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AWS-DEVOPS



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What is CloudWatch?

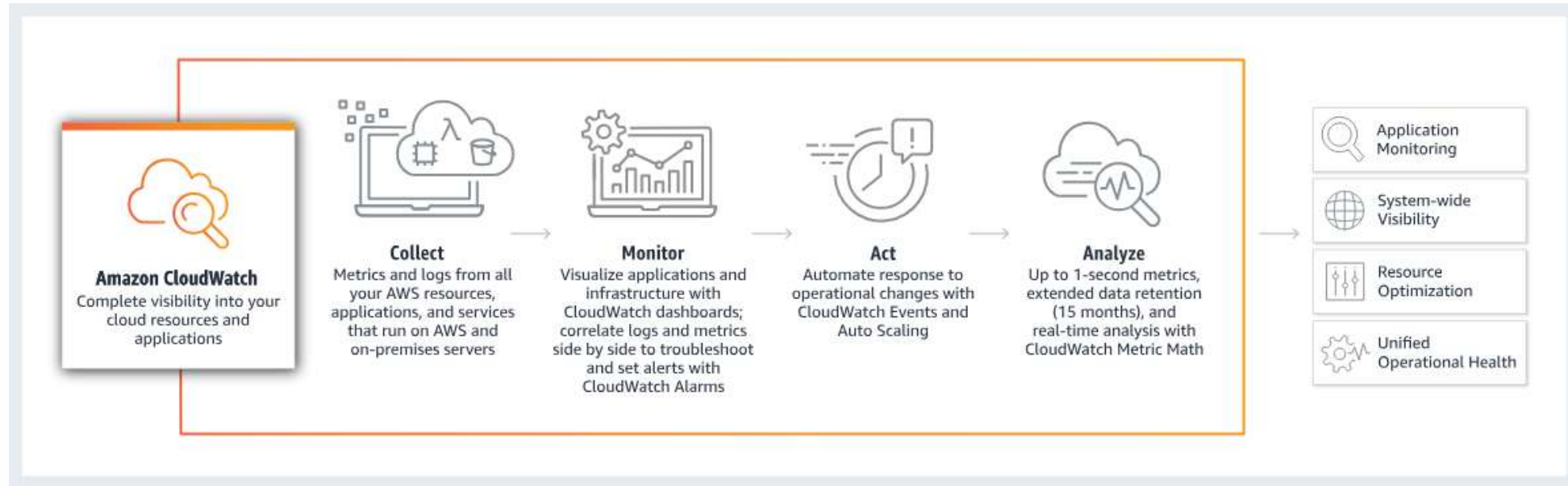
What is CloudWatch?



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.

What is CloudWatch?



