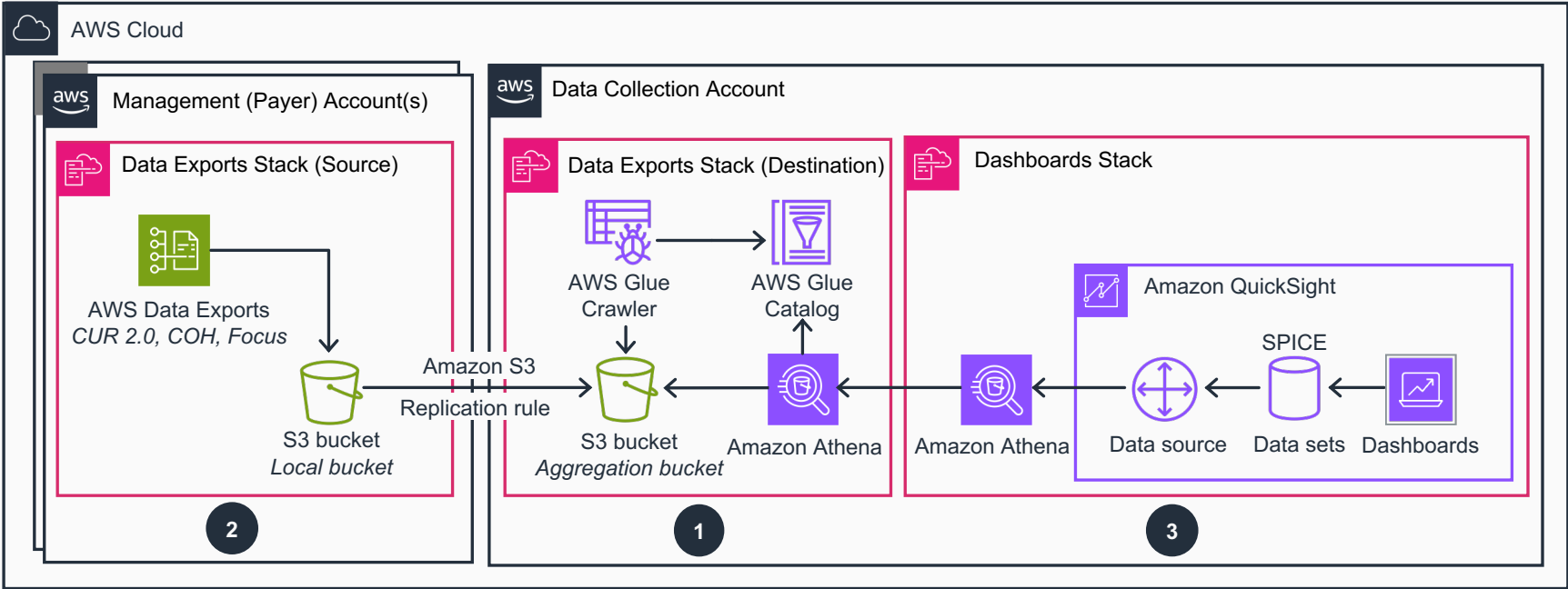


Cloud Intelligence Dashboards on AWS

Foundational dashboards: deployment

This architecture diagram shows how to set up the foundation for cloud observability with Cloud Intelligence Dashboards.

