

**Data to Dashboards**

Data to Dashboard - Real-time Data Processing and Analysis

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Ingesting Real-time Data Streams

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Run Studio Notebook

► Deliver Processed Data using Amazon Data Firehose

► Visualize Real-time data using Amazon QuickSight

Conclusion & Next Steps

▼ AWS account access

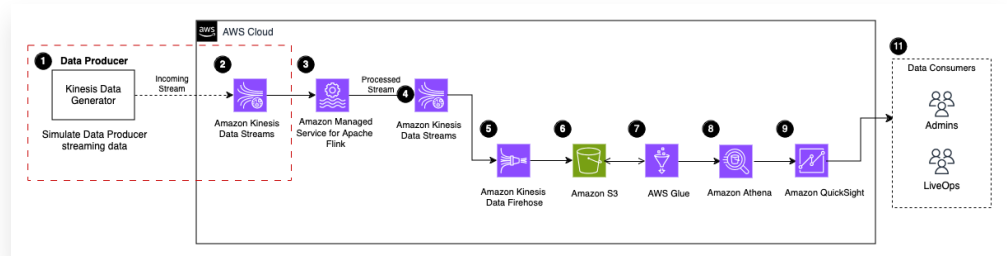
[Open AWS console \(us-east-1\)](#) [Get AWS CLI credentials](#)

Exit event

[Event dashboard](#) > Ingesting Real-time Data Streams

Ingesting Real-time Data Streams

Overview



In the gaming industry, real-time data streams can originate from various sources, such as player activities, game events, and server logs. For example, data producers could include gaming servers, mobile devices, or consoles that generate continuous streams of data related to player actions, game performance, and user interactions.

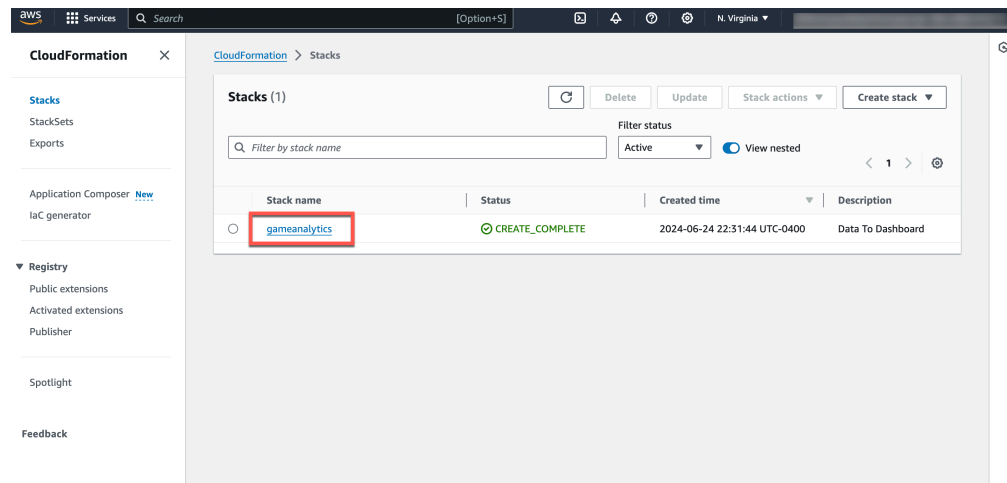
These data streams need to be ingested and processed in real-time to enable features like live leaderboards, personalized recommendations, and real-time game analytics. By capturing and analyzing data as it's generated, gaming companies can gain valuable insights, enhance user experiences, and make informed decisions.

In this workshop, we will use a Kinesis Data Generator to simulate streaming data, mimicking real-world scenarios where data is continuously generated from multiple sources. Amazon Kinesis Data Streams, a serverless streaming data service that makes it easy to capture, process, and store data streams at any scale, will be used to ingest the incoming data stream.

