

Kinesis Must do task

Installed a kinesis agent to act as producer in the ec2 instance to put the access log into the kinesis stream and configure a lambda function to act as consumer to retrieve the records from the kinesis stream.

Installing the kinesis agent in the ec2 instance.

```
[ec2-user@ip-172-31-36-44 ~]$ sudo yum install -y aws-kinesis-agent
Loaded plugins: extras suggestions, langpacks, priorities, update-motd
Resolving Dependencies
--> Running transaction check
--> Package aws-kinesis-agent.noarch 0:2.0.8-1.amzn2 will be installed
--> Processing Dependency: java-1.8.0 for package: aws-kinesis-agent-2.0.8-1.amzn2.noarch
--> Running transaction check
--> Package java-1.8.0-openjdk.x86_64 1:1.8.0.362.b08-1.amzn2.0.1 will be installed
--> Processing Dependency: java-1.8.0-openjdk-headless(x86-64) = 1:1.8.0.362.b08-1.amzn2.0.1 for package: 1:java-1.8.0-openjdk-1.8.0.362.b08-1.amzn2.0.1.x86_64
--> Processing Dependency: xorg-x11-fonts-Type1 for package: 1:java-1.8.0-openjdk-1.8.0.362.b08-1.amzn2.0.1.x86_64
--> Processing Dependency: libjvm.so(SUNWprivate.1.1) (64bit) for package: 1:java-1.8.0-openjdk-1.8.0.362.b08-1.amzn2.0.1.x86_64
--> Processing Dependency: libjava.so(SUNWprivate.1.1) (64bit) for package: 1:java-1.8.0-openjdk-1.8.0.362.b08-1.amzn2.0.1.x86_64
--> Processing Dependency: libasound.so.2(ALSA 0.9.0rc4) (64bit) for package: 1:java-1.8.0-openjdk-1.8.0.362.b08-1.amzn2.0.1.x86_64
--> Processing Dependency: libasound.so.2(ALSA 0.9) (64bit) for package: 1:java-1.8.0-openjdk-1.8.0.362.b08-1.amzn2.0.1.x86_64
--> Processing Dependency: libXcomposite(x86-64) for package: 1:java-1.8.0-openjdk-1.8.0.362.b08-1.amzn2.0.1.x86_64
--> Processing Dependency: gtk2(x86-64) for package: 1:java-1.8.0-openjdk-1.8.0.362.b08-1.amzn2.0.1.x86_64
--> Processing Dependency: fontconfig(x86-64) for package: 1:java-1.8.0-openjdk-1.8.0.362.b08-1.amzn2.0.1.x86_64
--> Processing Dependency: libjvm.so() (64bit) for package: 1:java-1.8.0-openjdk-1.8.0.362.b08-1.amzn2.0.1.x86_64
--> Processing Dependency: libjava.so() (64bit) for package: 1:java-1.8.0-openjdk-1.8.0.362.b08-1.amzn2.0.1.x86_64
--> Processing Dependency: libgif.so.4() (64bit) for package: 1:java-1.8.0-openjdk-1.8.0.362.b08-1.amzn2.0.1.x86_64
--> Processing Dependency: libasound.so.2() (64bit) for package: 1:java-1.8.0-openjdk-1.8.0.362.b08-1.amzn2.0.1.x86_64
--> Processing Dependency: libXtst.so.6() (64bit) for package: 1:java-1.8.0-openjdk-1.8.0.362.b08-1.amzn2.0.1.x86_64
--> Processing Dependency: libXrender.so.1() (64bit) for package: 1:java-1.8.0-openjdk-1.8.0.362.b08-1.amzn2.0.1.x86_64
--> Processing Dependency: libXi.so.6() (64bit) for package: 1:java-1.8.0-openjdk-1.8.0.362.b08-1.amzn2.0.1.x86_64
--> Processing Dependency: libXext.so.6() (64bit) for package: 1:java-1.8.0-openjdk-1.8.0.362.b08-1.amzn2.0.1.x86_64
--> Processing Dependency: libX11.so.6() (64bit) for package: 1:java-1.8.0-openjdk-1.8.0.362.b08-1.amzn2.0.1.x86_64
```

