



AWS CloudWatch





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What is CloudWatch?

CloudWatch

What is CloudWatch?

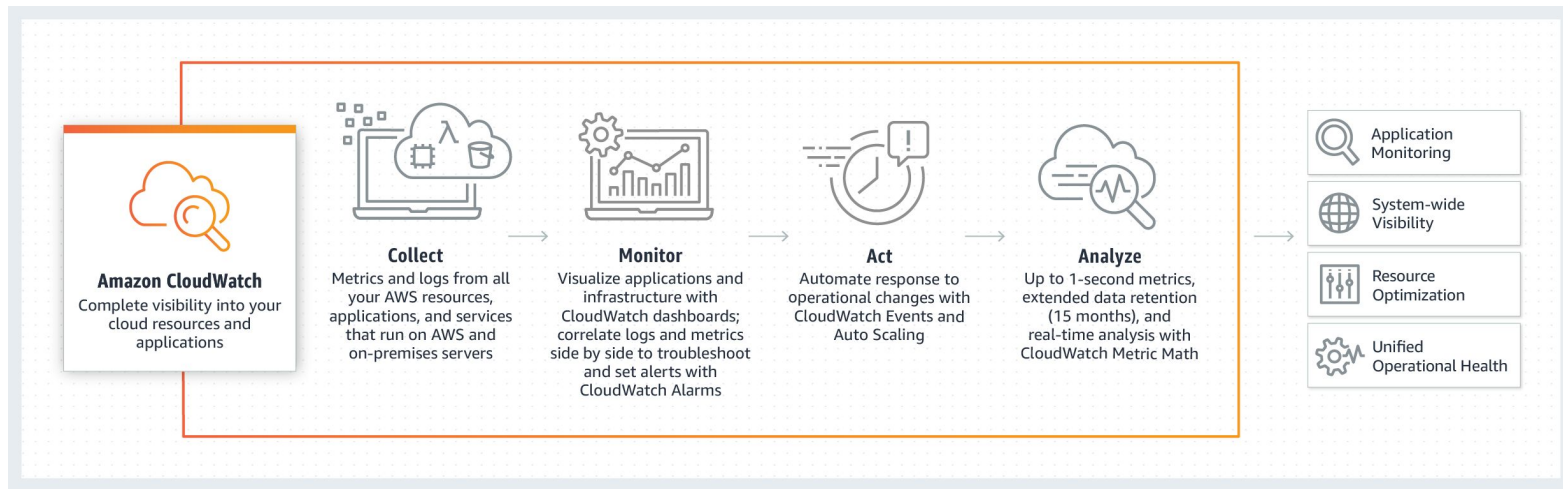


Amazon CloudWatch

- 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.

