How to connect to NYSE Kafka cluster in PROD Env

Prerequisites:

- A VPC with 3 subnets, based on the AWS region where consumer is setting up the client:

Region	AZ IDs
US East (us-east-1)	use1-az2, use1-az4 and use1-az6

- Access to create VPC endpoints in us-east-1 or ap-east-1 regions
- Customer has provided their info to NYSE, entered their role ARN, and have Cloud Streaming Kafka username/password generated by NYSE.

Steps to Create VPC Endpoints

1. Once logged in to your AWS account (use the same role that was provided to NYSE during onboarding), navigate to Endpoints | VPC Console (amazon.com) and click on Create Endpoint button
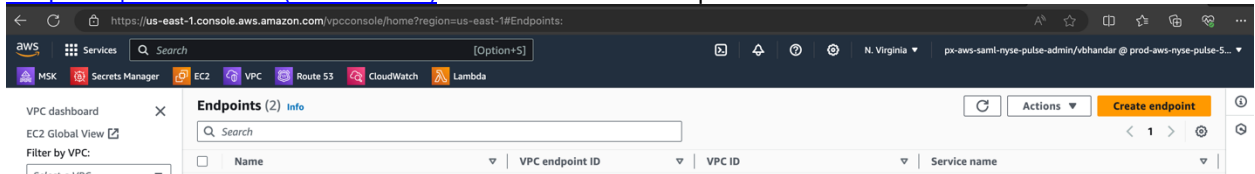
2. On Next page Click on "PrivateLink Ready partner Services" radio button and enter one of the endpoint service names depending on your AWS region, as shown below. Please note your region and Availability Zone IDs will vary depending on the region:

Region	Endpoint Service Name	Availability Zones	Name Tag	Port
US East 1 (us-east-1)	com.amazonaws.vpce.us-east-1.vpce-svc-0fb7d261249ecaed9	use1-az2, use1-az4 and use1-az6	broker.prod.use1.bqt.pulse.nyse	9094

Once appropriate Service Name is entered, click on "Verify service"

Note: When you create endpoint from ap-east-1 (Hong Kong) region, please choose "Enable Service Region endpoint" and select "us-east-1" as a region, as shown below.

3. Once Service Name is verified, pick your VPC and subnets and click on Create endpoint. This endpoint DNS name will be referred to as broker.prod.use1.bqt.pulse.nyse in step#6 below.

4. Repeat steps 2 and 3 for three more times using following service names based on the region where you are creating the endpoints. Your AWS region and Availability Zone IDs will vary depending on the region:

US East 1

Region	Endpoint Service Name	Availability Zones	Name Tag	Port
US East (us-east-1)	com.amazonaws.vpce.us-east-1.vpce-svc-065db063a68f6c80f	use1-az2	broker1.prod.use1.bqt.pulse.nyse	9094
US East (us-east-1)	com.amazonaws.vpce.us-east-1.vpce-svc-00f6fe24081f3c61f	use1-az4	broker1.prod.use1.bqt.pulse.nyse	9094
US East (us-east-1)	com.amazonaws.vpce.us-east-1.vpce-svc-0b58442c9f5ee8ba4	use1-az6	broker3.prod.use1.bqt.pulse.nyse	9094

Please note VPC endpoint DNS name for 4 will be referred to in step number below.

5. Navigate to Route 53 and create a private hosted zone named bqt.pulse.nyse and pick the appropriate VPCbased on the region in which the endpoints were created

6. Once hosted zone is created click on it and create 4 different records of type CNAME namely using vpc endpoint DNS names from Step 4:

US East 1 (us-east-1)
broker.prod.use1.bqt.pulse.nyse
broker1.prod.use1.bqt.pulse.nyse
broker2.prod.use1.bqt.pulse.nyse
broker3.prod.use1.bqt.pulse.nyse

Define simple record ✕

Record name | Info

To route traffic to a subdomain, enter the subdomain name. For example, to route traffic to blog.example.com, enter *blog*. If you leave this field blank, the default record name is the name of the domain.

> broker.prod.use1   .bqt.pulse.nyse

Keep blank to create a record for the root domain.

Record type | Info

The DNS type of the record determines the format of the value that Route 53 returns in response to DNS queries.

> CNAME – Routes traffic to another domain name and to some AWS resources ▼

Choose when routing traffic to some Elastic Beanstalk environments or to Amazon RDS database instances.

Value/Route traffic to | Info

The option that you choose determines how Route 53 responds to DNS queries. For most options, you specify where you want to route internet traffic.

> IP address or another value, depending on the record type ▼

> vpce-xxxxxxxxxxxxxxxxxx-xxxxxxxx.vpce-svc-xxxxxxxxxxxxxxxxxx.us-east-1.vpce.amazonaws.com

Enter multiple values on separate lines.

TTL (seconds) | Info

The amount of time, in seconds, that DNS resolvers and web browsers cache the settings in this record. ("TTL" means "time to live.")

> 300   (1m) (1h) (1d)

Recommended values: 60 to 172800 (two days)

Cancel   **Define simple record**

7. Send an email to Dev-NYSE-Cloud@ice.com and try a library of your choice to test kafka connectivity using broker.prod.use1.bqt.pulse.nyse:9094 as the hostname and credentials shared with you.

8. Sample code snippets for Java, Node.js and Python for data consumption are available here.

9. Detailed client specifications for kafka are available here.

For additional assistance, please contact:

TECHNICAL SUPPORT
Email: Support@nyse.com