Starting the services of the kinesis agent

```
[root@ip-172-31-36-44 ec2-user]# service aws-kinesis-agent start
Starting aws-kinesis-agent (via systemctl): [ OK ]
[root@ip-172-31-36-44 ec2-user]# chkconfig aws-kinesis-agent on
[root@ip-172-31-36-44 ec2-user]# service aws-kinesis-agent status
● aws-kinesis-agent.service - LSB: Daemon for Amazon Kinesis Agent.
   Loaded: loaded (/etc/rc.d/init.d/aws-kinesis-agent; bad; vendor preset: disabled)
   Active: active (running) since Mon 2023-03-06 04:54:19 UTC; 30s ago
     Docs: man:systemd-sysv-generator(8)
   CGroup: /system.slice/aws-kinesis-agent.service
           └─4852 runuser aws-kinesis-agent-user -s /bin/sh -c /usr/bin/start-aws-kinesis-agent
             └─4854 /usr/lib/jvm/jre/bin/java -server -Xms32m -Xmx512m -Dlog4j.configurationFile=file:///etc/aws-ki
Mar 06 04:54:17 ip-172-31-36-44.ap-south-1.compute.internal systemd[1]: Starting LSB: Daemon for Amazon Kinesis Ag
Mar 06 04:54:17 ip-172-31-36-44.ap-south-1.compute.internal runuser[4852]: pam_unix(runuser:session): session open
Mar 06 04:54:19 ip-172-31-36-44.ap-south-1.compute.internal aws-kinesis-agent[4846]: [34B blob data]
Mar 06 04:54:19 ip-172-31-36-44.ap-south-1.compute.internal systemd[1]: Started LSB: Daemon for Amazon Kinesis Ag
[root@ip-172-31-36-44 ec2-user]#
```

Installing the httpd package in the ec2 instance.

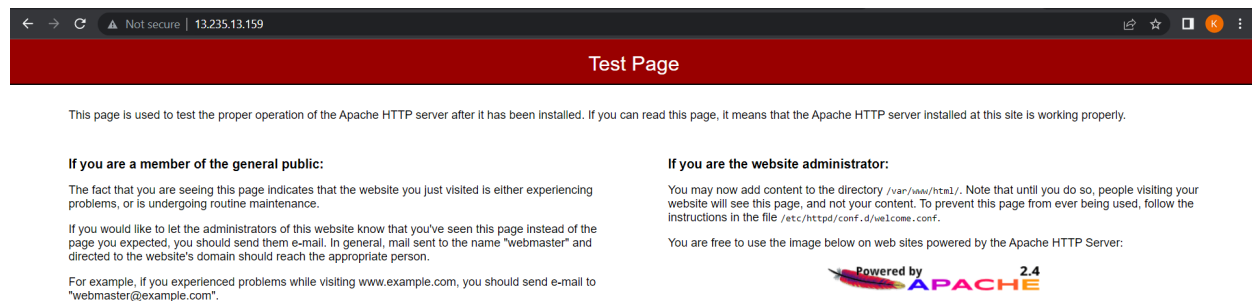
```
[root@ip-172-31-36-44 ec2-user]# yum install httpd -y
Loaded plugins: extras suggestions, langpacks, priorities, update-motd
amzn2-core
Resolving Dependencies
--> Running transaction check
--> Package httpd.x86_64 0:2.4.55-1.amzn2 will be installed
--> Processing Dependency: httpd-tools = 2.4.55-1.amzn2 for package: httpd-2.4.55-1.amzn2.x86_64
--> Processing Dependency: httpd-filesystem = 2.4.55-1.amzn2 for package: httpd-2.4.55-1.amzn2.x86_64
--> Processing Dependency: system-logos-httpd for package: httpd-2.4.55-1.amzn2.x86_64
--> Processing Dependency: mod_http2 for package: httpd-2.4.55-1.amzn2.x86_64
--> Processing Dependency: httpd-filesystem for package: httpd-2.4.55-1.amzn2.x86_64
--> Processing Dependency: /etc/mime.types for package: httpd-2.4.55-1.amzn2.x86_64
--> Processing Dependency: libaprutil-1.so.0() (64bit) for package: httpd-2.4.55-1.amzn2.x86_64
--> Processing Dependency: libapr-1.so.0() (64bit) for package: httpd-2.4.55-1.amzn2.x86_64
--> Running transaction check
```

Starting the services of the httpd webserver.

