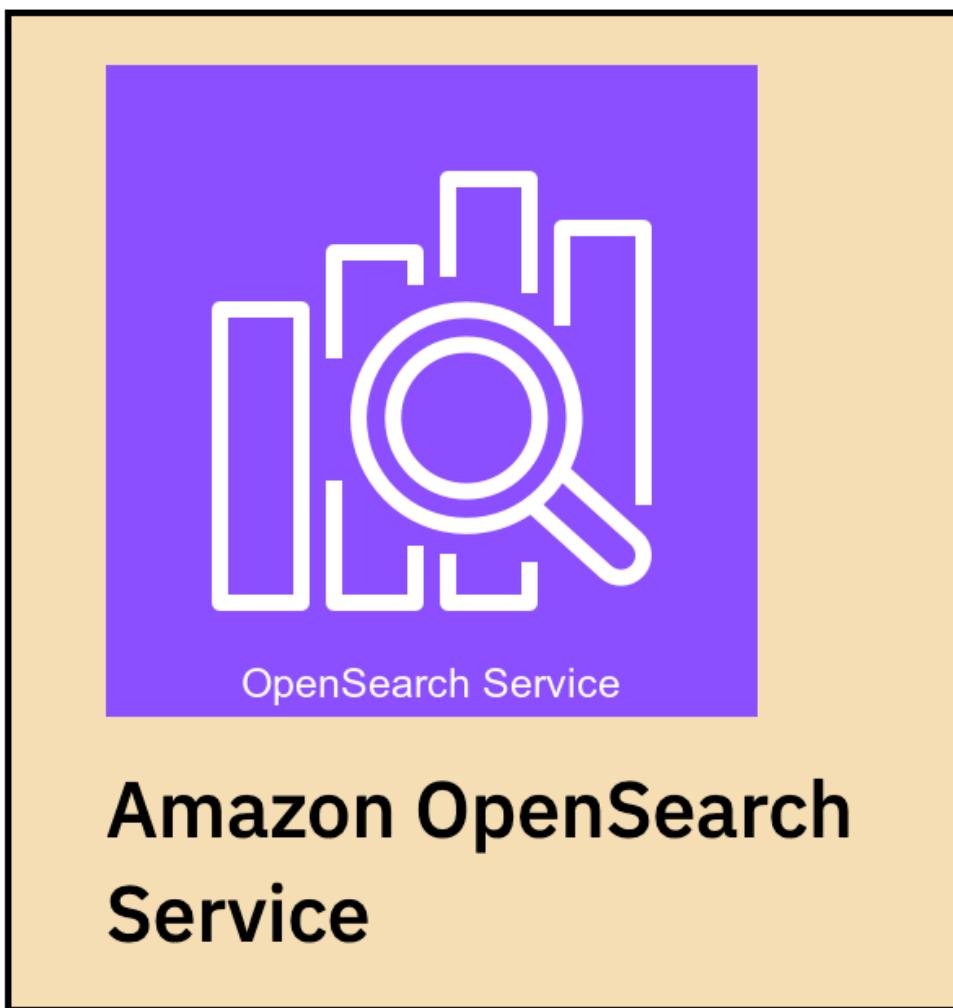


# Amazon OpenSearch Service

# Table of Contents



1. What is Amazon OpenSearch Service?

2. Features of Amazon OpenSearch Service

3. Security

4. Stability

5. Flexibility

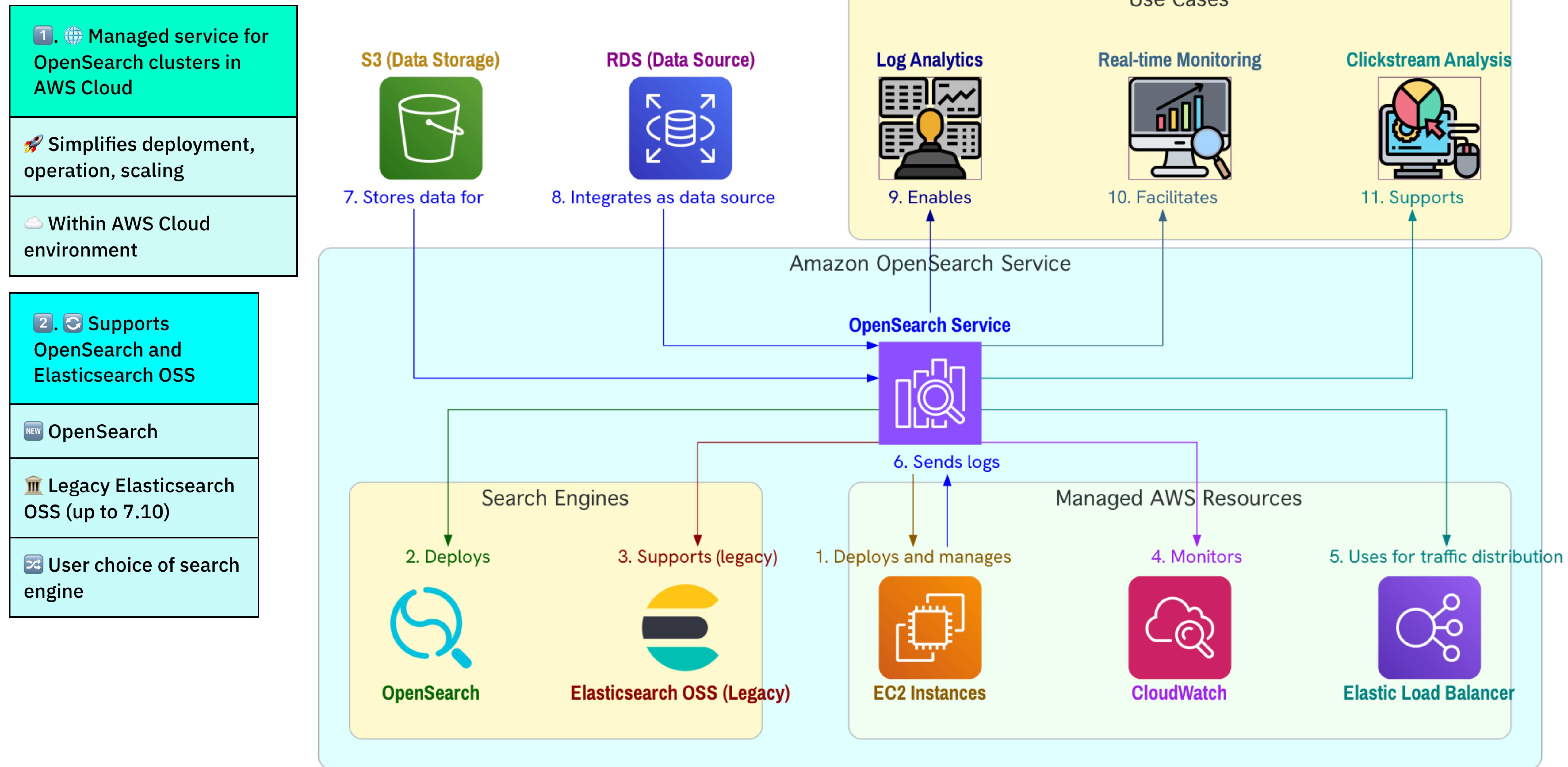
