

**KISHOR G**

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940-600-1133

Dallas, TX

**Sr. AWS Infrastructure Engineer**

* Over 10+ **years** of experience in the IT industry Worked on AWS cloud to provision new resources, **S3 Storage, AWS EC2, AWS SNS and SQS, Cloud watch services and CI/CD pipeline** through **Cloud Formation, Terraform** and Created **IAM policies** for administration.
* Involved in designing and deploying applications utilising all of the **AWS** stack Including **EC2, Route53, S3, RDS, Dynamo DB, SNS, SQS, IAM, EC2, Load Balancing, AMI Images** focusing on **high - availability, fault tolerance,** and **auto-scaling.**
* Configured **AWS IAM** and **Security Groups** in Public and Private **Subnets** in **VPC**. Managed network security using **Load balancer**, **Auto-scaling and Security groups**.
* Created **AWS Route53** to route traffic between different regions. Created **route tables** to route the traffic to find whether it is a public or private network.
* Managed storage in **AWS** using **Elastic** **Block** **Storage**, **S3**, **created** **Volumes** and **configured** **Snapshots**.
* Performed AWS cloud deployments for web applications with **AWS Beanstalk** and monitoring using **CloudWatch** to manage network configurations and **SNS** for notifications.
* Provided **POCs** to manage the **AWS infrastructure** using **Ansible playbooks, including** checking the **health status, monitoring** and gathering facts about the **EC2s**, **ELB**, auto-scaling **groups** and other resources.
* Used **Ansible** for configuration management of hosted Instances within AWS Configuring and Networking of **VPC.** Designed **AWS CloudFormation** templates to create custom-sized **VPC, subnets, and NAT** to ensure successful deployment of **Web applications** and **database templates**.
* Designed and implemented Amazon Elastic File System **(EFS)** solutions for multiple projects, ensuring highly available and scalable file storage for applications.
* Led the design and implementation of **Amazon Redshift** data warehousing solutions, optimizing query performance and reducing query execution times.
* Proficiently managed and administered **Snowflake** data warehousing solutions on the Amazon Web Services (**AWS**) platform.
* I have implemented **monitoring** and alerting systems using **ELK Stack,** **Prometheus**, and **Grafana**, enabling proactive detection and resolution of system issues, and reducing incident response time.
* Leveraged **Infrastructure** as Code principles to automate cloud resource provisioning and configuration management using T**erraform** and **Ansible**, leading to a more efficient and scalable infrastructure.
* Led **troubleshooting** efforts to diagnose and resolve production failures, minimizing downtime and Restoring services as quickly as possible.
* Ensured **high availability** and fault tolerance by designing and managing **Kubernetes clusters**, deploying containerized applications.

**Technical Skills**

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| **Cloud** | AWS, Azure |
| **Configuration**  **Management Tools** | Ansible, Chef, Puppet, Terraform |
| **Container tools** | Kubernetes, Docker |
| **Build Tools** | Maven, ANT, Gradle |
| **CI/CD Tools** | Jenkins, GitLab CI/CD |
| **Version Control Tools** | GIT, Github, Bitbucket |
| **Monitoring Tools** | Prometheus, Grafana, CloudWatch, Nagios, Datadog, Splunk |
| **Databases** | MySQL, MS Access, NoSQL, MongoDB, DynamoDB |
| **Web Servers** | Nginx, Tomcat, APACHE 2.x, 3.x, JBoss 4.x/5.x |
| **Application Servers** | Apache Tomcat 5.x/7.x, Red Hat JBOSS 4.22.GA, WebSphere 6.x/7.x/8.x |
| **Networking/Protocols** | TCP/IP, DNS, DHCP, EIGRP, BGP, WAN, SMTP, LAN, FTP/TFTP, SSH |
| **Operating Systems** | Linux (RedHat Enterprise Linux, CENTOS, FEDORA), Amazon Linux, Ubuntu 12/13/14, DEBIAN, Mac |
| **Scripting** | Python, YAML, Ruby, Bash, java, PowerShell. |

**Professional Experience**

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# Role: Sr. AWS Infrastructure Engineer Mar 2021 - Present