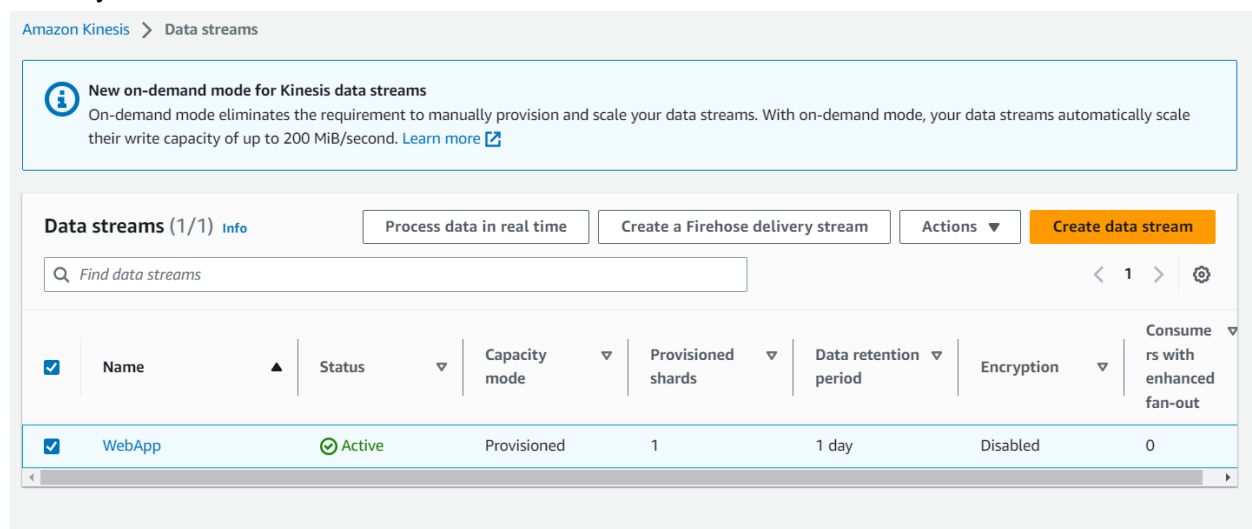
```
[root@ip-172-31-36-44 ec2-user]# service httpd start
Redirecting to /bin/systemctl start httpd.service
[root@ip-172-31-36-44 ec2-user]# service httpd status
Redirecting to /bin/systemctl status httpd.service
● httpd.service - The Apache HTTP Server
   Loaded: loaded (/usr/lib/systemd/system/httpd.service; disabled; vendor preset: disabled)
   Active: active (running) since Mon 2023-03-06 04:57:17 UTC; 6s ago
     Docs: man:httpd.service(8)
  Main PID: 6892 (httpd)
    Status: "Processing requests..."
    CGroup: /system.slice/httpd.service
            └─6892 /usr/sbin/httpd -DFOREGROUND
              └─6893 /usr/sbin/httpd -DFOREGROUND
                └─6894 /usr/sbin/httpd -DFOREGROUND
                  └─6895 /usr/sbin/httpd -DFOREGROUND
                    └─6896 /usr/sbin/httpd -DFOREGROUND
                      └─6897 /usr/sbin/httpd -DFOREGROUND

Mar 06 04:57:17 ip-172-31-36-44.ap-south-1.compute.internal systemd[1]: Starting The Apache HTTP Server...
Mar 06 04:57:17 ip-172-31-36-44.ap-south-1.compute.internal systemd[1]: Started The Apache HTTP Server.
[root@ip-172-31-36-44 ec2-user]#
```

Accessing the default web page of the httpd web server.



Created the kinesis data stream with only one shard the provisioned mode which has the maximum write capacity is 1 MB/sec & read capacity is 2 MB/sec for each shard, retention time of 1 day.



