Niraja C

AWS DevOps & Cloud Infrastructure Management.

**Summary**

* Over 18 years of IT experience in AWSDevOps and Linux Administration, 7 years of experience in AWSDevOps implementationand crafting AWS cloud strategies, leveraging Amazon Web Services (AWS). 11 years into Linux Administration
* Holds certifications on AWS Solutions Architect(SAA-03), Terraform Associate - 003
* Proficient in AWS services including EC2, VPC, EBS, AMI, SNS, RDS, CloudWatch, CloudTrail, CloudFormation, Auto Scaling, CloudFront, IAM, S3, and Route 53.
* Skilled in configuring AWS tools like CloudWatch, CloudTrail, and SNS for real-time monitoring and alerting, as well as implementing high availability using Elastic Load Balancer (ELB) across multiple zones.
* Expertise in configuration management tools like ANSIBLEand SALTSTACK and deploying code through servers like Apache Tomcat and WebSphere.
* Proficient with build tools such as MAVEN and ANT, and adept at scripting languages like Python, UNIX Shell scripting and PowerShell.
* Hands-on experience in Agile Development with JIRA for managing projects, application clusters, Load Balancing, and Failover functionality in clustered environments.
* Familiarity with networking load balancers like Nginx and HAProxy, and version control tools such as SVN and GIT.
* Extensive knowledge in designing and implementing CI/CD pipelines through Jenkins along with expertise in monitoring using Nagios for issue identification and troubleshooting on servers.
* Skilled in remote system administration using various network protocol tools like SSH, HTTP, telnet, FTP, SSL, etc., and applying security patches using Red Hat Satellite server.
* Proficiency in installation, configuration, and management of file systems through VERITAS Volume Manager, VERITAS File System, Solstice Disk Suite, and Logical Volume Manager.
* Experience in installing and configuring Apache/WebLogic on Solaris, Red Hat Linux, and Ubuntu and deploying container orchestration systems like AWS ECS, EKS, and Docker.
* Worked on agile projects integrating Jenkins, Ansible, Docker, Terraform, and AWS for end-to-end CI/CD delivery pipelines.
* Designed, implemented, and maintained scalable Kubernetes clusters on AWS optimized Amazon Redshift data warehouse solutions.
* Installed and configured Red Hat Satellite for patch, package, and configuration management per client requirements.
* To allow new version to be deployed while retaining the old versions running , implemented blue green deployment . Blue for current version and Green for new version.
* Proficient in setting up monitoring and alerting processes using Prometheus and Grafana for VMs, CI/CD applications, Containers and Kubernetes Clusters.
* Using OpenShift Developer configured Docker Application Container and Kubernetes Cluster .
* Implemented continuous integration pipelines with OpenShift Jenkins capability.
* Developed Jenkins Plugin to Create, Deploy and Update REST API’s
* Customized OpenShift source to image capability
* As AWS solution architect involved in designing, building and maintaining scalable and reliable systems using AWS infrastructure
* As Solution Architect understood company’s business goals and developing cloud based solutions for support.
* Used Site Reliability Engineering(SRE) as practice of using software tools to automate AWS infrastructure tasks such as system management and application monitoring
* Used SRE to help organizations keep their applications reliable even when development teams frequently update.

**Technical Skills**

* **AWS Services**:EC2, Elastic Beanstalk, EFS, VPC, RDS, S3, Glacier, IAM, CloudFront, CloudWatch, CloudTrail, CloudFormation, Lambda Function, Glue, Route53, SNS, SQS, API Gateway, and more.
* **Configuration Management Tool**: Ansible
* **Build & CI/CD Tools**: Maven, Jenkins
* **Scripting Languages**: Python, Shell scripting, YAML
* **Version Control Tools**: Git, GitHub, GitLab.
* **Monitoring Tools**: Microfocus, CloudWatch, ServiceNow, ITSM, Prometheus, Grafana
* **Containers & Orchestration**: Docker, Kubernetes
* **Infrastructure & Configuration Tools**: CloudFormation, Terraform