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

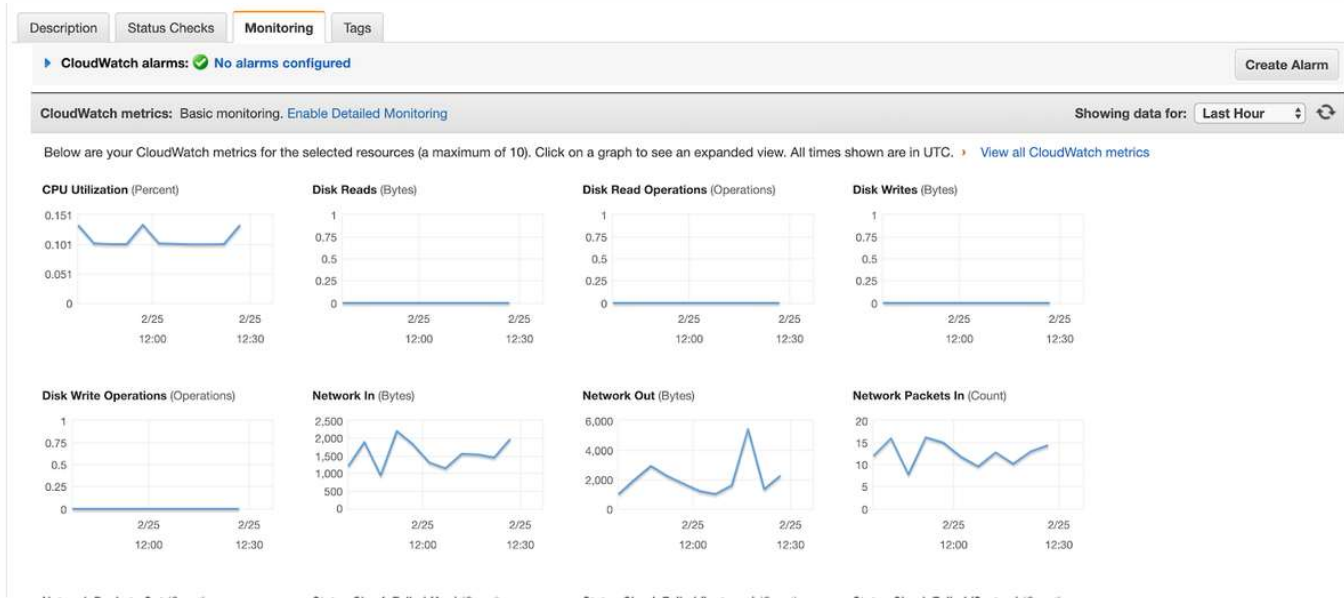


CloudWatch Basic Components

CloudWatch Basic Components

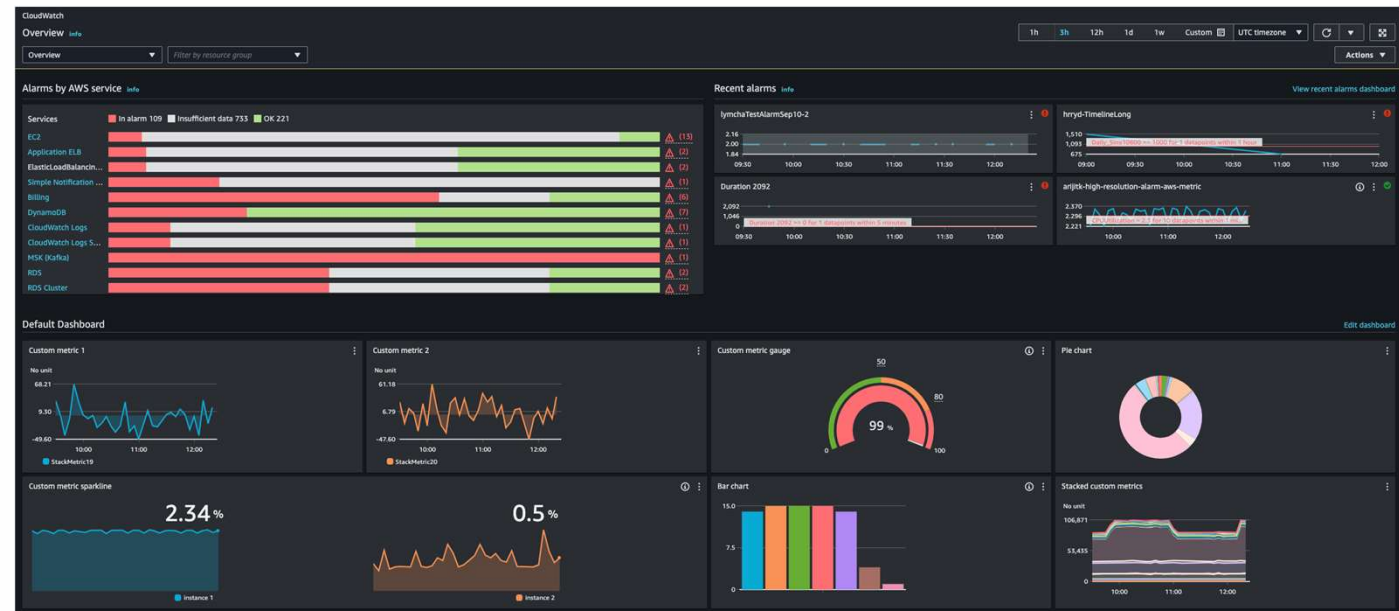
Metrics