6. Integration with popular services

7. When to use OpenSearch versus Amazon OpenSearch Service

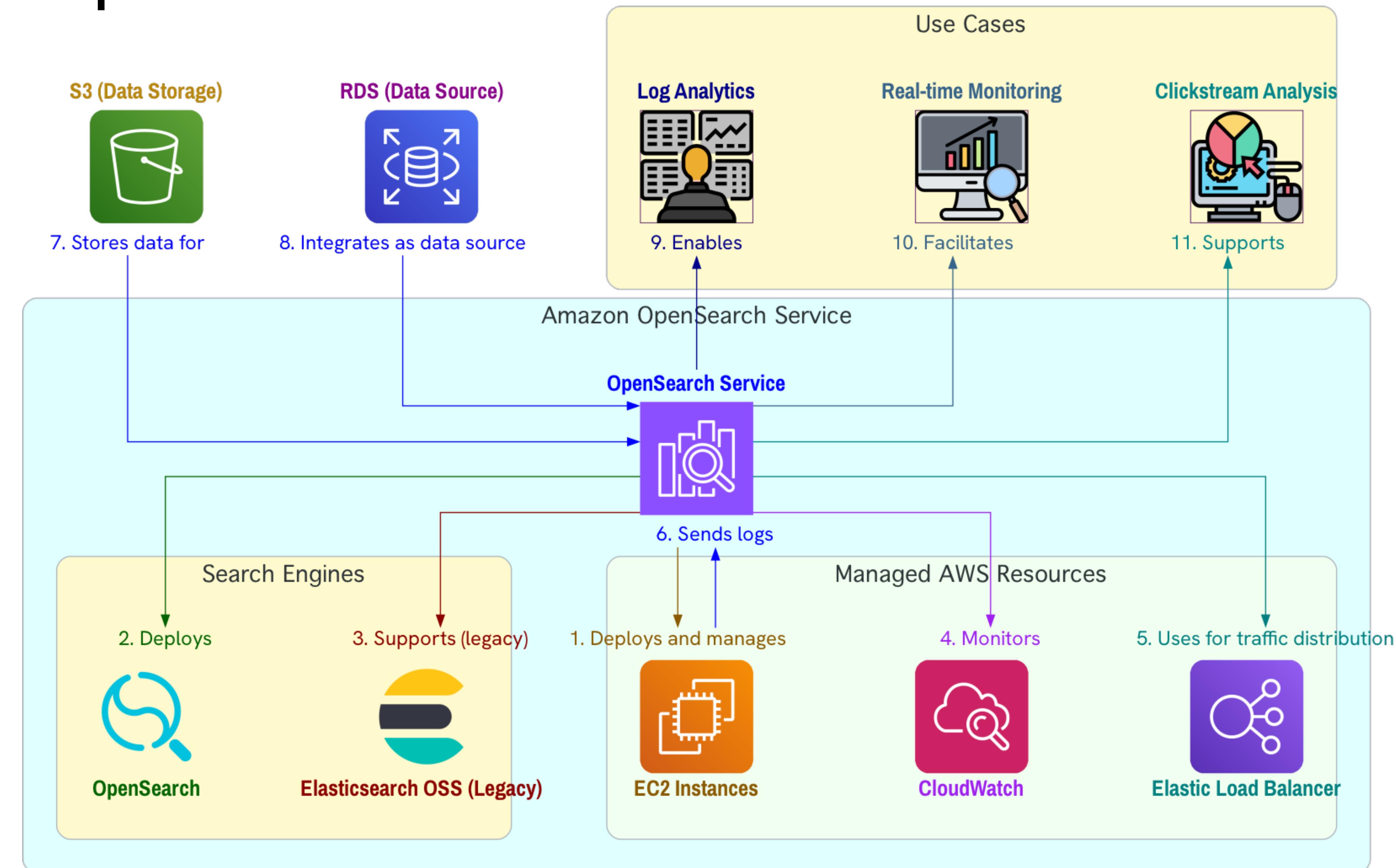
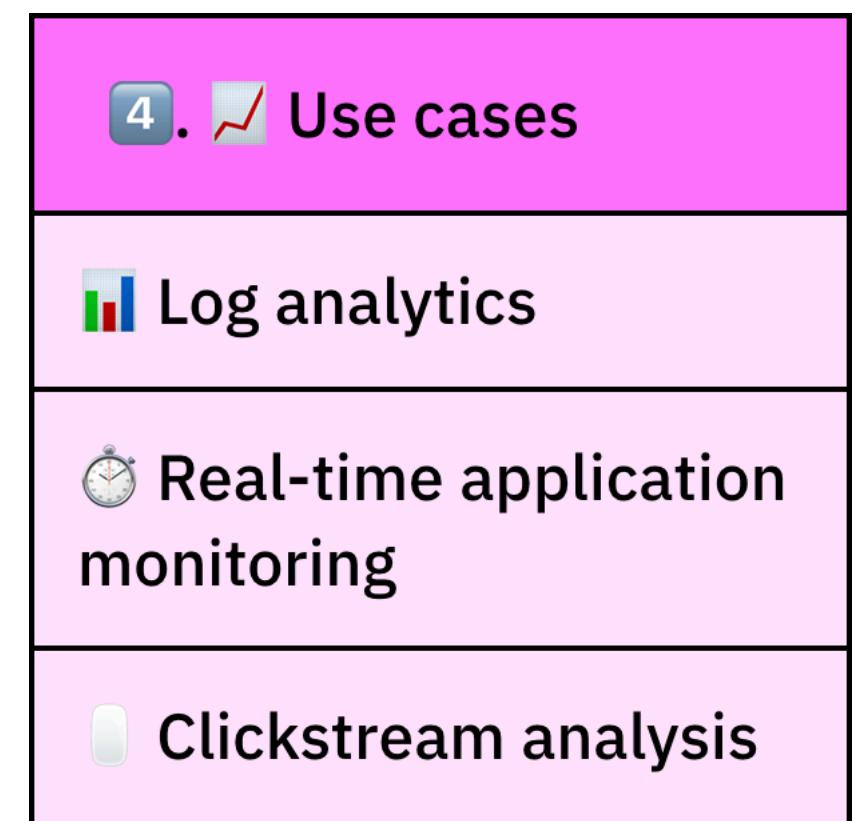
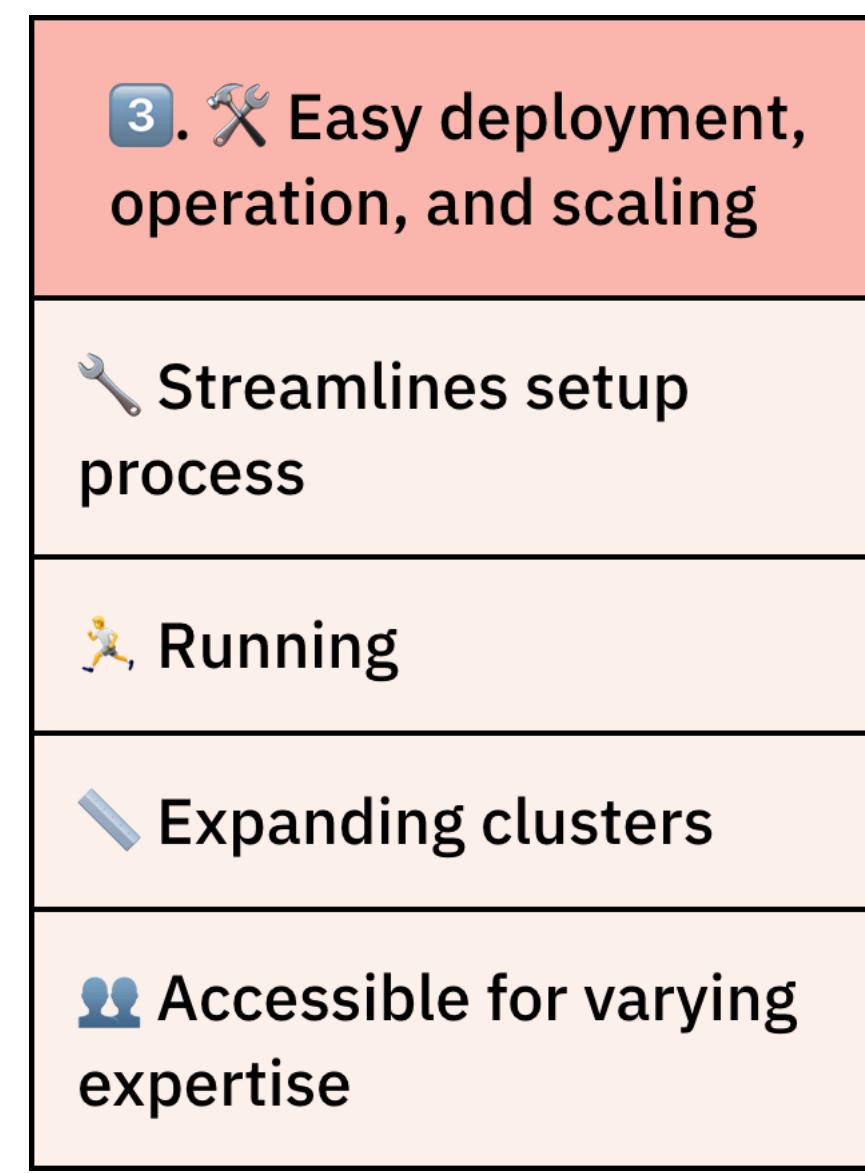
8. Amazon OpenSearch Ingestion

