



# AWS CloudWatch





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# What is CloudWatch?

# CloudWatch

## What is CloudWatch?

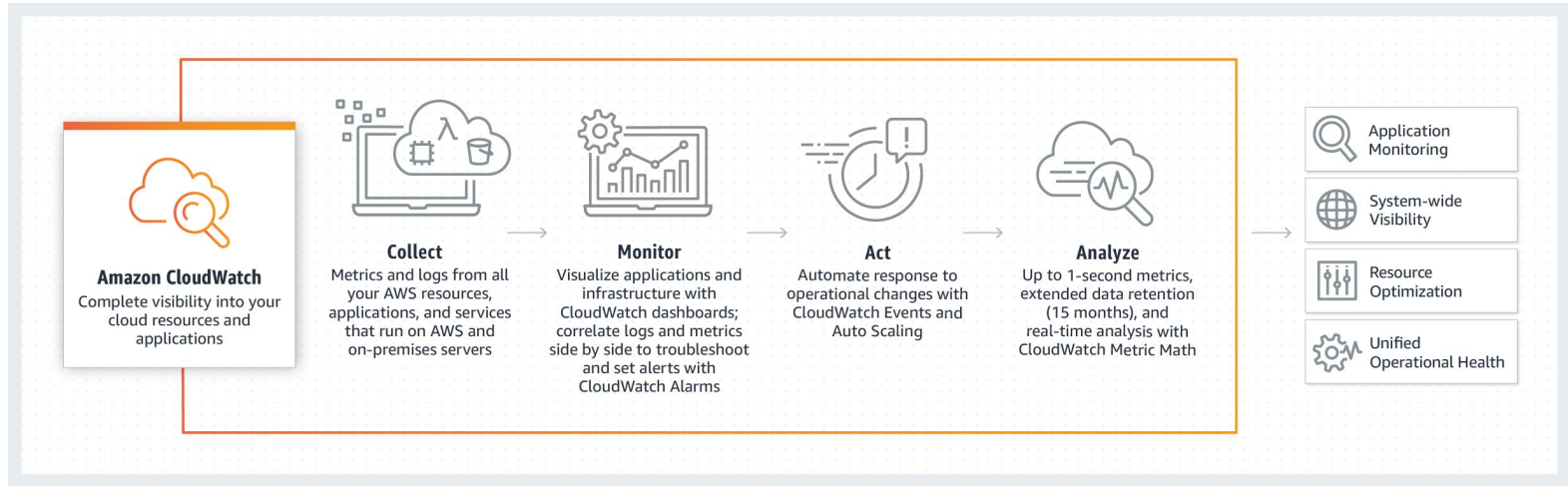


**Amazon CloudWatch**

- CloudWatch is the **monitoring service** of AWS.
- It enables you to monitor **metrics of resources and applications** that run **on AWS** as well as **on-premise servers**.

# CloudWatch

## What is CloudWatch?



- You can get logs, set alarms, trigger events and analyze utilization by CloudWatch.

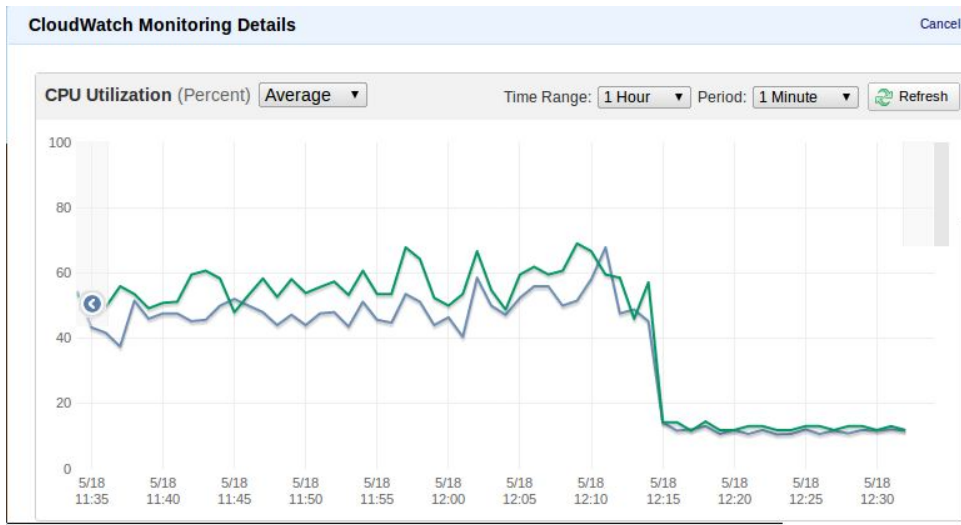


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# CloudWatch Basic Components