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

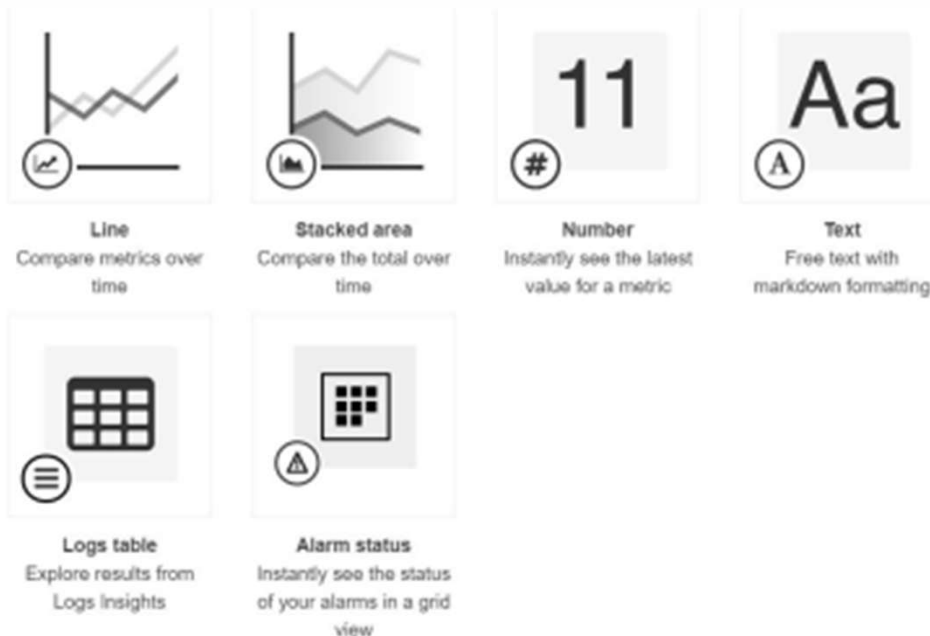
Dashboards



Dashboards enable you to create graphs and visualize your cloud resources and application according to your needs.