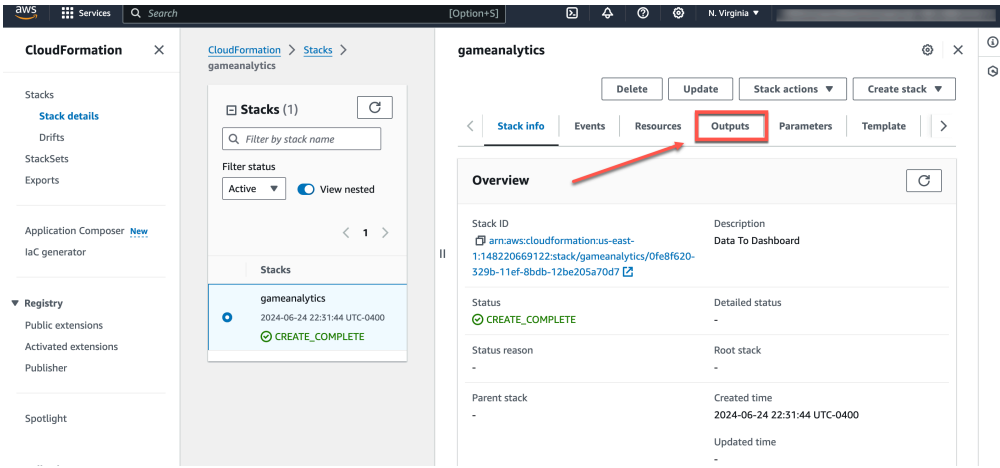
Connect to Kinesis Data Generator (KDG)

As part of an AWS event, your test account comes with a user precreated with access to KDG.

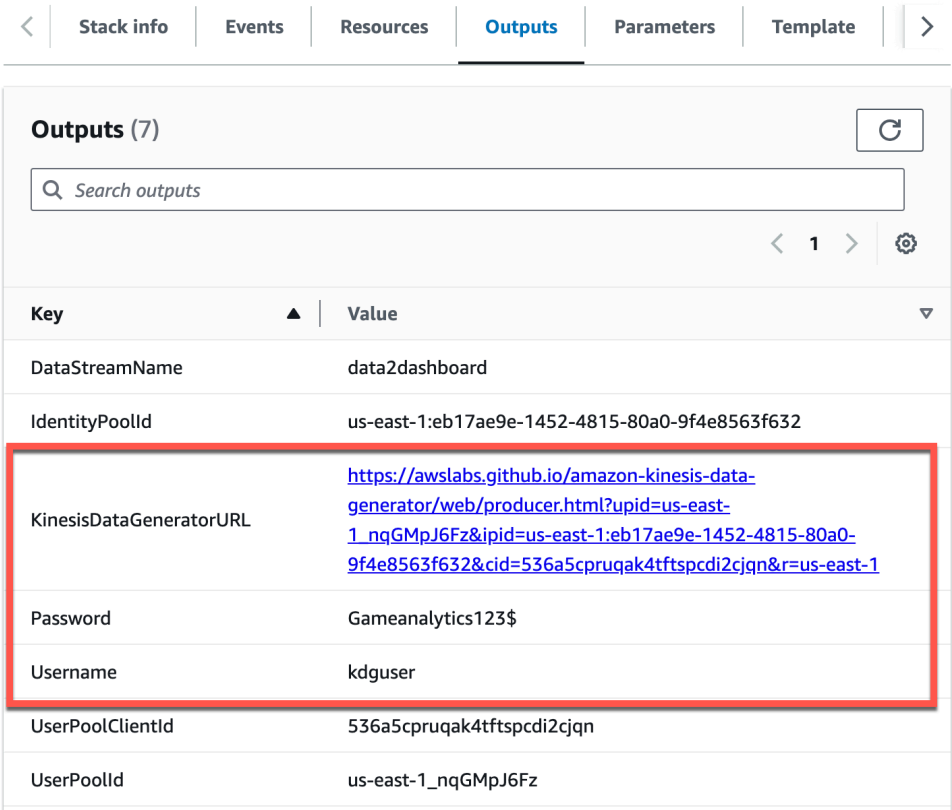
1. Navigate to [CloudFormation console](#) and click on gameanalytics stack.