**Project Experience**

**Client: Apple Leisure Group**

**Location:** Milwaukee, WI

**Role:** AWSDevOps Engineer

**Duration:** June 2023 to Present

* Orchestrated AWS infrastructure deployment and management, leveraging Route53, CloudFront, and CloudFormation for optimal performance and scalability.
* Oversaw Kubernetes clusters on AWS EKS overseeing updates to Vespa cluster images and orchestrating seamless transitions to new versions.
* Engineered and managed automation solutions for Kubernetes and AWS governance, refining deployment processes and ensuring adherence to compliance standards.
* Implemented and managed Kubernetes deployments, ensuring high availability, scalability, and fault tolerance.
* Engineered reusable Jenkins and GitHub Actions pipelines, streamlining and standardizing the CI/CD workflow for improved efficiency. Pipeline script for CI is written in Groovy scripting.
* Responsible for Dockerizing applications and Hands on experience in creating Dockerfiles and then building image and deploying it to various environments
* Employed Terraform as an infrastructure as code tool, optimizing scalability and resource management across the system.
* Collaborated with cross-functional teams to implement Helm charts, facilitating streamlined application deployment and management. Installed Kafka on a Kubernetes cluster using Helm Charts. Used Istio service mesh to seamlessly connect , manage and secure networks. Istio core components for monitoring and visualization and tracing.
* Implemented and sustained GitOps principles utilizing ArgoCD, enabling efficient and automated application deployment practices.
* Automated infrastructure provisioning tasks using Terraform to streamline the deployment process.
* Skilled in administering bare-metal Linux systems, ensuring smooth operations and optimal performance.
* Proficient in managing users, permissions, and file systems on bare-metal servers.
* Skilled in automating deployment and management tasks using tools like Ansible, SaltStack, or Terraform, ensuring consistent and scalable infrastructure deployment.
* Oversee the administration of Linux-based systems, ensuring optimal performance, security, and availability.
* Spearhead the deployment and configuration of Linux servers for various applications, emphasizing efficiency and scalability.Applied patches and updates promptly to safeguard systems against emerging vulnerabilities on Linux servers.
* Implemented and maintained Linux server infrastructure, ensuring high availability, scalability, and security.
* Used Scrip tag for conditional script tag creation in GitHub.
* Proficient in scripting languages (e.g., Bash, Python) to automate routine tasks, increasing operational efficiency.
* To allow new version to be deployed while retaining the old versions running , implemented blue green deployment . Blue for current version and Green for new version.
* Using OpenShift Developer configured Docker Application Container and Kubernetes Cluster .
* Implemented continuous integration pipelines with OpenShift Jenkins capability.
* Customized OpenShift source to image capability
* Traffic can be shifted from two environments, allowing for the testing and monitoring of new version.
* Used Python BOTO3 to communicate with AWS API, worked on python scripting for server provisioning, configuration, deploying configurations to multiple environments, Backup and Restore operations, Log rotation and cleanup, monitoring and reporting, managing cloud resources.
* REST API’s were created, deployed and update using Jenkins Plugin.
* Used UNIX Shell scripting to automate backup of databases and schedule it weekly, database upgrade,to generate alert in slack/pagerduty, active services in UNIX, available disk space in each drive and generate alert when it crosses 80% usage.
* Used SRE to improve reliability of scalable software systems to manage large system with software in AWS.
* Configured On-Premise to work with AWS cloud, used VSCode editor for Terraform scripts.

**Environment:** AWS,Redhat Linux 7/8, Git, GitOps, Jenkins, SonarQube, Ansible, Terraform, Docker, Kubernetes, Python, Shell scripting, Prometheus, JFrog, ArgoCD

