

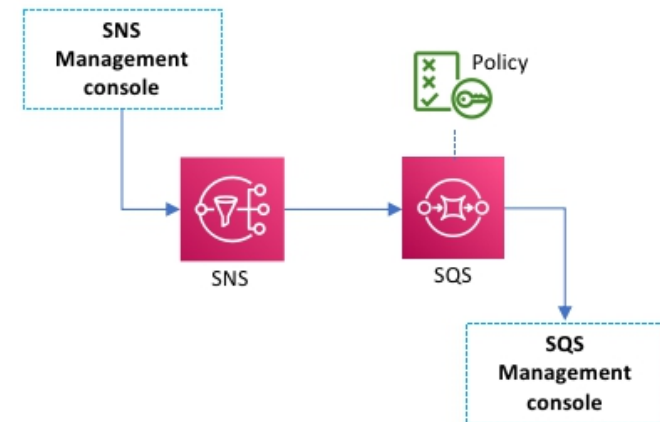
Try it out objective

Use this hands-on to get started with Simple Notification Service (SNS) and Simple Queue Service (SQS).

The goal

The following are the goals of this hands-on:


1. Create the SNS topic and a Queue
2. Create a subscription in SNS for the Queue
3. Ensure the permission is granted for SNS to push the message to SQS
4. Publish a message in SNS and observe it in the SQS console



Please note if a field (short for text field/text area/checkbox/radio/dropdown/list or any other UI element) is not specified in the following steps, it means the default value of the field set by AWS needs to be used. No change is needed for those fields as part of this hands-on.

Note - This exercise will work with multiple services, please use a dedicated browser instance with only the tabs that are needed for this exercise, otherwise it may/will lead to confusion.

A. Hands-on: Create the SNS topic

1. Go to the SNS management console at <https://console.aws.amazon.com/sns/> (you will be required to sign in)
2. Ensure the region is **N Virginia**
3. In the left navigation click on the  (hamburger) menu on the left top of the screen to expand it (if needed)
4. Click on **Topics** menu option
5. Click on **Create topic** button on the right top of the screen
6. Under the **Details** card make the following changes -
 - a) For the **Type**, select the **Standard** radio button
 - b) For the **Name** text field, paste the following value -

content_topic

- c) For the **Display name** field, paste the following value -


Content topic

7. Click **Create topic** button
8. Do not close this tab

B. Hands-On: Create the SQS queue

1. In a new browser tab (not in the SNS management console tab) go to the SQS management console at <https://console.aws.amazon.com/sqs/>

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2. Ensure the region is **N Virginia**
3. In the left navigation click on the  (hamburger) menu on the left top of the screen to expand it
4. Click on **Queues** menu option
5. Click on **Create queue** button on the right top of the screen
6. Under the **Details** card make the following changes -
 - a) For the **Type**, select the **Standard** radio button (should be selected by default)
 - b) For the **Name** text field, paste the following value -

```
content_q
```


7. Under the **Configuration** card make the following changes (these are sample settings and need to be changed for production use) -
 - a) For the **Visibility timeout** change the value to **10 Seconds**
 - b) For the **Message retention period** change the value to **15 Minutes**
 - c) For the **Maximum message size** change the value to **64 KB**
8. Open a **pure text editor** (which does not format text by adding special characters) of your choice, eg like Notepad++ (do not use MS Word, Notes etc)
9. In the **top navigation bar** (dark grey) notice a **dropdown** to the **right of the bell icon** which displays the **account name**, click it
10. **Copy the account number** (all numeric) and **paste in the text editor** opened in the earlier step
11. Copy the below JSON in the text editor and **replace the text** marked by **NNNNNNNNNN**

Note - this SQS policy allows the SNS topic to publish messages to this queue along with the owner of the account (yourself as the IAM user). Total number of replacements is four (4).


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```
{
  "Version": "2008-10-17",
  "Id": "__default_policy_ID",
  "Statement": [
    {
      "Sid": "__owner_statement",
      "Effect": "Allow",
      "Principal": {
        "AWS": "NNNNNNNNNN"
      },
      "Action": [
        "SQS:*"
      ],
      "Resource": "arn:aws:sqs:us-east-1:NNNNNNNNNN:content_q"
    },
    {
      "Sid": "Allow-SNS-SendMessage",
      "Effect": "Allow",
      "Principal": {
        "Service": "sns.amazonaws.com"
      },
      "Action": ["sqs:SendMessage"],
      "Resource": "arn:aws:sqs:us-east-1:NNNNNNNNNN:content_q",
      "Condition": {
        "ArnEquals": {
          "aws:SourceArn": "arn:aws:sns:us-east-1:NNNNNNNNNN:content_topic"
        }
      }
    }
  ]
}
```

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12. Under the **Access policy** card select the **Advanced** radio button for the **Choose method** option
13. **Delete** the **existing JSON** from the text area
14. **Paste the updated JSON** from the text editor to the text area (which will be blank at this time)
15. Click **Create queue** button
16. In the left navigation click on the  (hamburger) menu on the left top of the screen to expand it
17. Click on **Queues** menu option
18. You will see the queue getting listed here with **0 Messages available**
19. Do not close this tab

C. Hands-On: Create the subscription (SNS->SQS)

1. Go back to the **SNS topic browser tab**
2. In the left navigation click on the  (hamburger) menu on the left top of the screen to expand it (if needed)
3. You will see the topic listed there, **click** on the link for **content_topic**
4. Under the **Subscriptions tab** (bottom part of the screen), notice the button **Create subscription**, click it
5. Under the **Details** card make the following changes -
 - a) From the **Protocol** dropdown select **Amazon SQS**
 - b) Click on the **Endpoint** search text field and **select** the **arn** of the **content_q**
 - c) Click on the **Create subscription** button

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6. On the **left navigation** click on **Topics**
7. Click on the **radio** button to the **left** of the **content_topic**
8. Click on the **Publish message** button
9. Under the **Message details** card paste the following value for the **Subject** field

sample

10. Under the Message body card make the following changes -
 - a) For the **Message body to send to the endpoint** text area, paste the following value -

This is a sample message

11. Under the Message attributes card, make the following changes -
 - a) From the Type dropdown select String
 - b) For the Name field paste the following value -

attr1

- c) For the Value field paste the following value -

value1

12. Click on the **Publish message** button

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13. Go to the **SQS management** console tab and **refresh the page**
14. Notice the **Message available** shows 1

D. Hands-On: Cleaning up!

1. Go to the SQS management console listing the queues
2. Click on the **radio to the left** of the **content_q** and click **Delete button** from the top right side of the screen
3. Type **delete** in the confirmation window and click **Delete** button
4. Go to the SNS management console listing the topics
5. Click on the **radio to the left** of the **content_topic** and click **Delete button** from the top right side of the screen
6. Type **delete me** in the confirmation window and click **Delete** button