# Client: Zoetis - Malvern, Pennsylvania

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* Involved in designing and deploying of applications utilizing all of the **AWS** stack Including **EC2, Route53, S3, RDS, Dynamo DB, SNS, SQS, IAM, EC2, Load Balancing, AMI Images** focusing on **high - availability, fault tolerance,** and **auto-scaling.**
* Migrated and maintained build and test environments into the **Cloud Infrastructure**. Developed **CloudFormation** scripts to automate **EC2** instances, created versions for the updated script, and wrote scripts in **Terraform** and **Lambda** to spin up **EC2** instances.
* Proficient in AWS **CloudFormation** for infrastructure as code (IaC) deployments, including template creation, management, and troubleshooting and provisionied AWS resources using **CloudFormation templates**, ensuring consistency and reliability in infrastructure deployments.
* Expertise in configuring **Lambda** functions to respond to various triggers, including API Gateway, S3 events, DynamoDB streams, etc.
* Configured **AWS IAM** and **Security Groups** in Public and Private **Subnets** in **VPC**. Managed network security using **Load balancer**, **Auto-scaling, Security groups** and **NACL**.
* Integrated **security scanning** and image hardening processes into the container lifecycle. Implemented security measures like **image signing**, **vulnerability scanning**, and runtime protection to enhance container security.
* Developed and maintained **AWS CloudFormation** templates to provision and manage **Redshift** clusters, ensuring infrastructure as code **(IaC)** practices.
* I have extensive experience developing serverless applications using **AWS Lambda** and **JavaScript**. I have utilized **JavaScript** to create Lambda functions that handle a wide range of tasks, from processing incoming data streams to executing business logic and responding to **API** requests.
* worked extensively with **AWS SDK** for **JavaScript** to interact with services like S3, DynamoDB, and SQS, enabling seamless data integration and processing.
* Monitored and fine-tuned **Redshift clusters** using **AWS CloudWatch** and performance diagnostic tools, resulting in improved system stability and reduced costs.
* Expertise in designing and implementing RESTful APIs using **AWS API Gateway**, integrating with **Lambda** functions and other **AWS** services. Skilled in building and orchestrating Serverless workflows and state machines using **AWS Step Functions**.
* **Deployed** containerized applications on **OpenShift** using deployment configurations, **pods, services,** and other **Kubernetes** constructs.
* Experienced in deploying, managing, and scaling **Kubernetes clusters**.
* Developed **Bash and Python scripts** to automate deployment, scaling, and monitoring of **Kubernetes clusters**, improving operational efficiency.
* Skilled in utilizing **shell scripting** for log analysis, data manipulation, and system troubleshooting.
* Familiarity with version control systems (Git) for managing and collaborating on **shell** script development projects.
* Proficient in deploying, managing, and scaling **Kubernetes** clusters in production environments.
* Collaborated with developers to create **Docker images,** define Kubernetes manifests, and manage application code within the **OpenShift environment**.
* Integrated **DynamoDB** with other AWS services such as Lambda, API Gateway, and S3 to build scalable and cost-effective serverless applications.
* Worked with **DynamoDB** Streams and AWS Lambda to process and react to changes in real-time, enabling event-driven architectures.
* Implemented access control and **security** measures in **Snowflake** to safeguard s**ensitive data**, in compliance with industry regulations and best practices.
* Managed seamless **EKS cluster** upgrades, ensuring minimal downtime during critical updates and security patch deployments, keeping clusters up-to-date with the latest **Kubernetes** versions.
* Implemented Infrastructure as Code **(IaC**) using AWS CloudFormation templates written in **Python,** ensuring efficient and consistent deployment of resources.
* Developed **Python scripts** to automate **AWS infrastructure** provisioning using Boto3 SDK, reducing manual effort and ensuring consistency.
* Implemented **Python** scripts for **AWS Lambda** functions, enabling serverless processing of events and reducing operational costs.
* Developed **Python** scripts to interact with AWS services like S3, DynamoDB, and RDS, enabling data processing and management tasks.
* Proficiently established a **Python REST API framework** and used Django and DevOps principles to design and develop both frontend and backend modules, ensuring seamless integration and optimal performance.
* Implemented **Apigee** traffic management policies to handle varying loads, enhancing the responsiveness and reliability of our API services.