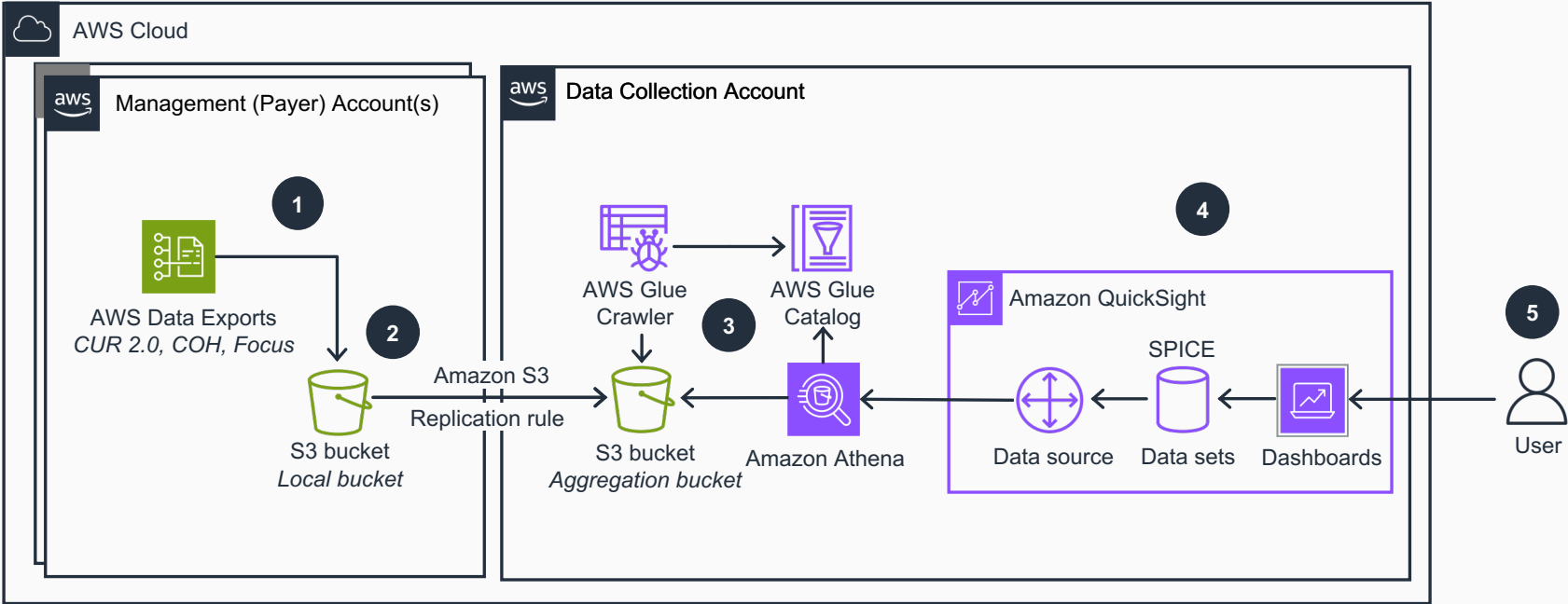
- 1 Deploy the **AWS CloudFormation** stack for **AWS Data Exports** to the Data Collection AWS account.
- 2 Deploy the AWS Data Exports **CloudFormation** stack to the Management (Payer) AWS accounts.
- 3 Deploy the Cloud Intelligence Dashboards **CloudFormation** stack to the Data Collection AWS account.



Cloud Intelligence Dashboards on AWS

Foundational dashboards: architecture

This architecture diagram shows the connection flow for foundational Cloud Intelligence Dashboards.



