



AWS Monitoring and logging

Monitoring with AWS CloudWatch



Amazon CloudWatch

Welcome to an overview of AWS CloudWatch.
Learn how it can provide you a unified view of
your AWS resources and applications.

Features and Uses of CloudWatch

CloudWatch is a monitoring service for AWS resources and the applications you run on them.

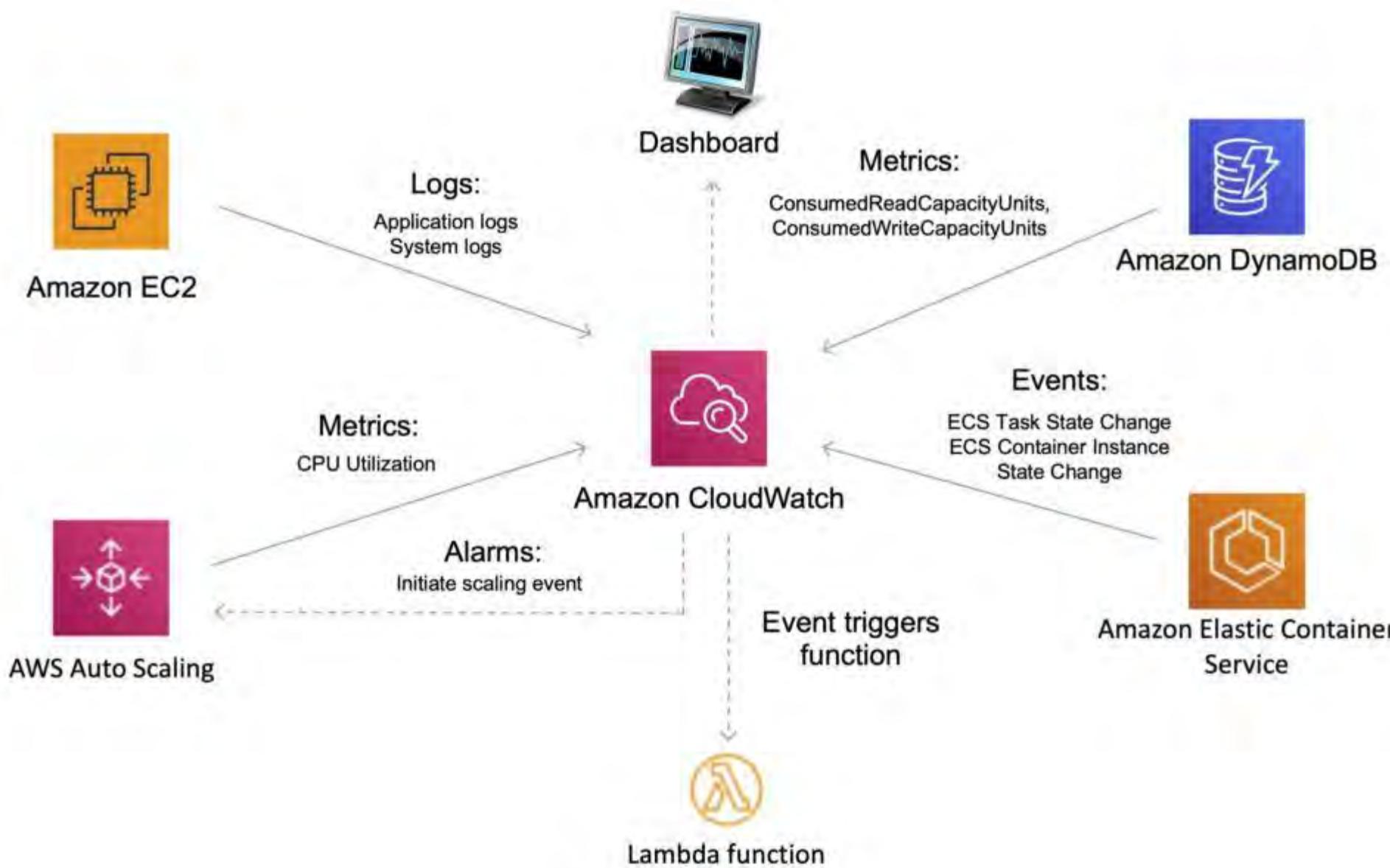
Unified Dashboard

Monitor Serverless Applications

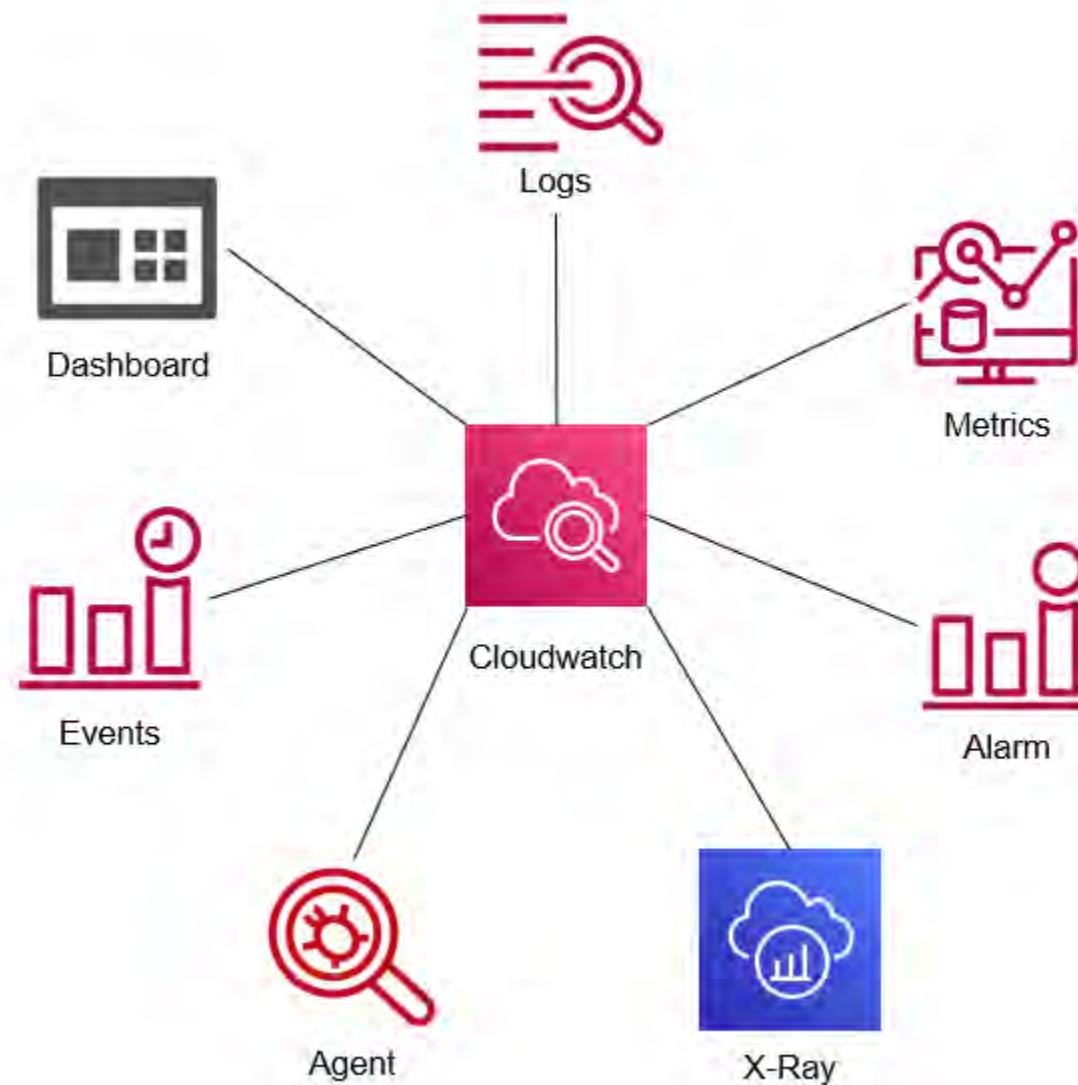
Performance Monitoring

