# AMI Backup Setup

**Steps involved in Auto AMI backup setup process**

1, SSM agent installation
2, IAM Role
3, Attach IAM Role
4, System manager

**1, SSM agent installation:**

- Login to the server using ssh
- cat /etc/os-release (Check the OS of the server)

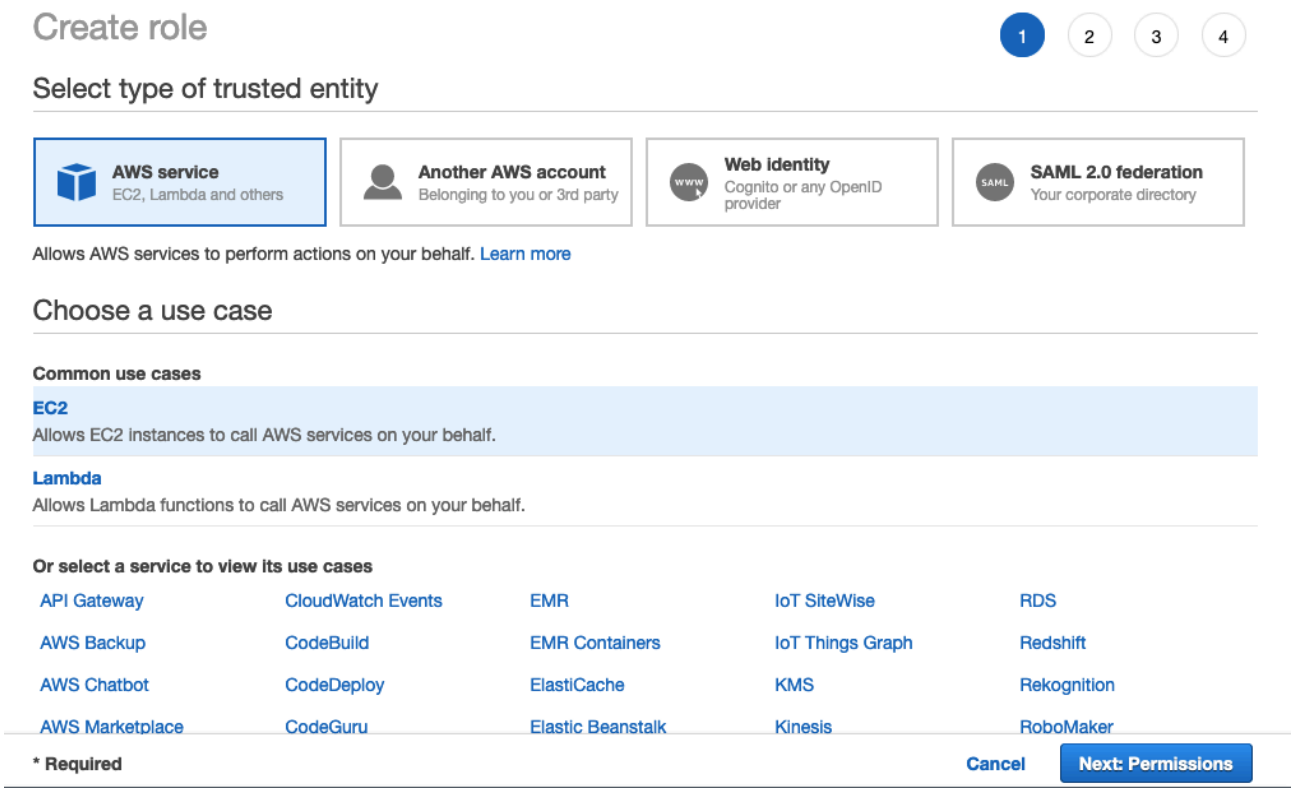
```
[root@3-109-218-183 centos]# cat /etc/os-release
NAME="CentOS Linux"
VERSION="7 (Core)"
ID="centos"
ID_LIKE="rhel fedora"
VERSION_ID="7"
PRETTY_NAME="CentOS Linux 7 (Core)"
ANSI_COLOR="0;31"
CPE_NAME="cpe:/o:centos:centos:7"
HOME_URL="https://www.centos.org/"
BUG_REPORT_URL="https://bugs.centos.org/"

CENTOS_MANTISBT_PROJECT="CentOS-7"
CENTOS_MANTISBT_PROJECT_VERSION="7"
REDHAT_SUPPORT_PRODUCT="centos"
REDHAT_SUPPORT_PRODUCT_VERSION="7"
```

