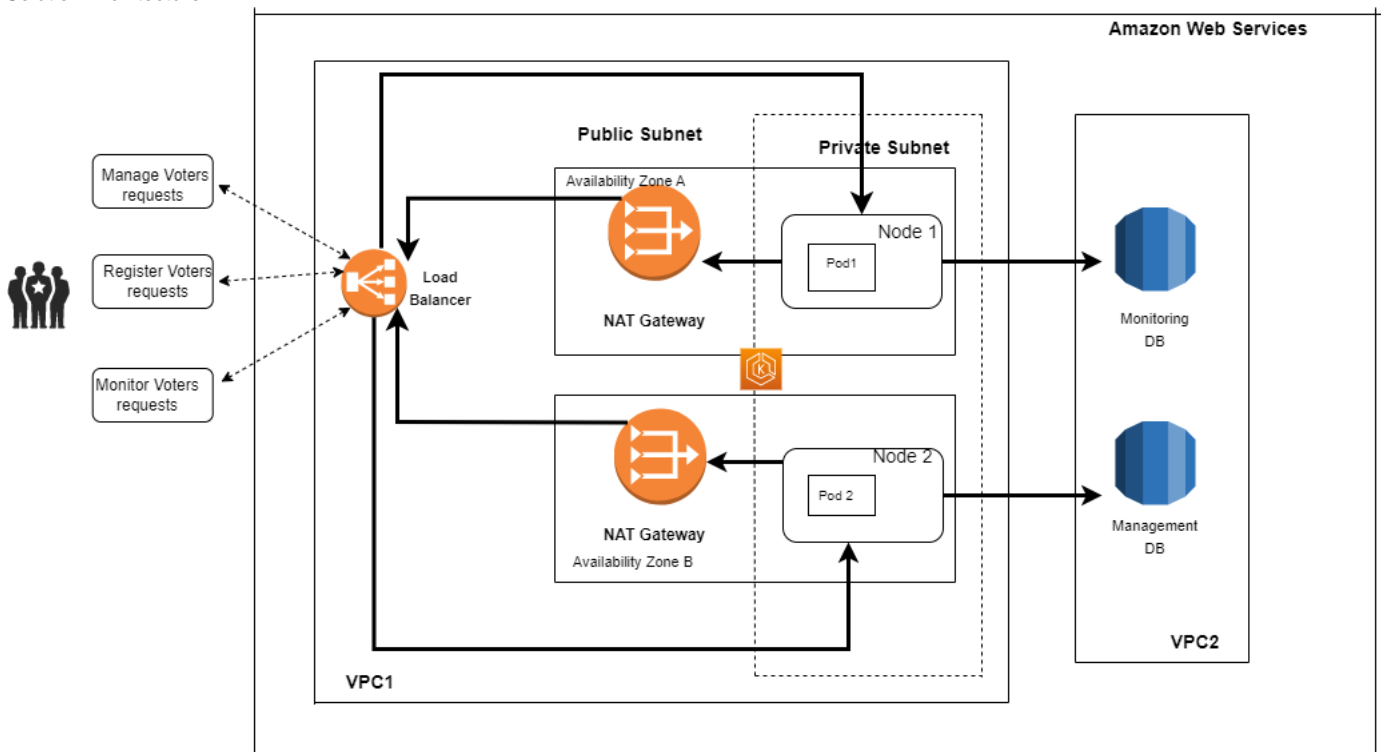


Voter Registration Solution

Runbook name	California Voter Registration System Runbook
Runbook description	Runbook for Voters registering, monitoring and management microservices
Owner	Jithmi Tharika Ranatunga
Version	v.0.0.1
Version date	31 Dec 2022

Architecture

Solution Architecture



Support contacts

Expertise level	Team	Contact info
Developer	Jithmi Tharika Ranatunga	tharika.20211480@iit.ac.lk
Product Owner	Jithmi Tharika Ranatunga	tharika.20211480@iit.ac.lk

Process

	Step instructions	Execution location	Run environments	Run Instructions	Documentation
1	Configure AWS CLI with necessary IAM role permissions	Local Machine	PowerShell CLI		https://github.com/jithmi97/VotersSystem-Resources/blob/main/iam-policy.json
2	Install eksctl	Local Machine	PowerShell CLI	choco install -y eksctl	
3	Install kubernetes-cli	Local Machine	PowerShell CLI	choco install kubernetes-cli	

4	Create and configure EKS cluster	AWS	AWS configured CLI in local machine	eksctl create cluster --region us-east-2 --node-type t3.small --nodes 2 --nodes-min 1 --nodes-max 4 --name CaliforniaVoters-registration-cluster --kubeconfig=C:/KubernetesCluster/kube-config.yaml	
5	Create APIs for the voter registration, monitoring and management services.	Local Machine/ GitHub	IntelliJ IDE with jdk 17		<ul style="list-style-type: none"> • https://github.com/jithmi97/RegisterVotersAPI.git • https://github.com/jithmi97/MonitorVotersAPI.git • https://github.com/jithmi97/VotersManagementAPI.git
6	Create RDS for RegisterVotersAPI	AWS	RDS Service	Create register_voter_db database inside RDS using MySQL workbench connected to RDS.	
7	Create RDS for VotersManagementAPI	AWS	RDS Service	Create management_dbdatabase inside RDS using MySQL workbench connected to RDS.	
8	Update MySQL connection URL for RegisterVotersAPI and VotersManagementAPI services	GitHub	LocalMachine	Clone the repository, change the connection string, commit and merge to main branch using pull request	https://github.com/jithmi97/RegisterVotersAPI/blob/main/src/main/resources/application.yml https://github.com/jithmi97/VotersManagementAPI/blob/main/src/main/resources/application.yml
9	Set environment variable for KUBECONFIG	AWS	AWS configured CLI in local machine.	set KUBECONFIG=C:/KubernetesCluster/kube-config.yaml	
10	Deploy Services	AWS	AWS configured CLI in local machine.		https://github.com/jithmi97/VotersSystem-Resources/blob/main/deployment.yaml