Logs and Analysis

Features and Uses of CloudWatch

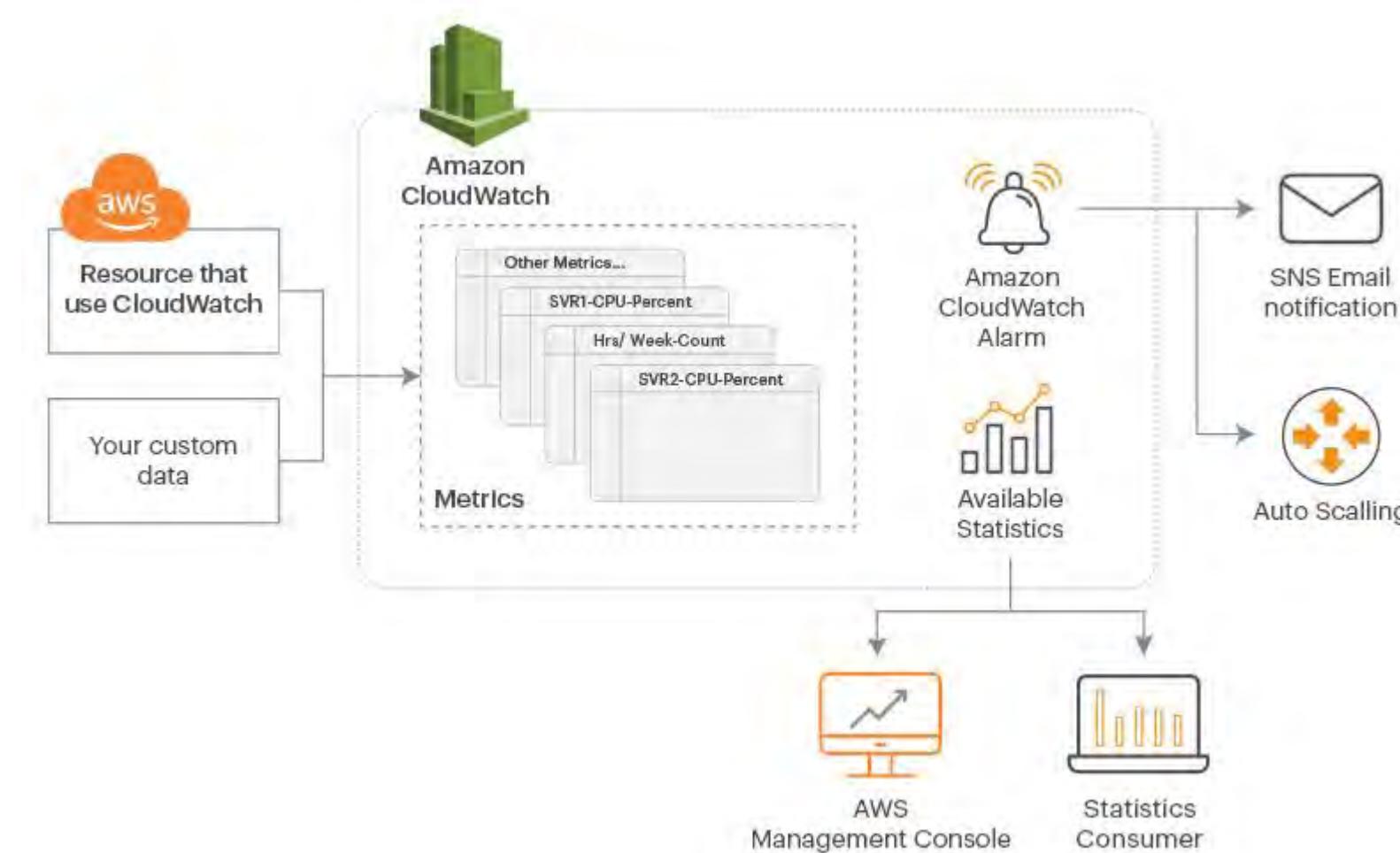


Components of Cloudwatch



Metrics in CloudWatch

CloudWatch provides a variety of metrics that you can use to monitor your AWS resources and applications.



