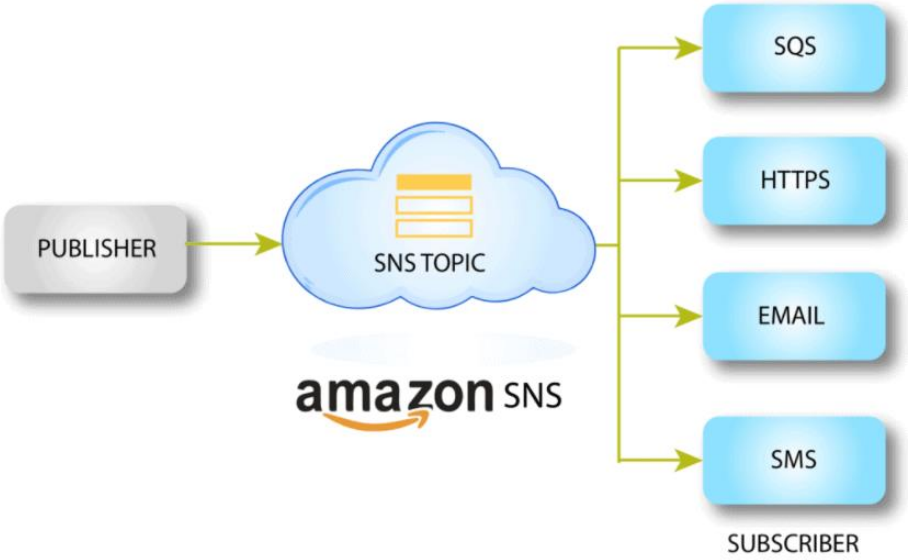
Amazon Simple Notification Service (AWS SNS)

Amazon SNS (Simple Notification Service) offered by AWS (Amazon Web Services) is an overseen service that provides message delivery or sending of messages to subscribing endpoints or clients. It is a completely controlled messaging service that is highly available, durable, and secure.

What is AWS SNS

Amazon SNS stands for Simple Notification Service, which is utilized to convey the push messages from the application to the subscribing ends or other applications. It is a completely managed messaging service for both applications-to-application (A2A) and application-to-person (A2P) communication. It provides the ability to create a Topic that is a logical access point and communication channel. Each topic has a different name that identifies the SNS endpoint for publishers to post messages and subscribers to register for notifications.



Feature of Amazon SNS

- **Automatic Scaling:** It scales consequently if the number of messages increases.
- **Message Encryption:** It provides encrypted topics to protect your messages from unapproved and unknown access. The message gets decrypted as they are delivered to subscribing endpoints.
- **Message Filtering:** It enables the subscriber to modify a filter policy so that it only gets the notifications it is interested in.
- **Message Fanout:** It takes place when a message is sent to a topic and then replicated and pushed to multiple endpoints. Fanout gives asynchronous event notifications, which in turn allows for parallel processing.
- **Mobile Notification:** It can be activated by user-driven actions within an application or from business logic within the cloud. It is low-cost to fan out mobile push notifications for iOS, Android, Fire OS, Windows, and Baidu-based devices.

- **SNS & Email Messages:** Amazon SNS provides the features to send text messages and email (SMTP).

Types of AWS SNS Topics

There are 2 types of AWS SNS Topics:

- Standard Topic
- FIFO Topic

Difference between Standard and FIFO Topic

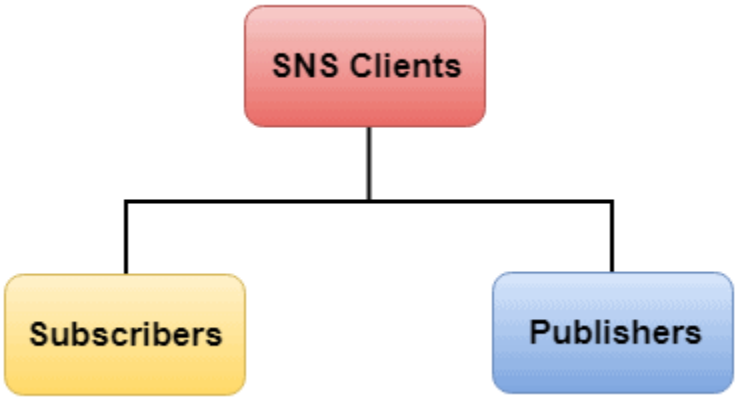
- Standard Topic is used in many scenarios where the order of message is not important while FIFO Topic is used in messaging between applications where the order of operations and events is critical.
- Standard Topic supports a nearly unlimited number of messages per second whereas FIFO Topic supports up to 300 messages per second or 10 MB per second per FIFO topic.
- In a standard topic, a message is delivered at least once, but there might be more than one copy of a message delivered but in a FIFO topic, duplicate messages are not delivered.
- In standard topic, each account can support 100K standard topic and each topic support up to 12.5M Subscriptions whereas in FIFO topic, Each account can support 1000 FIFO topics and each topic supports up to 100 Subscriptions.

Amazon SNS Clients

There are two clients of SNS:

- Subscribers

- Publishers



Subscribers

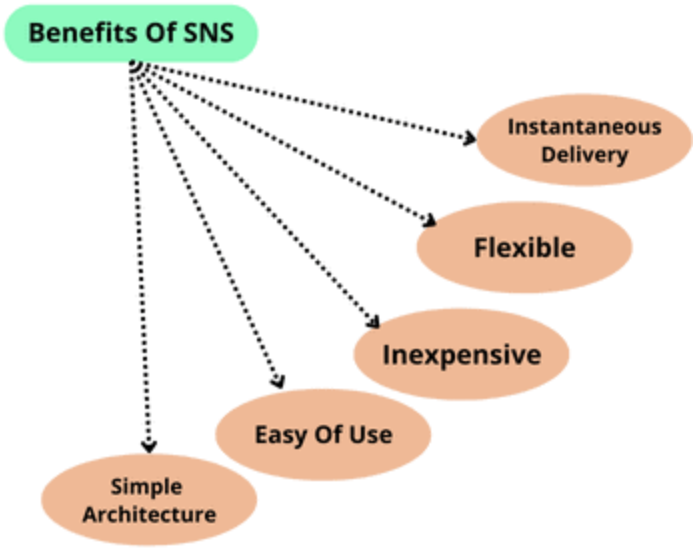
Subscribers receive the required message or notification over one of the supported protocols (Amazon SQS, email, Lambda, HTTP, SMS) when they are subscribed to the topic.

Publishers

Publishers are also known as producers, publishers communicate asynchronously with subscribers by producing and sending a message to a topic, which is a logical access point and communication channel.

Benefits of AWS SNS

- **Instantaneous Delivery:** It is based on push-based delivery. It is pushed once we publish the message on a topic and the message is delivered to multiple subscribers.
- **Inexpensive:** It is based on pay as you use the model, i.e. we need to pay only when we are using the resources with no up-front costs.
- **Flexible:** It supports multiple endpoints. Various endpoint types can receive the message over multiple transport protocols such as email, SMS, Lambda, Amazon SQS, HTTP, etc.
- **Ease of use:** It is a very simple service to use as the Web-based AWS Management Console offers the effortlessness of the point-and-click interface.
- **Simple Architecture:** SNS is utilized to simplify the messaging architecture by offloading the message filtering logic from the subscribers and message routing logic from the publishers. Rather than receiving all the messages from the topic, SNS sends the message to subscriber-only of their interest.


Benefits Of SNS
Instantaneous Delivery
Flexible
Inexpensive
Easy Of Use
Simple Architecture