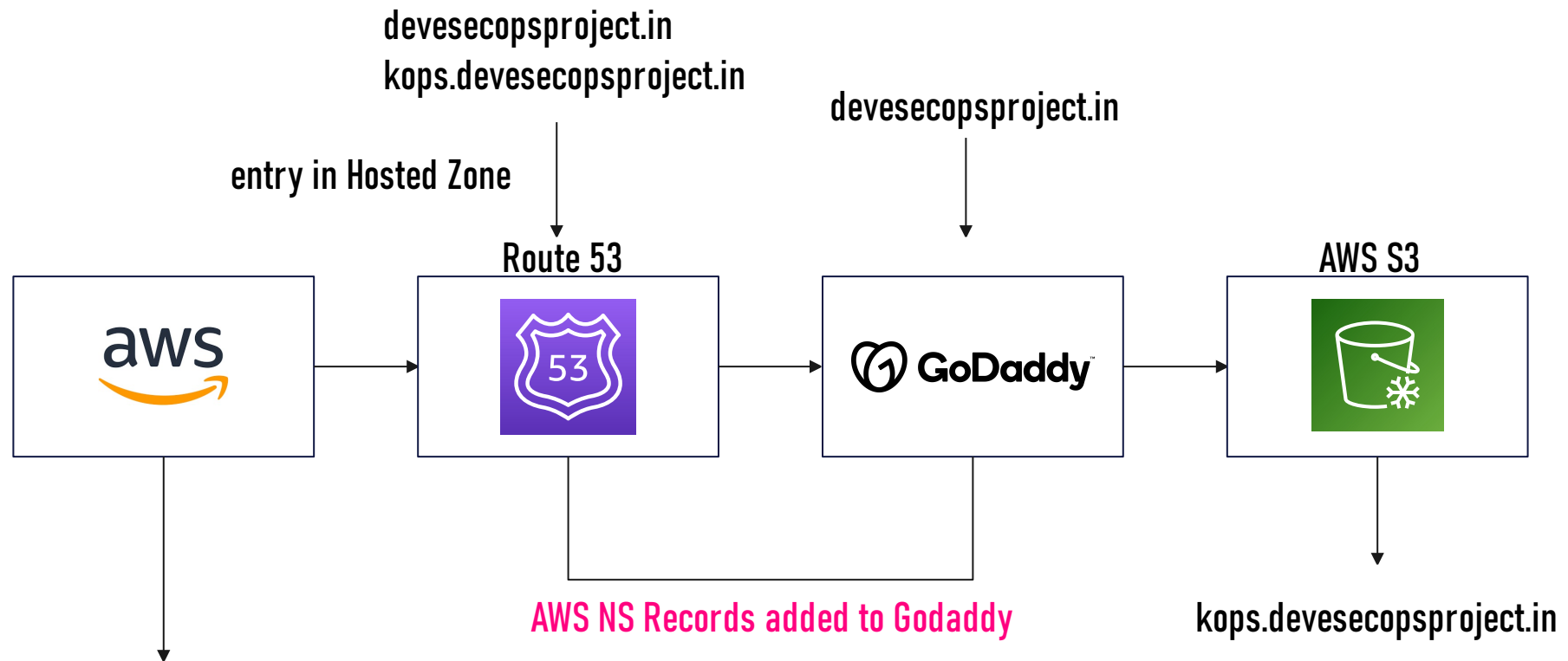


Kubernetes Cluster HA Configuration On AWS Using KOPS TOOL



1

AWS IAM User with Access and Secret Key and Administrator Access

2

AWS CLI Configure in local laptop using aws configure command with secret and Access Key

Kubernetes Cluster HA Configuration On AWS Using KOPS TOOL

3

Route 53



View details

Edit

Delete

Create hosted zone

Filter hosted zones by property or value

< 1 >

	Domain name	Type	Created by	Record co...	Description	Hosted zo...
<input type="radio"/>	devsecopsproject.in	Public	Route 53	2	godaddy	Z03444042...
<input type="radio"/>	kops.devsecopsproject.in	Public	Route 53	5	Godady	Z094113719...