- Now go the link https://go.aws/3patdM5
- Select the correct OS. Here I'm selecting centos and then centos 7.x
- Copy the Intel 64-bit (x86_64) instances: sudo yum install -y https://s3.region.amazonaws.com/amazon-ssm-region/latest/linux_amd64/amazon-ssm-agent.rpm
- Replace the region with region where you have hosted the instance. Here I'm using ap-south-1 since I have hosted my EC2 instance in Mumbai region
- Run the updated in the terminal/putty sudo yum install -y https://s3.ap-south-1.amazonaws.com/amazon-ssm-ap-south-1/latest/linux_amd64/amazon-ssm-agent.rpm
- Now the amazon-ssm-agent is installed
- sudo systemctl enable amazon-ssm-agent
- sudo systemctl start amazon-ssm-agent
- sudo systemctl status amazon-ssm-agent

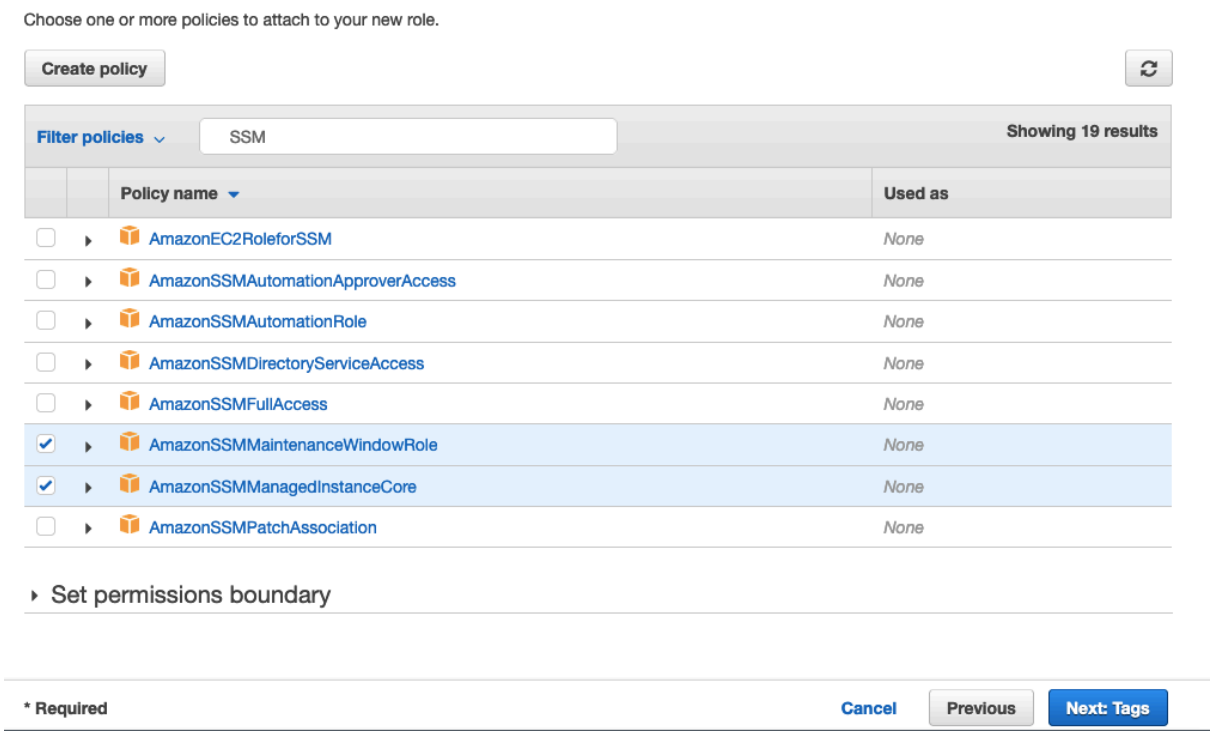
```
Installing:
 amazon-ssm-agent      x86_64      3.1.338.0-1         /amazon-ssm-agent      111 M

Transaction Summary
================================================================================
Install  1 Package

Total size: 111 M
Installed size: 111 M
Downloading packages:
Running transaction check
Running transaction test
Transaction test succeeded
Running transaction
  Installing : amazon-ssm-agent-3.1.338.0-1.x86_64                          1/1
Created symlink from /etc/systemd/system/multi-user.target.wants/amazon-ssm-agen
t.service to /etc/systemd/system/amazon-ssm-agent.service.
  Verifying  : amazon-ssm-agent-3.1.338.0-1.x86_64                          1/1

Installed:
  amazon-ssm-agent.x86_64 0:3.1.338.0-1

Complete!
[root@3-109-218-183 centos]#
```