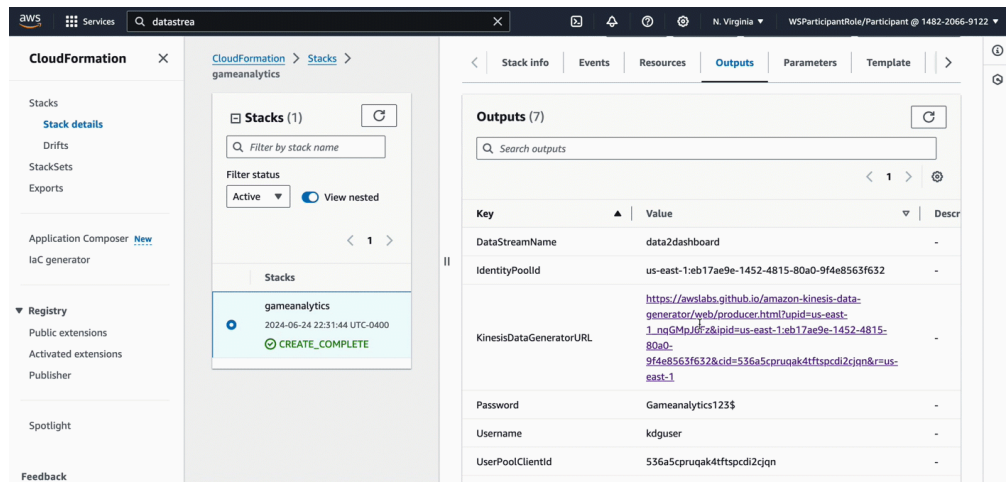
2. Click on Outputs tab.



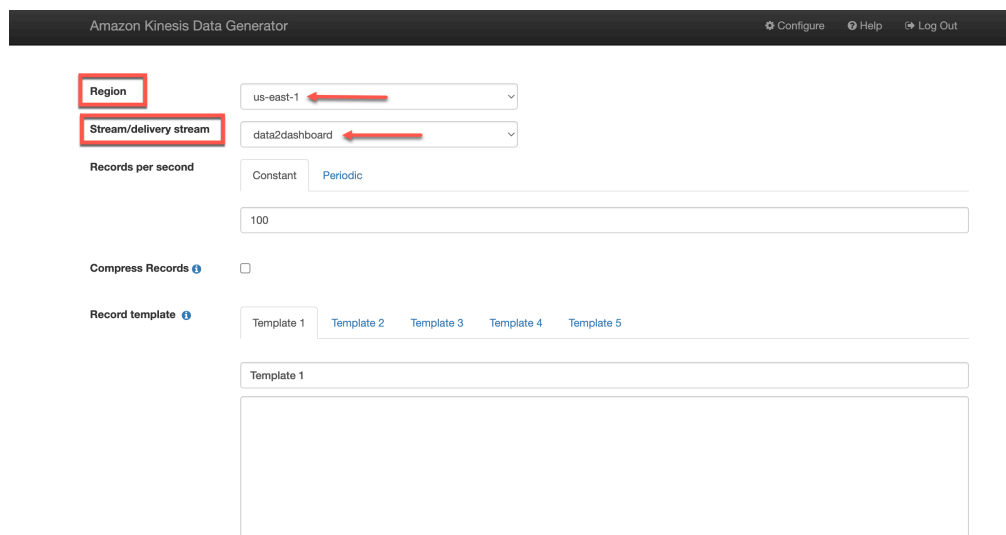
3. Click on the Kinesis Data Generator (KDG) url and use the provided Username and Password to login.