CloudWatch Basic Components

Widgets



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

CloudWatch Basic Components

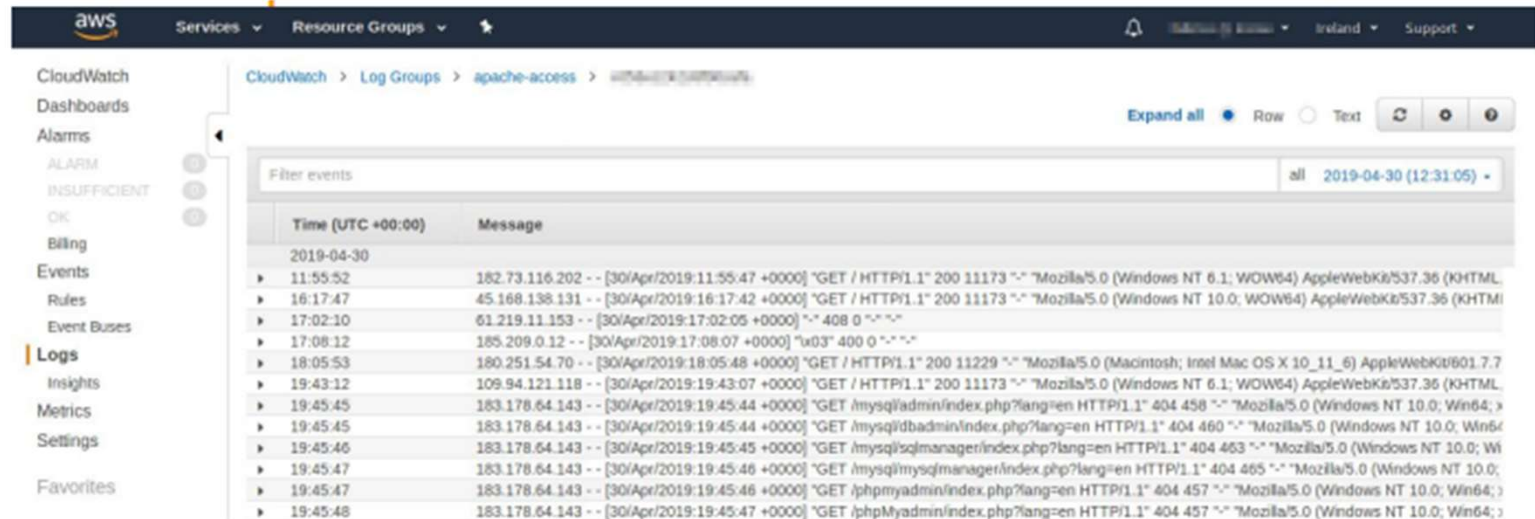
Alarms



- 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

Logs



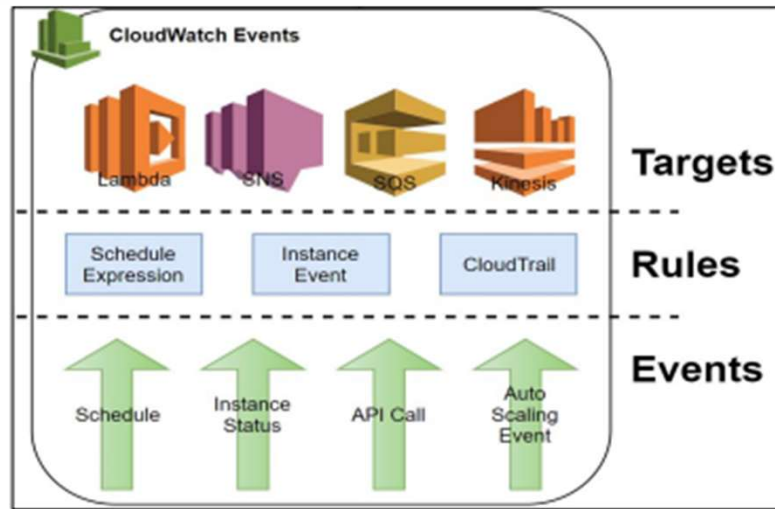
The screenshot displays the AWS CloudWatch Logs console interface. The left sidebar shows navigation options: CloudWatch, Dashboards, Alarms, Billing, Events, Rules, Event Buses, Logs (selected), Insights, Metrics, Settings, and Favorites. The main content area shows the 'Log Groups' page for the 'apache-access' log group. A table of log events is displayed, filtered for the date '2019-04-30' and time '12:31:05'. The table has two columns: 'Time (UTC +00:00)' and 'Message'. The messages are HTTP access logs from a web server.

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, like Gecko) Chrome/45.0.2454.103 Safari/537.36
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, like Gecko) Chrome/45.0.2454.103 Safari/537.36
17:02:10	61.219.11.153 - - [30/Apr/2019:17:02:05 +0000] "GET / HTTP/1.1" 200 11173 "-" Mozilla/5.0 (Windows NT 10.0; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/45.0.2454.103 Safari/537.36
17:08:12	185.209.0.12 - - [30/Apr/2019:17:08:07 +0000] "GET / HTTP/1.1" 200 11173 "-" Mozilla/5.0 (Windows NT 10.0; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/45.0.2454.103 Safari/537.36
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 (KHTML, like Gecko) Version/11.0.1 Safari/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, like Gecko) Chrome/45.0.2454.103 Safari/537.36
19:45:45	183.178.64.143 - - [30/Apr/2019:19:45:44 +0000] "GET /mysqladmin/index.php?lang=en HTTP/1.1" 404 458 "-" Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/45.0.2454.103 Safari/537.36
19:45:45	183.178.64.143 - - [30/Apr/2019:19:45:44 +0000] "GET /mysqladmin/index.php?lang=en HTTP/1.1" 404 460 "-" Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/45.0.2454.103 Safari/537.36
19:45:46	183.178.64.143 - - [30/Apr/2019:19:45:45 +0000] "GET /mysqlmanager/index.php?lang=en HTTP/1.1" 404 463 "-" Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/45.0.2454.103 Safari/537.36
19:45:47	183.178.64.143 - - [30/Apr/2019:19:45:46 +0000] "GET /mysqlmanager/index.php?lang=en HTTP/1.1" 404 465 "-" Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/45.0.2454.103 Safari/537.36
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) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/45.0.2454.103 Safari/537.36
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) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/45.0.2454.103 Safari/537.36