Configured the configuration file of the kinesis agent to put the records of the httpd access log in the kinesis stream.

```
[root@ip-172-31-36-44 log]# cat /etc/aws-kinesis/agent.json
{
  "cloudwatch.emitMetrics": true,
  "kinesis.endpoint": "kinesis.ap-south-1.amazonaws.com",
  "firehose.endpoint": "",

  "flows": [
    {
      "filePattern": "/var/log/httpd/access_log",
      "kinesisStream": "WebApp",
      "partitionKeyOption": "RANDOM"
    }
  ]
}
```

Agent successfully parsed the 4 records from the access log of the httpd.

```
2023-03-06 05:47:06.165+0000 (Agent.MetricsEmitter RUNNING) com.amazon.kinesis.streaming.agent.Agent [INFO] Agent: Progress: 4 records parsed (4910 bytes), and 4 records s
ent successfully to destinations. Uptime: 150050ms
2023-03-06 05:47:36.162+0000 (FileTailer[kinesis:WebApp:/var/log/httpd/access_log].MetricsEmitter RUNNING) com.amazon.kinesis.streaming.agent.tailing.FileTailer [INFO] Fil
eTailer[kinesis:WebApp:/var/log/httpd/access_log]: Tailer Progress: Tailer has parsed 4 records (4910 bytes), transformed 0 records, skipped 0 records, and has successfully
sent 4 records to destination.
2023-03-06 05:47:36.164+0000 (Agent.MetricsEmitter RUNNING) com.amazon.kinesis.streaming.agent.Agent [INFO] Agent: Progress: 4 records parsed (4910 bytes), and 4 records s
ent successfully to destinations. Uptime: 180048ms
[root@ip-172-31-36-44 log]# cat /var/log/aws-kinesis-agent/aws-kinesis-agent.log | tail -50
```

Logs of the httpd web server.

```
[root@ip-172-31-36-44 log]# cat /var/log/httpd/access_log | tail -5
49.205.138.10 - - [06/Mar/2023:05:45:29 +0000] "GET / HTTP/1.1" 403 3630 "-" "Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/110.0.
0.0 Safari/537.36"
49.205.138.10 - - [06/Mar/2023:05:45:29 +0000] "GET / HTTP/1.1" 403 3630 "-" "Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/110.0.
0.0 Safari/537.36"
49.205.138.10 - - [06/Mar/2023:05:45:30 +0000] "GET / HTTP/1.1" 403 3630 "-" "Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/110.0.
0.0 Safari/537.36"
49.205.138.10 - - [06/Mar/2023:05:45:31 +0000] "GET / HTTP/1.1" 403 3630 "-" "Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/110.0.
0.0 Safari/537.36"
104.248.8.32 - - [06/Mar/2023:05:49:40 +0000] "GET / HTTP/1.1" 403 3630 "-" "Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/70.0.35
38.77 Safari/537.36"
[root@ip-172-31-36-44 log]#
```

Finally the agent successfully put the records in the kinesis stream.

Applications

Monitoring

Configuration

Data viewer

Enhanced fan-out (0)

Shard

Starting position [Info](#)

shardId-000000000000

Trim horizon

Get records

Records (4)

Next records

Shard: shardId-000000000000

Starting position: Trim horizon

Q

Find records

< 1 > ⓘ

Partition key	Data	Approximate arrival timestamp	Sequence number
246341.49989...	49.205.138.10 -- [06/Mar/2023:05:45:29 ...	March 06, 2023 at 11:16:30 GMT+5:30	49638616064219513856052173336788...
896157.02710...	49.205.138.10 -- [06/Mar/2023:05:45:29 ...	March 06, 2023 at 11:16:30 GMT+5:30	49638616064219513856052173336790...
832159.41524...	49.205.138.10 -- [06/Mar/2023:05:45:30 ...	March 06, 2023 at 11:16:30 GMT+5:30	49638616064219513856052173336791...
524437.82184...	49.205.138.10 -- [06/Mar/2023:05:45:31 ...	March 06, 2023 at 11:16:30 GMT+5:30	49638616064219513856052173336792...

Created a lambda function to retrieve the records from the kinesis stream

[Lambda](#) > [Functions](#) > Create function

Create function [Info](#)

AWS Serverless Application Repository applications have moved to [Create application](#).

☒ **Author from scratch**
Start with a simple Hello World example.

☐ **Use a blueprint**
Build a Lambda application from sample code and configuration presets for common use cases.

☐ **Container image**
Select a container image to deploy for your function.

Basic information

Function name
Enter a name that describes the purpose of your function.

Use only letters, numbers, hyphens, or underscores with no spaces.

Runtime [Info](#)
Choose the language to use to write your function. Note that the console code editor supports only Node.js, Python, and Ruby.

