

Screenshot of the AWS Cloud Console showing the EC2 homepage and the Instances page.

Amazon Elastic Compute Cloud (EC2)

Create, manage, and monitor virtual servers in the cloud.

Benefits and features

EC2 offers ultimate scalability and control

Fully resizable compute capacity to support virtually any workload. This service is best if you want:

- Highest level of control of the entire technology stack, allowing full integration with all AWS services
- Widest variety of server size options
- Widest availability of operating systems to choose from including Linux, Windows, and macOS
- Global scalability

Additional actions

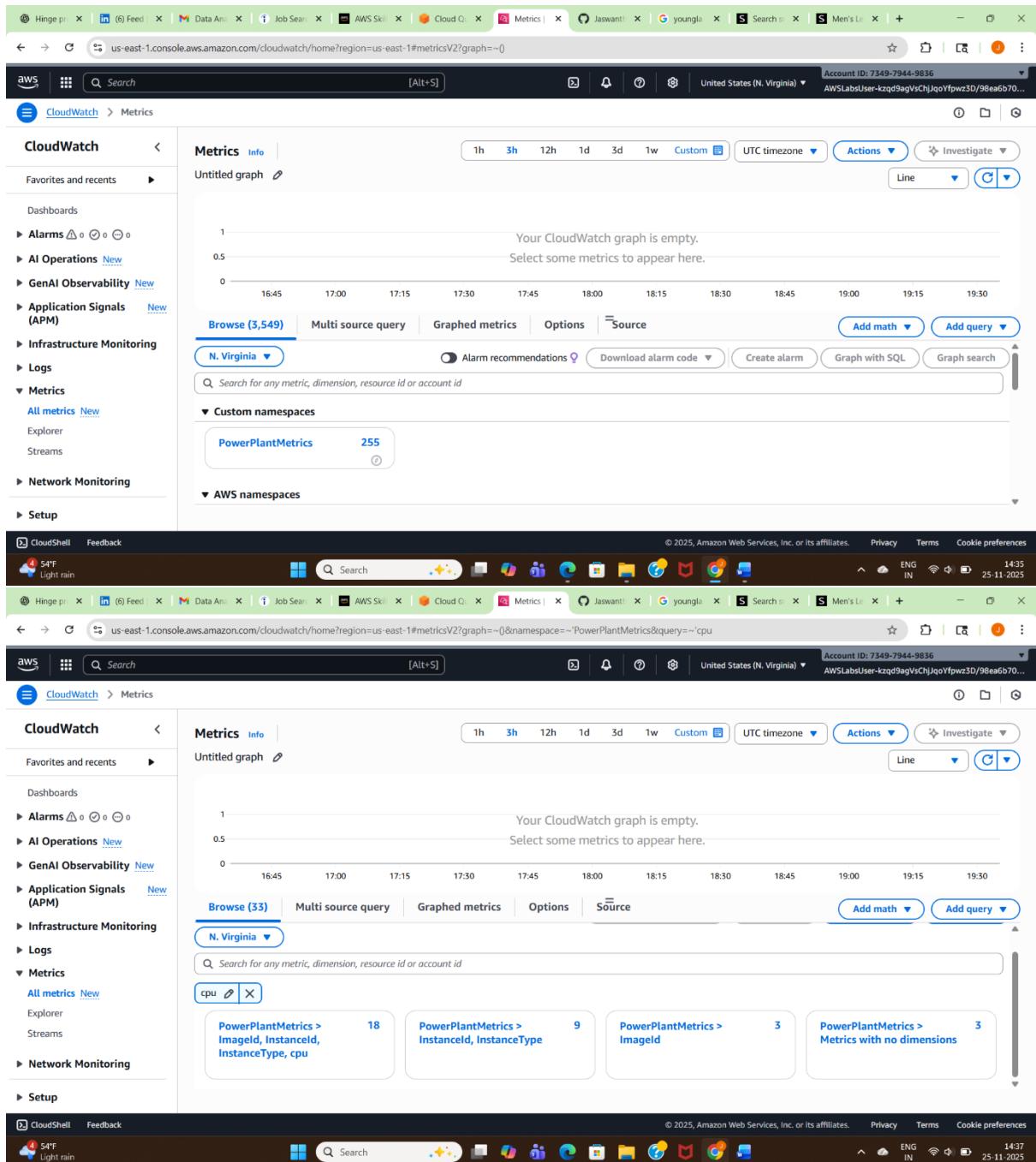
- View running instances
- Migrate a server