**Client:**SpectrumBrands

**Location:**Miramar, FL

**Role:** DevOps Engineer/Linux Administrator

**Duration:** October 2021 – May 2023

* Oversee and support ongoing project development by managing GitLab, branching strategies, and developer workflows.
* Implement automated configuration management across various servers (Dev, QA, Build, Production) using Ansible.
* Automate formal build processes such as Continuous Integration, Full/Nightly Build, Release, and Integration pipelines.
* Employ GitOps and Helm for automated Kubernetes deployments, ensuring seamless operations.
* Maintain and track all automation scripts within the source code management tool 'Git'.
* Manage working environments through Ansible for efficient configuration management.
* Configure and maintain Docker environments for developers and testers using Docker build & compose.
* Engineered AWS Lambda-based microservices architectures to achieve scalable application components.
* Implemented API endpoints via AWS API Gateway for seamless integration with Lambda functions.
* Extensive utilization of Jenkins for configuring CI/CD, integrating SonarQube for static code analysis, and JFrog for artifact storage. Groovy scripting is used for Pipeline creation for Jenkins CI,
* Focus on CI/CD automation through AWS DevOps, Bitbucket, and GitHub for deploying applications across Azure cloud, GCP, and AWS.
* Proficient in customizing and compiling Linux kernels for specific bare-metal hardware configurations.
* Demonstrated ability to troubleshoot complex issues within OpenStack environments, including performance optimization, resource allocation, and debugging network connectivity problems.
* Proficient in designing and implementing high availability and disaster recovery solutions for OpenStack environments, leveraging features like multi-region deployments, redundancy, and failover mechanismsDeploy containerized applications using Docker onto an Amazon EKS-managed Kubernetes cluster.
* Skilled in containerization tools like Docker for launching, managing containers, and image manipulation.
* Creation and setup of Jenkins jobs, including configuring servers & nodes for distributing tasks.
* Integration of DevOps practices with React applications for streamlined deployment, scaling, and maintenance.
* Design and implementation of CI/CD pipelines for automating React application build, test, and deployment processes.
* Implementation of CloudWatch alarms for server performance monitoring and optimizing performance.
* Automated infrastructure tools for AWS services using Python and AWS APIs for EC2, VPC, ELB, R53, S3, IAM.
* Management and configuration of caching control via Cloud Flare and Amazon CloudFront.
* Implementation of AWS Multi-Factor Authentication using IAM for enhanced user security.

**Environment:** AWS, Redhat Linux 7/8, CentOS, SuseLinux, GIT, GITHUB, Maven, Jenkins, SonarQube, Ansible, Terraform, Docker, Kubernetes, Ubuntu, Python, Shell, VMware, Java, Ant, SVN, Apache Webserver, Jboss, JIRA.