Python 3.7

Architecture [Info](#)
Choose the instruction set architecture you want for your function code.

☒ x86_64

[Code](#) | [Test](#) | [Monitor](#) | [Configuration](#) | [Aliases](#) | [Versions](#)

Code source [Info](#)

File Edit Find View Go Tools Window

Test

Deploy

Go to Anything (Ctrl-P)

Environment

- Kinesis-Python-Con:
 - lambda_function.py

lambda_function ×

Execution results ×

```
1 import json
2 import boto3
3
4 client = boto3.client('kinesis')
5
6 def lambda_handler(event, context):
7     response = client.get_shard_iterator(
8         StreamName = 'WebApp',
9         ShardId = 'shardId-000000000000',
10        ShardIteratorType = 'TRIM_HORIZON'
11    )
12    ShardIterator = response['ShardIterator']
13    response = client.get_records(
14        ShardIterator=ShardIterator,
15        Limit=4)
16    print(response)
17    return {
18        'statusCode': 200,
19        'body': json.dumps("hello")
20    }
21
```

►	2023-03-06T12:29:38.432+05:30	INIT_START Runtime Version: python:3.7.v22 Runtime Version ARN: arn:aws:lambda:ap-south-1::runtime:c20bdb59d3d6e84cc4b436e730...
►	2023-03-06T12:29:38.830+05:30	START RequestId: eb91b7cd-fdc8-40a9-87a9-9f7929171ada Version: \$LATEST
▼	2023-03-06T12:29:39.083+05:30	<div> <div>{'Records': [{'SequenceNumber': '49638616064219513856052173336788897145004473379394158594', 'ApproximateArrivalTimestamp': da...</div> <div>Copy</div> </div> <pre>{'Records': [{'SequenceNumber': '49638616064219513856052173336788897145004473379394158594', 'ApproximateArrivalTimestamp': datetime.datetime(2023, 3, 6, 5, 46, 30, 508000, tzinfo=tzlocal()), 'Data': 'b'49.205.138.10 - - [06/Mar/2023:05:45:29 +0000] "GET / HTTP/1.1" 403 3630 "-" "Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/110.0.0.0 Safari/537.36"\n', 'PartitionKey': '246341.49989524178'}, {'SequenceNumber': '49638616064219513856052173336790106070824088008568864770', 'ApproximateArrivalTimestamp': datetime.datetime(2023, 3, 6, 5, 46, 30, 508000, tzinfo=tzlocal()), 'Data': 'b'49.205.138.10 - - [06/Mar/2023:05:45:29 +0000] "GET / HTTP/1.1" 403 3630 "-" "Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/110.0.0.0 Safari/537.36"\n', 'PartitionKey': '896157.0271089129'}, {'SequenceNumber': '49638616064219513856052173336791314996643702637743570946', 'ApproximateArrivalTimestamp': datetime.datetime(2023, 3, 6, 5, 46, 30, 508000, tzinfo=tzlocal()), 'Data': 'b'49.205.138.10 - - [06/Mar/2023:05:45:30 +0000] "GET / HTTP/1.1" 403 3630 "-" "Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/110.0.0.0 Safari/537.36"\n', 'PartitionKey': '832159.4152464066'}, {'SequenceNumber': '49638616064219513856052173336792523922463317266918277122', 'ApproximateArrivalTimestamp': datetime.datetime(2023, 3, 6, 5, 46, 30, 508000, tzinfo=tzlocal()), 'Data': 'b'49.205.138.10 - - [06/Mar/2023:05:45:31 +0000] "GET / HTTP/1.1" 403 3630 "-" "Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/110.0.0.0 Safari/537.36"\n', 'PartitionKey': '524437.821845834'}], 'NextShardIterator': 'AAAAAFAAF6n+/RdF4nEAH7Q2mbvQknJVu6wJyZ1rZYVL7NPSVxdHttvuXJRdmbRumvdA0gLSjN383TsCsJfpcqIMttTlZgIscff2foPo8atbOe8EeyJMDZ5GkYlmtfakIEi4X33LIkht9sv+Q0hQITVCKOwEj60H1sB4exurvv+SZpHB7INGvh8bsnX3mEAsxgFTU7T2hm7ZnyvixQo3C392T5YFDqzmzpr45PDrmG4dTVGMx/6Q==', 'MillisBehindLatest': 4390000, 'ResponseMetadata': {'RequestId': 'ecc8ee91-87d3-1cc0-b0b7-7f0acada5f46', 'HTTPStatus': 200, 'HTTPHeaders': {'x-amzn-requestid': 'ecc8ee91-87d3-1cc0-b0b7-7f0acada5f46', 'x-amz-id-2': 'Dtb5019dFNI2Kwu53gM6B834D0uK7UpPRpSGnzn11dMyIImu865Xd3FsajXsrId15SLBjqwX1a0XJGNMLAd1FAZG8xlt5', 'date': 'Mon, 06 Mar 2023 06:59:39 GMT', 'content-type': 'application/x-amz-json-1.1', 'content-length': '2017', 'RetryAttempts': 0}}}</pre>
►	2023-03-06T12:29:39.105+05:30	END RequestId: eb91b7cd-fdc8-40a9-87a9-9f7929171ada