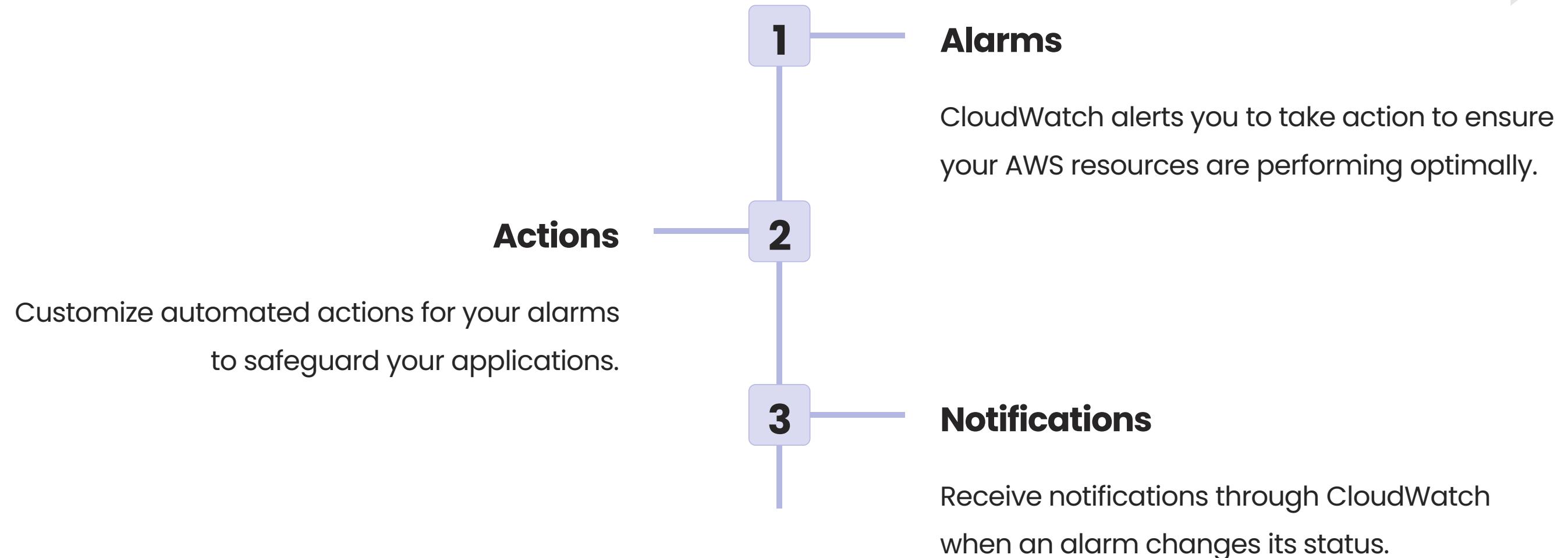
Metrics in CloudWatch

Custom Metrics

Predefined Metrics

High-Resolution Metrics

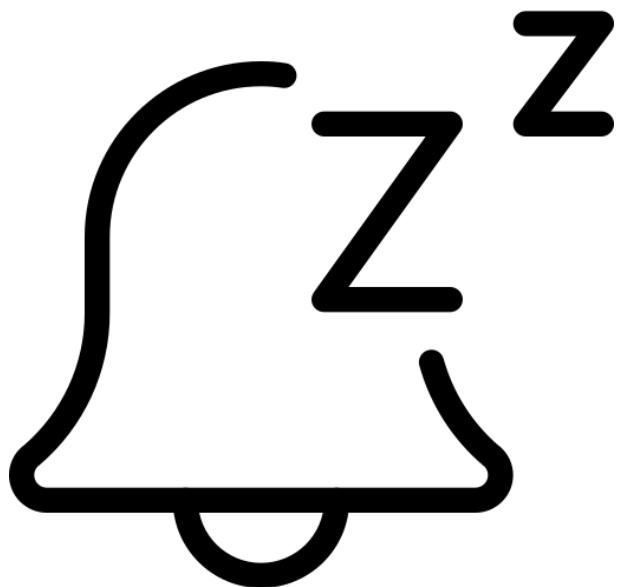
Alarms and Notifications



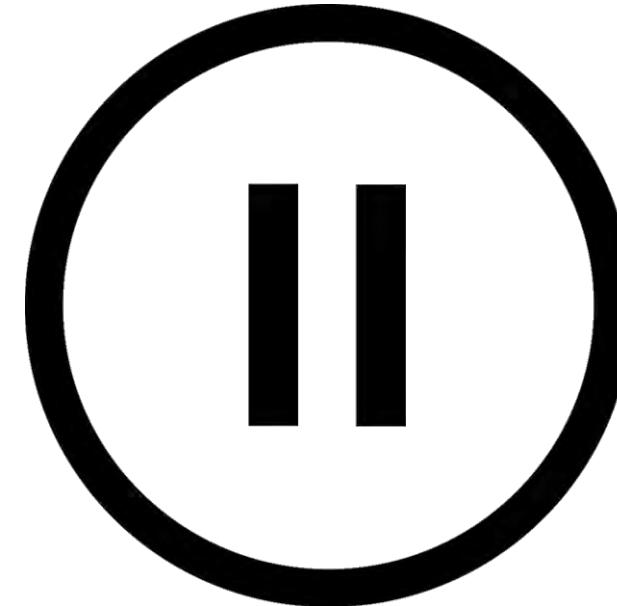
Creating and Managing CloudWatch Alarms



Create an Alarm



Snooze an Alarm



Suspend an Alarm

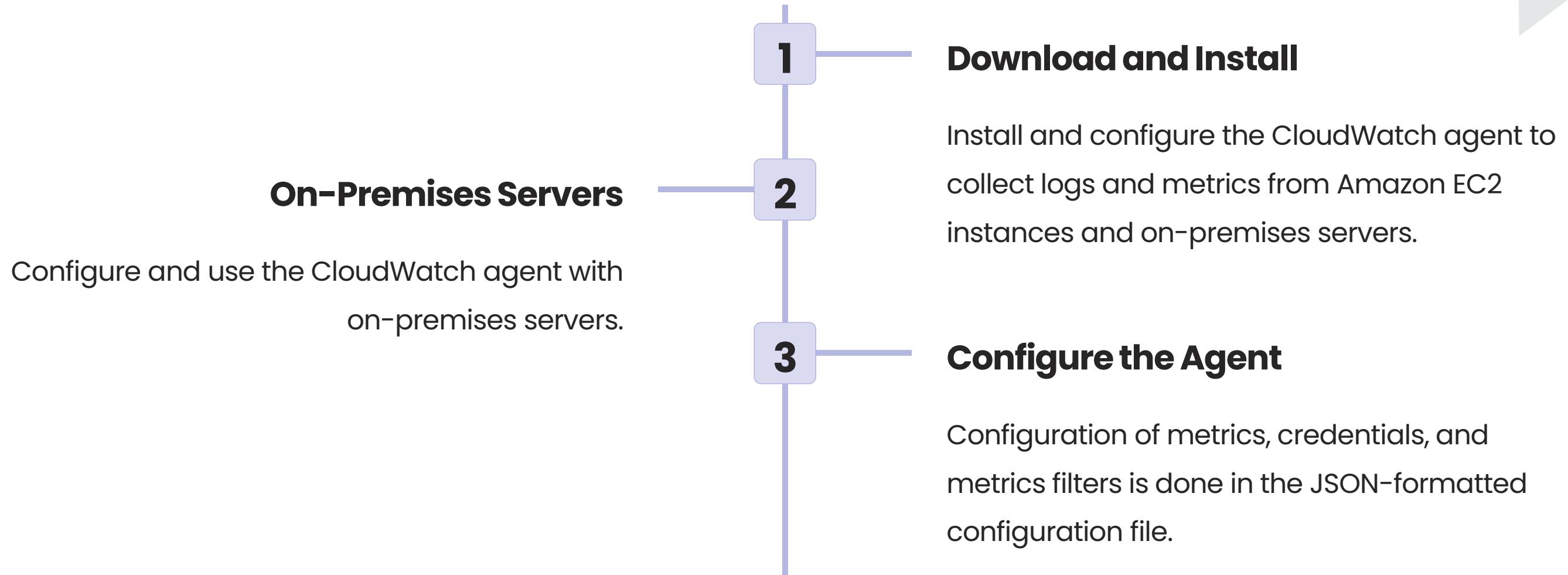
Logs and Log Groups in CloudWatch

Create Log Groups

Log Stream

Centralized Log Management

