AWS SQS & Amazon MQ

AWS SQS(simple queue service)

1 Login to AWS Console

- **Go to https://aws.amazon.com/console/ and sign in.**

2 Open Amazon SQS

- In the AWS Console, search for SQS and open Amazon Simple Queue Service.

3 Create a Queue

- Click Create queue.

4 Select Queue Type

- Choose between:
    - o Standard Queue (default; high throughput).
    - o FIFO Queue (First-In-First-Out; for message ordering).

5 Configure Queue Details

- Name: Enter a queue name.
    - o (For FIFO queues, name must end with .fifo).
- Visibility timeout: Optional (default is 30 seconds).

- Message retention period: Set how long messages are retained (default is 4 days).

6 Configure Server-Side Encryption (Optional)

- If needed, enable SSE (Server-Side Encryption):
    - o Use AWS KMS key to encrypt messages at rest.
    - o You can choose the default KMS key or your own CMK.

7 Access Policy (Optional)

- Set who can send/receive/delete messages from the queue:
    - o Basic permissions for this AWS account.
    - o Or define a custom access policy (JSON format).

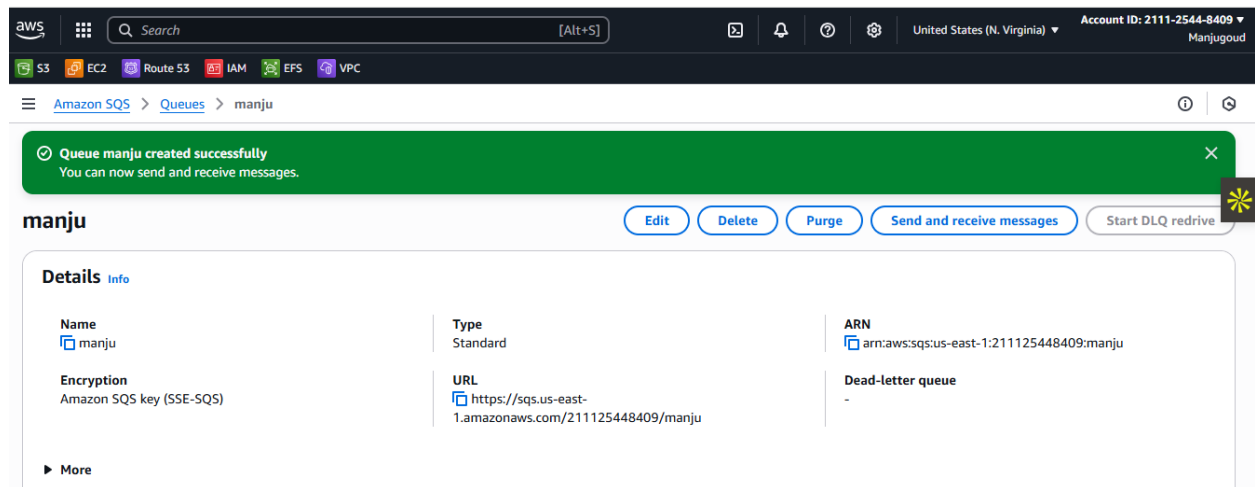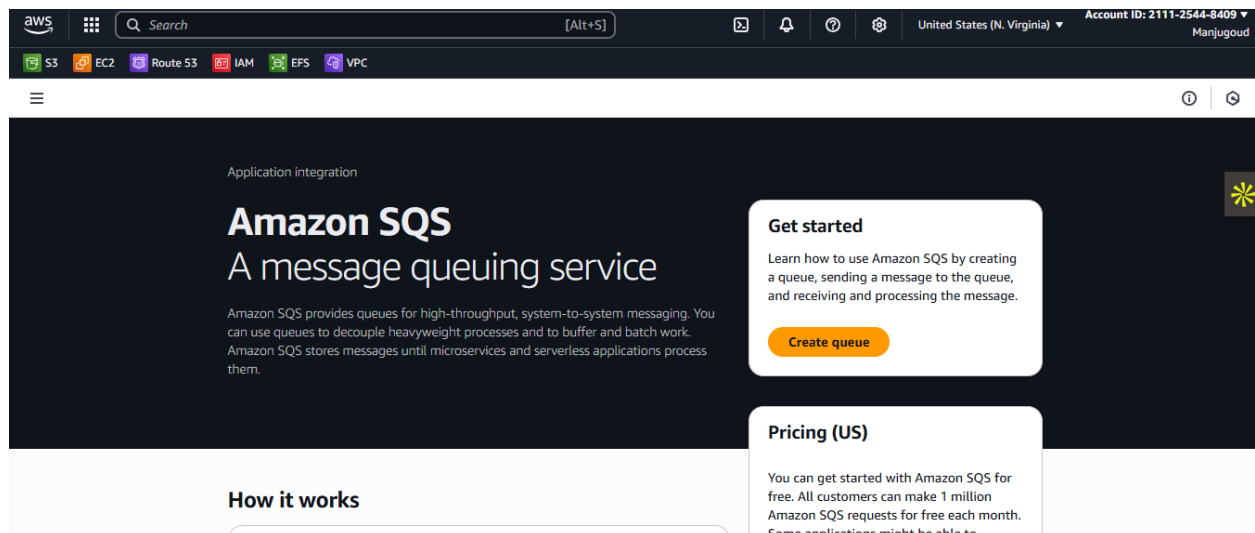## 8 Dead-Letter Queue (Optional)

- Configure a DLQ (Dead-Letter Queue) to handle failed message deliveries.