* Led the integration of **Apigee** as the primary API management platform, facilitating secure, scalable, and well-documented APIs for internal and external stakeholders.
* Managed storage in **AWS** using **Elastic** **Block** **Storage**, **S3**, **created** **Volumes** and **configured** **Snapshots**.
* Utilized **AWS** **CLI** to automate backups of ephemeral data stores to **S3** buckets, and **EBS** and create **AMIs** for mission-critical production servers as backups. Used **Ansible** to manage hosted Instances within AWS for configuring and networking Virtual Private Cloud (**VPC**).
* Deployed **Amazon EKS** clusters to containerize and manage microservices, enhancing the agility and scalability of our applications.
* Integrated **Elasticsearch** with other data stores and systems, such as relational databases and NoSQL databases, for data synchronization and enrichment.
* Integrated **Elasticsearch** with continuous integration and deployment (**CI/CD**) pipelines for automated testing and deployment of Elasticsearch configurations
* Proficient in writing efficient and maintainable **Node.js code** for backend services and **APIs.**
* Developed and maintained **Node.js** backend services, optimizing performance and ensuring seamless operations of critical applications.
* Used **AWS** **Beanstalk** for deploying and scaling web applications and services developed with **Java**, **Node**.**js**, **Python** and **Ruby** on familiar servers such as Apache.
* Extensive hands-on experience with **MongoDB** as a **NoSQL** database solution for scalable and high-performance applications
* Integrated **Node.js** applications with databases such as MongoDB and MySQL, ensuring efficient data storage and retrieval.
* Utilized **Splunk** to monitor, analyse, and visualize machine-generated data from diverse sources, enabling proactive identification and resolution of **system issues.**
* Designed and implemented custom **Splunk queries**, dashboards, and reports to streamline data analysis processes.
* Implemented and maintained the **monitoring** and **alerting** of production and corporate servers/storage using **Cloud Watch**. Used **cloud watch synthetics** for monitoring **REST API’s**, and website content.
* Managed and monitored **cloud infrastructure** using **DataDog** for real-time insights and performance optimization.
* Led the successful migration of legacy monitoring tools to **DataDog**, streamlining the monitoring process and **improving accuracy**.
* Implemented **security** best practices within **GitOps** pipelines, integrating **vulnerability scanning** and compliance checks, which resulted in increased application security and alignment with industry standards.
* Successfully deployed and configured **Dynatrace** for monitoring applications and **infrastructure** across the organization.
* Ensured the scalability of monitoring solutions by optimizing **Dynatrace** settings and integrating it with auto-scaling infrastructure.
* Implemented and configured **SonarQube** for continuous inspection of code quality, security vulnerabilities, and technical debt.
* Integrated **SonarQube into CI/CD** pipelines to automate code analysis and ensure adherence to coding standards.
* Collaborated with developers to address code quality issues, improve code maintainability, and enhance overall software quality.
* Integrated **AWS CDK** with AWS CodePipeline and AWS CodeBuild to automate the deployment and testing of infrastructure changes.
* Integrated AWS **CDK** with CI/CD pipelines to automate the deployment of AWS resources, ensuring consistent and reliable infrastructure deployments.
* Integrated **Chef** into the CI/CD pipeline using **Jenkins,** allowing for automated testing and deployment of infrastructure changes.
* Implemented AWS **API Gateway** to create **RESTful APIs**, enabling seamless communication between microservices and external systems.
* Monitored system performance, diagnosed and resolved issues, and optimized **query** performance to enhance the efficiency of **Snowflake on AWS**.
* Created infrastructure as a code **(IAC)** template using **Terraform** and used them to deploy replicas in other environments like QA, testing, and prod. Experience using **Terragrunt** to manage and provision infrastructure using **Terraform** in **AWS.**
* Familiar with various AWS services, such as CloudFormation, **CloudTrail**, and **IAM**, and their integration with **CDK**. Strong knowledge of infrastructure as code **(IAC**) principles and ability to apply them using **CDK**.
* Strong experience with **Grafana** for analyzing **CloudWatch metrics** and gaining insights into your system performance. Wrote **Ansible** playbooks from scratch in **YAML**. Installing, setting up and troubleshooting Ansible, created and automated platform environment setup.
* Automated various infrastructure activities like **Continuous** **Deployment**, **application** **server** setup, and stack monitoring using **Ansible** **playbooks**. Implemented **Nagios** integration with **Ansible** for automation in server monitoring.