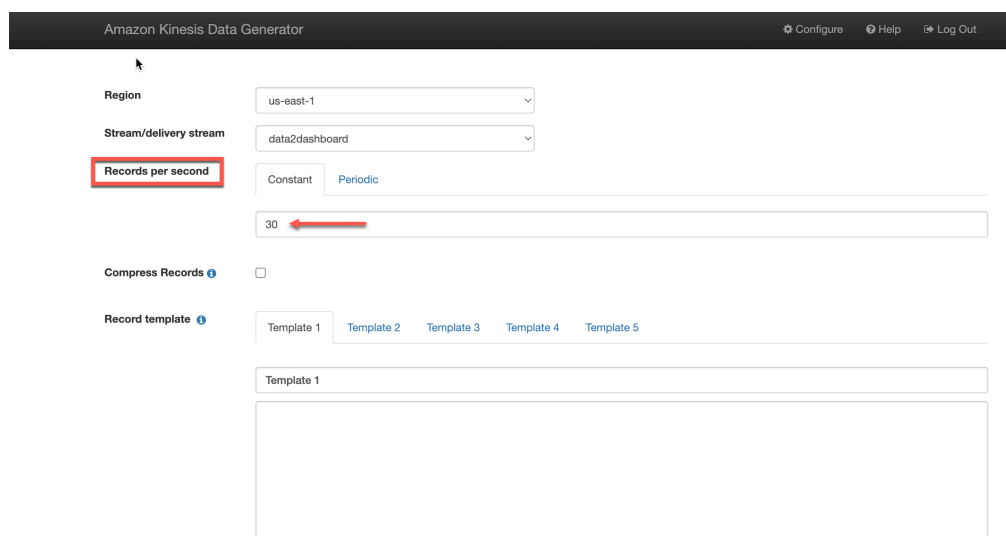
4. Login to KDG.



5. Change the region to **us-east-1** and **Stream/delivery stream** will be auto populated with precreated Kinesis Data Streams called **data2dashboard**



6. Update **Records per second** to 30.



7. Update **Template 1** with provided [Sample Group of Greats game data Template](#) ↓

Amazon Kinesis Data Generator

ConfigureHelpLog Out

Record template ⓘ

Template 1Template 2Template 3Template 4Template 5

Template 1

```
{  "gameId":123,  "creationTime":{"date.utc("YYYY-MM-DDTHH:mm:ss")"},  "t1_playerId":{"random.number({"min":1,"max":15})},  "t2_playerId":{"random.number({"min":6,"max":10})},  "t1_kills": {"random.number({"min":0,"max":20})},  "t1_death": {"random.number({"min":0,"max":20})},  "t2_kills": {"random.number({"min":0,"max":20})},  "t2_death": {"random.number({"min":0,"max":20})},  "t1_towerKills":{"random.number({"min":0,"max":15})},  "t1_inhibitorKills":{"random.number({"min":0,"max":15})},  "t1_baronKills":{"random.number({"min":0,"max":15})},  "t1_dragonKills":{"random.number({"min":0,"max":15})},  "t1_riftHeraldKills":{"random.number({"min":0,"max":15})},  "t1_ban":{"random.number({"min":1,"max":2})},  "t2_towerKills":{"random.number({"min":0,"max":15})},  "t2_inhibitorKills":{"random.number({"min":0,"max":15})},  "t2_baronKills":{"random.number({"min":0,"max":15})},  "t2_dragonKills":{"random.number({"min":0,"max":15})},  "t2_riftHeraldKills":{"random.number({"min":0,"max":15})},  "t2_ban":{"random.number({"min":1,"max":2})}}
```