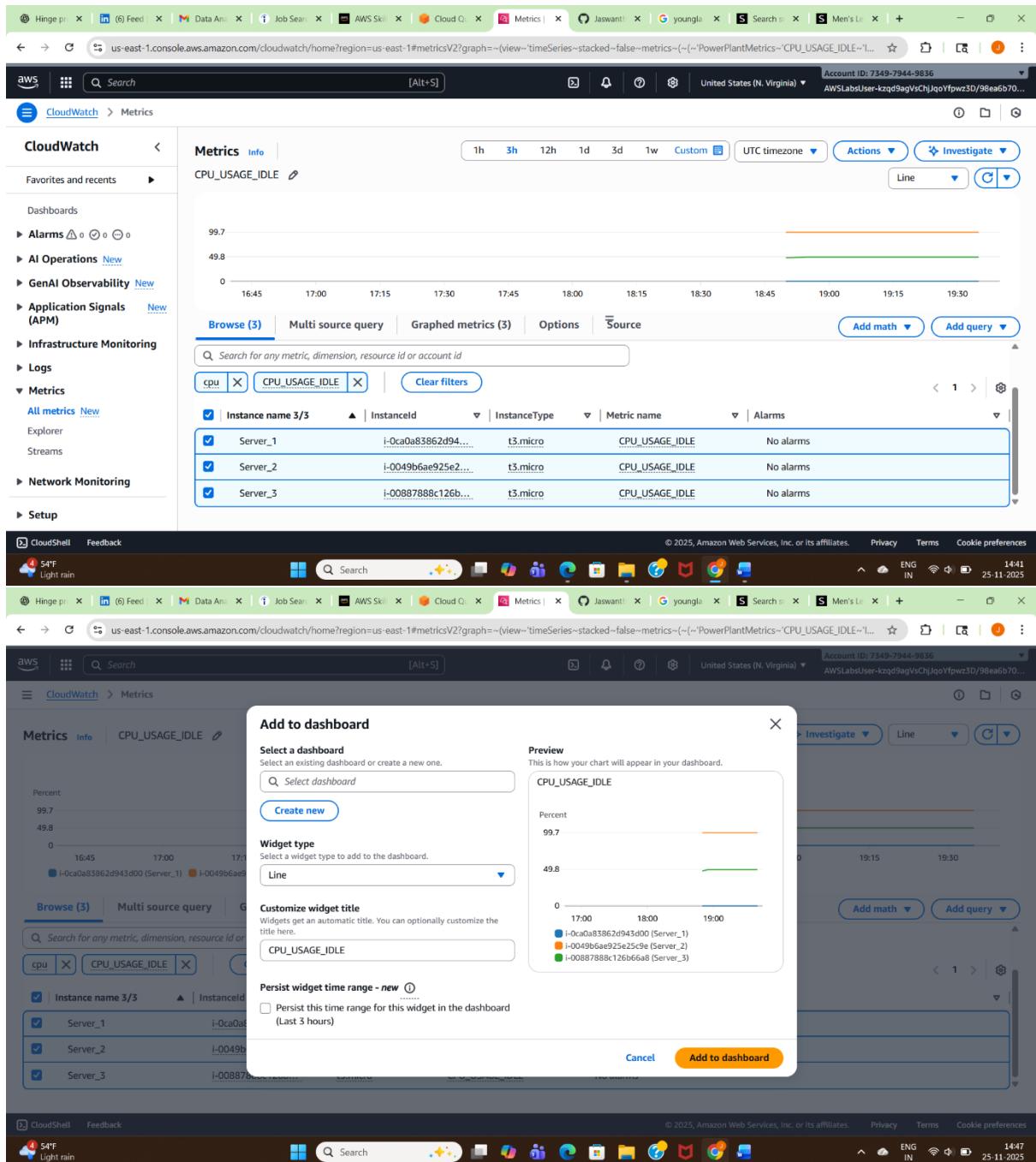
Pricing (US)

Instances (3) Info

| Name | Instance ID | Instance state | Instance type | Status check | Alarm status | Availability Zone | Public IPv4 |
|----------|---------------------|----------------|---------------|-------------------|---------------|-------------------|-------------|
| Server_3 | i-00887888c126b66a8 | Running | t3.micro | 3/3 checks passed | View alarms + | us-east-1a | ec2-100-29- |
| Server_2 | i-0049b6ae925e25c9e | Running | t3.micro | 3/3 checks passed | View alarms + | us-east-1a | ec2-98-90- |
| Server_1 | i-0ca0a83862d943d00 | Running | t3.micro | 3/3 checks passed | View alarms + | us-east-1a | ec2-18-235- |

Select an instance





Screenshot of the AWS CloudWatch Metrics interface showing CPU usage for three servers over time.