**Client:** Amgen INC

**Location:** Thousand OAKS, CA

**Role:**DevOps/ Linux Engineer (DevOps, AWS, Redhat Linux/IBM AIX)

**Duration:** January 2017 – October 2021

* Good understanding of automation practices throughout the development, build and deployment phases of the application life cycle.
* Hands on experience in AWS provisioning using Terraform (IAC) tool and good knowledge of AWS resources like EC2, S3, Lambda, VPC, Autoscaling, ECR, ECS, EKS, EBS, IAM.
* Configured and Monitored resources on AWS with **Cloud Watch** for **Real-Time metrics, Automated Actions, Log Insights, Dashboards and Visualizations.**
* Ingesting and storing logs with **Logstash** and **Elasticsearch**, collecting logs with **ElasticsearchFilebeat** and visualizing logs with **Kibana**
* Ingesting and storing metrics with **Prometheus,** provided a set of API keys with read only EC2 access and Prometheus will do host discovery collect data from Targets.
* Using **Grafana** tool for Visualizations and Dashboards, created Data Sources for Dashboards. Created a new dashboard then used green button on the left to Add Panel then a Graph
* Alerting with **Prometheus** setup and configured Alert manager, configured Prometheus to talk to the Alert manager, created Alert rules in Prometheus
* Secured AWS environment with **IAM, VPC Security, EC2 security and Security Auditing.** Specific roles are created for access to resources. **NACL** are associated with Subnets and **Security Groups** with EC2 instances. Configured **ELB** for provisioning resources in private Subnets, encrypted data for **EBS** volumes and stored them in **S3** objects. Security Auditing with **VPC Flow Logs, CloudTrail, Trusted Advisor, AWS Config.**
* Used **AWS Systems Manager** and **AWS Secret Manager** for storing Passwords, Api Tokens and other secrets which are to be used with other resources
* Created additional **Docker** slave nodes for Jenkins, using custom **Docker images** and pulled them to **ECR** and **monitored using Prometheus**
* Created Jenkins pipeline file using Groovy scripting. Used CICD tools like Jenkins, Git, Jira and Docker registry/daemon for configuration management and automation Using **Ansible**
* Used **Ansible** as configuration management tool for configuration of web applications, data bases and other software in remote systems.
* Managed Kubernetes charts using Helm. Created reproducible builds of Kubernetes applications, managed Kubernetes manifest files and managed releases of Helm Packages.
* Used GitHub as Source Code Repository and created webhook as and when Developer commits code, Jenkins pipeline will be triggered automatically
* Used **ArgoCD**as **GitOps** tool to manage and automate Kubernetes Deployments. Installed and configured **ArgoCD** to integrate with Kubernetes clusters and manage application lifecycles. Used **Git** repositories as source of truth for declarative infrastructure and application configurations.
* Used **Terraform** Infrastructure as Code to create resources in AWS cloud. Configured resources like EC2, VPC, S3, EKS, RouteTable, IGW, ELB, Subnets, SecurityGroups. Configured S3 for storing state file with DynamoDB access.
* Used Terraform to create modules for code reusability, workspaces for execution of same code in different environments. Worked on File Provisioners to load content and files to remote and local systems.
* Worked extensively on **AWS Lambda** function to trigger an event whenever there is newfile uploaded to S3, a request hitting API, identify and delete EBS snapshots which are no longer associated with active instances to optimize storage costs.
* Used **Cloud Front** a very own **CDN** service which seamlessly integrates with other AWS resources to deliver content , videos , applications and **APIs** securely with low-latency and high transfer speeds.
* Worked on **EKS** cluster, configured and managed control plane. Automatic scalability of Kubernetes control plane based on demand. Ensured cluster remains responsive as the workload increases. Integrated **EKS** with Prometheus and Cloud watch monitoring tools for monitoring and logging of cluster health and performance metrics, making it easier to track and trouble shoot issues.
* Used Python modules Botto3, Flask,OS, SYS libraries to automate scripts for the resources configured in AWS. Used UNIX shell script for automation of jobs which are to be executed on daily basis for project.

**Client: Invesco**

**Location: Atlanta**

**Role: Linux Administrator**

**Duration: December 2007 – August 2011**

* Managed and maintained Linux based systems and servers to ensure they are stable , secure and perform well.
* Set up linux servers, install software and configure system settings
* Regularly check system performance and identify potential issues before they become critical
* Implement security measures , monitor for threats and respond to security breaches
* Ensure data integrity with regular backups and recovery plans
* Create and manage user accounts , set permissions and ensure security protocols are followed
* Install and upgrade software and maintain software licenses.
* Perform maintenance checks and system backups.

**Client: Keane**

**Location: Minneapolis**

**Role: Linux Administrator**

**Duration: November 2003 – June 2007**

* Monitored Linux based systems and servers to ensure they are stable , secure and perform well.
* configured linux servers, install software and configure system settings
* Regularly check system performance and identify potential issues before they become critical
* Implement security measures , monitor for threats and respond to security breaches
* Ensure data integrity with regular backups and recovery plans
* Create and manage user accounts , set permissions and ensure security protocols are followed
* Install and upgrade software and maintain software licenses.
* Perform maintenance checks and system backups.

**Client: Kernex**

**Location: Hyderabad**

**Role: Linux Administrator**

**Duration: August 2000 – October 2003**

* Install and upgrade software and maintain software licenses
* Regularly check system performance and identify potential issues
* Implement security measures, monitor for threats and respond to security patches
* Create and manage user accounts.
* Experienced in unix, solaris and RedHat linux for installation of softwares
* Configured systems with latest version of Operating Systems.

**Education:**

* Master of Computer Applications September 2000 from Osmania University, Hyderabad, Telangana.
* B.Sc. Computer Science, June 1996 from Osmania University, Hyderabad, Telangana.