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aws

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.

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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.

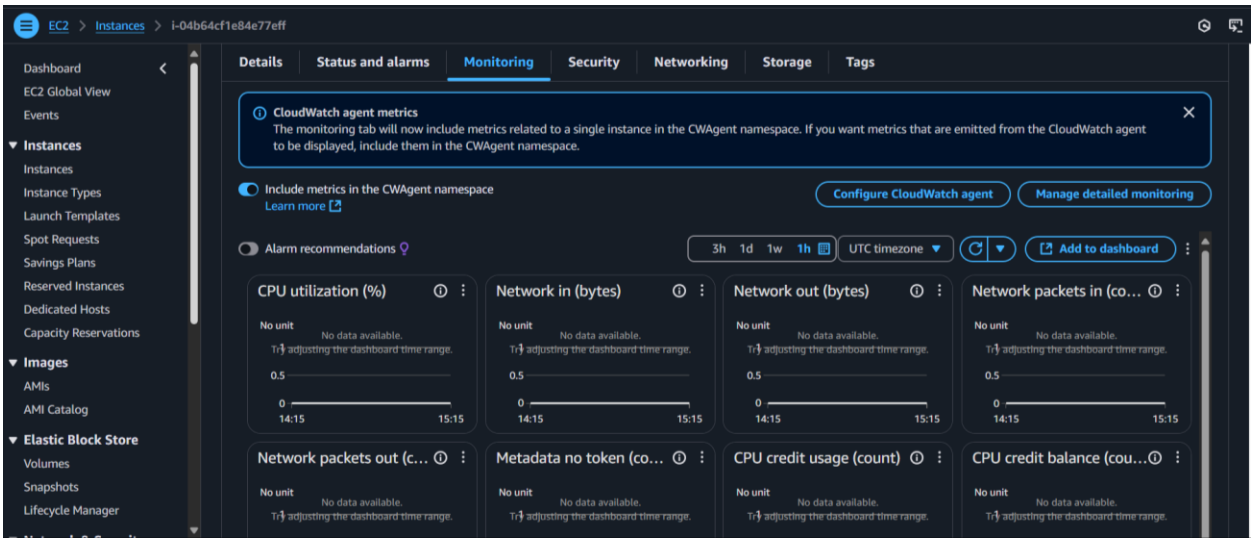
Objectives

- 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:

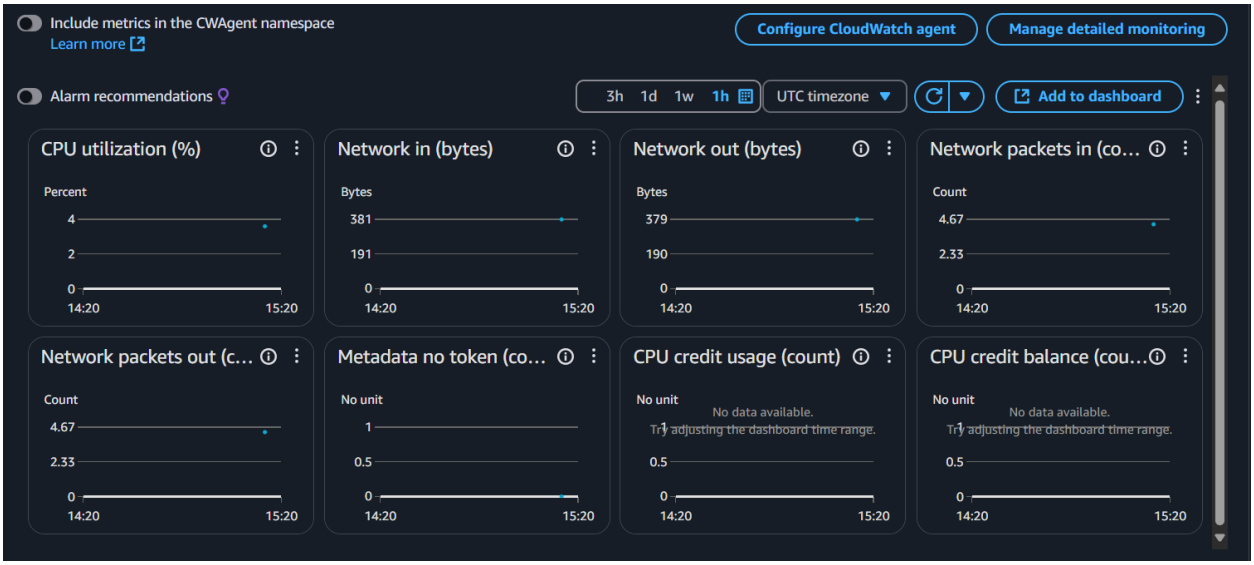
- Log in to your AWS management console.
- Navigate to EC2 section.
- Select the instance you want to monitor.
- Go to the "Monitoring" tab of the instance and enable detailed monitoring (if not already enable.
- Save the changes to ensure monitoring is activated.



2. View Metrics in the Monitoring Dashboard

Open the monitoring dashboard in the aws console.

- Navigate to the Amazon CloudWatch dashboard.
- Select the instance you wish to monitor.
- View real-time and historical metrics such as: CPU Utilization, Disk I/O, Network Traffic.
- Use the graphical interface to customize charts or add widgets for frequently monitored metrics.



3. Set Up Alarms

- In the monitoring dashboard, locate the "Alarms" or "Alerts" section.
- 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.
- create an SNS (Simple Notification Service) topic and subscribe to it.
- Save and activate the alarm.

4. Analyze Performance Trends

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