# CloudWatch

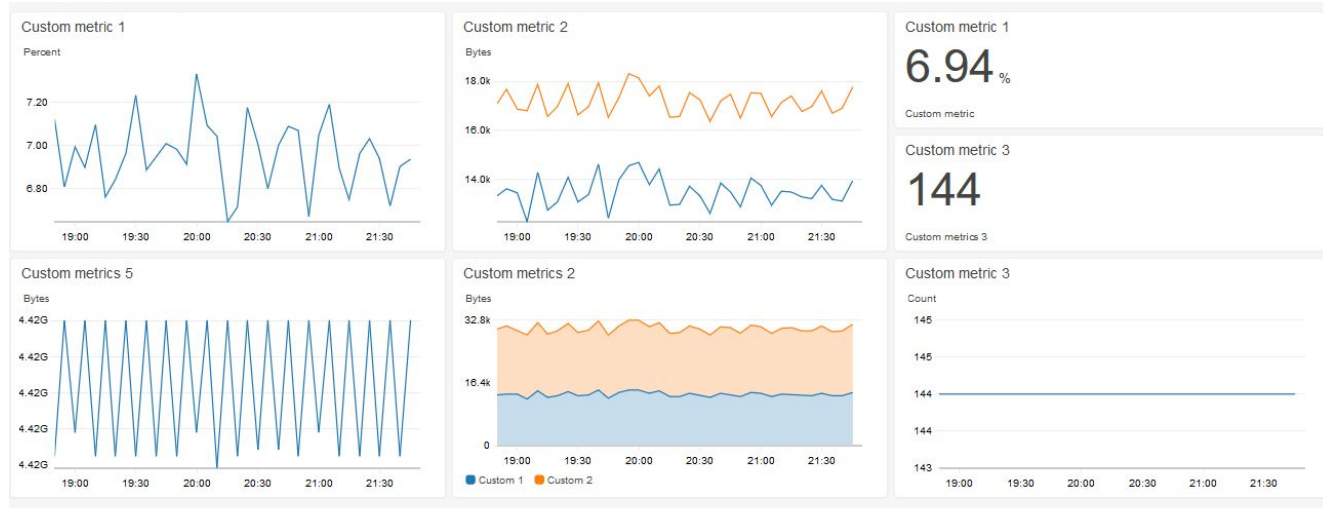
## Basic Components



- **Metrics:** Metrics are the **measurable data** about your resources, apps or services like EC2 instance CPU utilization or the number of objects in an S3 bucket.

# CloudWatch

## Basic Components



- **Dashboards:** Dashboards enable you to create graphs and visualize your cloud resources and applications according to your needs.



# CloudWatch

## Basic Components



**Line**

Compare metrics over time



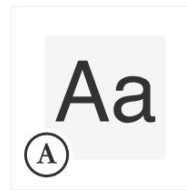
**Stacked area**

Compare the total over time



**Number**

Instantly see the latest value for a metric



**Text**

Free text with markdown formatting



**Logs table**

Explore results from Logs Insights



**Alarm status**

Instantly see the status of your alarms in a grid view

- **Widgets:** You can leverage dashboards as customizable home pages in the CloudWatch console to view metrics, logs and alarms.

