Day#12

Cloud Watch

Cloud Watch

What is the Cloud watch?

Dashboards

Alarms

Logs

Metrics

Events

Cloud Watch

What is the Cloud watch?

- Amazon CloudWatch is a monitoring and management service that provides data and actionable insights for AWS, hybrid, and on-premises applications and infrastructure resources.
- With CloudWatch, you can collect and access all your performance and operational data in form of logs and metrics from a single platform.
- This allows you to overcome the challenge of monitoring individual systems and applications like servers, network, database, etc.
- This frees up important resources and allows you to focus on building applications and business value.

Cloud Watch

Metrics

- CPU
- RAM
- DISK
- Network

Logs

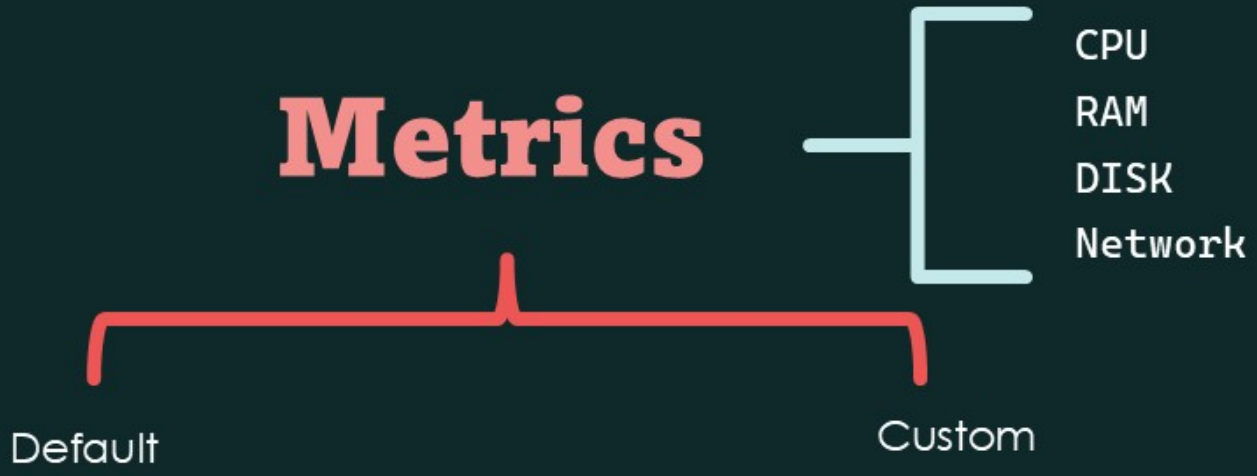
- Application Logs
- DB logs

Events

- Time based triggers
- Pattern based triggers

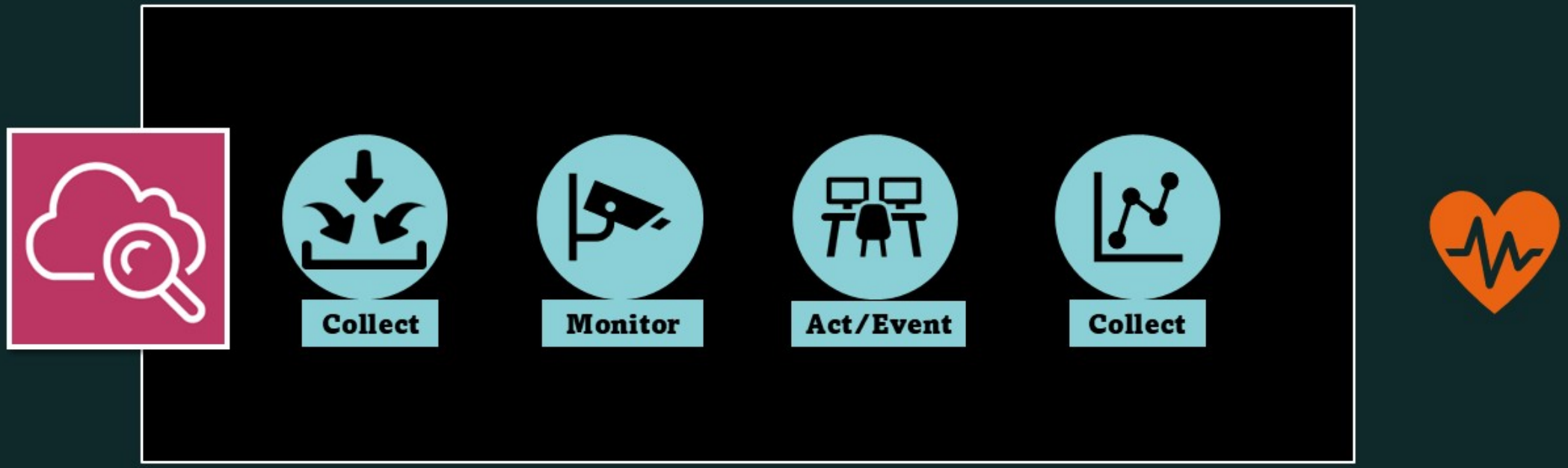
Alarms

Cloud Watch



Cloud Watch

What is the Cloud watch?