9. Serverless

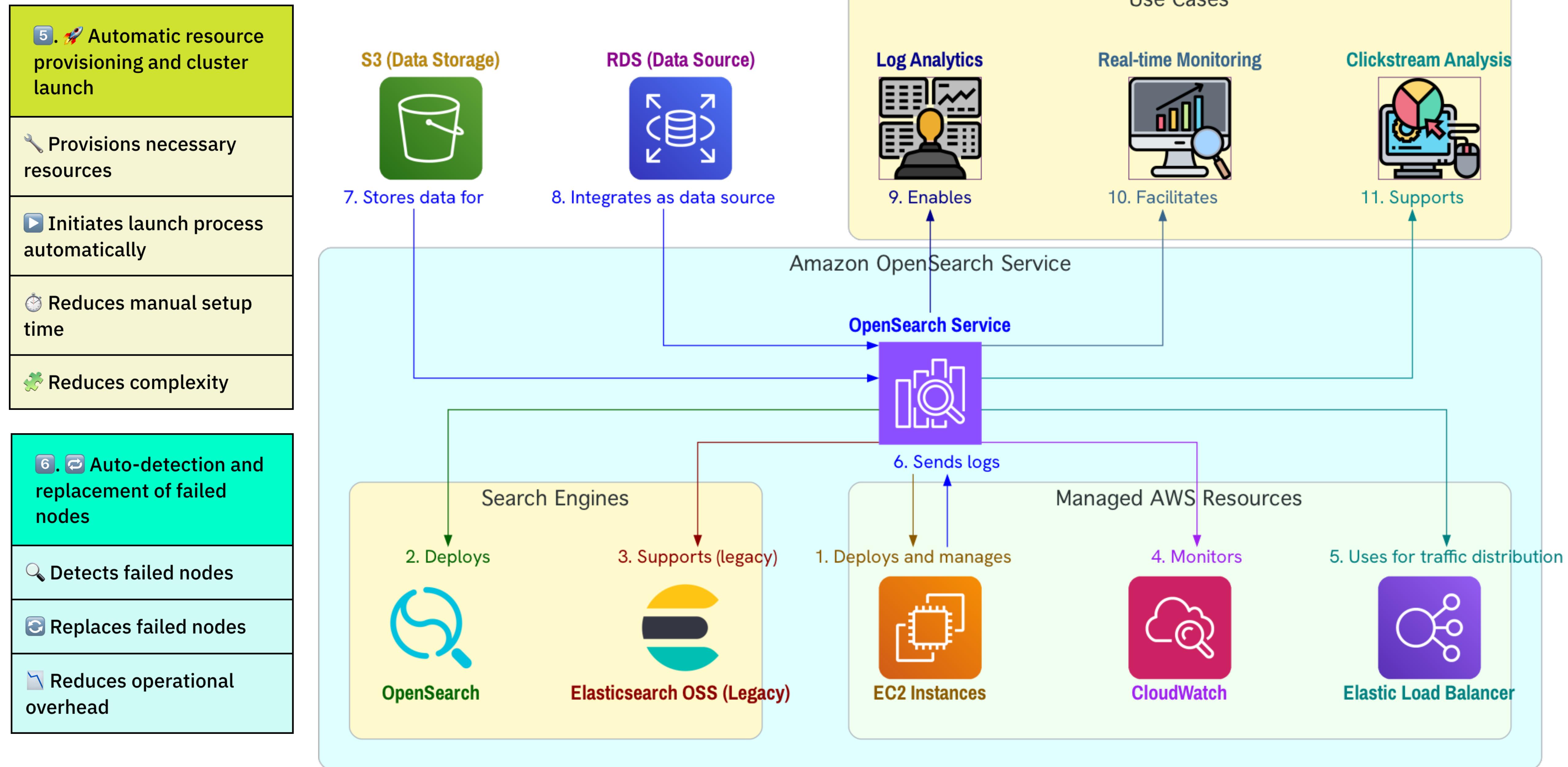
# What is Amazon OpenSearch Service?



