Placement Empowerment Program

Cloud Computing and DevOps Centre

Set Up a Cloud-Based Monitoring Service Enable basic cloud monitoring (e.g., CloudWatch on AWS). View metrics like CPU usage and disk I/O for your cloud VM.

Name: Monisha J R **Department : CSE**

Introduction

Cloud-based monitoring services are essential for managing the performance and health of virtual machines and applications in a cloud environment. Tools like Amazon CloudWatch enable you to monitor metrics such as CPU usage, disk I/O, and network traffic. By enabling these services, you can gain insights into system performance and identify potential bottlenecks or failures before they impact your operations.

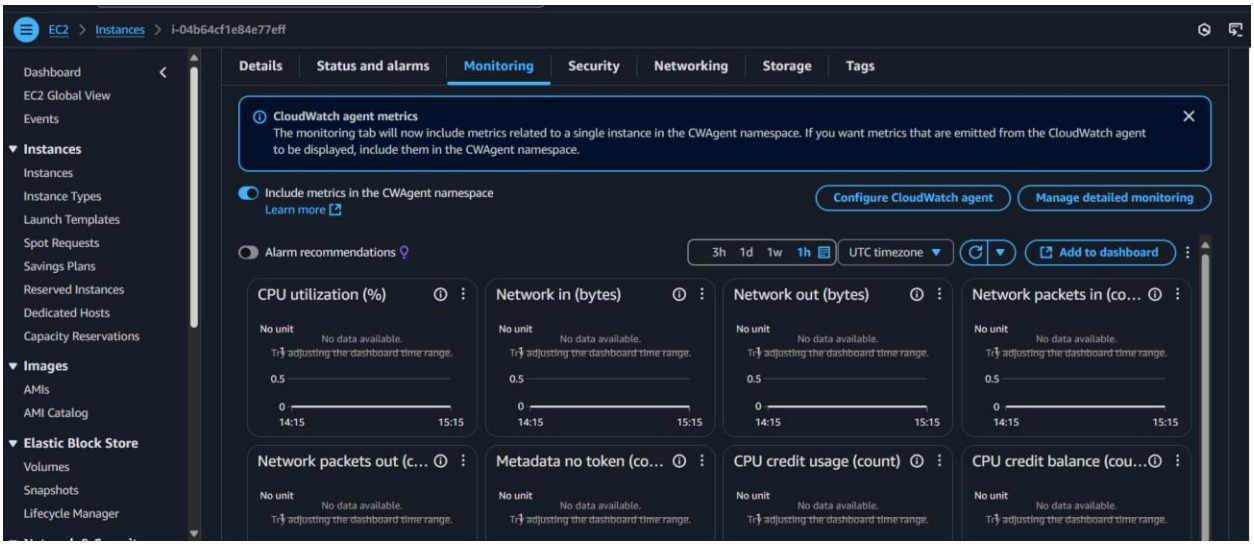
Objectives

- Learn how to enable basic cloud monitoring services for a virtual machine.
- Understand how to view and interpret key performance metrics, including CPU usage and disk I/O.
- Analyze system performance using the monitoring dashboard in the cloud console.

Step by Step Overview

1. Enable Monitoring for Your Virtual Machine:

- Log in to your AWS management console.
- Navigate to EC2 section.
- Select the instance you want to monitor.
- Go to the "Monitoring" tab of the instance and enable detailed monitoring (if not already enable.
- Save the changes to ensure monitoring is activated.



2.View Metrics in the Monitoring Dashboard

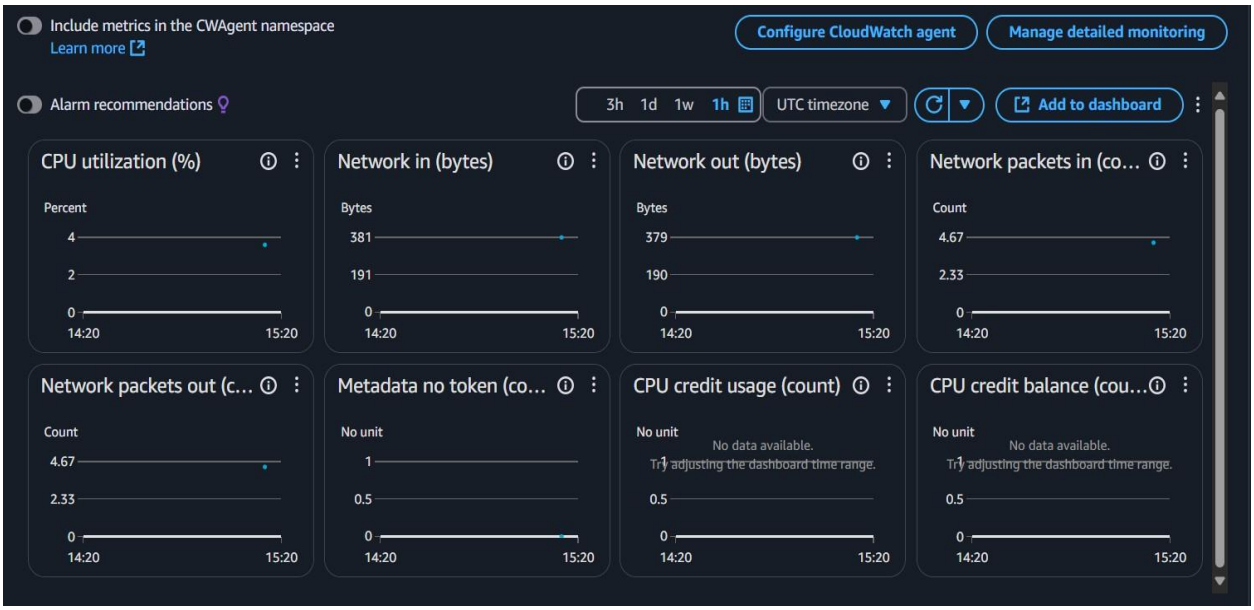
Open the monitoring dashboard in the aws console.

α. Navigate to the Amazon CloudWatch dashboard.

β. Select the instance you wish to monitor.

χ. View real-time and historical metrics such as: CPU Utilization, Disk I/O, Network Traffic.

δ. Use the graphical interface to customize charts or add widgets for frequently monitored metrics.



3.Set Up Alarms

ε. In the monitoring dashboard, locate the "Alarms" or "Alerts" section.

ϕ. Create a new alarm. Define the metric to monitor (e.g., CPU utilization above 80%). Set the threshold value and duration to trigger the alarm.

γ. create an SNS (Simple Notification Service) topic and subscribe to it.

η. Save and activate the alarm.

4.Analyze Performance Trends

ι. Review collected metrics over time to identify trends or anomalies.

φ. Export logs or reports for deeper analysis

Outcome:

With this PoC, we learnt about the basics of enabling and using cloud-based monitoring tools.
And how to interpret performance metrics like CPU usage and disk I/O. Proactive system
performance analysis to ensure operational efficiency. Setting up alerts for critical conditions to minimize downtime.