## 2, IAM Role:

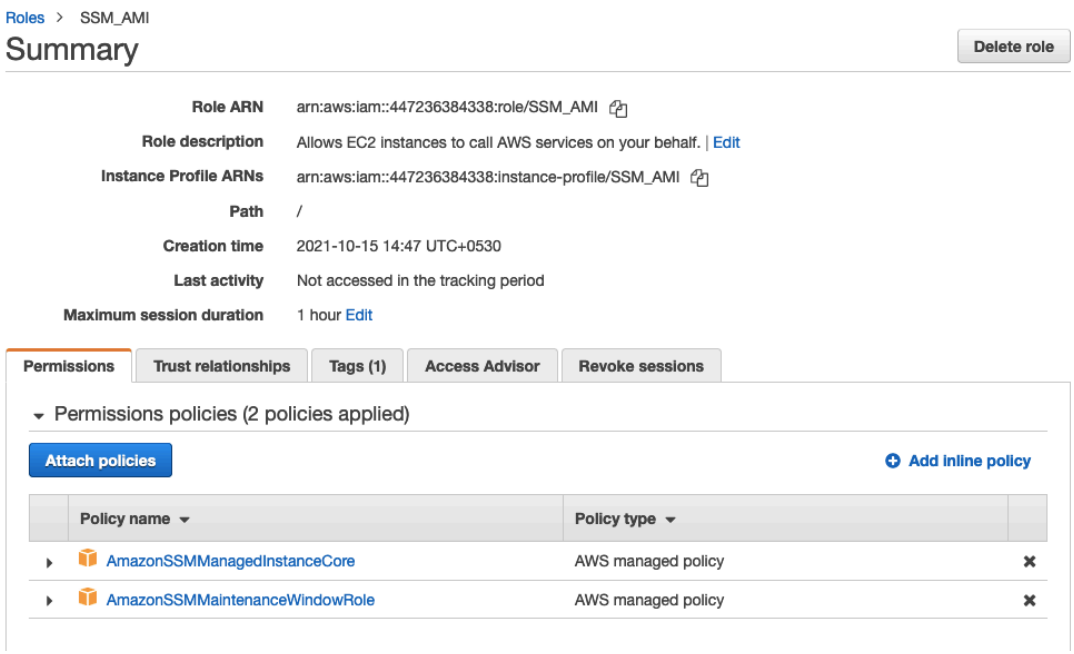
- Go to the IAM Role console in the AWS console
- Click Role
- Now click create role
- Now Select type of trusted entity AWS services and choose use case as EC2
- Click Next:Permissions



- In the search field search for SSM and select AmazonSSMManagedInstanceCore, AmazonSSMMaintenanceWindowRole
- Click Next:Tags