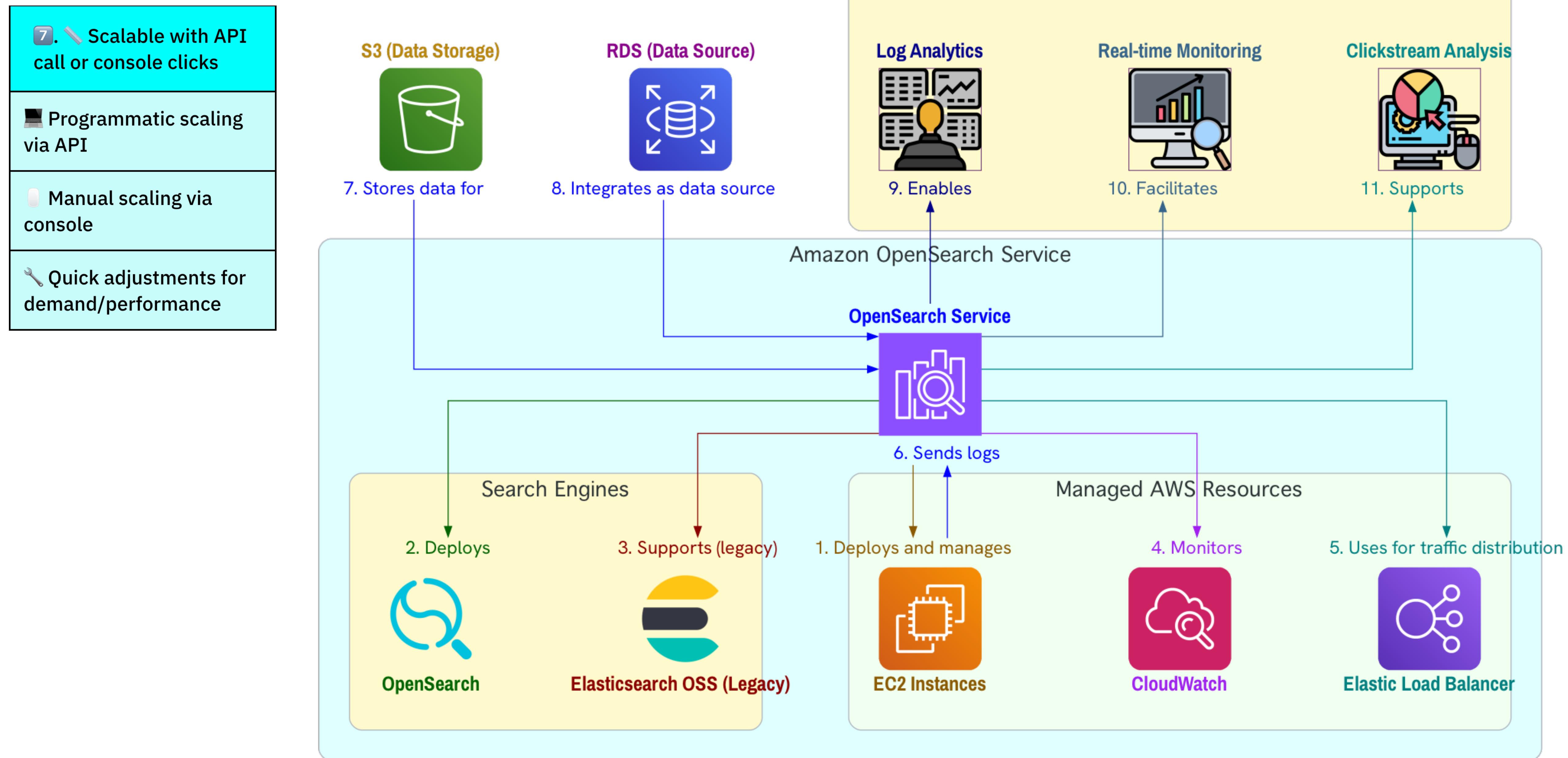
# What is Amazon OpenSearch Service?



# What is Amazon OpenSearch Service?



# What is Amazon OpenSearch Service?



# Features of Amazon OpenSearch Service

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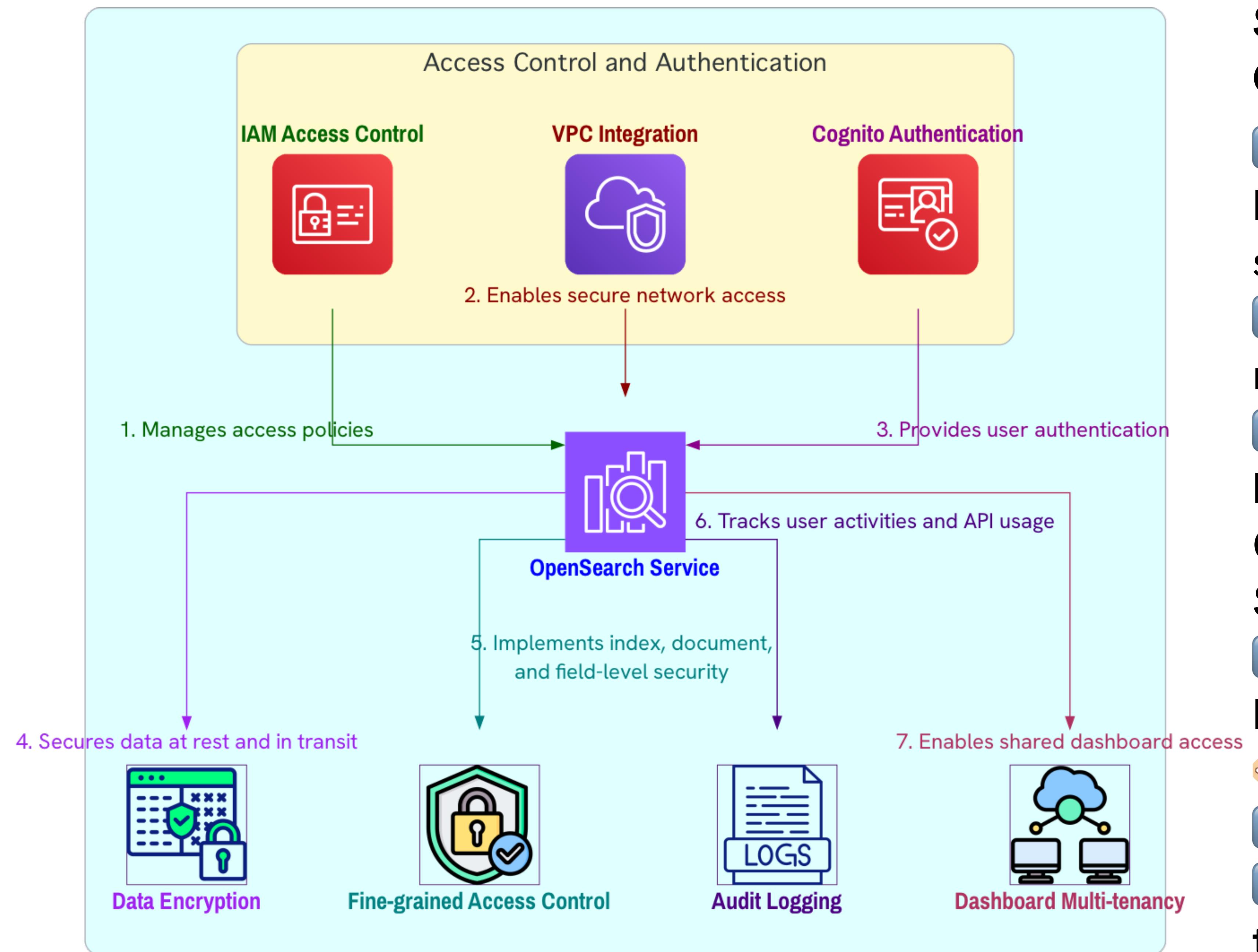
OpenSearch Service includes the following features:

## Scale

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1. Numerous configurations of CPU, memory, and storage capacity known as **instance types**, including cost-effective **Graviton** instances
2. Up to 3 PB of attached storage
3. Cost-effective **UltraWarm** and **cold storage** for read-only data

# Security in Amazon OpenSearch Service



- 1 . **Access Control:** AWS IAM integration, VPC and security groups
- 2 . **Encryption:** Data at rest, Node-to-node
- 3 . **Authentication for Dashboards:** Amazon Cognito, HTTP basic, SAML
- 4 . **Multi-level Security:** Index-level, Document-level, Field-level
- 5 . **Audit logs**
- 6 . **Dashboards multi-tenancy**

# Stability

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1. Numerous geographical locations for your resources, known as **Regions** and **Availability Zones**
2. Node allocation across two or three Availability Zones in the same AWS Region, known as **Multi-AZ**
3. Dedicated master nodes to offload cluster management tasks
4. Automated snapshots to back up and restore OpenSearch Service domains

# Stability

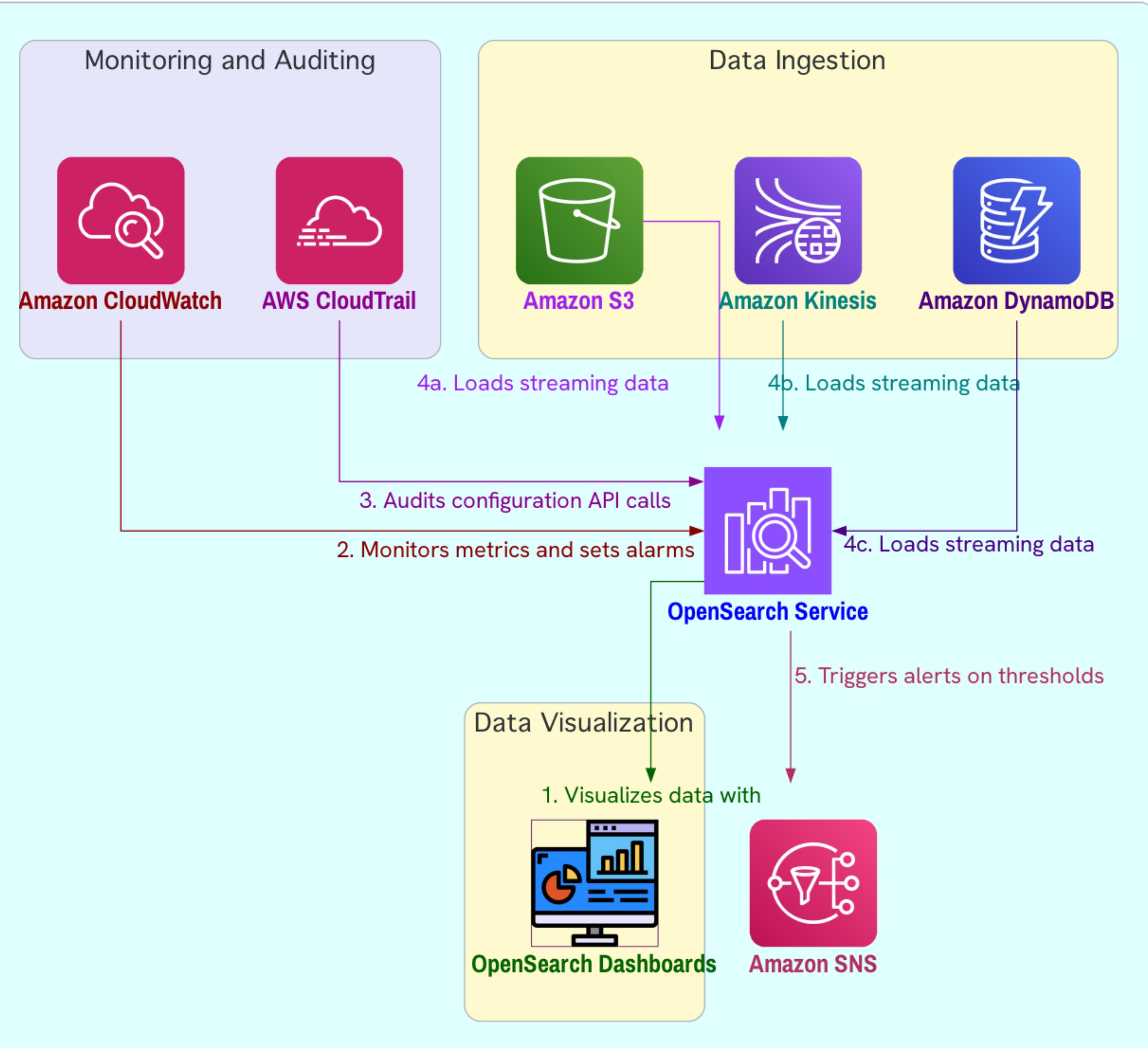
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# Flexibility

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1. SQL support for integration with business intelligence (BI) applications
2. Custom packages to improve search results