# Role: AWS Infrastructure Engineer Apr 2018 – Feb 2021

# Client: 7-Eleven- Dallas, TX

* Launched **EC2 Instances** using **AWS (Linux/ Ubuntu/RHEL)** and configured launched instances concerning specific applications.
* Worked on AWS cloud to provision new resources, **S3 Storage, AWS EC2, AWS SNS and SQS, Cloud watch services and CI/CD pipeline** through **CloudFormation, Terraform** and Created **IAM policies** for administration.
* Performed AWS cloud deployments for web applications with **AWS Beanstalk** and monitoring using **CloudWatch** to manage network configurations and **SNS** for notifications.
* Provided **POCs** to manage the **AWS infrastructure** using **Ansible playbooks, including** checking the **health status, monitoring** and gathering facts about the **EC2s**, **ELB**, auto-scaling **groups** and other resources.
* Proficient in designing and implementing APIs using AWS **API Gateway** for secure and scalable communication between services.
* Utilized **Dynatrace** to quickly diagnose and resolve complex **performance issues**, reducing mean time to resolution.
* Utilized **GitHub** as the primary version control system, ensuring code collaboration, version tracking, and code quality.
* Developed and maintained **JavaScript libraries** and reusable components, improving code reusability and maintainability across projects.
* Utilized **AWS Service Catalog** to create standardized service portfolios, ensuring compliance and governance across the organization.
* I have successfully resolved network security incidents by analyzing **NACL logs** and making necessary rule adjustments to prevent unauthorized access.
* Designed, implemented, and managed Network Access Control Lists (**NACLs)** in AWS to control inbound and outbound traffic for multiple **VPCs**.
* Worked on Setting up continuous integration and continuous deployment pipelines using tools like **Jenkins**, and **GitLab CI/CD** and integrating them with **OpenShift**.
* Deployed and managed applications on **OpenShift**, utilizing its containerization and **orchestration** capabilities to streamline deployment processes and enhance scalability.
* Implemented infrastructure as code **(IaC)** using tools like **AWS CloudFormation** and **Terraform** to automate resource provisioning.
* Implemented **GitHub** Actions workflows for automated build, test, and deployment processes, improving overall release efficiency
* Implemented and configured **CloudBees** Jenkins Platform for automating the **CI/CD** pipelines, reducing deployment time.
* Developed and maintained scalable backend services using **Node.js**, handling thousands of requests per second and ensuring high performance and reliability.
* Experience in developing serverless applications using **AWS Lambda** for event-driven architectures.
* Developed and maintained secure and efficient data pipelines, utilizing **AWS services** such as S3, EC2, Lambda, and **Redshift** for data storage, processing, and automation.
* Implemented automated backup and recovery strategies for **EFS file systems,** ensuring **data durability** and availability.
* Experienced in setting up, configuring, and maintaining **EKS clusters**. From designing the cluster architecture to managing nodes, I have a strong command over the entire lifecycle.
* Designed and implemented auto-scaling policies for **EKS clusters** based on application demand, optimizing resource utilization and ensuring cost-effectiveness.
* Proficient in utilizing **Maven** as a build and project management tool to streamline the software development lifecycle.
* Used **Ansible** for configuration management of hosted Instances within AWS Configuring and Networking of **VPC.** Designed **AWS CloudFormation** templates to create custom-sized **VPC, subnets, and NAT** to ensure successful deployment of **Web applications** and **database templates**.
* Set up real-time **security monitoring** and alerting using tools like **ELK stack**, **Prometheus**, and **Grafana**. Developed incident response plans and actively participated in resolving security incidents.
* Worked on Ansible playbooks to manage Web applications, Environments and **Ansible Tower** to automate repetitive tasks, to deploy critical applications quickly and proactively made automation, **continuous integration and continuous Deployment** through **Jenkins** and wrote Playbooks to automate **Ansible servers** using **YAML** scripting.
* Worked on several Docker components like **Docker Engine**, **Hub**, **Machine**, **Compose**, and **Docker Registry**.
* Managed the **Maven** Repository using the **Nexus** tool to automate the build process and used the same to share the **snapshots** and releases of internal projects. Scripting of administration tasks using **CLI**, **Power Shell.**
* Strong experience on **Terraform cloud** for managing infrastructure as a code **(IAC).** Enabled users to define, preview and apply changes to infrastructure across multiple cloud providers.
* Skilled in writing reusable and modular Terraform modules using **TerraGrunt,** enabling efficient infrastructure provisioning and management.
* Skilled in integrating **Terrascan** into CI/CD pipelines to perform automated security checks during the development and deployment stages.
* Created a **transit gateway** and shared **TGW** with **RAM** (resource access manager) to different member accounts using **Terraform**
* Experienced in using **CDK** to automate the deployment of AWS resources, including **EC2** instances, **S3** buckets, and **Lambda** functions.
* Implemented **Jenkins Workflow** and Plugins for repeatable deployments of multitier applications, **artefacts,** andservices to **Docker**.
* Designed **AWS Cloud**Formation templates to create customized **VPC**, **subnets**, and **NAT** to ensure successful deployment of **Web applications** and database templates.
* Worked on **Jenkins** for continuous integration and for End-to-End automation for all builds and deployments, Implementing **CI/CD** tools **Upgrade, Backup, Restore**, **DNS** and **SSL setup**.
* Administered **RedHat Linux 4.x/5** servers for several functions including managing **Apache Tomcat Server**, **Mail Server**, MySQL database and Firewalls in both development and production environments.