Send dataTest template

Sample Group of Greats game data template

8. Click on **Send data** button to start streaming sample game data.

Amazon Kinesis Data Generator

ConfigureHelpLog Out

Record template ⓘ

Template 1Template 2Template 3Template 4Template 5

Template 1

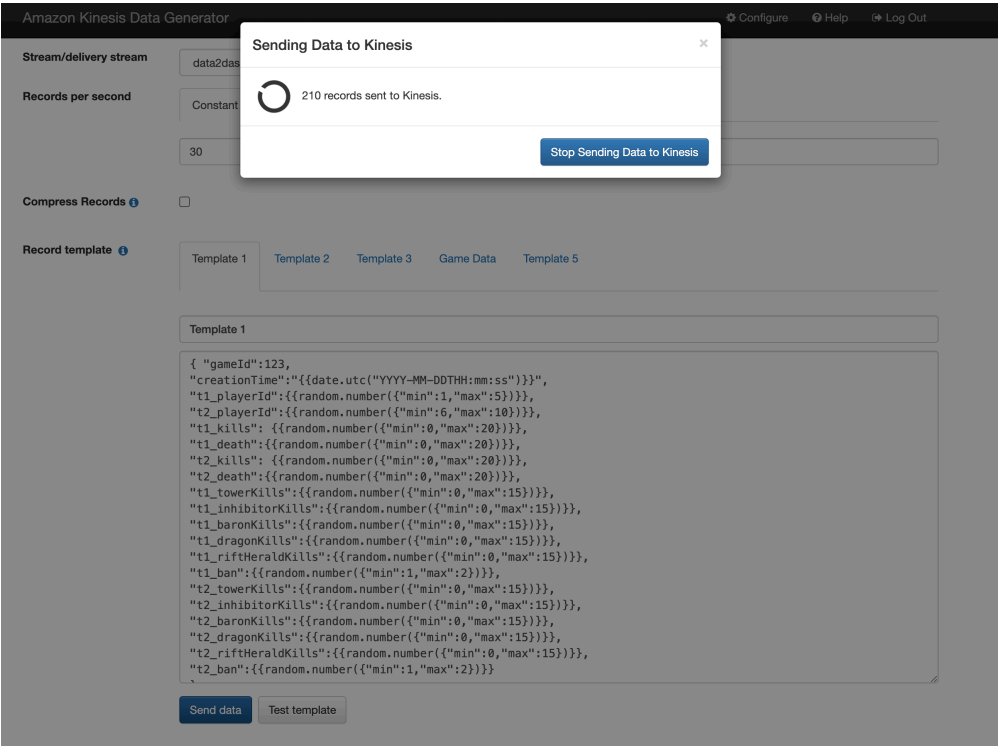
```
{  "gameId":123,  "creationTime":{"date.utc("YYYY-MM-DDTHH:mm:ss")"},  "t1_playerId":{"random.number({"min":1,"max":15})},  "t2_playerId":{"random.number({"min":6,"max":10})},  "t1_kills": {"random.number({"min":0,"max":20})},  "t1_death": {"random.number({"min":0,"max":20})},  "t2_kills": {"random.number({"min":0,"max":20})},  "t2_death": {"random.number({"min":0,"max":20})},  "t1_towerKills":{"random.number({"min":0,"max":15})},  "t1_inhibitorKills":{"random.number({"min":0,"max":15})},  "t1_baronKills":{"random.number({"min":0,"max":15})},  "t1_dragonKills":{"random.number({"min":0,"max":15})},  "t1_riftHeraldKills":{"random.number({"min":0,"max":15})},  "t1_ban":{"random.number({"min":1,"max":2})},  "t2_towerKills":{"random.number({"min":0,"max":15})},  "t2_inhibitorKills":{"random.number({"min":0,"max":15})},  "t2_baronKills":{"random.number({"min":0,"max":15})},  "t2_dragonKills":{"random.number({"min":0,"max":15})},  "t2_riftHeraldKills":{"random.number({"min":0,"max":15})},  "t2_ban":{"random.number({"min":1,"max":2})}}
```

Send dataTest template

9. You will see a confirmation for sending data to Kinesis.

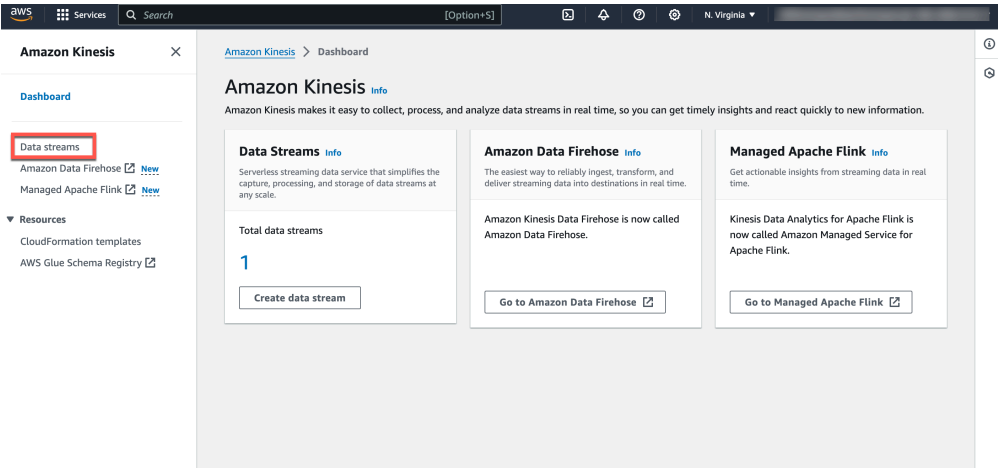
⚠ Important

Don't close this browser during the data streaming process.