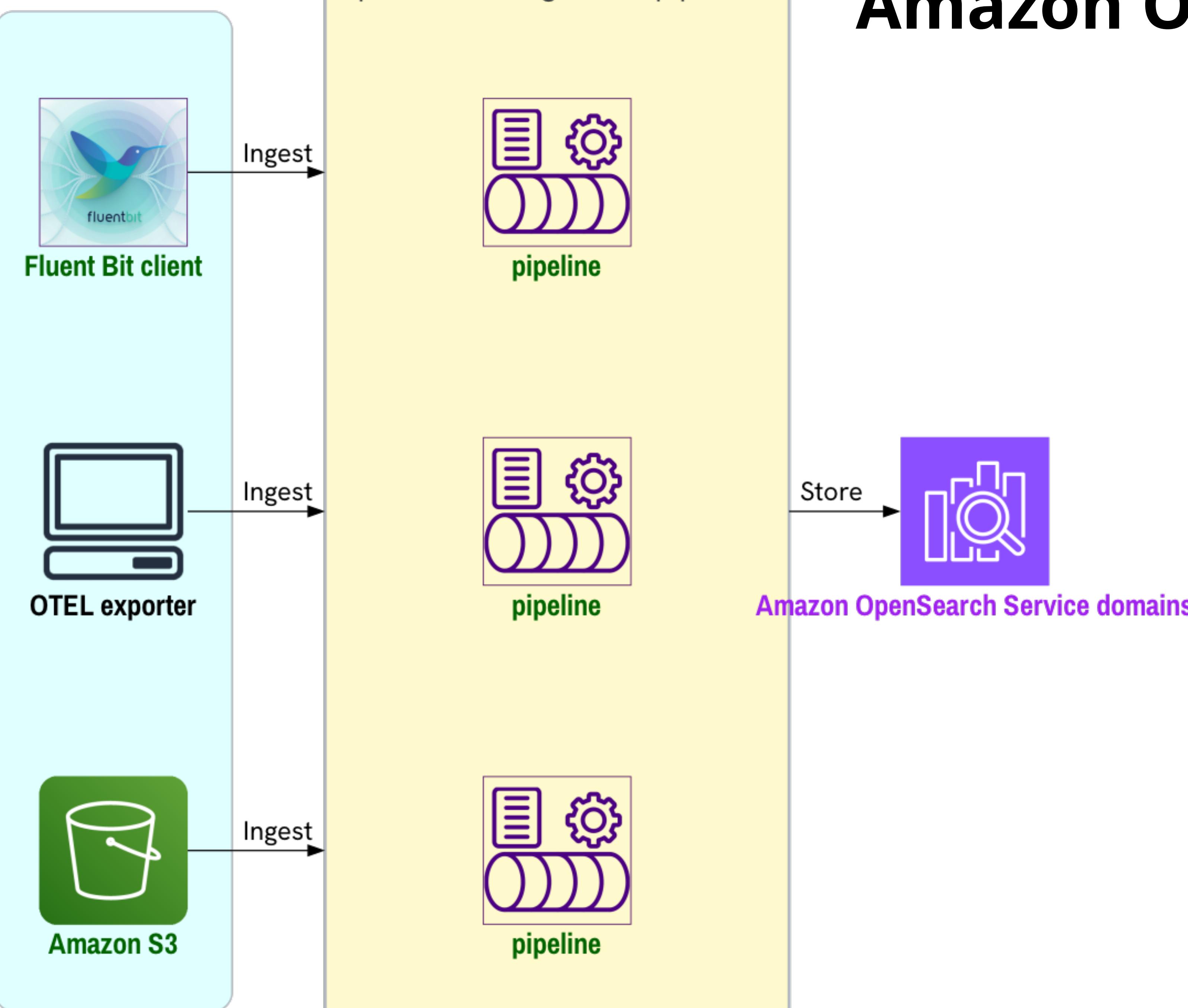
## Integration with popular AWS services

1. **Data visualization:** OpenSearch Dashboards
2. **Monitoring and alerting:** Amazon CloudWatch: Domain metrics monitoring, Alarm setting
3. **Auditing:** AWS CloudTrail: Configuration API call tracking
4. **Data ingestion:** Amazon S3, Amazon Kinesis, Amazon DynamoDB: Streaming data loading
5. **Threshold alerts:** Amazon SNS: Data threshold monitoring

# When to use OpenSearch versus Amazon OpenSearch Service

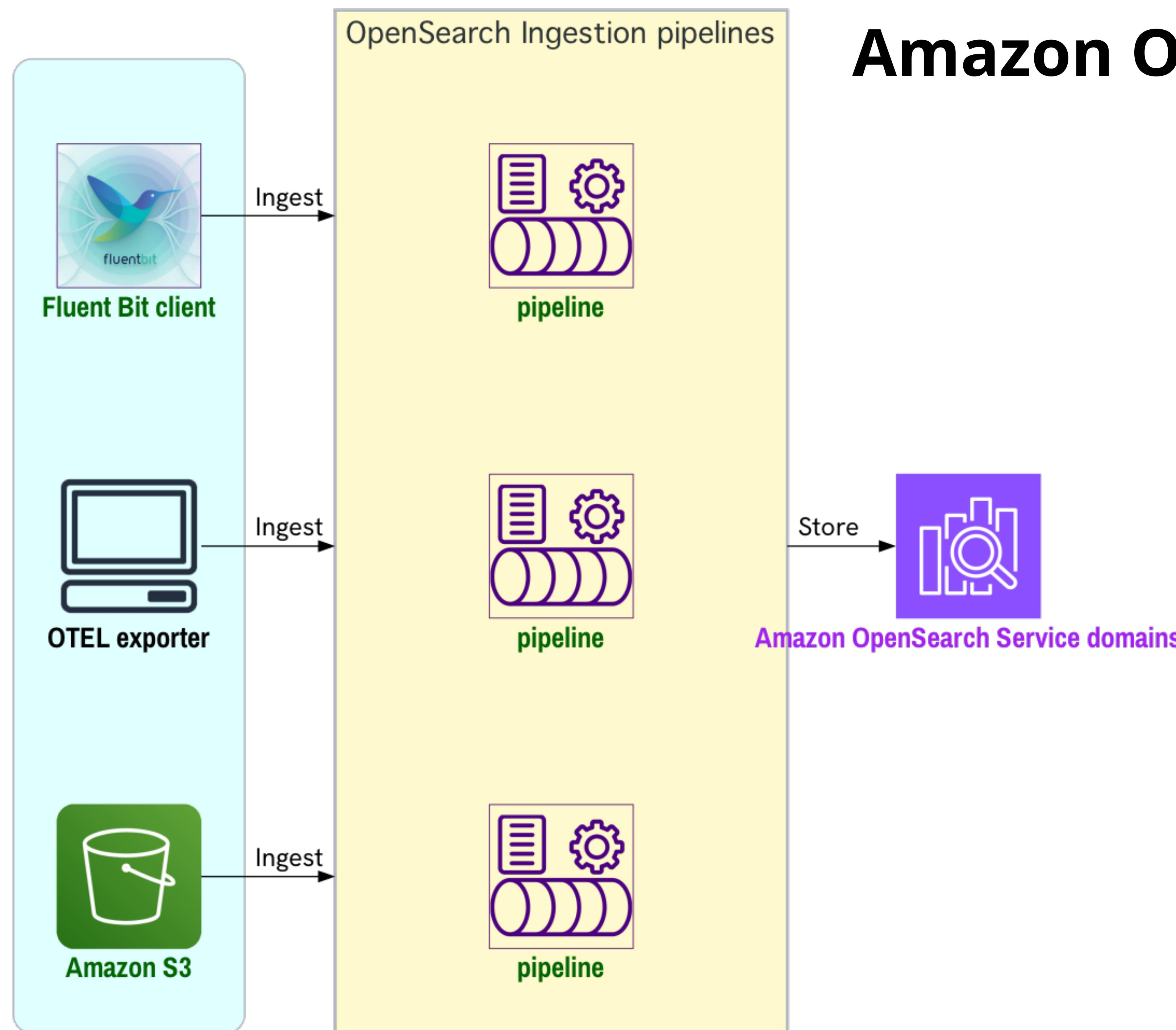
OpenSearch	Amazon OpenSearch Service
<ul style="list-style-type: none"><li>Your organization is willing to, and has people with the correct skills to, manually monitor and maintain self-provisioned clusters.</li></ul>	<ul style="list-style-type: none"><li>You don't want to manually manage, monitor, and maintain your infrastructure.</li></ul>
<ul style="list-style-type: none"><li>You want full, compile-level control of your code.</li></ul>	<ul style="list-style-type: none"><li>You want simple ways to manage growing analytics costs by layering your data across storage tiers, taking advantage of the durability and low cost of Amazon S3.</li></ul>
<ul style="list-style-type: none"><li>Your organization prefers, or uniquely uses, open source software.</li></ul>	<ul style="list-style-type: none"><li>You want to take advantage of integrations with other AWS services such as DynamoDB, Amazon DocumentDB (with MongoDB compatibility), IAM, CloudWatch, and CloudFormation.</li></ul>
<ul style="list-style-type: none"><li>You have a multi-cloud strategy, requiring technologies that aren't vendor-specific.</li></ul>	<ul style="list-style-type: none"><li>You want easy access to assistance from AWS Support for preventative maintenance and during production issues.</li></ul>
<ul style="list-style-type: none"><li>Your team is capable of addressing any critical production issues.</li></ul>	<ul style="list-style-type: none"><li>You want to take advantage of features such as self-healing, proactive maintenance, resiliency, and backups.</li></ul>
<ul style="list-style-type: none"><li>You want the flexibility to use, modify, and extend the product however you want.</li></ul>	
<ul style="list-style-type: none"><li>You want immediate access to new features as soon as they're released.</li></ul>	

