**Niranjan Ponna**

**Sr DevOps/Cloud Engineer**

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**Summary:**

* Around 8+ years of IT experience as Cloud Engineer and DevOps Engineer with expertise in areas of Software Configuration Management, Version Control, Build and Release management, Linux System administrator.
* Strong knowledge of Software Development Life Cycle (SDLC) methodologies such as Agile, SCRUM models and Software Testing Life Cycle (STLC).
* Designed, configured and managed public Cloud Infrastructure utilizing AWS Services like VPC, EC2, Elastic Load Balancer, Elastic Container Service, S3, Elastic Beanstalk, Cloud Front, Elastic Filesystem (EFS), RDS, DynamoDB, Direct Connect, Route53, Cloud Watch, IAM, and Redshift. Auto Scaling, Glacier, Cloud Trial, Lambda, Elastic Cache, EMR, Service Catalog, Kinesis and Storage Gateway.
* Experience in solving manual redundant infrastructure issues by creating CloudFormation Templates using AWS’s Server less application model and deploy RESTful APIs using API Gateway and triggering Lambda Functions.
* Hands-on experience on Terraform for building, changing and versioning of Infrastructure and wrote Templates for AWS infrastructure as a code using Terraform to build staging and production environments.
* Hands on experience in Shell and Python scripts to automate creation of AMIs through pre-boot and bootstrapping techniques.
* Strong Experience on Configuration Management (CM) tool Chef by configuring the Chef-Repo and setting up multiple Chef Workstations and experienced in writing Chef cookbook and Recipes to automate the deployment process and integrated with Jenkins jobs for Continuous delivery (CD) framework.
* Explicit knowledge on Ansible playbooks, modules, roles and used them in Cloud (AWS, Azure, Openstack) environments and experience with Ansible Tower to manage multiple nodes and manage inventory for different environments.
* Wrote Puppet manifests and bootstrap scripts to allow instances for various roles without maintaining AMI’s and worked on Puppet for the deployment of servers with custom scripts.
* Strong work experience on several Docker components like Docker Engine, Docker Hub, Docker Compose, Docker Registry and worked on Ansible modules to deploy Docker services on the Docker cluster for the entire microservices stack.
* Involved in Docker container orchestration framework using Kubernetes to create pods, ConfigMaps and deployments into cluster.
* Worked with Automated deployments, scaling and operations of application containers across cluster of hosts, provided container-centric infrastructure by Kubernetes.
* Experience in building and monitoring software projects continuously with CI tools such as Bamboo, Jenkins, Hudson.
* Efficient experience in using Nexus and Artifactory repository managers for Jenkins and Maven builds.
* Hands on experience in working on source control management tools like GIT (github), Subversion (SVN), BitBucket and creating GIT repositories with specified branching strategies.
* Expertise in using build tools like Maven and Ant for the building to deploy artifacts such as war from source code.
* Involved in Jira as bug tracking system and configured various workflows, customizations and plug-ins for Jira bug/issue tracker and integration of Jenkins with Jira/Github.
* Experience in working with Splunk authentication and permissions and having significant experience in supporting large scale Splunk deployments.
* Hands-on experience in using Nagios and Zabbix which helps in monitoring network services, host resources, hardware and used remotely by run scripts using Nagios Remote Plugin Executor.
* Used Shell scripting (Bash and ksh), Powershell, Ruby, Perl, Python based scripts for merging, branching and automating the processes across different environments.
* Experienced in web/application servers like WebSphere, Nginx and Tomcat for deployments and for hosting tools.
* Experienced in administration, production, Development and Test environment’s carrying Windows, Debian, Ubuntu, Red Hat Linux, SUSE Linux, CentOs and Solaris servers.
* Exper ience on Virtualization technologies like VMware, Oracle Virtual Box.
* Experience in installing Firmware upgrades, Kernel patches, System Configuration, Performance alteration on UNIX/LINUX systems.
* Performed automated installations of Operating System using Jumpstart for Solaris and Kick-start for Linux.
* Expert in setting up SSH, SFTP, SCP connectivity between Linux hosts and experienced in DNS, NIS, NFS, CIFS, FTP, SAMBA server, LDAP, remote access, security management and system troubleshooting skills.