9 Review and Create

- Review all settings.
- Click Create queue.

10 Queue is Ready

- After creation:
    - You'll see the queue URL.
    - You can now send, receive, and delete messages using the AWS Console, CLI, SDK, or integrated services like Lambda.

AWS MQ(Message queue)

1 Login to AWS Console

- Go to https://aws.amazon.com/console/ and sign in.

2 Open Amazon MQ Service

- In the AWS Console, search for Amazon MQ and open it.

3 Click "Create Broker"

- Click the Create broker button to start the setup process.

4 Select Broker Engine

- Choose the message broker engine:
    - o ActiveMQ (popular and stable).
    - o RabbitMQ (lightweight and fast).

5 Configure Broker Details

- Broker name: Provide a unique name.
- Broker instance type: Choose instance size (e.g., mq.t3.micro).
- Deployment mode: Choose:
    - o Single-instance broker (simple, dev/testing).
    - o Active/standby broker (high availability) (for production).

6 Set Authentication Details

- Create broker credentials (username and password) for accessing the broker.

7 Network Configuration

- Choose a VPC and subnets where the broker will run.
- Configure security groups to control access to the broker endpoints.

8 Encryption (Optional)

- At-rest encryption: Automatically enabled using AWS-managed KMS keys.
- In-transit encryption: Enabled by default using TLS.

9 Maintenance and Logs (Optional)

- Optionally:
  - Enable CloudWatch logs.
  - Set maintenance preferences (like preferred window).

10 Review and Launch

- Review all settings.
- Click Create broker.

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S3 | EC2 | Route 53 | IAM | EFS | VPC

Application Integration

Amazon MQ
Fully managed open source message broker service

Amazon MQ is a managed message broker service for Apache ActiveMQ and RabbitMQ that makes it easy to set up and operate message brokers in the cloud, so you can migrate your messaging and applications without rewriting code.

Create brokers
Create message brokers in the cloud.

Get started

Pricing
With Amazon MQ, you pay only for what you use. There are no minimum fees or upfront commitments. You pay for the

Benefits

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Amazon SQS > Queues > manju > Send and receive messages

Send and receive messages
Use this page to send, retrieve and view messages, helping you experiment with various queue features.

Send message Info

✓ Your message has been sent and is ready to be received.   View sent message details   ✕

Message body
Enter the message to send to the queue.

hello boy

Message group ID - *optional, new* | Info
A group identifier for the message to allow fair processing across message groups in a standard queue.

Message group ID must be 1 to 128 characters. Valid characters are a-z, A-Z, 0-9, and punctuation (!"#$%&'()*+,-./:;<=>?@[\]^_`{|}~).

Delivery delay Info

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Amazon MQ > Brokers > rabbit

Amazon MQ
Brokers
Configurations

✓ Broker rabbit is being created.
Broker creation takes about 20 minutes. Your broker's configuration can be found on the Configurations page.   ✕

Details   Edit

Specifications
ARN Info
arn:aws:mq:us-east-1:21112 5448409:broker:rabbit:b-24576a 0f-a9d1-433d-820b-ba6a8ff85e c6

Broker name
rabbit

Broker status
⊙ Creation in progress

Broker instance type Info

CloudWatch Logs
General
Disabled - Logs ↗

Security and network
VPC Info
vpc-0745087e580d9cd8f ↗

Subnet(s) Info
subnet-06b884579fe7998d2 ↗

Public accessibility Info
Yes

Maintenance
Automatic minor version upgrade
Yes

Maintenance window
Friday 17:00 - 19:00 UTC

Pending modifications
Broker configuration
Pending configuration ↗

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☰ Amazon SQS › Queues › manju › Send and receive messages ⓘ ◈

Clear content | Send message

Received message: 331cae18-9eca-40ba-bbcd-1a5bc1090650 ✕

Body | Attributes | Details

hello boy

Done

Receive messages Info

Poll for messages

Messages available

1

gress 40%
cond

Messages (1)

View details | Delete

🔍 Search messages

< 1 > ⚙

☐ | ID ▽ | Sent ▲ | Size ▽ | Receive count ▽

☐ 331cae18-9eca-40ba-bbcd-1a5bc1090650 | 2025-08-17T16:39+05:30 | 9 bytes | 1

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☰ Amazon MQ › Brokers › rabbit ⓘ ◈

Amazon MQ ‹

Brokers
Configurations

✓ **Broker rabbit is being created.** ✕
Broker creation takes about 20 minutes. Your broker's configuration can be found on the Configurations page.

Connections

Access your queues and exchanges and connect your application to the broker. If you disable public accessibility for your broker, your endpoints are reachable only within a VPC.

RabbitMQ web console

https://b-24576a0f-a9d1-433d-820b-ba6a8ff85ec6.mq.us-east-1.on.aws ⧉

Endpoints

AMQP
⧉ amqps://b-24576a0f-a9d1-433d-820b-ba6a8ff85ec6.mq.us-east-1.on.aws:5671

Tags (0)

Manage tags