

# **Data Pipeline How to Guide**

## **SNS Configuration**

Version: Release 2.2



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## 1. Steps To Configure SNS and SQS for SNS Monitor in Pipeline

The users need to create an SNS topic as a precondition for SNS Monitor in BDB Data Pipeline.

- i) Log in to an AWS account
- Navigate to the SNS console using the below given link: https://us-west-2.console.aws.amazon.com/sns/v2/home?region=us-west-2#/home
- iii) Select the 'Create topic' option

SNS dashboard Topics Applications Subscriptions	4	SNS dashboard			
ropics Applications Subscriptions		Building a mobile app? Try AWS Mobile Hub.			
Text messaging (SMS)		Common actions	Resources		
		Create topic Create a communication channel to send messages and subscribe to notifications	You are using the fol Topic Subscriptions	owing Amazon SNS resources in the us-west-2 regio 1	
		Create platform application Create a platform application for mobile devices	Applications Endpoints	0	
		O Create subscription Subscribe an endpoint to a topic to receive messages published to that topic	More info		
		Publish message Publish a message to a topic or as a direct publish to a platform endpoint	Getting started Documentation API reference		
		Publish text message (SMS) Publish a text message to a phone number	Forums Service health		

- iv) The 'Create new topic' window opens.
  - a. Provide the following information:
    - i. Topic Name: Enter a name for the topic
    - ii. Display Name: Enter the topic name (Required for topics with SMS subscription)
    - iii. Click the 'Create topic' option.

ding a mobile app?	Try AWS Mobile Hub.	
ame will be used to	o create a permanent unique identifier called an Amazon Resource Name (ARN).	
Topic name	Enter topic name	0
Display name	Enter topic display name. Required for topics with SMS subscriptions.	0

- v) Assign permission after the topic gets created
- vi) Navigate to the '**Topics**' page
- vii) Click the 'Actions' drop-down menu

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#### viii) Select 'Edit topic policy' option from the menu

	Publish to topic	Create new topic	Actions -	
(SMS)	Filter		Edit topic encryption configuration Edit topic display name	
	Name	ARN	Subscribe to topic	
	24jansns	am:aws:	Confirm a subscription	
	monitors3	am:aws:	Edit topic policy	
	s3Monitor	am:aws:	Edit topic delivery policy Collivery status	
	s3testdata	arn:aws:	Delete topics a	
	E tost 11	900.9000	CONTRACTOR AND	

- ix) The 'Basic view' tab opens
- x) Update the policy from '**Only me**' to '**Everyone**' using the radio button
- xi) Click the '**Update policy**' option

Allow these users to	publish messages t	o this topic		
Only me (topic own	ner)			
Everyone				
Only these AWS us	sers Comm	a-separated list of AWS	account IDs.	
Allow these users to	subscribe to this to	pic		
Only me (topic own	ner)			
<ul> <li>Everyone</li> </ul>				
Only these AWS us	Comm	a-separated list of AWS	account IDs.	
Only these AWS us Only users with end	dpoints that match	a-separated list of AWS examples: **@exam	account IDs. iple.com" or "http://example	.com/**
Only these AWS us Only users with end Using these	dpoints that match	e-separated list of AWS	account IDs. pie.com* or *http://example # HTTPS	com/** ✓ Email
Only these AWS us Only users with end Using these	dpoints that match e delivery protocols	e-separated list of AWS examples: **@exan HTTP E Email-JSON	account IDs. spie.com" or "http://example ITTPS SMS	.com/**

## 2. Create the SQS Queue

The steps to create an SQS Queue are described below:

- i) Log in to an AWS account
- ii) Navigate to the SQS console



https://console.aws.amazon.com/sqs/home?region=us-west-2#queuebrowser:selected=https://sqs.us-west-2.amazonaws.com/687699484674/s3Monitor;prefix=

#### iii) Click the 'Create New Queue' option

ą	aws	Services 🗸	Resource Groups 🐱	*		۵.	inand @ 6876-9948-4674	▼ Oregon ▼ Support ▼
Creat	te New Queue	Queue Act	ions 👻					<i>C</i> •
Filter b	by Prefix: Q	Enter Text				×		< < 1 to 1 of 1 items > >
	Name			- Queue Type -	Content-Based Deduplication ~	Messages Available -	Messages in Flight -	Created
	24jansqs			Standard	N/A	1	0	2019-01-24 15:21:35 GMT+05:30
	monitors3			Standard	N/A	3	0	2019-01-23 10:46:07 GMT+05:30
	s3Monitor			Standard	N/A	0	0	2019-01-10 11:42:13 GMT+05:30
	s3datatest			Standard	N/A	0	0	2019-01-23 12:10:53 GMT+05:30
	testsqs			Standard	N/A	1	0	2019-01-23 12:44:38 GMT+05:30