**Education:**

* Master’s in Computer Science, California Baptist University,CA
* Bachelor’s in Electronics and Communications (ECE) from , JNTU-H, India

**Technical skills:**

**Clouds:** Azure, AWS

**CM Tools:** Ansible, Chef

**CI/CD and Build Tools:** Jenkins, Nexus, ANT, Maven, Gradle

**Container Tools:** Docker, Kubernetes

**Version Control Tools:** SVN, Git, Bitbucket, IBM Clear Case

**Monitoring Tools:** Nagios, Splunk

**Operating Systems:** Windows Server 2003/2008/2012, RedHat, Ubuntu, CentOs, Debian, Solaris, SuSe

**Languages/scripting:** Python, YAML, Java Script, Groovy, Bash, Perl, Ruby

**Web/Application servers:** Apache HTTP, Tomcat 7, Nginx, JBoss, Oracle/BEA Web Logic, IBM Web Sphere

**Databases:** Oracle, DB2, MySQL, MySQL Server 2008

**Virtualization Tools:** Oracle Virtual Box, VMware

**Professional experience:**

**Marathon Petroleum Corporation, Findlay, OH March 2020 – Present**

**Sr DevOps/Cloud Engineer**

* Managed Amazon Web Services like EC2, S3 bucket, RDS, EBS, ELB, Auto-Scaling, AMI, IAM through AWS Console and API Integration.
* Designed highly available systems using multiple EC2 instances, Auto Scaling, Elastic Load Balance and AMIs.
* Experience in setting up databases in AWS using RDS, storage using S3 bucket and configuring instance backups to S3 bucket to ensure fault tolerance and high availability.
* Designed AWS Cloud Formation Templates to create custom sized VPC, Subnets to ensure successful deployment of Web applications and database templates.
* Used Amazon Identity Access Management (IAM) to manage users and roles and checking the health and utilization of AWS resources using AWS Cloud Watch.
* Worked with AWS code pipeline and creating CloudFormation JSON templates which are converted to Terraform for Infrastructure as code.
* Wrote Ansible playbooks with Python SSH as the wrapper to manage configurations of AWS Nodes and Test playbooks on AWS instances using Python.
* Implemented Ansible to manage all existing servers and automate the build/configuration of new servers, managing host files, using YAML Linter, authoring various playbooks and custom modules.
* Utilized Chef for automation, builds and upgraded Opscode Chef server and documented steps.
* Used Chef Knife and Ohai to create Cookbooks and Recipes to install packages that automate with Linux.
* Installing and configuring of Chef server, Chef Solo along with creating Chef Cookbooks and implemented latest releases of Chef Solo and written Chef Recipes to install and configure Nagios for infrastructure monitoring.
* Involved in container-based deployments using Docker, working with Docker images, Docker hub and Docker registries & configured Docker files based on YAML to automate building of images.
* Utilized Docker container snapshots, attaching to a running container, removing images, managing directory structures and managing containers.
* Managing major architecture changes from single server large software system to a distributed system with Docker and Kubernetes system.
* Created Pods & clusters using Kubernetes to orchestrate Docker containers to build application servers that span multiple containers and performed health checks of containers and created local cluster and deploying application containers.
* Creating a fully automated pipeline platform and coordinating code build promotions and orchestrated deployments using Jenkins and Git.
* Responsible for Continuous Integration and Continuous Delivery (CI/CD) process implementation using Jenkins along with Shell scripts to automate routine jobs.
* Administered GIT repositories and managed account administration, branching, merging, patch fixes and snapshots by creating post commit and pre-push hooks using Python in Git repositories.
* Performed monitoring using Nagios to ensure the availability of services, applications and regular audit of application and system logs.
* Coordinating and tracking all projects for seamless releases using project management system JIRA.
* Used Python to supplement automation provided by Ansible and Terraform for tasks such as encrypting EBS volumes backing AMIs and scheduling Lambda functions for routine AWS tasks.
* Used LDAP to authenticate users in Apache and other user applications and handling NFS, Auto Mount, DNS related issues.
* Installed RedHat Linux using Kickstart and applying security policies for hardening the server based on company’s policies.
* Responsible for installing, upgrading and administering RHEL (4.x, 5.x, 6.x & 7.x) server and CentOs Linux servers on both virtual machine and bare metal installation.

