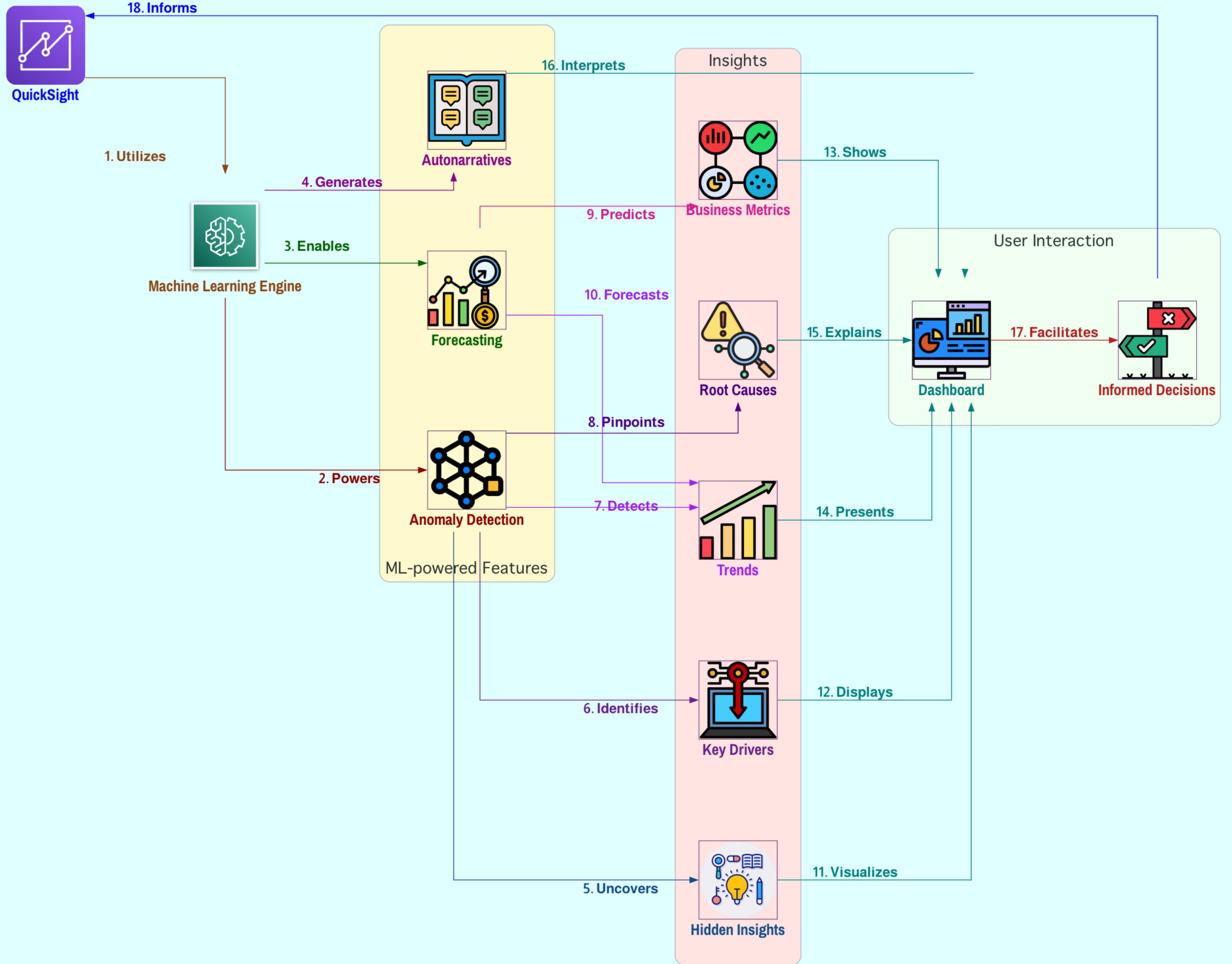


Amazon Timestream

# Supported Data Stores as Data Source

1. Amazon Athena
2. Amazon Aurora
3. Amazon OpenSearch Service
4. Amazon Redshift
5. Amazon Redshift Spectrum
6. Amazon S3
7. Amazon S3 Analytics
8. Apache Spark 2.0 or later
9. AWS IoT Analytics
10. Databricks (E2 Platform only) on Spark 1.6 or later, up to version 3.0
11. Exasol 7.1.2 or later
12. Google BigQuery
13. MariaDB 10.0 or later
14. Microsoft SQL Server 2012 or later
15. MySQL 5.7 or later
16. Oracle 12c or later
17. PostgreSQL 9.3.1 or later
18. Presto 0.167 or later
19. Snowflake
20. Starburst
21. Trino
22. Teradata 14.0 or later
23. Timestream