# CloudWatch

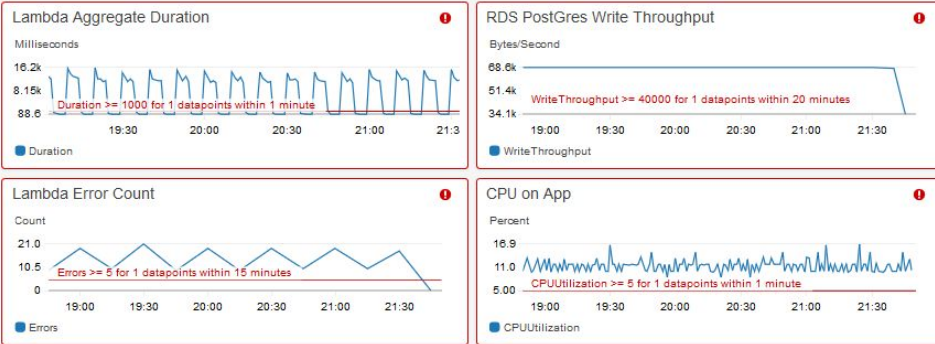
## Basic Components



### AWS services summary ⓘ

Services			
Status	Alarm	Insufficient	OK
❗ EC2	1	-	-
❗ Lambda	2	-	-
❗ RDS	1	-	2
⚠ Kinesis	-	1	-
✅ DynamoDB	-	-	3
ⓘ API Gateway	-	-	-
ⓘ Billing	-	-	-
ⓘ Classic ELB	-	-	-
ⓘ CloudFront	-	-	-
ⓘ CloudWatch Events	-	-	-

### Recent alarms ⓘ



- **Alarms:** Alarms enables you to monitor CloudWatch metrics and to receive notifications if the metrics fall outside of the thresholds (higher or lower) that you set.
- You can make Alarms trigger a Resource Actions

# CloudWatch

## Basic Components



The screenshot shows the AWS CloudWatch console interface. The left sidebar contains navigation links: CloudWatch, Dashboards, Alarms, ALARM (0), INSUFFICIENT (0), OK (0), Billing, Events, Rules, Event Buses, Logs (selected), Insights, Metrics, Settings, and Favorites. The main content area displays the breadcrumb path 'CloudWatch > Log Groups > apache-access > [redacted]'. At the top right of the main area are controls for 'Expand all' (checked), 'Row' (selected), 'Text', and icons for refresh, settings, and help. Below these is a 'Filter events' input field and a date/time filter set to 'all 2019-04-30 (12:31:05)'. A table of log events is shown with columns 'Time (UTC +00:00)' and 'Message'. The events are filtered for the date 2019-04-30 and show various HTTP GET requests from different user agents like Mozilla/5.0 and AppleWebKit/537.36.