CloudWatch Agent: Installation and Configuration



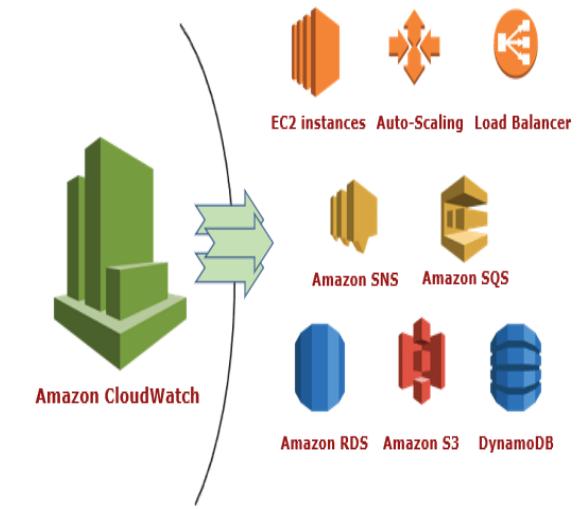
Best practices for using CloudWatch



Data Collection



Alerting



Architecture

iamneo



AWS CloudTrail

Overview of AWS CloudTrail

What is AWS CloudTrail?

AWS CloudTrail is a service that records user activity and API events in your AWS account.

Why AWS CloudTrail?

CloudTrail provides a history of AWS API calls for your account, including calls made via the AWS Management Console, SDKs, command line tools, and other AWS services.