# Amazon OpenSearch Ingestion



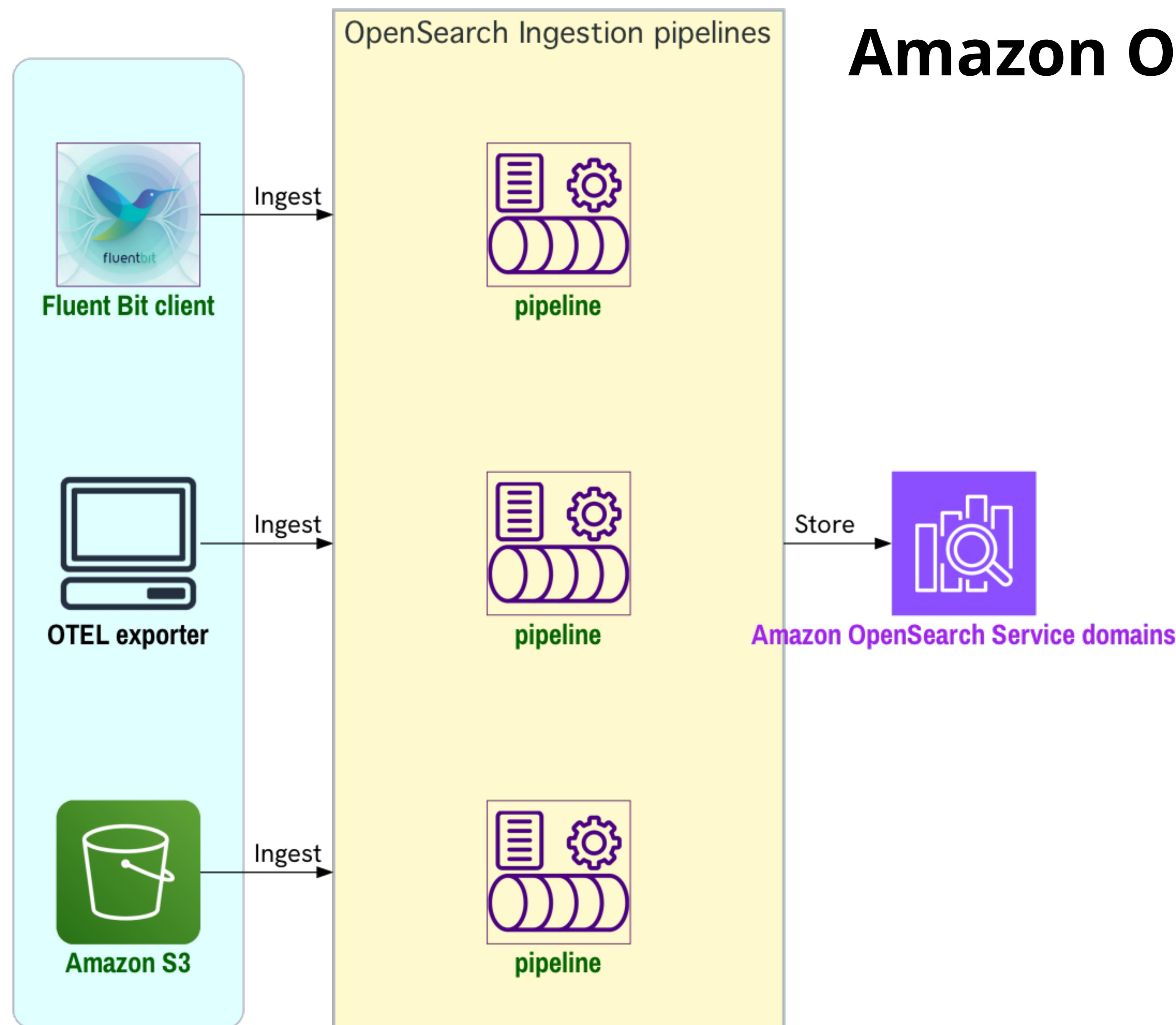
1.  Fully managed, serverless data collector	
Real-time delivery of log, metric, trace data	
To OpenSearch Service domains and Serverless collections	
Replaces third-party solutions	No need for Logstash or Jaeger
Configuration	Configure data producers to send data Automatic delivery to specified domain/collection Optional data transformation

# Amazon OpenSearch Ingestion



2.  Serverless architecture
No server provisioning
No software management or patching
No manual scaling
Provision pipelines via AWS Management Console
Automatic management and scaling

