Cloud Computing Architecture

Cloud Watch

SWINBURNE UNIVERSITY OF TECHNOLOGY

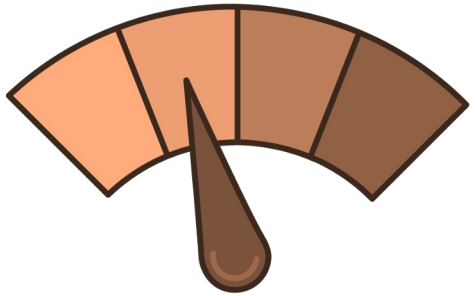
Monitoring AWS resources

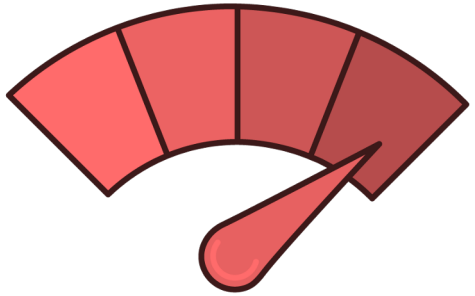
To use AWS efficiently, you need insight into your AWS resources:

- How do you know when you should **launch more Amazon EC2 instances**?
- Is your **application's performance or availability** being affected by a lack of sufficient capacity?
- How much of your infrastructure is actually **being used**?

Amazon CloudWatch

Amazon CloudWatch

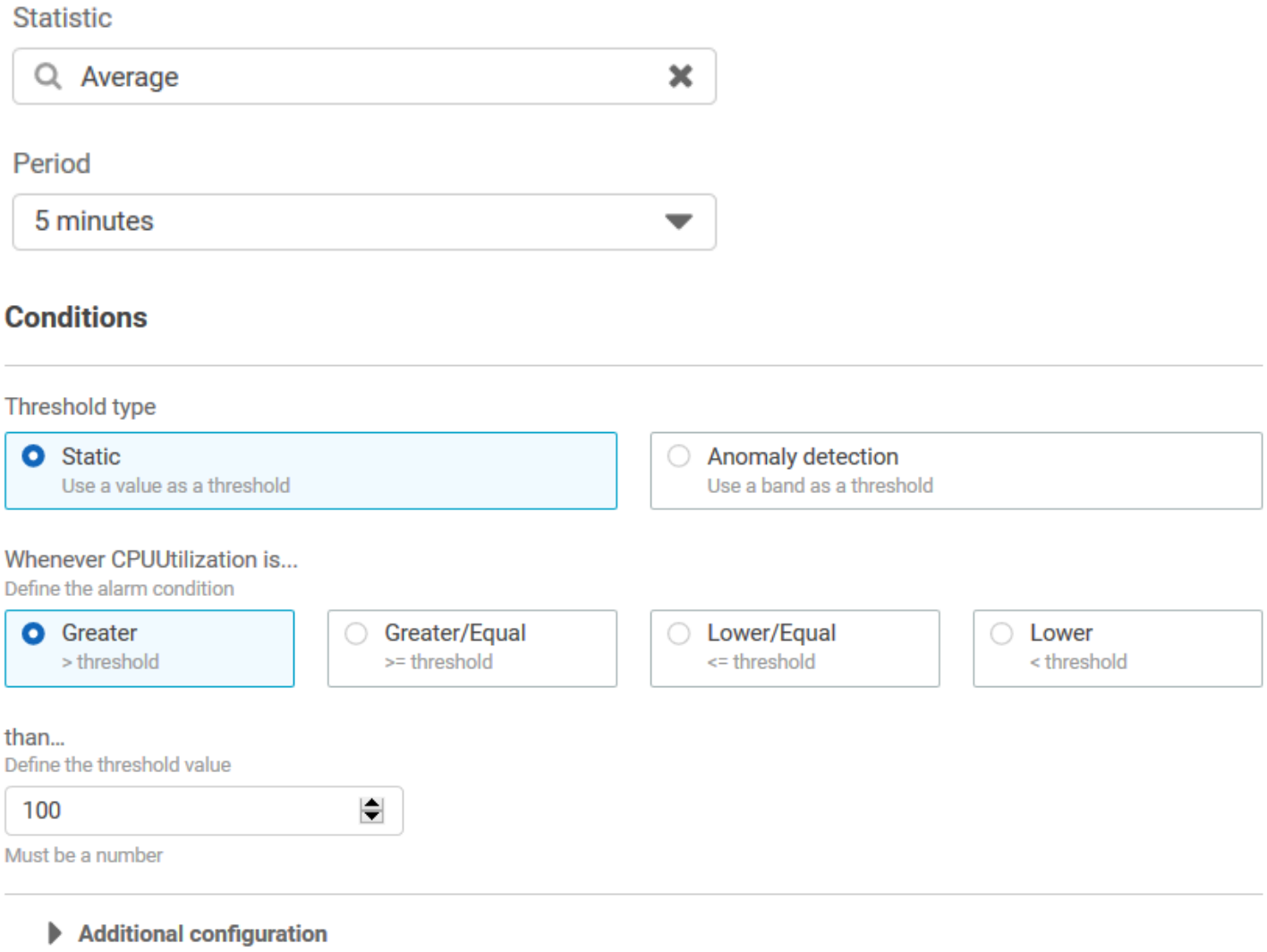




- Monitors –
  - AWS resources
  - Applications that run on AWS
- Collects and tracks –
  - Standard metrics
  - Custom metrics
- Alarms –
  - Send notifications to an Amazon SNS topic
  - Perform Amazon EC2 Auto Scaling or Amazon EC2 actions
- Events –
  - Define rules to match changes in AWS environment and route these events to one or more target functions or streams for processing

CloudWatch alarms

- Create alarms based on –
  - Static threshold
  - Anomaly detection
  - Metric math expression
- Specify –
  - Namespace
  - Metric
  - Statistic
  - Period
  - Conditions
  - Additional configuration
  - Actions



Activity: Amazon CloudWatch Activity

 Amazon EC2	If average CPU utilization is > 60% for 5 minutes…	Correct!
 Amazon RDS	If the number of simultaneous connections is > 10 for 1 minute…	Correct!
 Amazon S3	If the maximum bucket size in bytes is around 3 for 1 day…	Incorrect. *Around* is not a threshold option. You must specify a threshold of >, >=, <=, or <.
 Elastic Load Balancing	If the number of healthy hosts is < 5 for 10 minutes…	Correct!
 Amazon Elastic Block Store	If the volume of read operations is > 1,000 for 10 seconds…	Incorrect. You must specify a statistic (for example, *average volume*).

Section 2 key takeaways

- Amazon CloudWatch helps you monitor your AWS resources—and the applications that you run on AWS—in real time.
- CloudWatch enables you to –
  - Collect and track standard and custom metrics.
  - Set alarms to automatically send notifications to SNS topics, or perform Amazon EC2 Auto Scaling or Amazon EC2 actions.
  - Define rules that match changes in your AWS environment and route these events to targets for processing.

Lecture References

Recommend Viewing

Swinburne Lecture – High Level Overview

AWS Academy – Deeper dive

ACF Module 10