# Role: Cloud Engineer Jan 2016 – Mar 2018

**Client: Charles Schwab** - **Westlake, TX**

* Responsible for creating and managing **Azure AD tenants**, managing users and groups, and configuring application integration with Azure AD. Managing Azure Infrastructure **Azure Web Roles**, Worker Roles, SQL Azure, **Azure Storage**, Azure AD Licenses. Virtual Machine Backup and Recover from a Recovery Services Vault using **Azure PowerShell** and Portal.
* Worked on **Azure Fabric, Microservices**, **IoT** & **Docker** containers in Azure and was involved in setting up **Terraform’s** continuous build integration system. Used Azure **Internal Load Balancer** to provide high availability for **IaaS VMs** & **PaaS** role instances.
* Managed Azure Infrastructure Azure Web Roles, Worker Roles, VM Roles, Azure SQL, **Azure Storage**, Azure AD Licenses, Virtual Machine Backup and Recover from a Recovery Services Vault using Azure **PowerShel**l and Azure Portal.
* Created **AWS Route53** to route traffic between different regions. Created **route tables** to route the traffic to find whether it is a public or private network.
* Managed storage in **AWS** using **Elastic** **Block** **Storage**, **S3**, **created** **Volumes** and **configured** **Snapshots**.
* Used **Cloud** **Front** to deliver content from **AWS** edge locations to users, allowing for further reduction of load on front-end servers. Worked on **ELK** architecture and its components like **Elasticsearch, Log stash and Kibana.** Handled installation, administration, and configuration of **ELK** **stack** on AWS and performed Log Analysis.
* Experience in **Kibana** which is a powerful data **visualization** capability to help businesses **pull** **vital** information from their data stores.
* Worked on an **Azure DevOps** data migration tool that provides a high-fidelity approach to transfer collection databases from **Azure DevOps Server** to **Azure DevOps Services**.
* Developed several shared pipeline libraries by writing reusable **yaml** workflows to facilitate **Continuous Integration – Continuous Deployment** architecture for teams migrating to Azure.
* Run Azure pipelines on top of **Kubernetes** to drive all automation with webhooks tied into our GIT system.
* Used Terraform to reliably version and create infrastructure on Azure. Created resources, using Azure **Terraform module**s, and automated infrastructure management.
* Worked with **Terraform Templates** to automate the **Azure Iaas** virtual machines using Terraform modules and deployed virtual machine scale sets in the production environment.
* Written Templates for Azure Infrastructure as code using Terraform to build staging and production environments. Integrated **Azure Log Analytics** with **Azure VMs** for monitoring the log files, storing them and tracking metrics and used Terraform as a tool, Managed different infrastructure resources Cloud, **VMware**, and Docker containers. Used **AWS** **Bean Stalk** for deploying and scaling web applications and services developed with **Java**, **Node**.**js**, **Python** and **Ruby** on familiar servers such as Apache and IIS.
* Implemented and maintained the **monitoring** and **alerting** of production and corporate servers/storage using **Cloud Watch**. Used **cloud watch synthetics** for monitoring **REST API**, website content, phishing, and DDoS attacks.