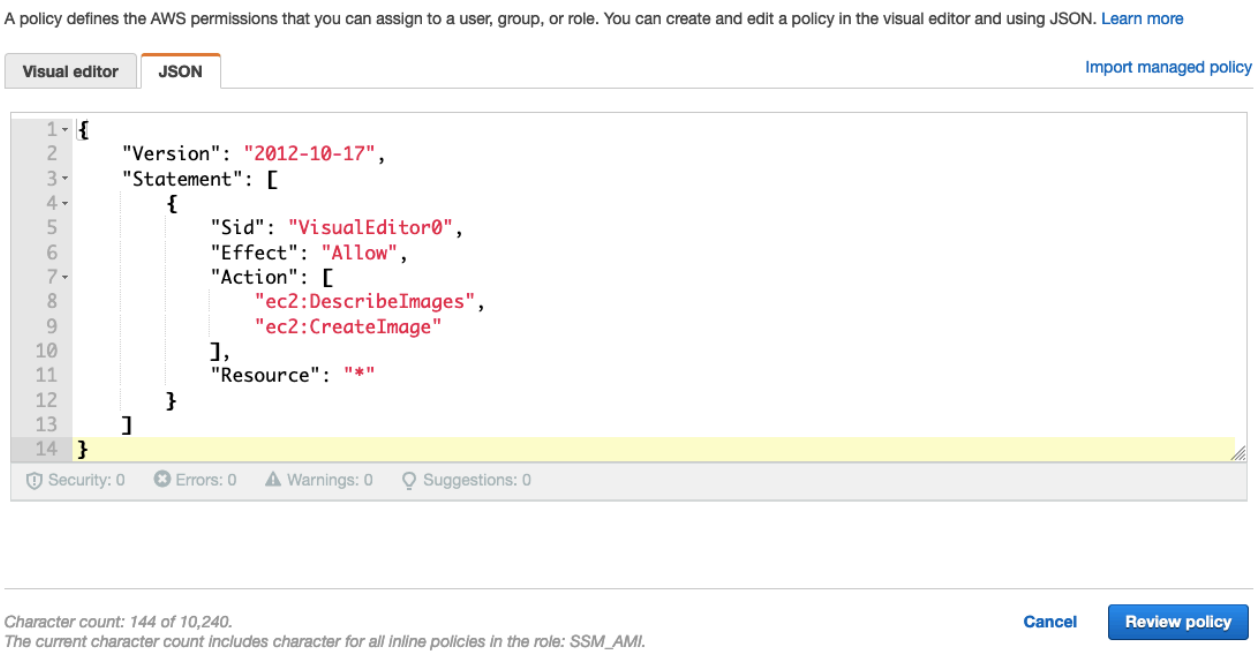

- Give Name in the key field and SSM in Value
- Click Next:Review
- Give the role name as SSM_AMI
- Then click create role
- Now select the role SSM_AMI
- Click add inline policy



- Click Json
- Remove the default lines and add the below lines and click Review Policy

```
{
   "Version": "2012-10-17",
   "Statement": [
      {
         "Sid": "VisualEditor0",
         "Effect": "Allow",
         "Action": [
            "ec2:DescribeImages",
            "ec2:CreateImage"
         ],
         "Resource": "*"
      }
   ]
}
```

- In the name field enter Create_ami
- Click create policy




- Now Click Trust Relationships which is next to the permission tab
- Click edit Trust Relationships
- Remove the default line and add the below give line
- Now Click Update Trust Policy

**Note**: Trust Relationship Policy is given at the end of the document

## Edit Trust Relationship

You can customize trust relationships by editing the following access control policy document.

