Cluster Autoscaler (worker-node autoscaler) Setup

Cloud/etc. Resources: where the cluster worker nodes live
(**AWS EC2** in this particular example)
• ASG
• the k8s cluster's worker nodes as EC2 instances

(AWS: IAM)
• Role
• Policy

OIDC
(Open ID Connect
provider)

Kubernetes Cluster:
• Cluster Autoscaler
• ServiceAccount
• (Cluster) Role(s) & RoleBinding(s)

AutoScalingGroup

IAM Role
(roughly
equivalent to
user in this
context)

k8s cluster

kube-system namespace

(k8s cluster
"Node Group")

Worker
Node

IAM Policy
(contains permissions for actions
performed within AWS; contains trust
policy naming the k8s cluster's
associated OIDC provider)

Cluster Autoscaler
(Deployment)

Pod

ClusterRole:
permissions for actions within the
k8s cluster as a whole

Role:
permissions for actions within k8s,
specifically within the kube-system
namespace

ClusterRoleBinding

RoleBinding

ServiceAccount:
Represents the ClusterAutoscaler as an entity within k8s
(with embedded auth token from associated OIDC provider)

OIDC
(Open ID Connect
provider)