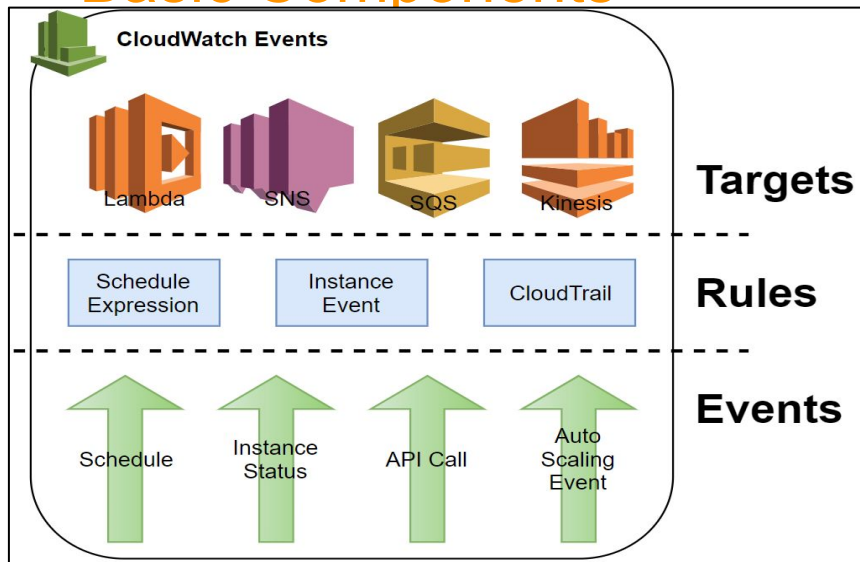
Time (UTC +00:00)	Message
2019-04-30	
11:55:52	182.73.116.202 - - [30/Apr/2019:11:55:47 +0000] "GET / HTTP/1.1" 200 11173 "-" "Mozilla/5.0 (Windows NT 6.1; WOW64) AppleWebKit/537.36 (KHTML, ..."
16:17:47	45.168.138.131 - - [30/Apr/2019:16:17:42 +0000] "GET / HTTP/1.1" 200 11173 "-" "Mozilla/5.0 (Windows NT 10.0; WOW64) AppleWebKit/537.36 (KHTML, ..."
17:02:10	61.219.11.153 - - [30/Apr/2019:17:02:05 +0000] "-" 408 0 "-" "-"
17:08:12	185.209.0.12 - - [30/Apr/2019:17:08:07 +0000] "\x03" 400 0 "-" "-"
18:05:53	180.251.54.70 - - [30/Apr/2019:18:05:48 +0000] "GET / HTTP/1.1" 200 11229 "-" "Mozilla/5.0 (Macintosh; Intel Mac OS X 10_11_6) AppleWebKit/601.7.7 ..."
19:43:12	109.94.121.118 - - [30/Apr/2019:19:43:07 +0000] "GET / HTTP/1.1" 200 11173 "-" "Mozilla/5.0 (Windows NT 6.1; WOW64) AppleWebKit/537.36 (KHTML, ..."
19:45:45	183.178.64.143 - - [30/Apr/2019:19:45:44 +0000] "GET /mysql/admin/index.php?lang=en HTTP/1.1" 404 458 "-" "Mozilla/5.0 (Windows NT 10.0; Win64; x64; ..."
19:45:45	183.178.64.143 - - [30/Apr/2019:19:45:44 +0000] "GET /mysql/dbadmin/index.php?lang=en HTTP/1.1" 404 460 "-" "Mozilla/5.0 (Windows NT 10.0; Win64; x64; ..."
19:45:46	183.178.64.143 - - [30/Apr/2019:19:45:45 +0000] "GET /mysql/sqlmanager/index.php?lang=en HTTP/1.1" 404 463 "-" "Mozilla/5.0 (Windows NT 10.0; Win64; x64; ..."
19:45:47	183.178.64.143 - - [30/Apr/2019:19:45:46 +0000] "GET /mysql/sqlmanager/index.php?lang=en HTTP/1.1" 404 465 "-" "Mozilla/5.0 (Windows NT 10.0; Win64; x64; ..."
19:45:47	183.178.64.143 - - [30/Apr/2019:19:45:46 +0000] "GET /phpmyadmin/index.php?lang=en HTTP/1.1" 404 457 "-" "Mozilla/5.0 (Windows NT 10.0; Win64; x64; ..."
19:45:48	183.178.64.143 - - [30/Apr/2019:19:45:47 +0000] "GET /phpMyadmin/index.php?lang=en HTTP/1.1" 404 457 "-" "Mozilla/5.0 (Windows NT 10.0; Win64; x64; ..."

- **Logs:** Logs let you monitor, store, and access your log files from AWS or other resources. It also allows you to centralize these logs for querying and analyzing.



# CloudWatch

## Basic Components



Amazon EventBridge

- **Events:** An event indicates changes in your AWS environment. You can create rules that self-trigger on an automated schedule.
- Now it can be used in new service named “Amazon EventBridge” also.