Challenges Faced

Agent unable to access the httpd log folder

```
[root@ip-172-31-36-44 ec2-user]# cat /var/log/aws-kinesis-agent/aws-kinesis-agent.log | grep httpd
2023-03-06 05:13:20.685+0000 (Agent STARTING) com.amazon.kinesis.streaming.agent.Agent [INFO] Agent: Starting tailer for file kinesis:WebApp:/var/log/httpd/access_log
java.lang.IllegalStateException: Expected the service FileTailer[kinesis:WebApp:/var/log/httpd/access_log] to be RUNNING, but the service has FAILED
Caused by: java.nio.file.AccessDeniedException: /var/log/httpd
```

So given read+write+execute permission to the users, groups and others

```
[root@ip-172-31-36-44 log]# ls -lah /var/log | grep httpd
drwx----- 2 root root 41 Mar 6 04:57 httpd
[root@ip-172-31-36-44 log]# chmod ugo+rwx /var/log/httpd
[root@ip-172-31-36-44 log]# ls -lah /var/log | grep httpd
drwxrwxrwx 2 root root 41 Mar 6 04:57 httpd
[root@ip-172-31-36-44 log]#
```

After restarting the agent service it started praising the httpd access log.

```
[root@ip-172-31-36-44 log]# service aws-kinesis-agent restart
Restarting aws-kinesis-agent (via systemctl): [ OK ]
[root@ip-172-31-36-44 log]# cat /var/log/aws-kinesis-agent/aws-kinesis-agent.log | grep httpd
2023-03-06 05:13:20.685+0000 (Agent STARTING) com.amazon.kinesis.streaming.agent.Agent [INFO] Agent: Starting tailer for file kinesis:WebApp:/var/log/httpd/access_log
java.lang.IllegalStateException: Expected the service FileTailer[kinesis:WebApp:/var/log/httpd/access_log] to be RUNNING, but the service has FAILED
Caused by: java.nio.file.AccessDeniedException: /var/log/httpd
2023-03-06 05:14:04.203+0000 (Agent STARTING) com.amazon.kinesis.streaming.agent.Agent [INFO] Agent: Starting tailer for file kinesis:WebApp:/var/log/httpd/access_log
java.lang.IllegalStateException: Expected the service FileTailer[kinesis:WebApp:/var/log/httpd/access_log] to be RUNNING, but the service has FAILED
Caused by: java.nio.file.AccessDeniedException: /var/log/httpd
2023-03-06 05:15:03.386+0000 (Agent STARTING) com.amazon.kinesis.streaming.agent.Agent [INFO] Agent: Starting tailer for file kinesis:WebApp:/var/log/httpd/access_log
java.lang.IllegalStateException: Expected the service FileTailer[kinesis:WebApp:/var/log/httpd/access_log] to be RUNNING, but the service has FAILED
Caused by: java.nio.file.AccessDeniedException: /var/log/httpd
2023-03-06 05:16:03.535+0000 (Agent STARTING) com.amazon.kinesis.streaming.agent.Agent [INFO] Agent: Starting tailer for file kinesis:WebApp:/var/log/httpd/access_log
java.lang.IllegalStateException: Expected the service FileTailer[kinesis:WebApp:/var/log/httpd/access_log] to be RUNNING, but the service has FAILED
Caused by: java.nio.file.AccessDeniedException: /var/log/httpd
2023-03-06 05:17:03.715+0000 (Agent STARTING) com.amazon.kinesis.streaming.agent.Agent [INFO] Agent: Starting tailer for file kinesis:WebApp:/var/log/httpd/access_log
2023-03-06 05:17:03.749+0000 (FileTailer[kinesis:WebApp:/var/log/httpd/access_log]) com.amazon.kinesis.streaming.agent.tailing.KinesisParser [INFO] KinesisParser[kinesis:WebApp:/var/log/httpd/access_log]: Opening /var/log/httpd/access_log for parsing.
2023-03-06 05:17:21.362+0000 (Agent STARTING) com.amazon.kinesis.streaming.agent.Agent [INFO] Agent: Starting tailer for file kinesis:WebApp:/var/log/httpd/access_log
2023-03-06 05:17:21.393+0000 (FileTailer[kinesis:WebApp:/var/log/httpd/access_log]) com.amazon.kinesis.streaming.agent.tailing.KinesisParser [INFO] KinesisParser[kinesis:WebApp:/var/log/httpd/access_log]: Opening /var/log/httpd/access_log for parsing.
[root@ip-172-31-36-44 log]#
```