**Policy Document**

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Principal": {
        "Service": [
          "ec2.amazonaws.com",
          "ssm.amazonaws.com"
        ]
      },
      "Action": "sts:AssumeRole"
    }
  ]
}
```

Cancel | Update Trust Policy

### 3, Attach IAM Role:

- Go to EC2 Console
- Select the instance and Click Actions
- Click the instance settings and click Attach/Replace IAM Role
- Now click the dropdown
- Select the Role SSM_AMI which you have created in the 3rd step
- Then click apply
- Reboot the instance for the attached IAM role to be effective

Instances > Attach/Replace IAM Role

## Attach/Replace IAM Role

Select an IAM role to attach to your instance. If you don't have any IAM roles, choose Create new IAM role to create a role in the IAM console.
If an IAM role is already attached to your instance, the IAM role you choose will replace the existing role.

**Instance ID** i-0c93121aa855b09bd (Training)

**IAM role*** SSM_AMI | Create new IAM role

Filter by attributes

**Profile Name**

No Role

SSM_AMI

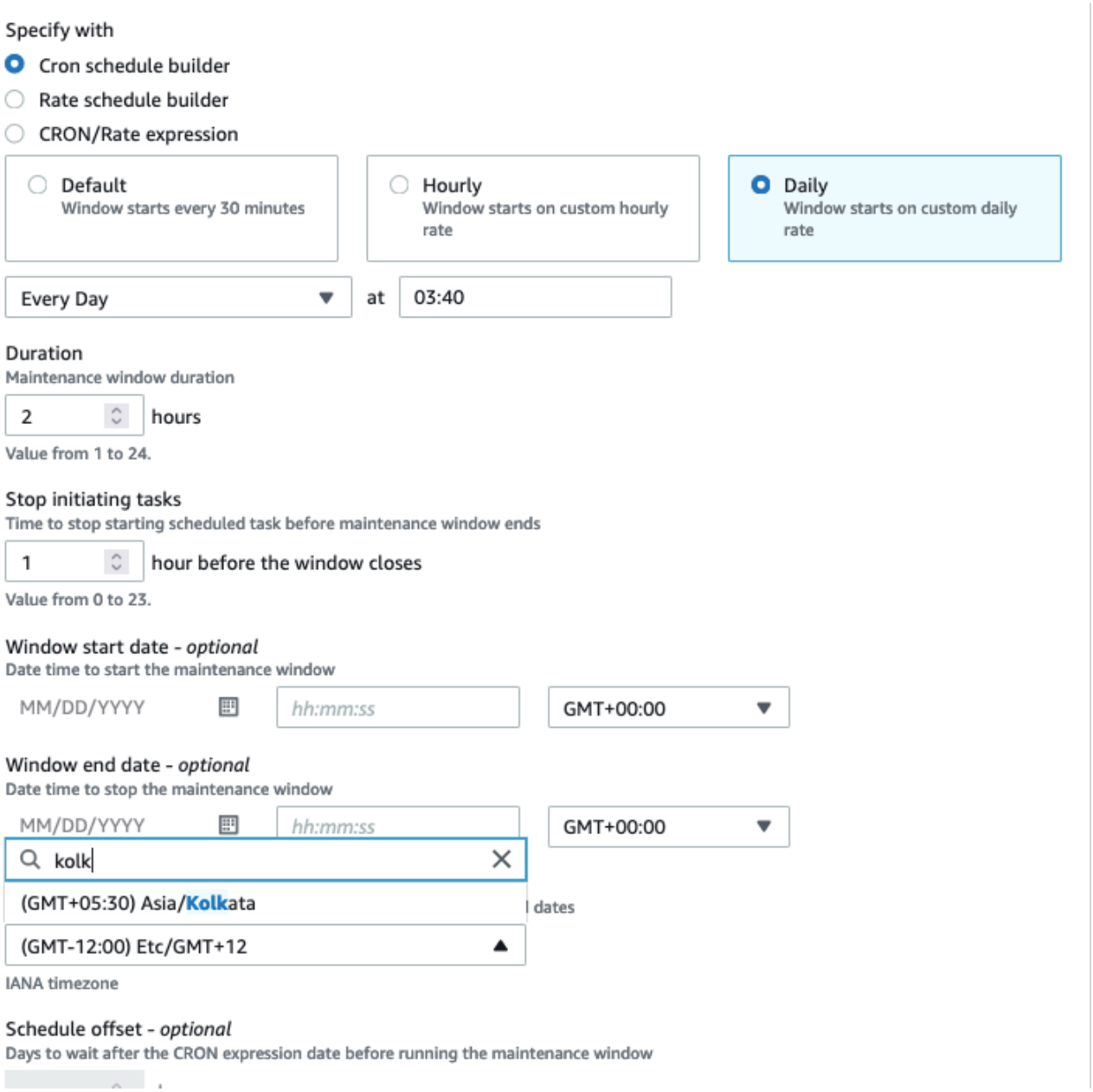
* Required

Cancel | Apply

### 4, System manager:

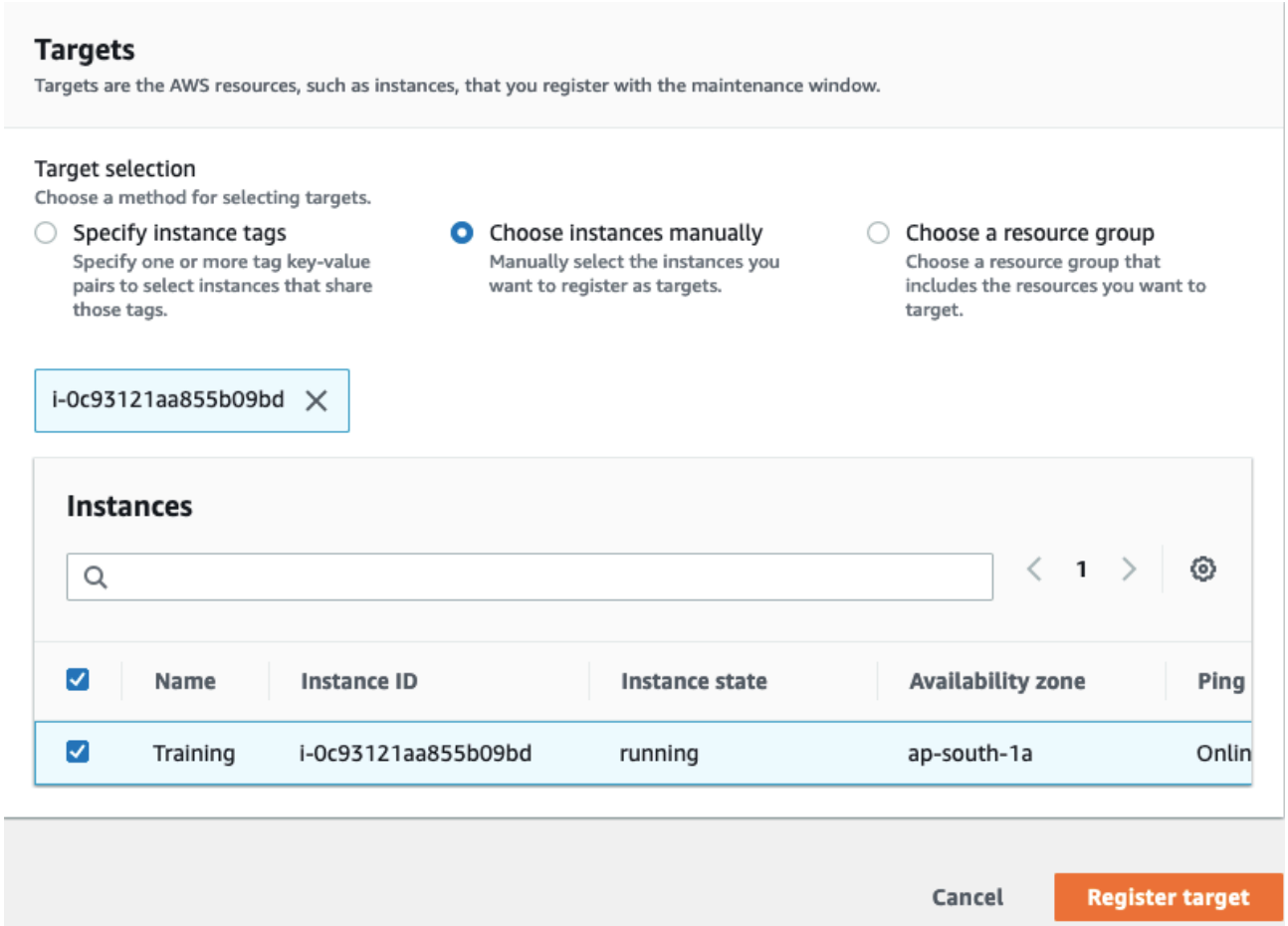
- Go to System manager console
- Click Maintenance Windows under the change management category
- Click create Maintenance window

- In the Name field give the name Create_AMI
- Now under the Schedule select Cron schedule builder
- Select Daily, Everyday and enter the time when you want to create the AMI daily, here I have given 15:40 (3:40 pm) for demo (Note: Should be in 24 format)
