[AMAZONE WEB SERVICES -24-CloudWatch]

CloudWatch

Scenario 1: Performance



Scenario 2: Cost



Scenario 3: Detecting Errors and Troubleshooting



Why Do We Need Cloud Based Monitoring?



Amazon CloudWatch

Amazon CloudWatch is the component of **Amazon Web Services** that provides real time monitoring of AWS resources and customer applications running on Amazon infrastructure

Basic Monitoring Its free Polls every 5 min Very few metrics Types of Monitoring offered by Amazon CloudWatch

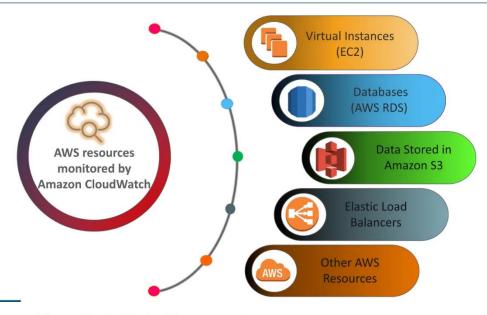


Detailed MonitoringIts charged
Polls every 1 min
Wide range metrics

What Does Amazon CloudWatch Do?



Resources Monitored By CloudWatch



Amazon CloudWatch Concepts



Metrics



A **metric** represents a time-ordered set of data points that are published to CloudWatch. Think of a metric as a variable to monitor, and the data points represent the values of that variable over time.

A dimension is a name/value pair that uniquely identifies a metric. They can be considered as categories of characteristics that describe a metric. We can assign up to 10 dimensions to a



Statistics

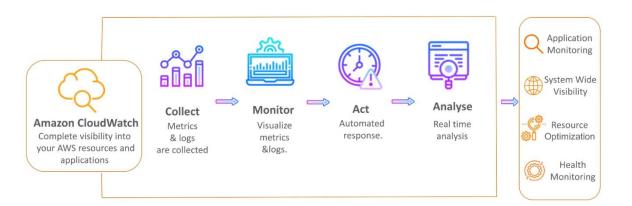
Statistics are metric data aggregations over specified periods of time. Aggregations are made using the namespace, metric name, dimensions within the time period you specify.



Alarm

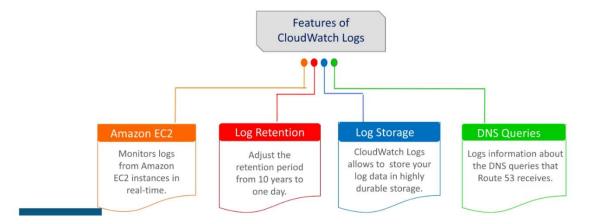
An **alarm** can be used to automatically initiate actions on your behalf. It watches a single metric over a specified time period, and performs one or more specified actions.

How Amazon CloudWatch Works?



Amazon CloudWatch Logs

Amazon CloudWatch Logs is used to monitor, store and access log files from AWS resources like Amazon EC2 instances, Amazon CloudTrail, Route53 and others



Amazon CloudWatch Logs Concepts

Certain concepts that are central to understanding of Amazon CloudWatch Logs.

Log Stream

Log Event Log Event is the record of activity by resources or

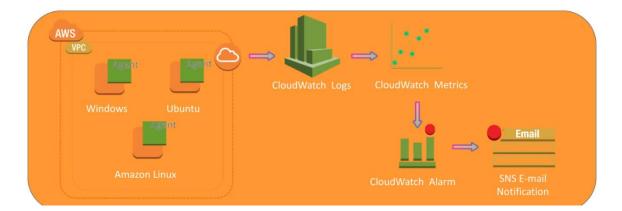
A log stream is a sequence of log events that share the same source. application being monitored.

Log Group

A log group represents groups of log streams which share same monitoring and access control.

Working of Amazon CloudWatch Logs

 $\textit{Use Case: Using \textbf{Amazon CloudWatch Logs} to trouble shoot the system by monitoring the respective log files.}$



CLOUDWATCH VS CLOUDTRAIL

CLOUDWATCH	CLOUDTRAIL
Focuses mainly on monitoring the services and reporting on their health and performance.	Focuses on creating logs of all events taking place in cloudtrail and its integrated services.
User can analyse logs and optimize resources for better performace.	Compliance support. All events are logged and can be veiwed by the user to ensure business agility and adhere to standards
Delivers data in 1 minute for detailed monitoring and 5 minutes for basic monitoring	An event is logged into Event History every 5 minutes. These logs are further dumped into S3 buckets every 15 minutes