Upgrading Amazon EKS from 1.30 to 1.31

Pre-requisites

Before starting the upgrade, check the current Kubernetes versions:

Get EKS Cluster List

```
eksctl get cluster
```

Get Installed Add-ons

```
eksctl get addons --cluster=<cluster-name> --profile=<profile-name> --region=<region-name>
```

Example output:

```
NAME                 VERSION           STATUS  ISSUES  IAMROLE UPDATE AVAILABLE
aws-ebs-csi-driver  v1.40.0-eksbuild.1  ACTIVE  0
coredns             v1.11.1-eksbuild.8  ACTIVE  0        v1.11.4-eksbuild.2,v1.11.4-eksbuild.1
eks-pod-identity-agent  v1.3.4-eksbuild.1   ACTIVE  0        v1.3.5-eksbuild.2
kube-proxy          v1.30.6-eksbuild.3  ACTIVE  0        v1.30.9-eksbuild.3,v1.30.7-eksbuild.2
vpc-cni             v1.19.0-eksbuild.1  ACTIVE  0        v1.19.3-eksbuild.1,v1.19.2-eksbuild.5
```

Upgrade EKS Add-ons

```
eksctl update addon --name coredns --version latest --cluster=<cluster-name> --profile=
        <profile-name> --region=<region-name> -v 4
eksctl update addon --name eks-pod-identity-agent --version latest --cluster=<cluster-
        name> --profile=<profile-name> --region=<region-name> -v 4
eksctl update addon --name kube-proxy --version latest --cluster=<cluster-name> --profile=
        <profile-name> --region=<region-name> -v 4
eksctl update addon --name vpc-cni --version latest --cluster=<cluster-name> --profile=
        <profile-name> --region=<region-name> -v 4
```

Check Kubernetes Versions

Master Node Version:

```
kubectl version
```

Worker Node Version:

```
kubectl get nodes -o wide
```

Steps to Upgrade EKS from 1.30 to 1.31

1. Upgrade the Master Node

```
eksctl upgrade cluster --name=<cluster-name> --profile <aws-profile> \
--region <region-name> --version 1.31 --approve -v 4
```

2. Upgrade Master Node Components

Upgrade Cluster Autoscaler

Check if Cluster Autoscaler is installed:

```
kubectl get deployment -n kube-system | grep cluster-autoscaler
```

If installed, update the image:

```
kubectl -n kube-system set image deployment.apps/cluster-autoscaler \
cluster-autoscaler=k8s.gcr.io/autoscaling/cluster-autoscaler:v1.31.1
```

Reference: [Kubernetes Autoscaler](#)

3. Upgrade Worker Nodes / Node Group

Get Node Group Information:

```
eksctl get nodegroup --cluster=<cluster-name> --profile=<profile-name> --region=<region-
        name>
```

Upgrade Node Group:

```
eksctl upgrade nodegroup --name=<node-group-name> \
--cluster=<cluster-name> --kubernetes-version=1.31
```

4. Verify the Upgrade

Check Upgraded Master Node Version:

```
kubectl version
```

Check Upgraded Worker Nodes:

```
kubectl get nodes -o wide
```

This ensures that both the control plane and worker nodes have been successfully upgraded to Kubernetes 1.31.