Metrics Overview:

- Region: us-east-1
- Metric: CPU_USAGE_IDLE
- Time Range: 16:45 - 17:00
- Dimensions: Server_1 (blue), Server_2 (orange), Server_3 (green)

Add to dashboard:

Select a dashboard: Power-Plant-Dashboard

Widget type: Line

Customize widget title: CPU_USAGE_IDLE

Persist widget time range: new (checkbox checked)

Preview:

| Time | Server_1 (%) | Server_2 (%) | Server_3 (%) |
|-------|--------------|--------------|--------------|
| 16:45 | 99.7 | 49.8 | 0 |
| 17:00 | 99.7 | 49.8 | 0 |

Add to dashboard:

Select a dashboard: Power-Plant-Dashboard

Widget type: Bar

Customize widget title: CPU_USAGE_IDLE

Persist widget time range: new (checkbox checked)

Preview:

| Server | Value (%) |
|----------|-----------|
| Server_1 | 99.6 |
| Server_2 | 49.8 |

Screenshot of the AWS CloudWatch Metrics Dashboard titled "Power-Plant-Dashboard".

The dashboard displays a bar chart titled "Servers Idle CPU Usage" comparing three servers:

| Server | CPU Usage (%) |
|----------|---------------|
| Server_1 | ~85 |
| Server_2 | ~50 |
| Server_3 | ~50 |

Legend: Server_1 (Orange), Server_2 (Green), Server_3 (Green)

Time range: 1h, 3h, 12h, 1d, 3d, 1w, Custom, UTC timezone.

Actions: Save dashboard, Autosave: Off, Save.

Screenshot of the AWS CloudWatch Alarms page:

The sidebar shows "CloudWatch" and "Alarms".

The main area shows "Alarms (0)" with a search bar and filters for Name, State, Last state update (UTC), Conditions, and Actions.

No alarms are displayed.

Buttons: Create alarm, Create composite alarm, Actions.

Bottom navigation: CloudShell, Feedback.

Screenshot of the AWS CloudWatch Metrics console showing the 'Select metric' dialog and the 'Create alarm' wizard.

Select metric Dialog:

- Metric Name:** CPU_USAGE_IDLE
- Time Range:** 1h, 3h, 12h, 1d, 3d, 1w, Custom (selected), UTC timezone
- Graph Type:** Line
- Graph Data:**
 - Percent: 1
 - Time: 17:00 to 19:45
 - Series: CPU_USAGE_IDLE
- Browsing:** Browse (3) | Multi source query | Graphed metrics (1) | Options | Source = All > PowerPlantMetrics > Instanceld, InstanceType
- Search:** Search for any metric, dimension, resource id or account id
- Filter:** CPU_USAGE_IDLE (selected) | Clear filters
- Instance Selection:**

| Instance name | Instanceld | InstanceType | Metric name | Alarms |
|---------------|--------------------|--------------|----------------|-----------|
| Server_1 | i-0ca0a83862d94... | t3.micro | CPU_USAGE_IDLE | No alarms |
| Server_2 | i-0049b6ae925e2... | t3.micro | CPU_USAGE_IDLE | No alarms |
- Buttons:** Cancel, Select metric

Create alarm Wizard - Step 1: Specify metric and conditions:

- Step 1:** Specified metric and conditions (selected)
- Step 2:** Configure actions
- Step 3:** Add alarm details
- Step 4:** Preview and create
- Metric Selection:**
 - Graph:** This alarm will trigger when the blue line goes above the red line for 1 datapoints within 5 minutes.
 - Percent:** 1
 - Time:** 17:00 to 19:30
 - Series:** CPU_USAGE_IDLE
- Configuration Fields:**
 - Namespace:** PowerPlantMetrics
 - Metric name:** CPU_USAGE_IDLE
 - Instanceld:** i-0ca0a83862d943d00
 - InstanceType:** t3.micro
 - Instance name:** Server_1
 - Statistic:** Average