Add AWS NS record to Your Godaddy DNS settings



<input type="checkbox"/>	NS	@	ns-1492.awsdns-58.org.	1 Hour	Delete	Edit
<input type="checkbox"/>	NS	@	ns-1942.awsdns-50.co.uk.	1 Hour	Delete	Edit
<input type="checkbox"/>	NS	@	ns-397.awsdns-49.com.	1 Hour	Delete	Edit
<input type="checkbox"/>	NS	@	ns-606.awsdns-11.net.	1 Hour	Delete	Edit

Kubernetes Cluster HA Configuration On AWS Using KOPS TOOL

Verify Your Cluster

```
ubuntu@ip-172-20-68-106:~$ kubectl get nodes
```

NAME	STATUS	ROLES	AGE	VERSION
ip-172-20-109-241.ec2.internal	Ready	node	73m	v1.23.5
ip-172-20-42-86.ec2.internal	Ready	node	67m	v1.23.5
ip-172-20-47-136.ec2.internal	Ready	control-plane,master	85m	v1.23.5
ip-172-20-68-106.ec2.internal	Ready	control-plane,master	85m	v1.23.5
ip-172-20-94-124.ec2.internal	Ready	node	83m	v1.23.5
ip-172-20-97-164.ec2.internal	Ready	control-plane,master	85m	v1.23.5

DNS Resolution issue

<input type="checkbox"/>	Record name	Type	Routin...	Differ...	Value/Route traffic to
<input type="checkbox"/>	kops.devsecopsproject.in	NS	Simple	-	ns-397.awsdns-49.com. ns-1492.awsdns-58.org. ns-1942.awsdns-50.co.uk. ns-606.awsdns-11.net.
<input type="checkbox"/>	kops.devsecopsproject.in	SOA	Simple	-	ns-397.awsdns-49.com. awsdns-hostmaster.amazon.com. 1
<input type="checkbox"/>	api.kops.devsecopsproject.in	A	Simple	-	18.208.174.240 44.195.87.94 54.172.67.108
<input type="checkbox"/>	api.internal.kops.devsecopsproject.in	A	Simple	-	172.20.47.136 172.20.68.106 172.20.97.164
<input type="checkbox"/>	kops-controller.internal.kops.devsecopsproject.in	A	Simple	-	172.20.47.136 172.20.68.106 172.20.97.164

if dns resolve issue occurred then directly add A Record entry in GoDaddy for api.kops.devsecopsproject.in and their respective ip

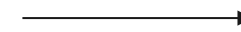
Kubernetes Cluster HA Configuration On AWS Using KOPS TOOL

Download the KOPS Tools for windows Using Below URL

https://kops.sigs.k8s.io/getting_started/install/

Download the Kubectl for windows

<https://kubernetes.io/docs/tasks/tools/install-kubectl-windows/>



place both tool in one folder

Run the Below command it will generate the Terraform Configuration

```
kops create cluster --name=kops.devsecopsproject.in --state=s3://kops.devsecopsproject.in --  
authorization RBAC --zones=us-east-1a,us-east-1b,us-east-1c --master-zones=us-east-1a,us-  
east-1b,us-east-1c --node-count=3 --node-size=t2.micro --master-size=t2.medium --master-  
count=3 --dns-zone=kops.devsecopsproject.in --out=Kops_terraform --target=terraform --  
ssh-public-key=C:\Users\Sam\.ssh\id_rsa.pub
```

Install terraform according to your operating system

terraform init

terraform apply

```
ubuntu@ip-172-20-68-106:~$ kubectl get nodes  
NAME                                STATUS    ROLES                                AGE    VERSION  
ip-172-20-109-241.ec2.internal      Ready    node                                73m    v1.23.5  
ip-172-20-42-86.ec2.internal        Ready    node                                67m    v1.23.5  
ip-172-20-47-136.ec2.internal       Ready    control-plane,master               85m    v1.23.5  
ip-172-20-68-106.ec2.internal       Ready    control-plane,master               85m    v1.23.5  
ip-172-20-94-124.ec2.internal       Ready    node                                83m    v1.23.5  
ip-172-20-97-164.ec2.internal       Ready    control-plane,master               85m    v1.23.5
```