- 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

Events



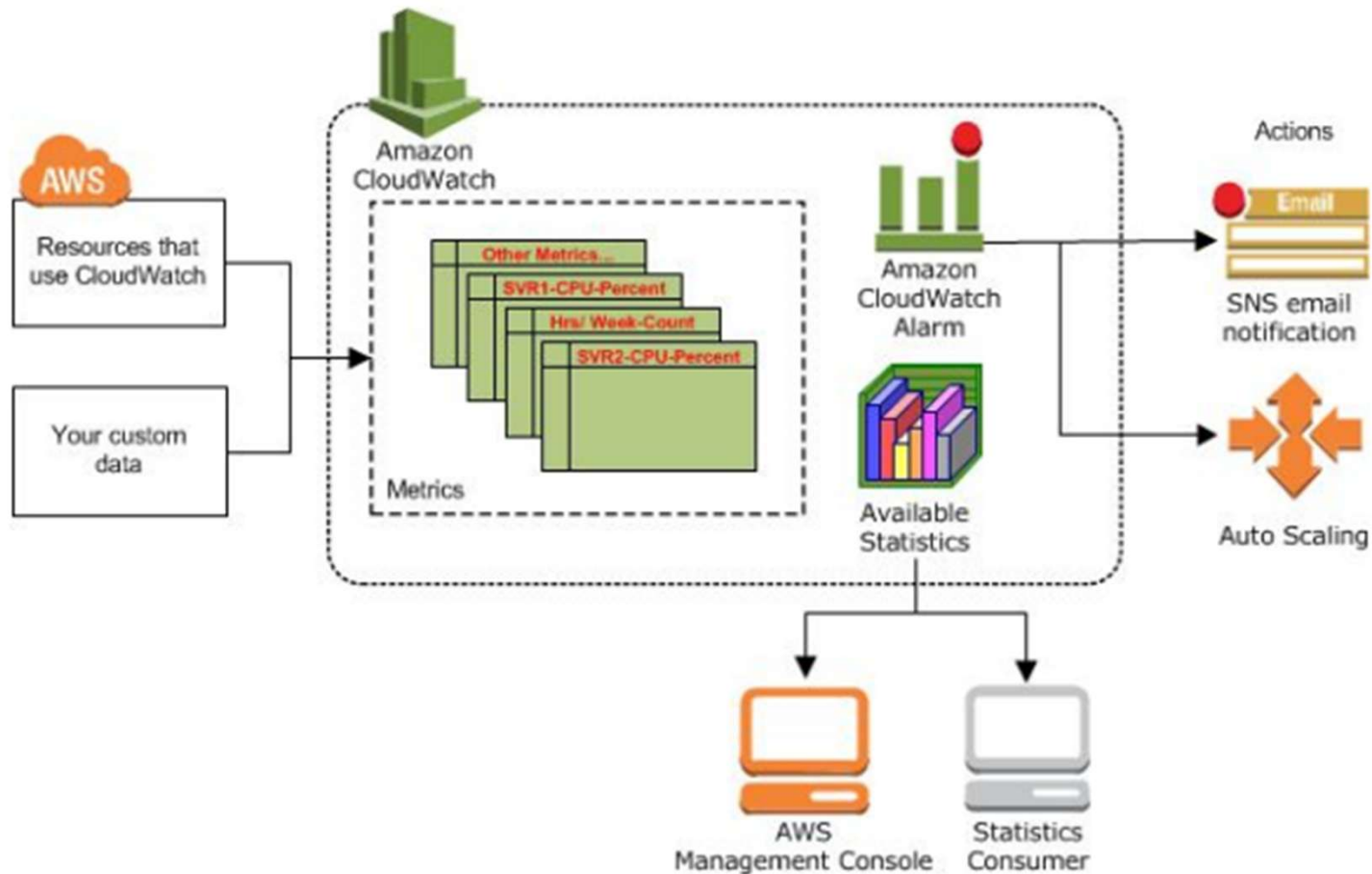
Amazon EventBridge

- 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.



How does CloudWatch work?

How does CloudWatch work?





CloudWatch Pricing



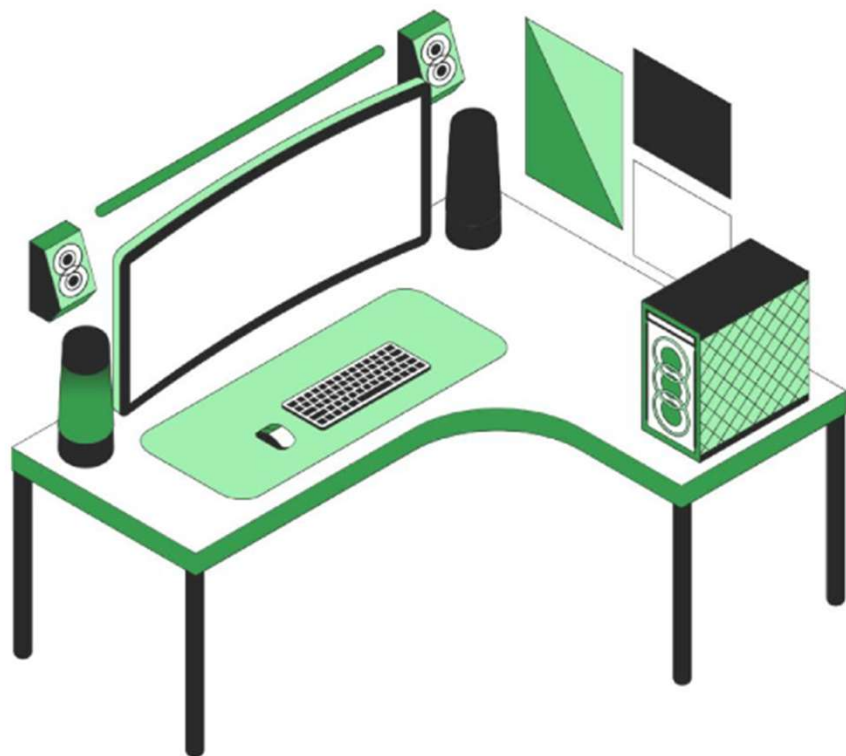
CloudWatch Pricing

- 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



Do you have any questions?

Send it to us! We hope you learned something new.