Hinge pr | (6) Feed | Data An... | Job Sear... | AWS Sk... | Cloud Q... | Create al... | Jaswant! | youngla... | Search | Men's Le... | + | - | ○ | :|

us-east-1.console.aws.amazon.com/cloudwatch/home?region=us-east-1#alarmsV2:create?~(Page~MetricSelection~AlarmType~MetricAlarm~AlarmData~Namespace~PowerPlantM... | Account ID: 7349-7944-9836 | AWSLabsUser-kzqd9egVsChJqoYfpwz3D/98ea6b70...

aws | Search [Alt+S] | United States (N. Virginia) | Account ID: 7349-7944-9836 | AWSLabsUser-kzqd9egVsChJqoYfpwz3D/98ea6b70...

CloudWatch > Alarms > Create alarm

Period: 5 minutes

Conditions

Threshold type: Static (selected)

Whenever CPU_USAGE_IDLE is...

than... Define the threshold value.

20 Must be a number.

▶ Additional configuration

CloudShell Feedback | © 2025, Amazon Web Services, Inc. or its affiliates. | Privacy | Terms | Cookie preferences | ENG IN | 14:57 | 25.11.2025

Hinge pr | (6) Feed | Data An... | Job Sear... | AWS Sk... | Cloud Q... | Create al... | Jaswant! | youngla... | Search | Men's Le... | + | - | ○ | :|

us-east-1.console.aws.amazon.com/cloudwatch/home?region=us-east-1#alarmsV2:create?~(Page~Actions~AlarmType~MetricAlarm~AlarmData~Namespace~PowerPlantMetrics~... | Account ID: 7349-7944-9836 | AWSLabsUser-kzqd9egVsChJqoYfpwz3D/98ea6b70...

aws | Search [Alt+S] | United States (N. Virginia) | Account ID: 7349-7944-9836 | AWSLabsUser-kzqd9egVsChJqoYfpwz3D/98ea6b70...

CloudWatch > Alarms > Create alarm

Step 2: Configure actions (selected)

Step 3: Add alarm details

Step 4: Preview and create

Notification

Alarm state trigger: In alarm (selected)

The metric or expression is outside of the defined threshold.

OK: The metric or expression is within the defined threshold.

Insufficient data: The alarm has just started or not enough data is available.

Send a notification to the following SNS topic:

Define the SNS (Simple Notification Service) topic that will receive the notification.

Select an existing SNS topic

Create new topic (selected)

Use topic ARN to notify other accounts

Create a new topic...: High_CPU_USAGE

SNS topic names can contain only alphanumeric characters, hyphens (-) and underscores (_).

Email endpoints that will receive the notification...:

Add a comma-separated list of email addresses. Each address will be added as a subscription to the topic above.

jaswanthmatta344@gmail.com

user1@example.com, user2@example.com

Create topic

CloudShell Feedback | © 2025, Amazon Web Services, Inc. or its affiliates. | Privacy | Terms | Cookie preferences | ENG IN | 15:02 | 25.11.2025

USD/GBP -0.80%

Screenshot of the AWS CloudWatch Metrics Alarm creation process, Step 3: Add alarm details.

Name and description

Alarm name: High-CPU-Usage

Alarm description - optional: System is creating high CPU usage - Alert!

Tags - optional

No tags associated with the resource.

Metric

Graph: This alarm will trigger when the blue line goes below the red line for 1 datapoints within 5 minutes.