Even after an agent parses the records from the access log it is unable to put the records into the stream.

```
2023-03-06 05:26:48.748+0000 (FileTailer[kinesis:WebApp:/var/log/httpd/access_log].MetricsEmitter RUNNING) com.amazon.kinesis.streaming.agent.tailing.FileTailer [INFO] FileTailer[kinesis:WebApp:/var/log/httpd/access_log]: Tailer Progress: Tailer has parsed 1 records (2809 bytes), transformed 0 records, skipped 0 records, and has successfully sent 0 records to destination.
[root@ip-172-31-36-44 log]#
2023-03-06 05:20:57.499+0000 (sender-13) com.amazon.kinesis.streaming.agent.tailing.AsyncPublisher [ERROR] AsyncPublisher[kinesis:WebApp:/var/log/httpd/access_log]: RecordBuffer[id=2,records=2,bytes=414] Retriable send error (com.amazonaws.SdkClientException: Unable to load AWS credentials from any provider in the chain: [UserDefinedCredentialsProvider: Unable to create credentials from user defined credentials provider, AgentAWSCredentialsProvider: Unable to load credentials from agent config. Missing entries: awsAccessKeyId awsSecretAccessKey, EnvironmentVariableCredentialsProvider: Unable to load AWS credentials from environment variables (AWS_ACCESS_KEY_ID (or AWS_ACCESS_KEY) and AWS_SECRET_KEY (or AWS_SECRET_ACCESS_KEY)), SystemPropertiesCredentialsProvider: Unable to load AWS credentials from Java system properties (aws.accessKeyId and aws.secretKey), com.amazonaws.auth.ContainerCredentialsProvider@2b474ede: The environment variable AWS_CONTAINER_CREDENTIALS_RELATIVE_URI is empty, com.amazonaws.auth.profile.ProfileCredentialsProvider@54e567a3: profile file cannot be null, com.amazonaws.auth.InstanceProfileCredentialsProvider@19d65e8f: The requested metadata is not found at http://169.254.169.254/latest/meta-data/iam/security-credentials/)). Will retry.
[root@ip-172-31-36-44 log]# cat /var/log/aws-kinesis-agent/aws-kinesis-agent.log
```

So created an instance profile role with the kinesis access and attached it to the instance.

[IAM](#) > [Roles](#) > [Kinesis](#)

Kinesis

Delete

Allows EC2 instances to call AWS services on your behalf.

Summary

Edit

Creation date March 06, 2023, 11:11 (UTC+05:30)	ARN arn:aws:iam::818119396514:role/Kinesis	Instance profile ARN arn:aws:iam::818119396514:instance-profile/Kinesis
Last activity 1 hour ago	Maximum session duration 1 hour	

[Permissions](#) | [Trust relationships](#) | [Tags](#) | [Access Advisor](#) | [Revoke sessions](#)

Permissions policies (1) [Info](#)

You can attach up to 10 managed policies.



Simulate

Remove

Add permissions ▼

< 1 >

<input type="checkbox"/>	Policy name	Type	Description
<input type="checkbox"/>	AmazonKinesisFullAccess	AWS managed	Provides full access to all streams vi