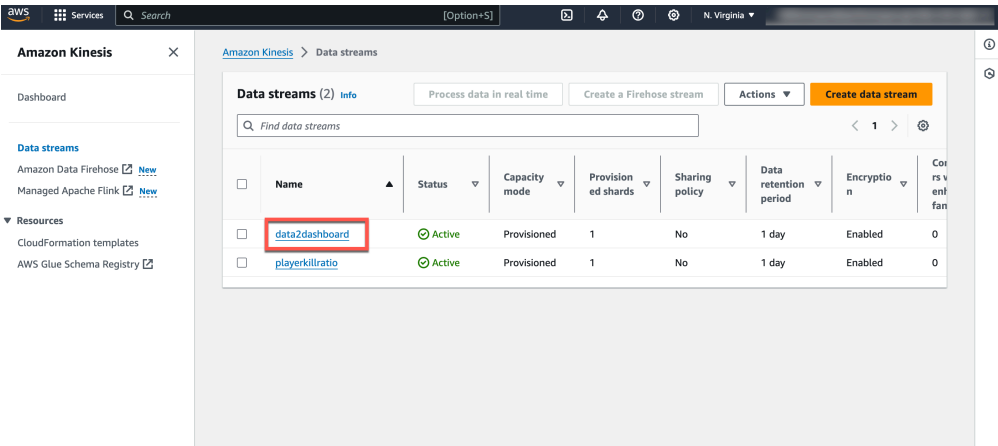


View Sample Real-time data using Amazon Kinesis Data streams

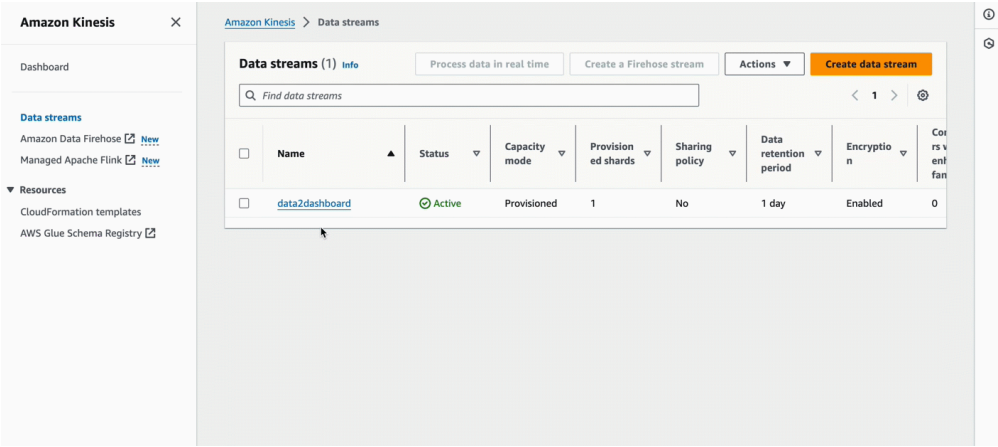
1. Navigate to [Amazon Kinesis](#) and click on **Data streams**.



2. You should see **data2dashboard** Data stream already created for you. Click on it.



3. Navigate to **Data viewer** tab and select a shard to view sample data being ingested into data2dashboard stream.It will take a couple of minutes to stream the records into the Kinesis shard.



Conclusion

You have learned how to use KDG and sample json template to mimic real-time data stream generated by data producers like gaming servers, mobile devices, or game consoles and ingest that into Kinesis Data streams. With this we can move on to next module.

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