What is SNS?

Simple Notification Service (SNS)

Simple Notification Service (SNS)

- What is SNS?
- What is a Topic? and types of Topic?
- Difference between FIFO and Standard types.
- What is the SNS Subscription?
- Sending messages to the users with different protocols.

What is SNS?

- Amazon Simple Notification Service (Amazon SNS) is a managed service that provides message delivery from publishers to subscribers (also known as producers and consumers).
- Publishers communicate asynchronously with subscribers by sending messages to a topic, which is a logical access point and communication channel.
- Clients can subscribe to the SNS topic and receive published messages using a supported endpoint type, such as Amazon Data Firehose, Amazon SQS, AWS Lambda, HTTP, email, mobile push notifications, and mobile text messages (SMS).

Simple Notification Service (SNS)

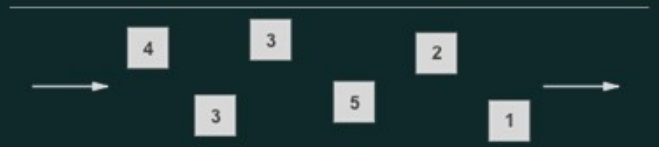
What is a Topic?

- An Amazon SNS topic is a logical access point that acts as a *communication channel*.
- A topic lets you group multiple *endpoints* (such as AWS Lambda, Amazon SQS, SMS, or an email address).

SNS Topics are 2 types.

1. FIFO
(First-In-First-Out).

2. Standard.



FIFO (First-In-First-Out).

Standard.

	FIFO (First-In-First-Out).	Standard.
Message Ordering:	• FIFO topics guarantee strict message ordering. Messages are delivered to subscribers in the order they are sent. This ensures that the first message published to the topic is also the first message received by subscribers.	• Standard topics do not guarantee message ordering. Messages can be delivered to subscribers in an unordered manner, depending on various factors such as network conditions and subscriber availability.
Message Deduplication:	• FIFO topics ensure exactly-once message delivery. This means that each message is delivered exactly once and duplicates are not introduced during message delivery.	• Standard topics do not provide built-in deduplication mechanisms. Duplicate messages may be delivered to subscribers under certain circumstances, such as network retries or message reprocessing.
Delivery rates:	• FIFO topics have a lower maximum message delivery rate compared to standard topics due to the additional processing required for strict ordering and deduplication.	• Standard topics typically support higher message delivery rates as they prioritize throughput over ordering guarantees.
Use Cases:	• FIFO topics are suitable for applications that require strict message ordering and exactly-once processing, such as financial transactions, order processing systems, or any scenario where the sequence of events is critical.	• Standard topics are suitable for applications where strict ordering is not necessary and high throughput is more important, such as system monitoring alerts, news updates, or broadcasting notifications to a large number of subscribers.

What is the SNS Subscription?

Simple Notification Service (SNS)

What is the SNS Subscription?

- An AWS SNS subscription is a mechanism that allows an endpoint or application to receive messages published to an Amazon Simple Notification Service (SNS) topic.

- When you subscribe to an SNS topic, you specify a protocol (such as HTTP, HTTPS, email, SMS, Lambda, etc.) and an endpoint (such as an email address, phone number, HTTP/HTTPS URL, Lambda function, etc.) where you want to receive notifications.

Simple Notification Service (SNS)

Key components of SNS Subscription.

1. Protocol: This defines how the messages will be delivered to the endpoint. AWS SNS supports various protocols including:

- HTTP/HTTPS: Messages are delivered via HTTP POST or HTTPS POST to a specified URL.
- Email: Messages are delivered via email to the specified email address.
- SMS: Messages are delivered via SMS to the specified phone number.
- Lambda: Messages trigger an AWS Lambda function.
- SQS: Messages are delivered to an Amazon Simple Queue Service (SQS) queue.

Simple Notification Service (SNS)

Key components of SNS Subscription.

2. Endpoint: This is the destination where the messages will be delivered based on the specified protocol. The format of the endpoint varies depending on the protocol:

- For HTTP/HTTPS subscriptions, the endpoint is a URL.
- For email subscriptions, the endpoint is an email address.
- For SMS subscriptions, the endpoint is a phone number.
- For Lambda subscriptions, the endpoint is the Amazon Resource Name (ARN) of the Lambda function.
- For SQS subscriptions, the endpoint is the ARN of the SQS queue.

Thank you

Cloud computing in Telugu