- In the duration enter 2 hours
- In the Stop initiating tasks enter 1 hour
- Under Schedule timezone - optional click the dropdown
- Search Kolkata in the search field select Asia/Kolkata
- Click create maintenance window




- Now select the window id
- Click Actions
- Click Register Targets

- Give the target name as Target_AMI rest leave it as default
- Under Targets click choose instances manually
- Select the instance and click Register Targets




- Now select the Window target ID
- Click Actions
- Click Register Automation task
- Give the Name as Target_automation rest leave it as default
- Under Automation document in the search field type AWS-CreateImage
- Select AWS-CreateImage
- Scroll down to target and select the created target
- Under Input parameters in the InstanceId enter the value as your running instance id
- In the NoReboot enter the value as true
- Now under Rate control in the target field enter 1 and in the errors field enter 1
- Under IAM service role choose Use a custom service role
- Click the dropdown
- Select the IAM Role which you have created in the 2nd step (SSM_AMI)
- Click Register Automation Task

## Targets

Targets are the instances you would like to associate with this document. You can choose to target by both managed instance and tag.

Target by

- (●) Selecting registered target groups
- ( ) Selecting unregistered targets
- ( ) Task target not required

e5d6c66f-19d9-47db-ad97-7fe692042514 ✕

1

| ☑ | Window target ID | Name | Owner information |
|---|---|---|---|
| ☑ | e5d6c66f-19d9-47db-ad97-7fe692042514 | Target_AMI | - |