Percent: 20

Namespace: PowerPlantMetrics

Metric name: CPU_USAGE_IDLE

InstanceID: i-0ca0a83862d943d00

InstanceType: t3.micro

Instance name: Server_1

Statistic: Average

Period: 5 minutes

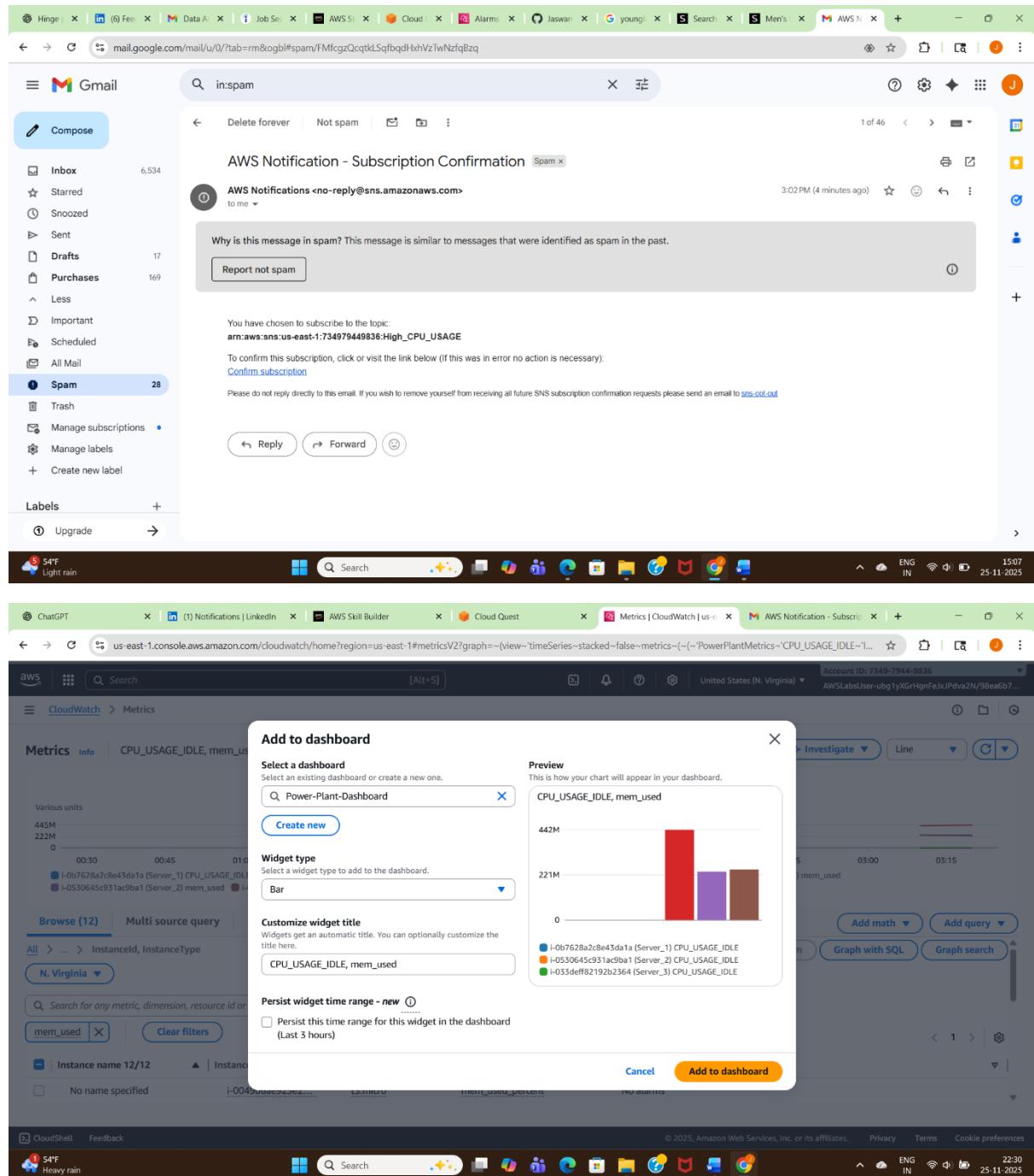
Screenshot of the AWS CloudWatch Alarms console showing the creation of a new alarm.

The top banner displays a green success message: "Successfully created alarm High-CPU-Usage." and a blue info message: "Some subscriptions are pending confirmation".

The main table lists one alarm:

| Name | State | Last state update (UTC) | Conditions |
|----------------|-------------------|-------------------------|--|
| High-CPU-Usage | Insufficient data | 2025-11-25 20:04:54 | CPU_USAGE_IDLE <= 20 for 1 datapoints within 5 minutes |

The bottom banner shows a weather forecast: "1 inch of rain Today".



Screenshot of the AWS CloudWatch Metrics Metrics Insights interface showing the creation of a new scaling alarm.

Scaling alarm configuration:

- Alarm state trigger:** In alarm (selected)
- OK:** The metric or expression is within the defined threshold.
- Insufficient data:** The alarm has just started or not enough data is available.