**Environment:** Amazon Web Services, OpenStack, Cloud Formation, Terraform, ELK, Docker, Kubernetes, Chef, Ansible, Jenkins, Maven, Nexus, GIT, Nagios, JIRA, Python, Bash, Ruby, Linux, Kickstart

**Sprint Corporation, Overland Park, KS March 2019 – Feb 2020**

**DevOps/Cloud Engineer**

* Built servers using AWS, importing volumes, launching EC2, RDS, creating security groups, auto-scaling, load balancers (ELBs) in the defined virtual private connection (VPN).
* Used Azure Terraform and Azure Opsworks to deploy the infrastructure necessary to create development, test and production environments for a software development project.
* Managing the hosting plans for Azure infrastructure, implementing and deploying workloads on Azure Virtual Machines (VMs), design and implement VM storage and good understanding on implementing images/disks.
* Created shell and python scripts to automate creation of AMI’s through reboot and bootstrapping techniques.
* Experience in designing Azure Resource Manager (ARM) template and extensive experience in designing custom build steps using Powershell.
* Implemented AWS lambda functions to run scripts in response to events in Amazon DynamoDB table or S3 bucket or to HTTP requests using Amazon API gateway.
* Configured S3 versioning and lifecycle policies to backup files and archive files in Glacier and configures Elastic Load Balancer with EC2 Auto scaling groups.
* Used Terraform scripts to automate instances for manual instances that were launched before and expertise in writing new plugins to support new functionality in Terraform.
* Converted existing AWS infrastructure to Server-less architecture (AWS Lambda, kinesis) deployed via Terraform.
* Developed Chef recipes and Cookbooks to automate the entire deployment process as well as infrastructure admin tasks.
* Expertise in using Ansible to manage web applications, configuration files, database, users mount points and packages.
* Wrote Ansible playbooks which were the entry point for Ansible provisioning, where the automation is defined through tasks using YAML format.
* Automated various infrastructure activities like Continuous Deployment, application server setup, stack monitoring using Ansible playbooks.
* Worked with the Groovy scripts in Jenkins to execute jobs for a continuous integration (CI) pipeline where ‘Groovy Jenkins Plugin’ and ‘Groovy post-build action Plugin’ is used as a build step and post build actions.
* Setting up build server for continuous integration with Jenkins for daily/nightly and weekly based builds.
* Configured Docker container for branching purposes and implemented Docker automation solution for Continuous Integration/Continuous Delivery model.
* Installed and configured GIT to implement branching strategy which is suitable for agile development also provided continuous support and maintenance of software builds.
* Managed merging, branch creation and tagging for GIT based code repository.
* Used Maven to build rpms from source code checked out from GIT with Jenkins being the Continuous Integration Server and Artifactory as repository manager.
* Developed build and deployment scripts using Maven and initiated them using Jenkins to move from one environment to other environments.
* Monitored server and application uptime via Nagios and other monitoring technologies to decrease downtime and proactively resolve issues.
* Engineered Splunk to build, configure and maintain heterogeneous environments and maintained log analysis generated by various systems including security products.
* Involved in defining and creating usable and customer friendly, intuitive interfaces to the JIRA tool in a fast-paced evolving environment.
* Wrote Python routines to log into the website and fetching data for selected options for the developing team.
* Created scripts for system administration and AWS using BASH and Python.
* Expertise in automating builds and deployment process using Ruby scripts with focus on DevOps tools.
* Administered Linux servers for several functions including Apache/Tomcat server, mail server and MYSQL databases in both development and production.
* Generated SSL certificates and installed into the Tomcat Servers for the secured HTTPS protocol.
* Installation, maintenance and regular upgrades of RedHat Linux servers using Kickstart based network installation.

**Environments:** AWS, Azure, Chef, Ansible, Docker, Kubernetes, Jenkins, Nexus, Git, Maven, Tomcat, Splunk, Nagios, Jira, Python, Ruby, Perl, Linux, Kickstart, Java, .Net.