# Role: Site Reliability EngineerOct 2014 – Nov 2015

# Client: GE Digital - Hyderabad, India

* Implemented **monitoring** and alerting systems using **ELK Stack,** **Prometheus**, and **Grafana**, enabling proactive detection and resolution of system issues, and reducing incident response time.
* Leveraged **Infrastructure** as Code principles to automate cloud resource provisioning and configuration management using T**erraform** and **Ansible**, leading to a more efficient and scalable infrastructure.
* Led **troubleshooting** efforts to diagnose and resolve production failures, minimizing downtime and Restoring services as quickly as possible.
* Developed and implemented incident response procedures, including **escalation paths** and communication **protocols**, to ensure timely resolution of issues.
* Ensured **high availability** and fault tolerance by designing and managing **Kubernetes clusters**, deploying containerized applications using **Docker**, and utilizing **Helm charts** for easy application deployment and scaling.
* **Collaborated** with development teams to optimize **application performance** and scalability, conducting **load testing** and performance tuning to improve system response times and handle increased **user loads.**
* Worked closely with security teams to implement secure **coding practices**, **perform vulnerability assessments**, and establish access controls, ensuring systems and data confidentiality, integrity, and availability.
* Conducted regular **backups** and **performed** maintenance activities on **SVN servers** to ensure system stability and availability.
* Configured **SVN servers** and **repositories** to meet specific business requirements, including **access controls** and **branch management**.
* Upgraded **RHEL servers** to the latest release and applied RHEL OS enhancement and bug fixes as per business needs.
* Investigation of **issues** found in the production environment. Apache **Tomcat configuration** and support for other teams within IT.
* Led efforts to improve security practices by implementing secure coding practices, **vulnerability scanning**, and **access controls**, resulting in enhanced **system security** and compliance.
* Assisted in **troubleshooting** production issues, performing root cause analysis, and **implementing** corrective actions to minimize system downtime and improve **system reliability**.
* Actively participated in **Agile/Scrum** processes, attending daily stand-up meetings, **sprint planning**, and retrospectives to ensure efficient and timely **delivery of projects**.

**Role: Linux Admin Aug 2013 – Sep 2014**

**Client: CGI- Chennai, India**

* Administer and Support Linux (RHEL 4.0) for Non-Prod, Test Dev environment.
* Performed hardware maintenance, upgrades and troubleshooting on workstations and servers.
* Installed and configured SSH server on Red hat/ CentOS Linux environment.
* Carried deployment sand builds on various environments.
* Wrote ANT scripts to automate the build process.
* Set up continuous integration environment using Jenkins.
* Used Shell/ Perl scripts to automate the deployment process.
* Update software packages and apply security patches.
* Involved in creating logical volumes, backups, managed large hard disk farms and resized disk partitions using Logical Volume Manager (LVM) commands on **Red Hat Linux.**
* Experienced with JIRA for defect tracking.
* Coordinated all the IT projects successfully by resolving release interdependencies and planning releases.
* Responsible for the planning, scheduling, and documenting of releases at code freeze periods.
* Implemented passwordless (SSH) authentication between servers.
* Administer System logs and security logs.
* Installed Linux OS and configured the required network on 25 Node HPC cluster.
* Used Shell scripting for building and deploying Java applications to target environments. Coordinated with different teams before and after the production deployments.
* Worked under waterfall SDLC process.