

Cloud Watch

In this hands-on exercise, you will create a Cloud Watch event to notify via an SNS topic when an EC2 instance is created.

Prerequisites:

- AWS account
- SNS Topic created in previous lab

Topics Covered:

By the end of this lab, you will be able to:

- Create Cloud Watch event to react to the creation of an Amazon EC2 instance
- Send SNS notification via Cloud Watch when an event occurs

Steps:

1. Create CloudWatch Rule

- On the AWS Management Console page, type `cloud watch` in the `Find Services` box and then select `CloudWatch`. The CloudWatch Dashboard appears.
- On the left-hand menu, under `Events`, select `Rules`.
- Click `Create rule`.
- For `Service Name`, select `EC2`.
- For the `Event Type`, select `EC2 Instance State-change Notification`.
- Select the `Specific state(s)` radio button. Select `running` from the drop-down box.
Note: This configures the rule to trigger whenever an Amazon EC2 instance changes to the running state, which happens when an instance is launched or started.
- On the right-hand side of the screen, in the `Target` section, add a target by clicking on `Add target`.
- In the drop-down, change `Lambda function` to `SNS topic`.

- For the `Topic`, select the topic you created in the SNS hands-on exercise. **Important:** If the Topic doesn't appear, the `Access policy - optional` section doesn't have the correct permissions to allow other services to access the Topic.
- Scroll down and click the `Configure details`.
- Enter a name in the `Name` field. Ensure the state is `Enabled`. Click `Create rule`.

2. Test CloudWatch Rule

- Navigate to the EC2 console page, by clicking on `Services` in the upper left-hand menu. Type `EC2` in the text box and click on `EC2` found in the search results.
- On the EC2 Dashboard page, click on `Instances` in the left-hand navigation.
- Click `Launch Instance`.
- Select the `Amazon Linux 2 AMI (HVM), SSD Volume Type` Amazon Machine Image (AMI). **Important:** You are free to choose a different AMI, but to avoid excessive charges, pick one that says, `Free Tier Eligible`.
- For the `Instance Type`, select the free-tier instance type of `t2.micro`.
- Click `Review and Launch`.
- Click `Launch`.
- Generate and download a new key pair and then launch the instance.
- Click `Launch Instances`.
- Click on `View Instances`.
- Once the Instance state changes to `Running`, check your email client for an email alert from the SNS Topic.

3. Cleanup & Disable EC2 Instance and Cloud Watch Rule

- To avoid recurring charges for leaving an instance running, let's disable the EC2 instance.
- From the EC2 Dashboard, select the instance just created, click `Actions`, then `Instance State`, and then select `Terminate`.
- To avoid recurring charges for leaving the Cloud Watch rule running, let's disable it.
- From the SNS Dashboard, select `Rules` from under the `Events` section.
- Select the Rule you just created, by clicking the radio button next to the Rule.
- Click on the `Actions` button, and select `Delete`.