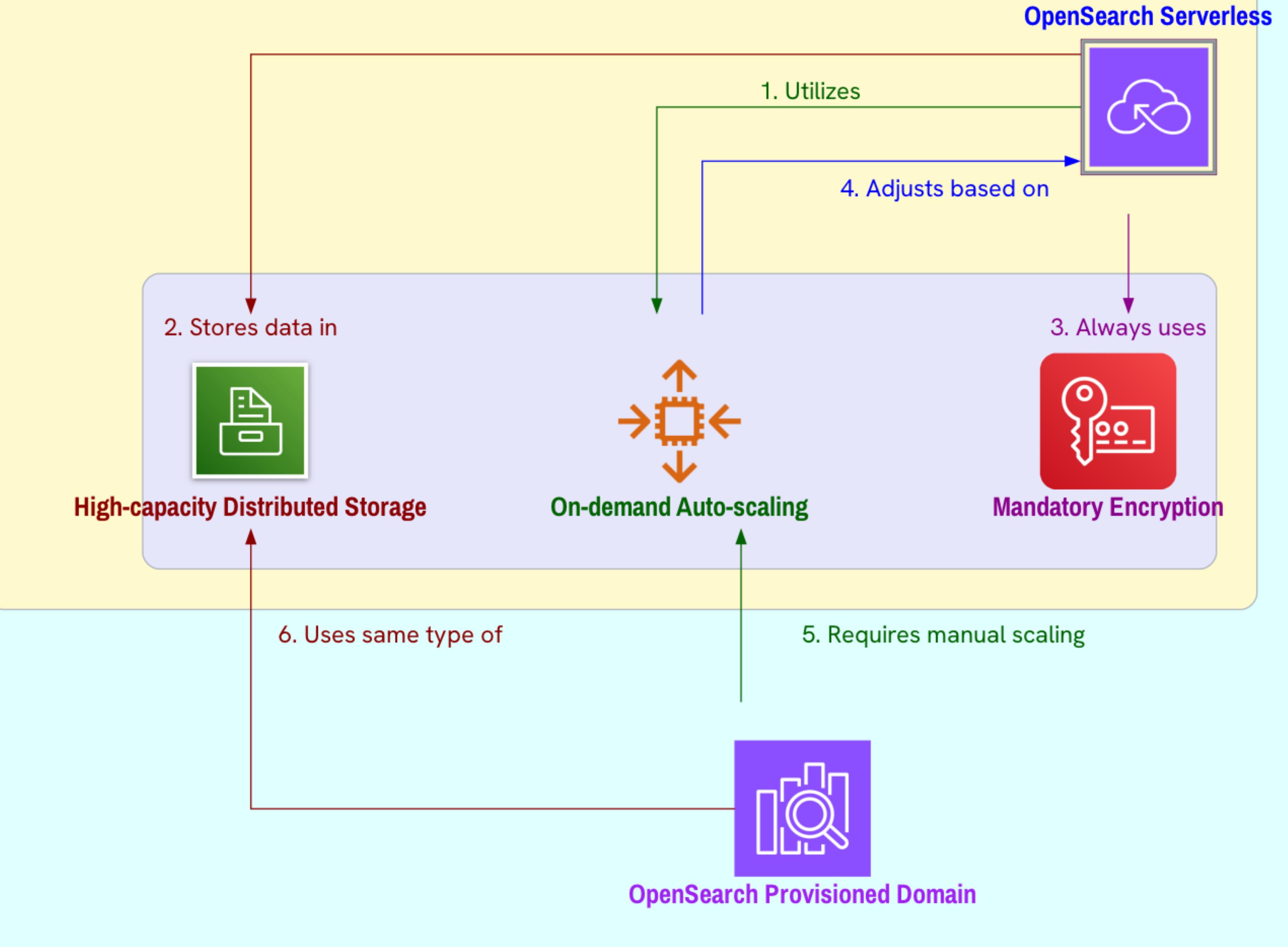
# Amazon OpenSearch Ingestion



3.  Relationship to Amazon OpenSearch Service	
Subset of Amazon OpenSearch Service	
	Open source data collector
	Filter
	Enrich
	Capabilities
	Transform
	Normalize
	Aggregate
	For downstream analysis and visualization

# Serverless

## OpenSearch Serverless



1. 🚀 On-demand, auto-scaling OpenSearch configuration

Automatic resource scaling

No manual capacity management

2. 📈 Scales compute capacity based on needs

Adjusts to application requirements

Ensures right amount of resources

Prevents overprovisioning

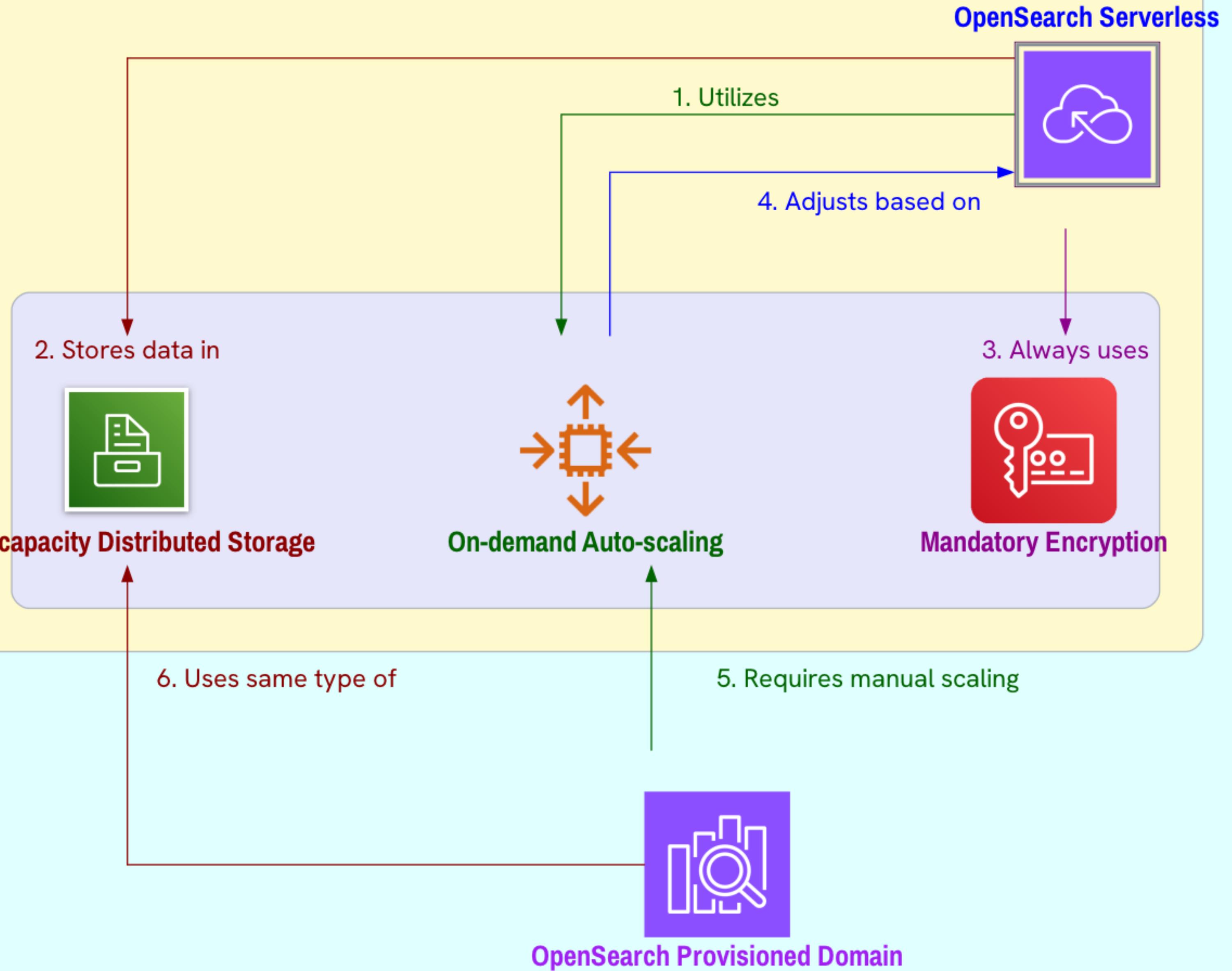
3. 💼 Contrasts with manually managed provisioned domains

Reduces operational overhead

Lowers management complexity

# Serverless

## OpenSearch Serverless



4. 💰 Cost-effective for variable workloads

↗ Suitable for unpredictable loads

💰 Pay for actual usage

5. 📁 High-capacity, distributed, highly available storage

📦 Same storage as provisioned domains

🔄 Ensures reliability and performance

6. 🔒 Always encrypted, customizable key

🛡️ Built-in data protection

🔑 Flexible encryption key choice

🚫 Cannot disable encryption



**Thanks  
for  
Watching**