**Jimdo Data Flow**

This Architecture comprises of three steps

1. Send data from Kinesis Data Streams to Kinesis Data Firehose using the Kinesis Data Firehose APIs

For Auto-scaling and scalability. A Workflow is created as follows:

1. Metrics flow from the Kinesis data stream into CloudWatch (bytes/second, records/second).
2. Two CloudWatch alarms, scale-up and scale-down, evaluate those metrics and decide when to scale.
3. When one of these scaling alarms triggers, it sends a message to the scaling SNS topic.
4. The scaling Lambda function processes the SNS message:
   1. The function scales the data stream up or down using [UpdateShardCount](https://docs.aws.amazon.com/kinesis/latest/APIReference/API_UpdateShardCount.html" \t "_blank):
      1. Scale-up events double the number of shards in the stream
      2. Scale-down events halve the number of shards in the stream
   2. The function updates the metric math on the scale-up and scale-down alarms to reflect the new shard count.
5. The Kinesis Data Firehose APIs to create a delivery stream in one AWS account with an Amazon S3 destination in a different account.
6. The data migration process from an Amazon Simple Storage Service (Amazon S3) bucket to an Amazon Redshift cluster by using AWS Glue.

The Amazon Redshift cluster spans a single Availability Zone. (This architecture is appropriate because AWS Lambda, AWS Glue, and Amazon Athena are serverless.) For high availability, cluster snapshots are taken at a regular frequency.

Diagram

Description automatically generated