

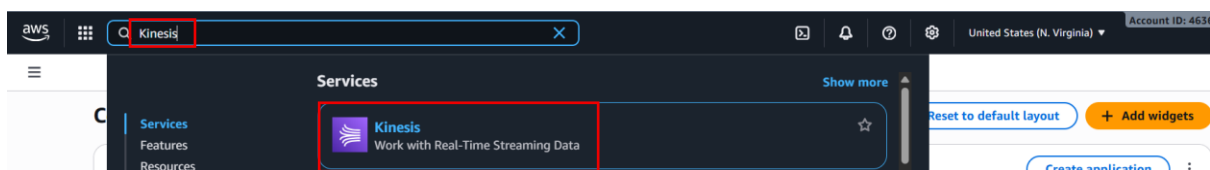
# Creating a Data Stream

## To Begin with the Lab

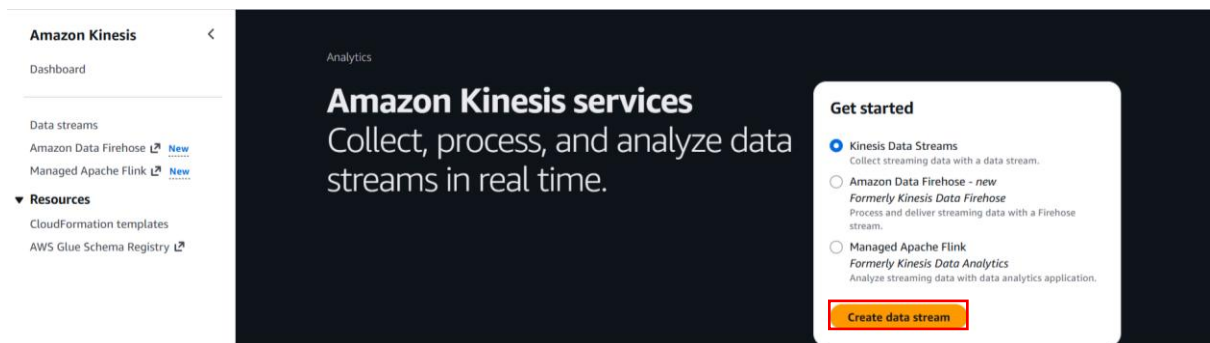
### Summary of the Lab

This lab explains how to create an Amazon Kinesis Data Stream. You log in to the AWS Console, navigate to Kinesis, and select **Create data stream**. Provide a stream name, choose the **Provisioned** capacity mode, and specify the number of shards (e.g., 2). Finally, review your settings and click **Create data stream** to complete setup.

- Log in to your AWS account.
- In the **search bar**, type **Kinesis** and select **Amazon Kinesis**.



- In the Kinesis dashboard, click **Create data stream**.



- Enter a **Stream name** (e.g., my-first-data-stream).
- Under **Capacity mode**, choose one of the following:
  - **Provisioned** – manually specify shards.
  - **On-demand** – AWS scales automatically.(For this lab, choose **Provisioned**.)

A screenshot of the 'Data stream configuration' form in the AWS Console. The form has two main sections. The first section, 'Data stream configuration', contains a text input field for 'Data stream name' with the value 'myfirstdatastream' entered. Below the input field, there is a note: 'Acceptable characters are uppercase and lowercase letters, numbers, underscores, hyphens and periods.' The second section, 'Data stream capacity', contains a 'Capacity mode' section with two radio buttons: 'On-demand' and 'Provisioned'. The 'Provisioned' radio button is selected and highlighted with a red box. Below the radio buttons, there is a note: 'Use this mode when you can reliably estimate throughput requirements of your data stream. With provisioned mode, your data stream's capacity is fixed.'

- Enter the **number of shards** (e.g., 2).
  - Each shard can handle up to 1MB/sec write and 2MB/sec read.

**Data stream capacity** Info

**Capacity mode**

☐ On-demand

Use this mode when your data stream's throughput requirements are unpredictable and variable. With on-demand mode, your data stream's capacity scales automatically.

☒ Provisioned

Use provisioned mode when you can reliably estimate throughput requirements of your data stream. With provisioned mode, your data stream's capacity is fixed.

**Provisioned shards**

The total capacity of a stream is the sum of the capacities of its shards. Enter number of provisioned shards to see total data stream capacity.

2

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[Shard estimator](#)

Minimum: 1, Maximum available: 20000, Account quota limit: 20000. [Request shard quota increase](#)

**Total data stream capacity**

Shard capacity is determined by the number of provisioned shards. Each shard ingests up to 1 MiB/second and 1,000 records/second and emits up to 2 MiB/second. If writes and reads exceed capacity, the application will receive throttles.

**Write capacity**

Maximum  
2 MiB/second and 2,000 records/second

**Read capacity**

Maximum  
4 MiB/second

ⓘ Provisioned mode has a fixed-throughput pricing model. See [Kinesis pricing for Provisioned mode](#).

- Review the settings and click **Create data stream**.

**Data stream settings**

You can edit the settings after the data stream has been created and is in the active status.

Setting	Value	Editable after creation
Capacity mode	Provisioned	✔ Yes
Provisioned shards	2	✔ Yes
Data retention period	1 day	✔ Yes
Server-side encryption	Disabled	✔ Yes
Monitoring enhanced metrics	Disabled	✔ Yes
Data stream sharing policy	No policy	✔ Yes

**Tags - optional** Info

You can add tags to organize your AWS resources, track costs, and control access.

No tags associated with the Kinesis Data Stream.

[Add new tag](#)

You can add up to 50 more tags.

Cancel

Create data stream