# ML Capabilities



1. ML-powered anomaly detection

Continuous data analysis

Outlier detection

Top driver identification

Random Cut Forest algorithm

2. ML-powered forecasting

Non-technical user friendly

Seasonality

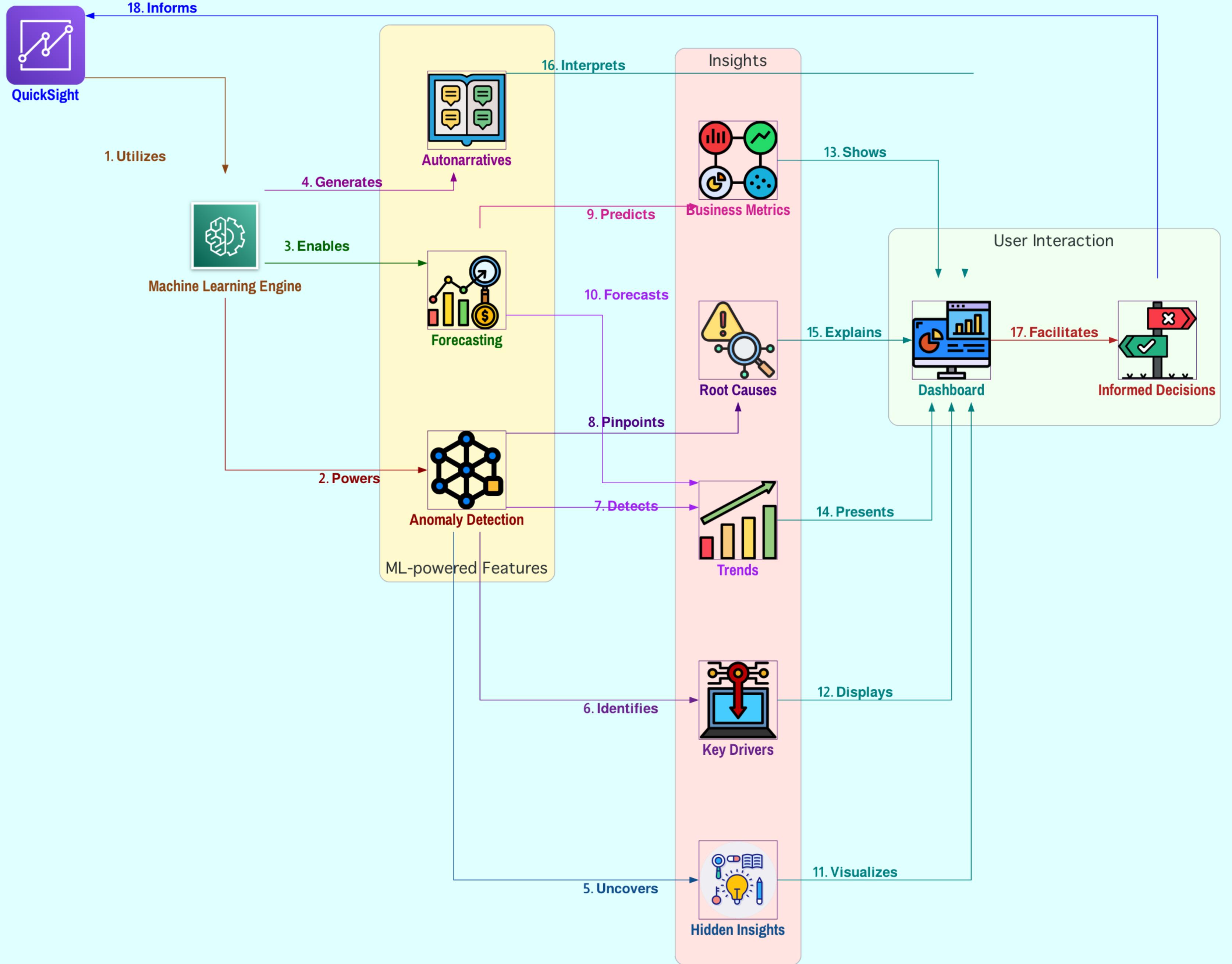
Trends

Outliers

Missing values

Handles complex scenarios

# ML Capabilities



3. 🗣️ Autonarratives

💡 Customizable explanations

💡 Natural language insights

⌚ Time-saving

🤝 Shared understanding

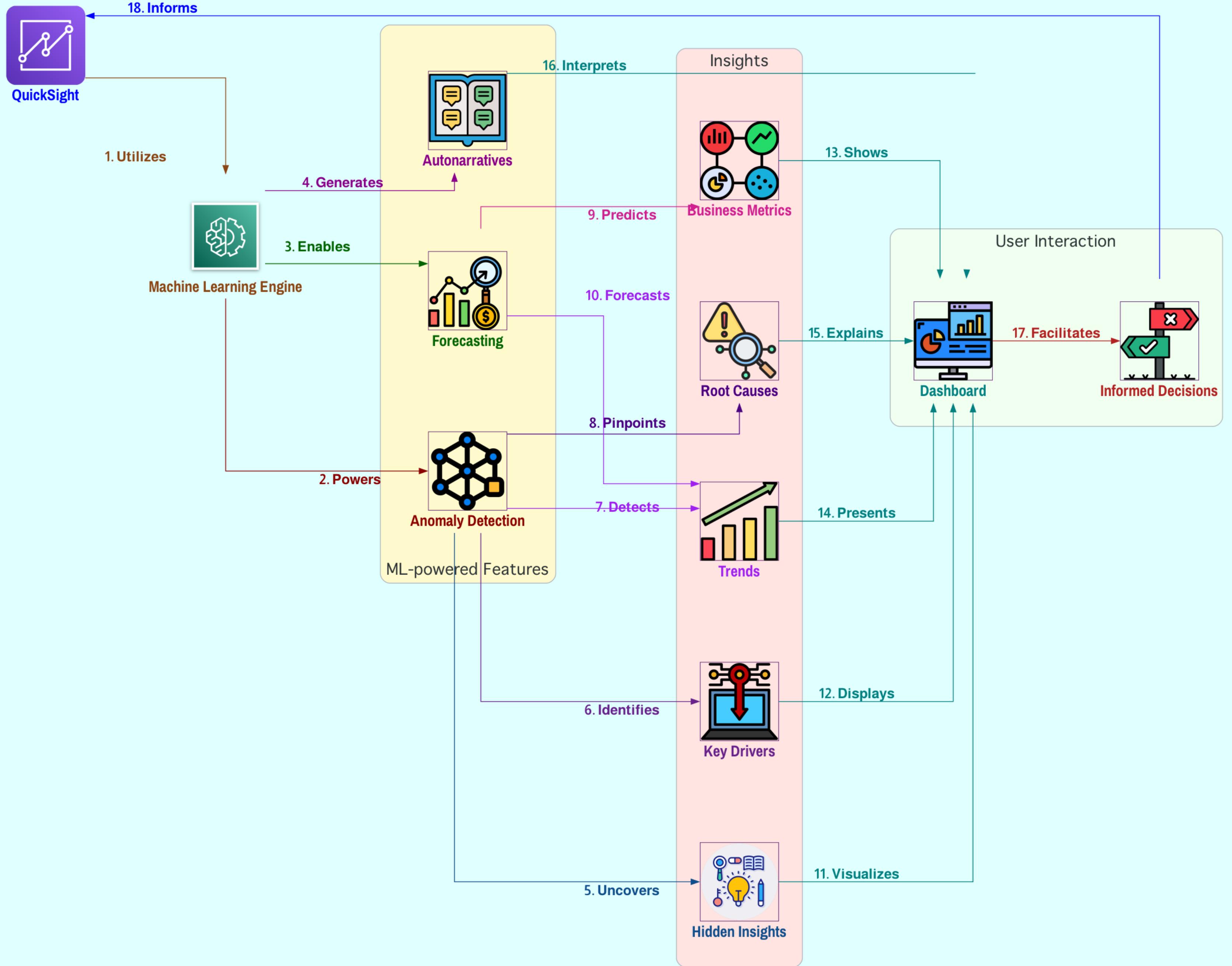