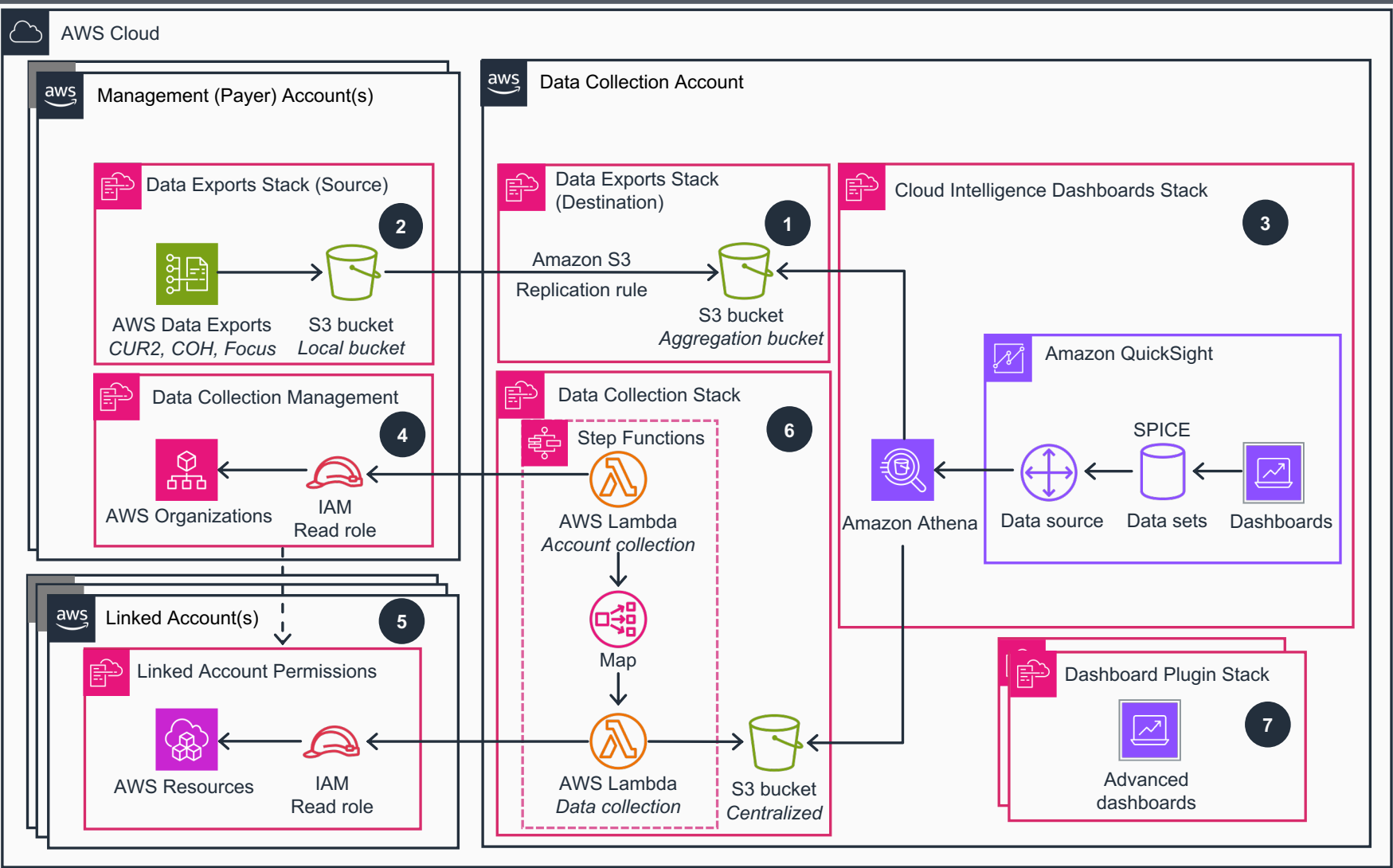
- 1** **AWS Data Exports** delivers the **AWS Cost & Usage Report (AWS CUR)**—specifically CUR 2.0—daily to an **Amazon Simple Storage Service (Amazon S3)** bucket in the Management (Payer) Account.
- 2** An **Amazon S3** replication rule copies export data from the **S3** bucket in a Management (Payer) Account to the **S3** bucket in the dedicated Data Collection Account automatically.
- 3** **Amazon Athena** allows querying data directly from the aggregated **S3** bucket using an **AWS Glue** table schema definition.
- 4** **Amazon QuickSight** creates datasets from **Athena**, refreshes daily, and caches them in **SPICE** (Super-fast, Parallel, In-memory Calculation Engine) for **QuickSight**.
- 5** User teams (such as executives, FinOps, and engineers) can access Cloud Intelligence Dashboards in **QuickSight**. Access is secured through **AWS Identity and Access Management (IAM)**, **AWS IAM Identity Center**, and optional row-level security.



Cloud Intelligence Dashboards on AWS

Advanced dashboards: deployment

This architecture diagram shows the setup for the foundational and advanced Cloud Intelligence Dashboards.



