

1. Get IAM OIDC provider.

```
cluster_name=eksdemo5

oidc_id=$(aws eks describe-cluster --name $cluster_name --query
"cluster.identity.oidc.issuer" --output text | cut -d '/' -f 5)

echo $oidc_id
```

2. Determine whether an IAM OIDC provider with your cluster's issuer ID is already in your account.

```
aws iam list-open-id-connect-providers | grep $oidc_id | cut -d "/" -f4
```

If output is returned, then you already have an IAM OIDC provider for your cluster and you can skip the next step. If no output is returned, then you must create an IAM OIDC provider for your cluster.

Create an IAM OIDC identity provider for your cluster with the following command

```
cluster_name=eksdemo5

eksctl utils associate-iam-oidc-provider --cluster $cluster_name --approve
```

Configure IAM Policy

Create a json file `AmazonEKSClusterAutoscalerPolicy.json`

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Action": [
```

```

        "autoscaling:DescribeAutoScalingGroups",
        "autoscaling:DescribeAutoScalingInstances",
        "autoscaling:DescribeLaunchConfigurations",
        "autoscaling:DescribeTags",
        "autoscaling:SetDesiredCapacity",
        "autoscaling:TerminateInstanceInAutoScalingGroup",
        "ec2:DescribeLaunchTemplateVersions"
    ],
    "Resource": "*",
    "Effect": "Allow"
}
]
}

```

```
aws iam create-policy --policy-name AmazonEKSClusterAutoscalerPolicy --policy-document
file:///AmazonEKSClusterAutoscalerPolicy.json
```

```
POLICY_ARN=$(aws iam list-policies --query
'Policies[?PolicyName==`AmazonEKSClusterAutoscalerPolicy`].Arn' --output text)
```

#Declare following value in your ec2 instance

```
ROLE_NAME=AmazonEKSClusterAutoscalerPolicy
```

```
cluster_name=eksdemo5
```

```
SA_NAME=cluster-autoscaler
```

```
eksctl create iamserviceaccount --name $SA_NAME --cluster
$cluster_name --attach-policy-arn=$POLICY_ARN --role-name
$ROLE_NAME --namespace kube-system --override-existing-
serviceaccounts --approve
```

```
ROLE_ARN=$(aws iam list-roles --query  
'Roles[?RoleName==`AmazonEKSCluster`].Arn' --output text)
```

```
kubectl get sa cluster-autoscaler -n kube-system
```

modify the yaml file, add your cluster info

<https://raw.githubusercontent.com/kubernetes/autoscaler/master/cluster-autoscaler/cloudprovider/aws/examples/cluster-autoscaler-autodiscover.yaml>

kubectl create -f cluster-autoscaler.yaml

#Don't delete now, after finish of the session delete

Deleting asg

```
echo "Deleting IAM Role and Policies"
```

```
# Delete IAM Role and Policies
```

```
aws iam detach-role-policy --role-name=${ROLE_NAME} --policy-  
arn=${POLICY_ARN}
```

```
aws iam delete-role --role-name=${ROLE_NAME}
```

```
aws iam delete-policy --policy-arn=${POLICY_ARN}
```

```
# Delete IAM Role and Service Account
```

```
eksctl delete iamserviceaccount \
```

```
--cluster=${CLUSTER_NAME} \
```

```
--name=cluster-autoscaler \
```

```
--namespace=kube-system
```

```
kubectl delete -f cluster-autoscaler.yaml
```