4. 💜 Advanced analytics capabilities

🕵️ Uncover hidden insights

🔑 Identify key drivers

📊 Forecast business metrics

# ML Capabilities



## 5. Dashboard features

Custom narratives

Visualizations

Trends

Anomalies

Forecasts

Root causes

Comprehensive view

## 6. Benefits

Millions of metrics analyzed

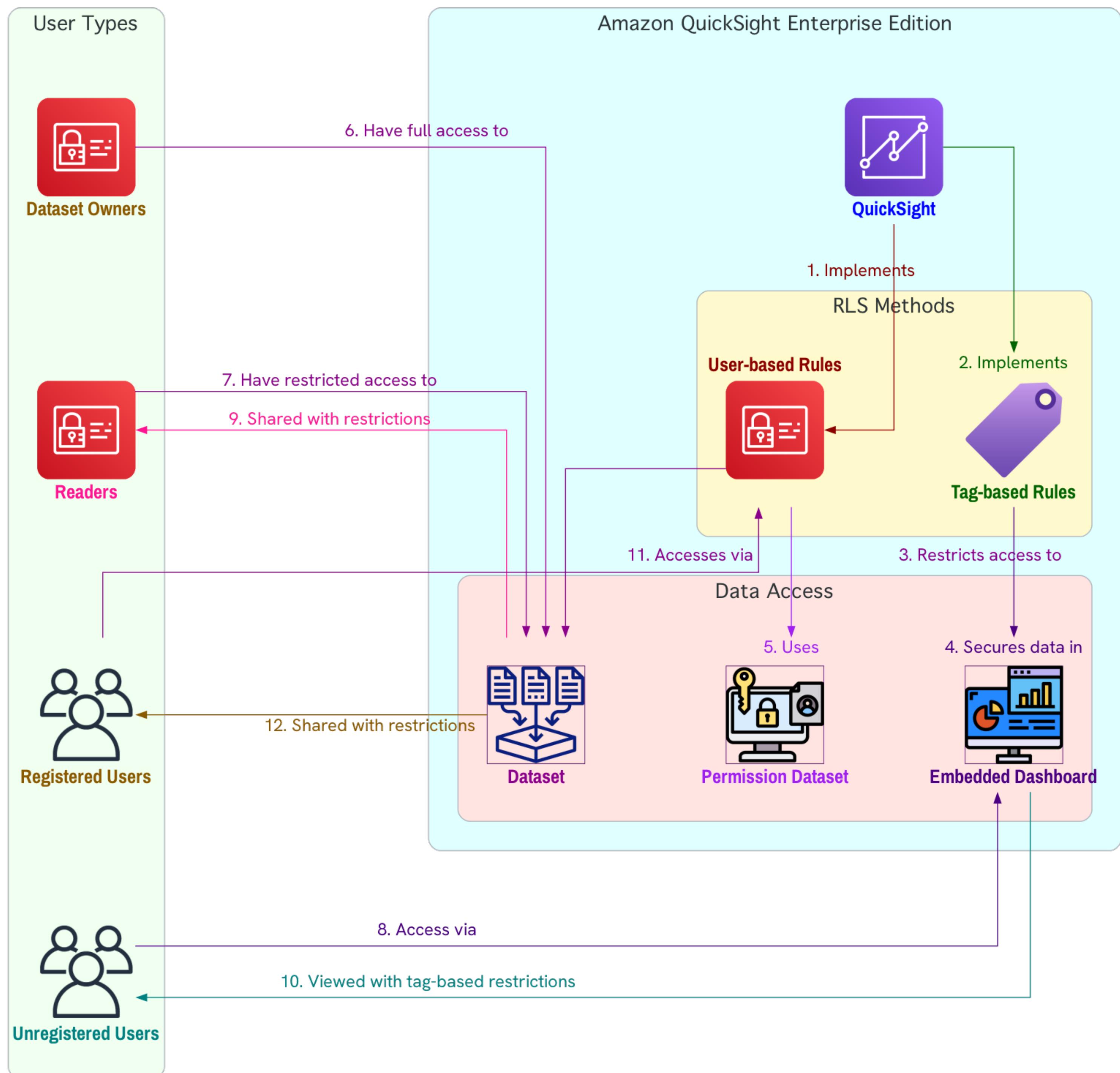
No custom development required

No deep ML knowledge needed

Accessible to broader user range

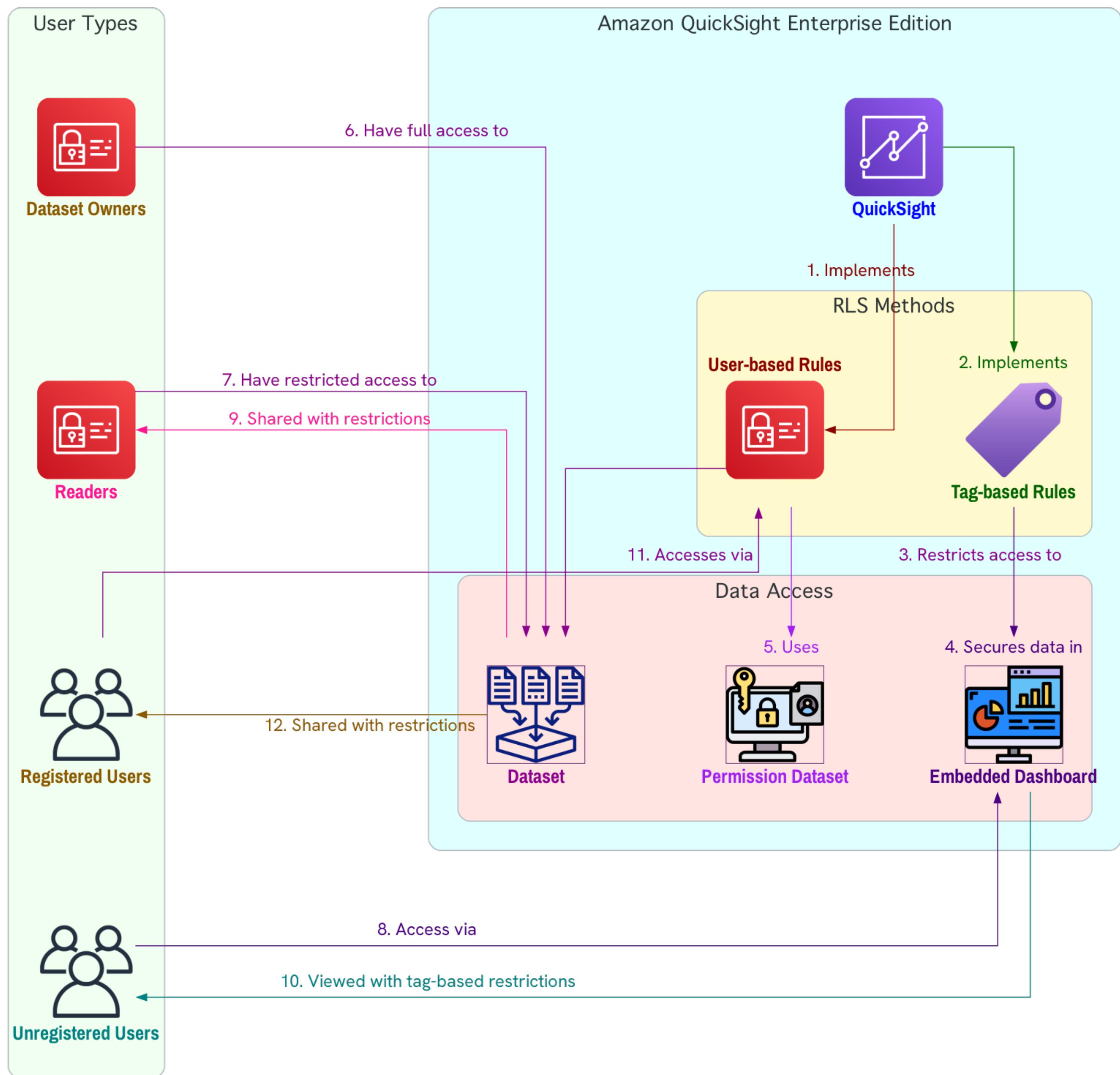
Informed decision-making

# Row-Level Security



- 1. RLS restricts dataset access in QuickSight Enterprise
- 2. User-based rules for registered users/groups
- Applied to provisioned users
- Controls access to specific rows
- Configurable before or after sharing
- Flexible security management
- 3. Tag-based rules for unregistered users
- Used for embedded dashboards
- Full visibility
- Not affected by RLS rules
- 4. Dataset owners see all data
- 5. Readers see restricted data based on rules
- Limited view
- Determined by permission dataset or tags

# Row-Level Security



6. Embedded dashboards use tag-based RLS

Tags control data visibility

Based on user identity or role

8. Column tags define tag-based rules

Tags on columns secure data

Tag values passed when embedding

7. Permissions dataset defines user-based rules

Contains column-based rules

Access granted to identified users/groups

9. Combine rule types for maximum flexibility

Use both user-based and tag-based rules

Manage access for various scenarios



**Thanks  
for  
Watching**