How does AWS CloudTrail work?

CloudTrail captures API calls and delivers the resulting log files to an Amazon S3 bucket that you specify.

Benefits of CloudTrail for AWS customers



Improved Security



Cost Management

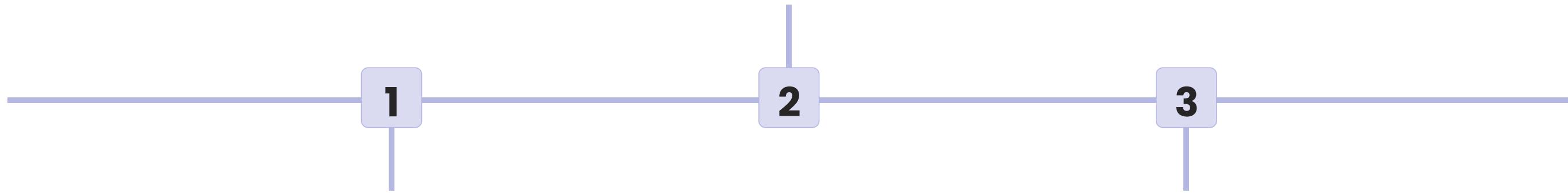


Operational Insights

How CloudTrail works

CloudWatch Integration

You can configure CloudTrail to create CloudWatch Metrics to help identify trends and get insights into your AWS environment.