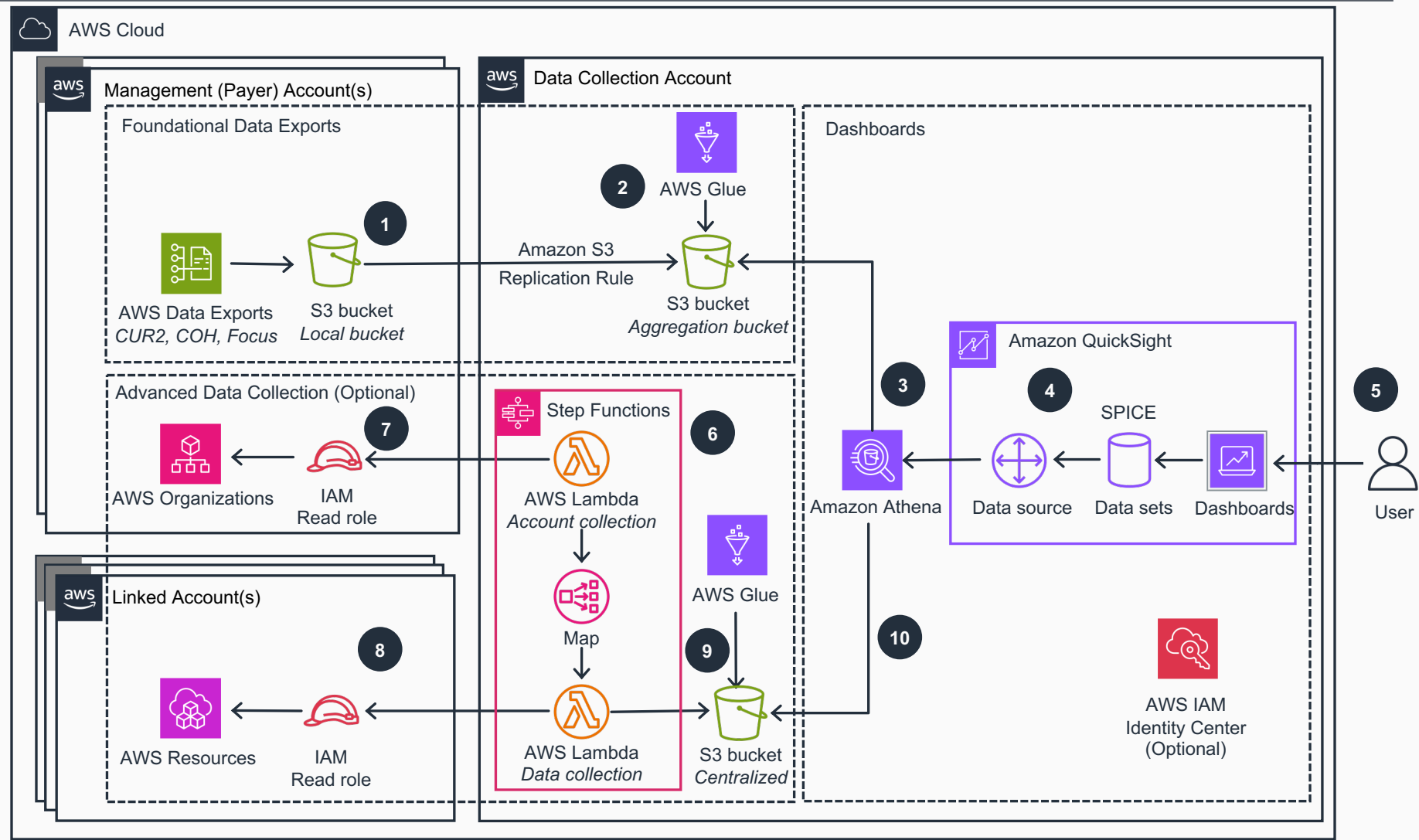
- 1 Deploy the **CloudFormation** stack for **AWS Data Exports** to the Data Collection AWS account.
- 2 Deploy the AWS Data Exports **CloudFormation** stack to the Management (Payer) AWS account(s).
- 3 Deploy the Cloud Intelligence Dashboards **CloudFormation** stack to the Data Collection AWS account.
- 4 Deploy the Advanced Data Collection Permissions **CloudFormation** stack to the Management (Payer) AWS account(s).
- 5 The Permissions **CloudFormation** stack in the Management (Payer) Account also deploys Permissions stacks to each of Linked accounts using StackSets.
- 6 Deploy the Data Collection Stack to the Data Collection AWS account.
- 7 Deploy the Advanced Dashboards using the Dashboard Plugin **CloudFormation** stack to the Data Collection AWS Account.



Cloud Intelligence Dashboards on AWS

Advanced dashboards: architecture

This architecture diagram shows the connection flow for the foundational and advanced Cloud Intelligence Dashboards.



1. **AWS Data Exports** delivers **AWS CUR** reports daily to the **S3** bucket in the Management (Payer) Account.
2. An **Amazon S3** replication rule copies Export data from the **S3** bucket in a Management (Payer) Account to the **S3** bucket in the dedicated Data Collection Account automatically.
3. **Athena** allows querying data directly from the **S3** bucket using an **AWS Glue** table schema definition.
4. **QuickSight** creates datasets from **Athena**, refreshes daily, and caches them in **SPICE** for **QuickSight**.
5. User teams (such as executives, FinOps, and engineers) can access Cloud Intelligence Dashboards in **QuickSight**. Access is secured through **IAM**, **IAM Identity Center**, and optional row-level security.
6. Optionally, the advanced data collection can be deployed to enable advanced dashboards based on **AWS Trusted Advisor**, **AWS Health Events**, and other sources. Additional data is retrieved from **AWS Organizations** or Linked Accounts. In this case, an **Amazon EventBridge** rule triggers **AWS Step Functions** for data collection modules on a configurable schedule.
7. The **Account Collector AWS Lambda** function in **Step Functions** retrieves linked account details using an **Organizations** API.
8. The **Data Collection Lambda** function in **Step Functions** assumes the role in each linked account to retrieve account-specific data using **AWS SDK**.
9. Retrieved data is stored in a centralized **S3** bucket.
10. Advanced Cloud Intelligence Dashboards leverage **Athena** and **QuickSight** for comprehensive data analysis.