## Input parameters

| Variable name | Description | Value |
|---|---|---|
| InstanceId | (Required) The ID of the Amazon EC2 instance. | i-0c93121aa855b09bd |
| NoReboot | (Optional) Do not reboot the instance before creating the image. | true |
| AutomationAssumeRole | (Optional) The ARN of the role that allows Automation to perform the actions on your behalf. | |

## Rate control

Concurrency

Specify the number or percentage of targets on which to execute the task at the same time

- (●) 1 targets
- ( ) percentage

Error threshold

Stop the task after the task fails on the specified number or percentage of targets

- (●) 1 errors
- ( ) percentage

## IAM service role

Select the service role that allows Maintenance Windows to interact with other AWS services on your behalf. Learn more

Service role option

- ( ) Create and use a service-linked role for Systems Manager

  Create and use the service-linked role **AWSServiceRoleForAmazonSSM** to allow Maintenance Windows to manage AWS resources on your behalf. Learn more

- (●) Use a custom service role

  Select a custom service role that allows Maintenance Windows to interact with other AWS resources on your behalf.

arn:aws:iam::447236384338:role/SSM_AMI

Cancel | Register Automation task

- Now the AMI will create daily as per your Cron scheduler

**Trust Relationship Policy:**

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Sid": "",
      "Effect": "Allow",
      "Principal": {
        "Service": [
          "ssm.amazonaws.com",
          "ec2.amazonaws.com"
        ]
      },
      "Action": "sts:AssumeRole"
    }
  ]
}
```