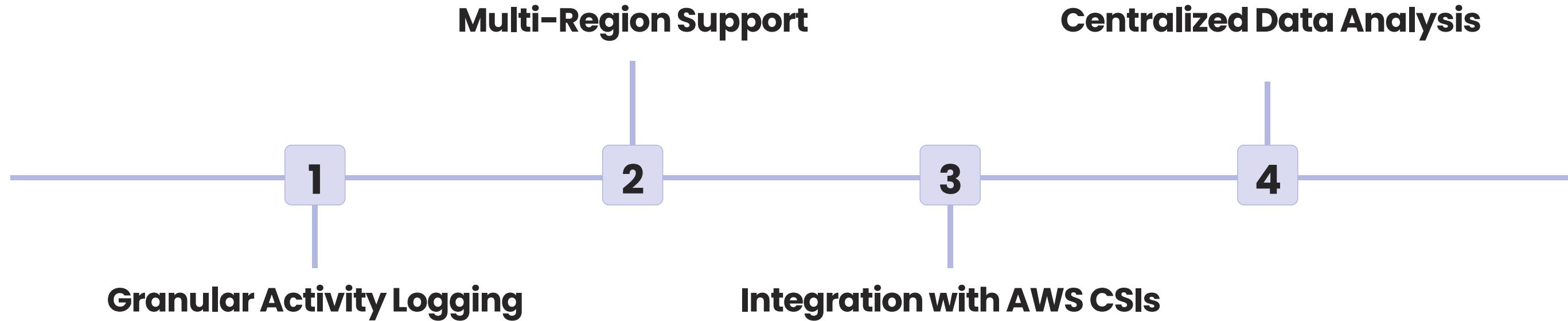
Log File Delivery

CloudTrail delivers log files to an Amazon S3 bucket specified by you.

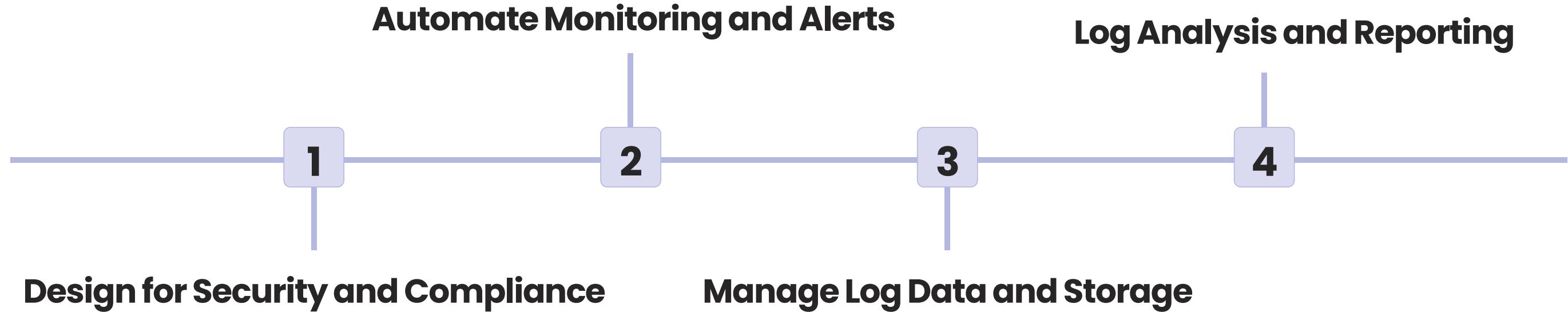
Event Notifications

You can set up Amazon SNS notifications based on certain criteria within CloudTrail. These notifications can be received via email, SMS, or other supported transports.

Key Features of AWS CloudTrail



Usage of implementing CloudTrail



Retention and encryption of CloudTrail logs

Log File Retention

You can specify how long CloudTrail should keep your logs, from 1 to 7 years. This retention period can help you meet your regulatory and compliance requirements.

Encryption Options

You can encrypt your log files using AWS Key Management Service (KMS) or server-side encryption with Amazon S3-managed encryption keys (SSE-S3).

Real-world use cases of CloudTrail

- 1 **Investigating Unauthorized Access**
- 2 **Enabling Compliance Audits**
- 3 **Tracking Resource Changes**
- 4 **Identifying Root Cause of Issues**