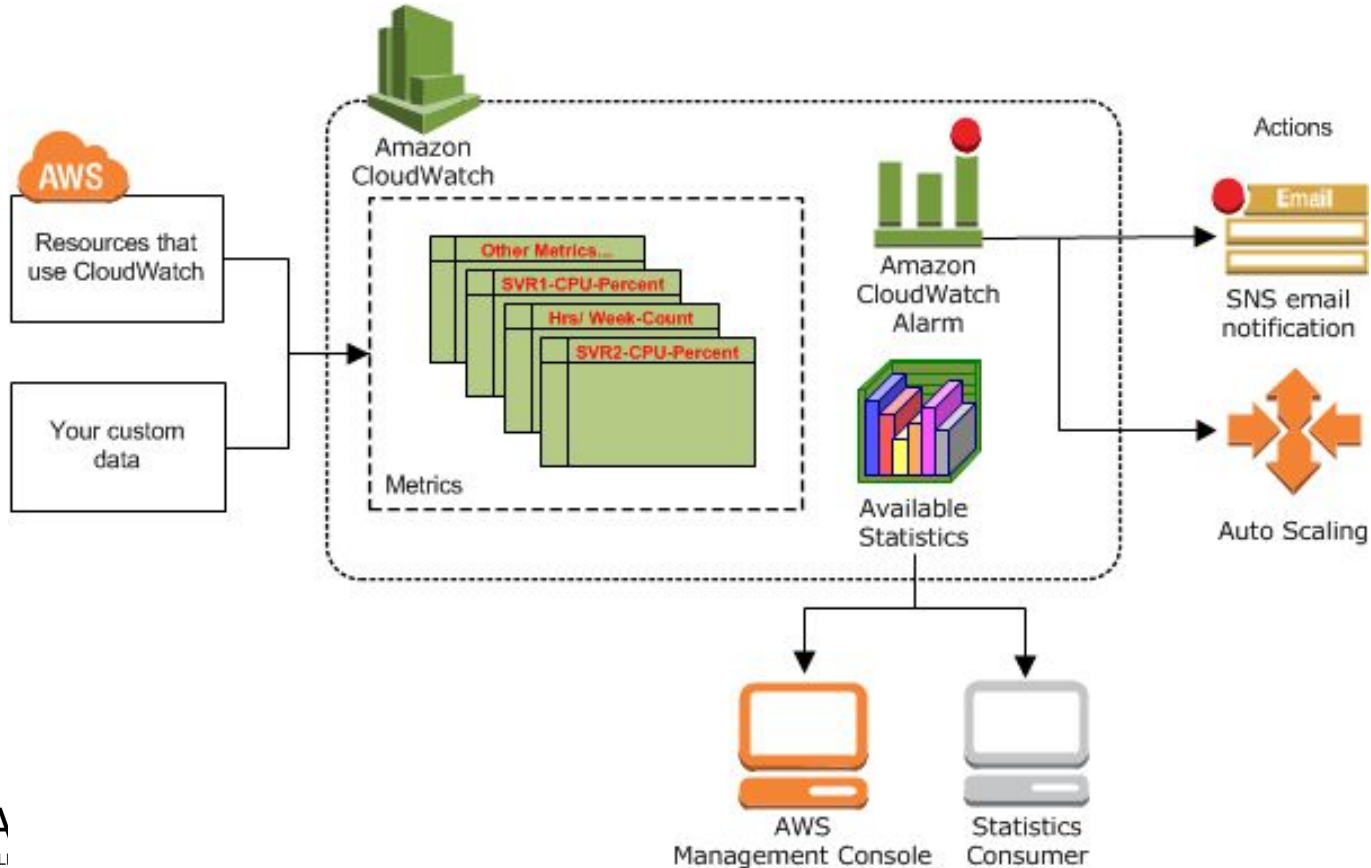


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# How does CloudWatch work?

# CloudWatch

## How does it work?





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# CloudWatch Pricing

# CloudWatch

## Pricing



- No **up-front commitment** or **minimum fee**
- Pay for what you use
- Pricing varies by region
- Enables limited **Free Tier** usage



# CloudWatch

## Pricing

### Free Tier:

Metrics	Basic Monitoring Metrics (at 5-minute frequency)
	10 Detailed Monitoring Metrics (at 1-minute frequency)
	1 Million API requests (not applicable to GetMetricData and GetMetricWidgetImage)
Dashboard	3 Dashboards for up to 50 metrics per month
Alarms	10 Alarm metrics (not applicable to high-resolution alarms)
Logs	5GB Data (ingestion, archive storage, and data scanned by Logs Insights queries)
Events	All events except custom events are included
Contributor Insights	1 Contributor Insights rule per month
	The first one million log events that match the rule per month
Synthetics	100 canary runs per month



# THANKS!

## Any questions?

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