EC2 action:

- Recover this instance:** Recover certain EC2 instance types.
- Stop this instance:** Stop an instance backed by an EBS volume.
- Terminate this instance:** Terminate an instance if termination protection is enabled.
- Reboot this instance:** Reboot the instance.

Buttons: Add Auto Scaling action, Add EC2 action.



Screenshot of the AWS CloudWatch Metrics Metrics Insights interface showing a dashboard titled "Power-Plant-Dashboard".

Dashboard message: You must choose Save Dashboard to save your changes to your custom dashboard. When you add a widget to a dashboard, it isn't saved automatically.

Actions: Save dashboard, Autosave: Off, Actions, Save.

Widgets:

- Servers Idle CPU Usage:** Bar chart showing CPU usage for three servers. Server_1 (orange) is at ~85%, Server_2 (green) is at ~48%, and Server_3 (blue) is at ~0%.
- Memory Used mem_used:** Bar chart showing memory usage for three servers. Server_1 (purple) is at ~400MB, Server_2 (brown) is at ~220MB, and Server_3 (grey) is at ~220MB.

Legend:

- i-0ca0a83862d943d00 (Server_1) CPU_USAGE_IDLE
- i-0049b6ae925e25c9e (Server_2) CPU_USAGE_IDLE
- i-00887888c126b6a8 (Server_3) CPU_USAGE_IDLE
- i-0ca0a83862d943d00 (Server_1) mem_used_percent
- i-0ca0a83862d943d00 (Server_1) mem_used



Screenshot of the AWS CloudWatch Alarms console showing two alarms: Memory_Utilization and High-CPU-Usage.

CloudWatch Alarms

Alarms (1/2)

| Name | State | Last state update (UTC) | Conditions | Actions |
|--------------------|----------|-------------------------|--|----------------------|
| Memory_Utilization | In alarm | 2025-11-26 03:42:51 | mem_used >= 30000000 for 1 datapoints within 5 minutes | Actions enabled Warn |
| High-CPU-Usage | In alarm | 2025-11-26 03:25:21 | CPU_USAGE_IDLE <= 20 for 1 datapoints within 5 minutes | Actions enabled Warn |

Gmail inbox

Search: in:spam

Compose

Inbox (6,531) | Starred | Snoozed | Sent | Drafts (17) | Purchases (168) | Less | Important | Scheduled | All Mail | Spam (29) | Trash | Manage subscriptions | Manage labels | Create new label

Labels | Upgrade

AWS Notifications
You have chosen to subscribe to the topic: arn:aws:sns:us-east-1:734979449836:High_CPU_USAGE To confirm this subscription, click or visit the link below (If this was in error no action is necessary).
[Confirm subscription](#)

AWS Notifications <no-reply@sns.amazonaws.com>
to me ▾
Why is this message in spam? This message is similar to messages that were identified as spam in the past.
[Report not spam](#)

Please do not reply directly to this email. If you wish to remove yourself from receiving all future SNS subscription confirmation requests please send an email to [sns-opt-out](#).

Reply | Forward |

Screenshot of the AWS Cloud Console showing the EC2 Instances page. The page displays three running t3.micro instances named Server_1, Server_3, and Server_2. The interface includes a sidebar with navigation links like Dashboard, EC2 Global View, Events, Instances, Images, and Elastic Block Store. The top navigation bar shows tabs for Step by step addition, Notifications | LinkedIn, AWS Skill Builder, Cloud Quest, Instances | EC2 | us-east-1, AWS Notification - Subscript..., and other account details.

Instances (3) Info

| Name | Instance ID | Instance state | Instance type | Status check | Alarm status | Availability Zone | Public IPv4 |
|----------|---------------------|----------------|---------------|-------------------|---------------|-------------------|-------------|
| Server_1 | i-0b7628a2c8e43da1a | Running | t3.micro | 3/3 checks passed | 2 in al... | us-east-1a | ec2-52-2-26 |
| Server_3 | i-033deff82192b2364 | Running | t3.micro | 3/3 checks passed | View alarms + | us-east-1a | ec2-3-222-1 |
| Server_2 | i-0530645c931ac9ba1 | Running | t3.micro | 3/3 checks passed | View alarms + | us-east-1a | ec2-98-95-2 |

Select an instance