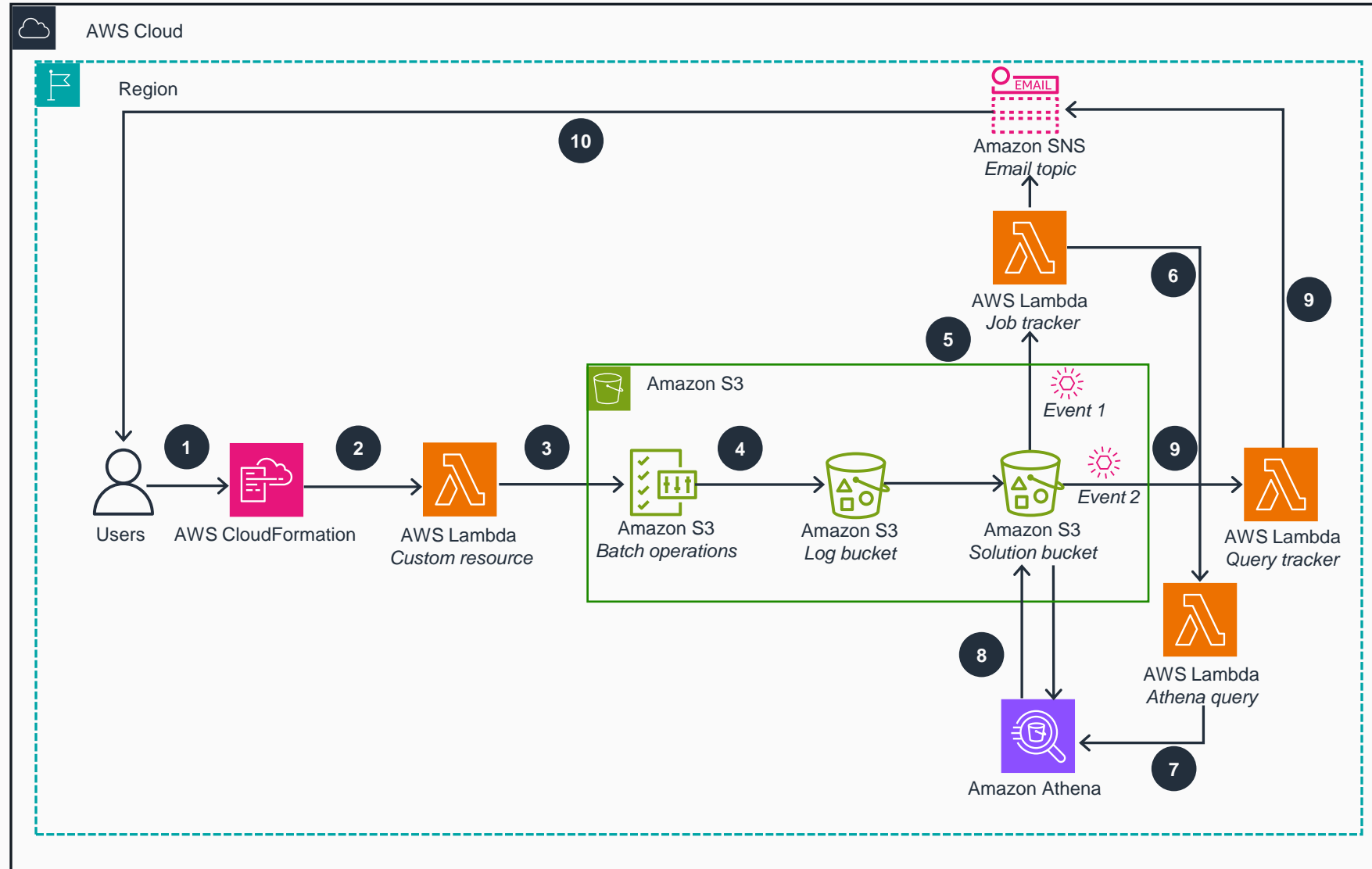


# Guidance for Automated Querying of Amazon S3 Logs with Amazon Athena

This architecture diagram shows a serverless workflow to automate the querying of Amazon S3 log records.



- 1 Deploy the Guidance as a stack by uploading the template into the **AWS CloudFormation** console.
- 2 **CloudFormation** deploys the necessary resources, including **AWS Lambda** custom resources.
- 3 The **Lambda** custom resource function submits an **Amazon Simple Storage Service** (Amazon S3) batch operations job to copy logs based on the prefix and date parameters defined in the stack.
- 4 The **Amazon S3** batch operations job automatically generates a manifest file and copies the logs to a prefix in the **Amazon S3** solution bucket.
- 5 When the copy job is complete, an **Amazon S3** event invokes the **Lambda** job tracker function.
- 6 The **Lambda** job tracker function verifies the copy job is complete. A **Lambda** query function is then invoked for **Amazon Athena**.
- 7 The **Lambda** function responsible for **Athena** queries submits a query based on the user's specifications, such as "Anonymous Access."
- 8 **Athena** saves the query results to the **Amazon S3** solution bucket.
- 9 The **Lambda** query tracker function publishes a message to **Amazon Simple Notification Service** (Amazon SNS) indicating that the **Athena** query has completed, along with the location of the query results in a CSV format.
- 10 The **Amazon SNS** topic sends the message from the **Lambda** query tracker through email to the user.