#### iv) The 'Create New Queue' page opens

- a. Provide a 'Queue Name' in the given space.
- b. Provide the '**Region**'
- c. Select the type of queue from the provided options: **Standard Queue** or **FIFO Queue**

aws Service	WS       Services        Resource Groups        *         Create New Queue       What do y         Queue Name •       What do y         Type the queue name.       *         Region •       US West (Oregon)         Standard Queue       *         Unlimited Throughput: Standard queues support a nearly unlimited number of transaction second (TPS) per API action.       *         At-Least-Once Delivery: A message is delivered at least once, but occasionally more than of a message is delivered.       *					¢	anand @ 6876-9948-4674 🗸	Oregon 👻	Support 👻
Create New Queue									
			Wh	at do you want t	o name your queue?				
Queue Name 🚯									
Type the queue name.									
Region 🚯 US West (Or	regon)	]							
				3 What type of que	eue do you need?				
		Standard Queue					FIFO Queue		
Unlimited Throughput: second (TPS) per API ac	Standard tion.	d queues support a nearly unlim	ited number of	f transactions per	High Throughput: FIFO queues a delete operations per second). Wh can support up to 3,000 messages	support o nen you s per sec	up to 300 messages per second (30 batch 10 messages per operation (t cond. To request a limit increase, file	0 send, receive naximum), FIF e a support req	e, or O queues uest.
At-Least-Once Delivery of a message is delivered	: A mess J.	age is delivered at least once, t	occasionall	ly more than one copy	First-In-First-out Delivery: The o	order in v	which messages are sent and receiv	ed is strictly pr	eserved.
Best-Effort Ordering: O	ccasiona	ally, messages might be delivere	d in an order o	different from which	Exactly-Once Processing: A me	ssage is	delivered once and remains availal	ble until a consi	umer

- v) The users need to subscribe the queue to an SNS topic.
- vi) Navigate to the 'Queue Actions' drop-down menu
- vii) Select the 'Subscribe Queue to SNS topic' option

Filter by Prefix: Q. Enter Text     X     K < 1 to 1 of 1 items >       Name     Queue Type     Content-Based Deduplication >     Messages Available >     Messages in Flight >     Created       s3Monitor     Standard     N/A     0     0     2019-01-10 11:42:13 GMT+05	×
Name     Queue Type     Content-Based Deduplication     Messages Available     Messages in Flight     Created       SMonitor     Standard     N/A     0     0     2019-01-10 11:42:13 GMT+05	
s3Monitor         Standard         N/A         0         0         2019-01-10 11:42:13 GMT+05:	¥
	30
I SQS Queue selected	



Note: Once the subscription is done with our SNS topic, the users need to create the event in S3 so that the pipeline can receive the uploaded message that comes to the S3 bucket.

## 3. Creating an S3 Event

- i) Log in to an AWS account.
- ii) Create the S3 bucket.
- iii) Select the 'Properties' tab.

Overview	Properties	Permissions	Management	
Versioning	Server acce	ess logging	Static website hosting	
Keep multiple versions of an object in the same bucket.	Set up access log re details about acr	cords that provide cess requests.	Host a static websile, which does not require server-side technologies.	
Disabled	Disabled		Disabled	
Object-level logging	Default er	ncryption		

iv) Select the 'Events' option under properties.

Prevent objects from being deleted.	Use tags to track your cost against projects or other criteria.	Enable fast, easy and secure transfers of files to and from your bucket.	
Disabled	O Tags	Suspended	
Events Receive notifications when specific events occur in your bucket. Learn more	Requester pays The requester (instead of the bucket owner) will pay for requests and data transfer. Learn more		
1 Active notifications	Disabled		

- v) Create a new Event for the respective S3 bucket by providing the following information:
  - a. Provide 'Name' for the Event
  - b. Select an option using the checkmark in the given box from the provided list of Events.



Name	
input	
Events 🕕	
PUT	Permanently deleted
D POST	Delete marker created
COPY	All object delete events
Multipart upload completed	Restore from Glacier initiated
All object create events	Restore from Glacier completed
Object in RRS lost	

- c. Select the **SNS topic** as an option from '**Send to'** drop-down menu.
- d. Select 'S3 Monitor' from the SNS drop-down menu.
- e. Click the 'Save' option.

e.g. images/		
Suffix 🚺		
e.gjpg		
Send to 🜖		
SNS Topic	Ň	,
SNS		
s3Monitor	Ň	,

After the Event gets created, the users can access the complete setup to use the Data Pipeline SNS Monitor to monitor the S3 location.