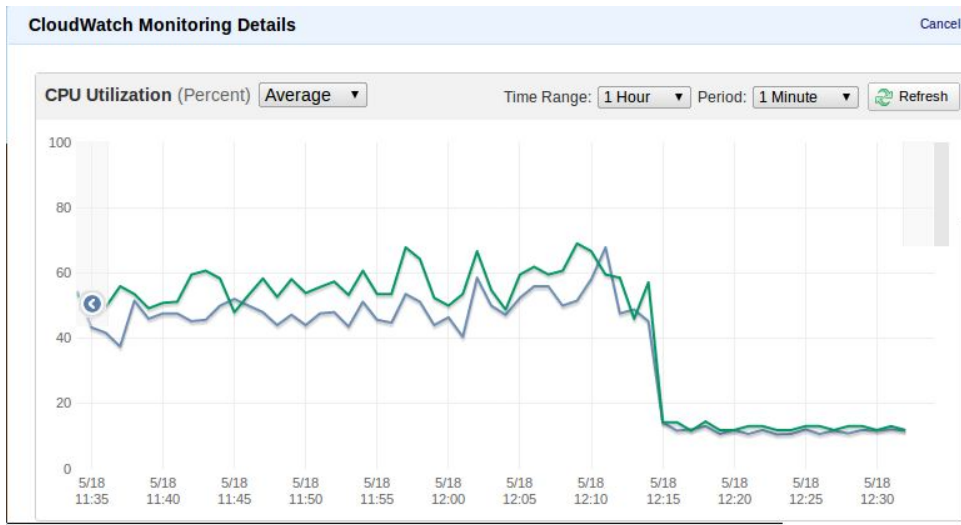


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CloudWatch Basic Components

CloudWatch

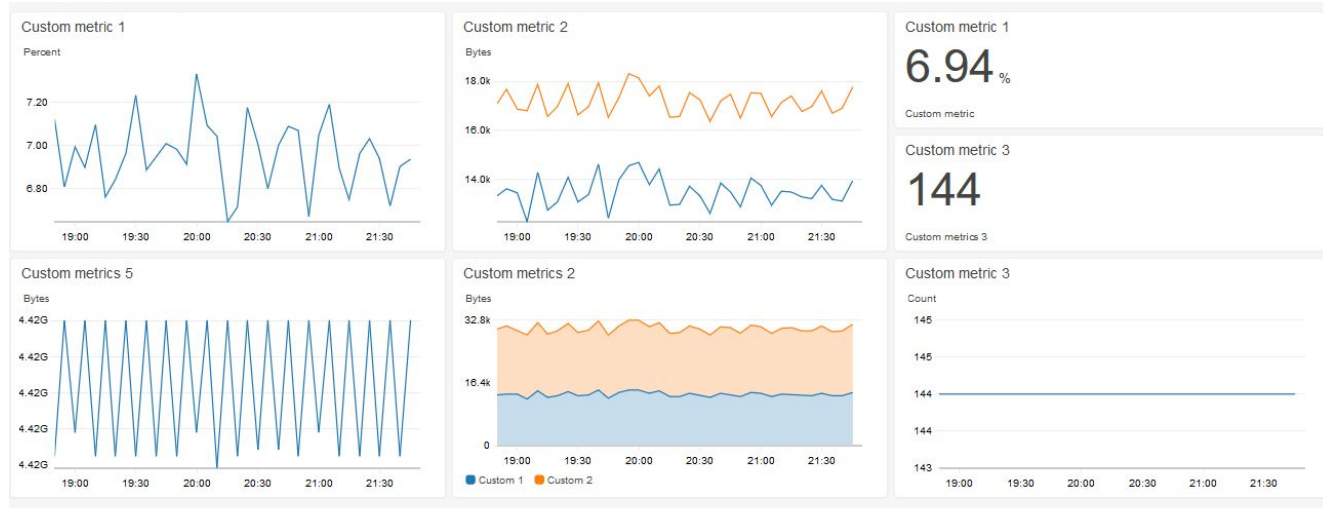
Basic Components



- **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



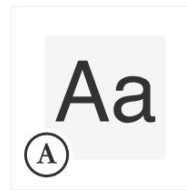
Stacked area

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

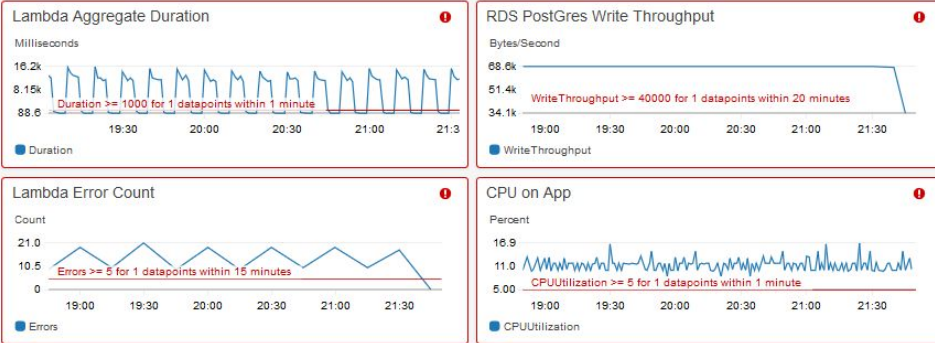
Basic Components



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, INSUFFICIENT, OK, Billing, Events, Rules, Event Buses, Logs (highlighted), Insights, Metrics, Settings, and Favorites. The main content area shows the breadcrumb path: CloudWatch > Log Groups > apache-access > [Log Group Name]. Below this, there are controls for 'Expand all', 'Row', 'Text', and a 'Filter events' input field. A date range filter is set to 'all' for '2019-04-30 (12:31:05)'. A table displays log events with columns for '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.

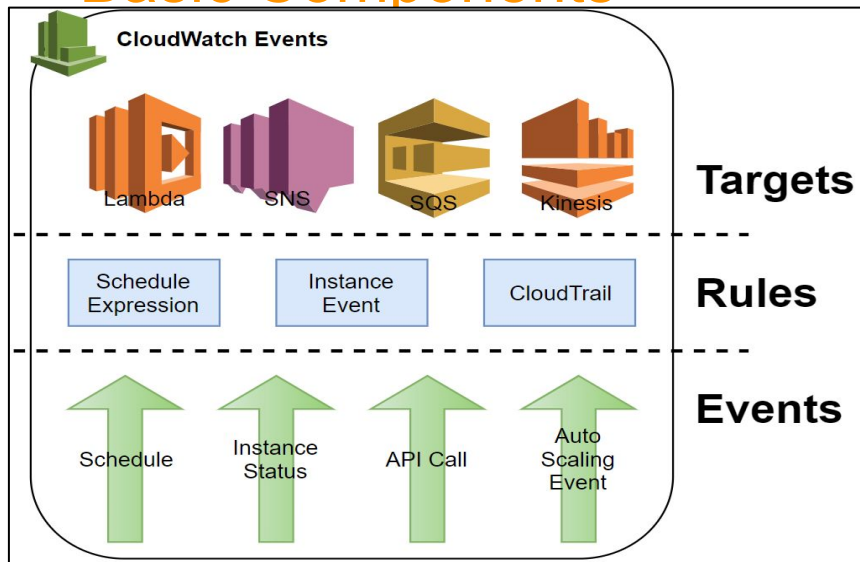
Time (UTC +00:00)	Message
2019-04-30	
11:55:52	182.73.116.202 - - [30/Apr/2019:11:55:47 +0000] "GET / HTTP/1.1" 200 11173 "-" "Mozilla/5.0 (Windows NT 6.1; WOW64) AppleWebKit/537.36 (KHTML, ..."
16:17:47	45.168.138.131 - - [30/Apr/2019:16:17:42 +0000] "GET / HTTP/1.1" 200 11173 "-" "Mozilla/5.0 (Windows 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) AppleWebKit/537.36 (KHTML, ..."
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) AppleWebKit/537.36 (KHTML, ..."
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) AppleWebKit/537.36 (KHTML, ..."
19:45:47	183.178.64.143 - - [30/Apr/2019:19:45:46 +0000] "GET /mysql/mysqlmanager/index.php?lang=en HTTP/1.1" 404 465 "-" "Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, ..."
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, ..."
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, ..."

- **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.

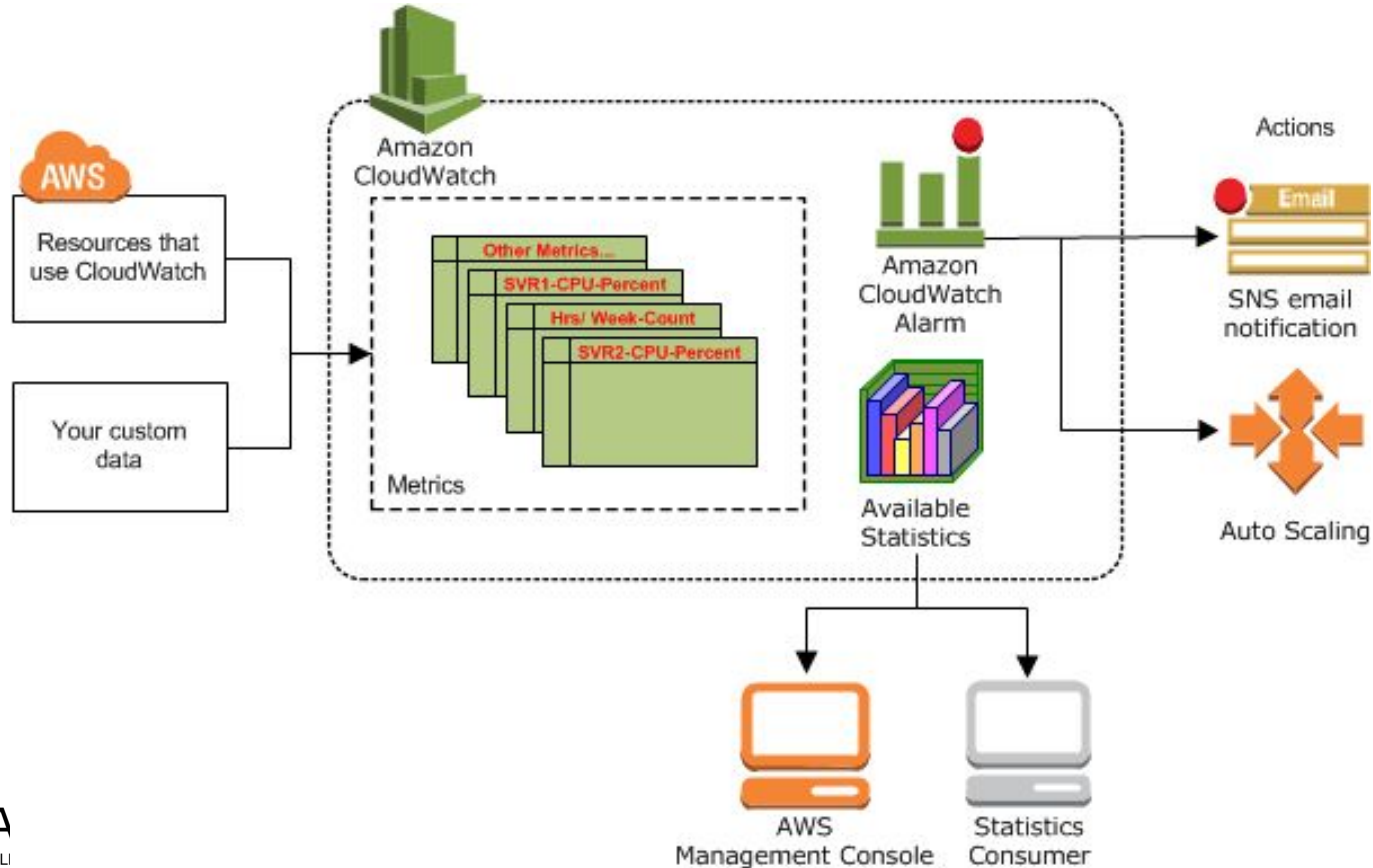


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How does CloudWatch work?

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?

You can find me at:

- ▶ @Guile-Instructor
- ▶ guile@clarusway.com