**AT&T, Middletown, NJ Oct 2018 – Feb 2019**

**Cloud DevOps Administrator**

* Developed strategy to migrate Dev/Test/Production from an enterprise VMware infrastructure to the IAAS Amazon Web Services (AWS) cloud environment including runbook processes and procedures.
* Managed highly scalable services which include logic, storage, databases, monitoring streaming, data warehousing, and Machine learning using AWS Mobile Hub.
* Configured Bamboo for doing the build in all the production and non-production environments.
* Created a fully automated Build and Deployment platform and coordinating code build promotions and orchestrated deployments using Bamboo.
* Created release branches in Bitbucket administration including branching, reporting and assisting with project and end user support.
* Managed code repository by maintaining in Bitbucket, improve practices of branching and code merge to custom needs of development team.
* Developed Ant build files for maintaining test automation builds and Java based library to read test data from XML & properties files using Junit and Selenium.
* Involved in standardizing Splunk forwarder deployment, configuration and maintenance across UNIX and Windows platforms.
* Integrate ServiceNow with Splunk to consume the alerts from Splunk and create ServiceNow tickets.
* Installed and configured monitoring tool Nagios for monitoring the network bandwidth and the hard drives status.
* Installed and administered Tomcat repository to deploy the artifacts generated by ANT and to store the dependent jars, which are used during the build.
* Worked on Python based test frameworks and test-driven development with automation tools.
* Created Solaris Jumpstart and Linux Kickstart servers and processes to automate and standardize the installation process, reducing installation time.

**Environments:** AWS, OpenShift, puppet, Bamboo, Bitbucket, Ant, Java, Junit, Selenium, Splunk, Nagios, ServiceNow, Python, UNIX/LINUX, Bash, Kickstart

**Fifth Third Bank, Cincinnati, OH Feb 2017 – Sept 2018**

 **Cloud Engineer**

* Installed Jenkins on a Linux machine and created a master and slave configuration to implement multiple parallel builds through a build farm.
* Developed and implemented software release management strategies for various applications according to agile process and automated the build and release management processes including monitoring changes between releases.
* Performed daily maintenance routines on Linux servers, monitoring system access, managing file space and tuning the system for optimum performance.
* Configured Email and messaging notifications, managed users and permissions, system settings and maintained two Jenkins servers and one Bamboo server to deploy into non-production and production environment.
* Used Jenkins innovatively to automate most of the build related tasks.
* Improved throughput and efficiency of build system by providing EO/ managers rights to trigger required build.
* Used ANT as a build tool on Java projects for the development of build artifacts on the source code.
* Configured and maintained Jenkins to implement the CI process and integrated the tool with ANT to schedule the builds.
* Responsible for design and maintenance of GIT repository, views and the access control strategies.
* Established processes and tools to maintain code base integrity, including check-in validation rules and branch/merge release using GIT.
* Prepared role-based strategies for various deployment activities in Subversion (SVN) and performed all necessary Subversion support like branching, merging and tagging, checkouts, import and export.
* Deployed the applications to Web Sphere application server 5.0 and static content to apache web servers.
* Involved in performing code reviews in C++, Python and Shell scripting languages for moving into development on Linux operating systems.
* Monitored and fine-tuned system and network performance for server environment running Red Hat Linux.
* Worked on Installation, Configuration and maintenance of Debian/RedHat, CentOs and Suse servers at multiple data centers.
* Used Nexus for periodic archiving and storage of the source code for disaster recovery, sharing artifacts and handling dependency management within the company.
* Worked in implementation of MVC design paradigm of Spring framework, Object relational mapping using Hibernate and Oracle database.

**Environments:** Jenkins, Linux/Unix, SVN, Ant, Java, J2EE, GIT, Apache web servers, C++, Python, Shell Scripting, UNIX/LINUX, Oracle

**Head Infotech, Hyderabad, India Mar 2013– Dec 2015**

**Linux/Unix System Administrator**

* Installed, deployed Red Hat Enterprise Linux 6.x/7.x, CentOS and installation of packages and patches for Red Hat Linux Servers.
* Configured Kickstart server in Linux 5.x, 6.x and Jumpstart server in Solaris 9, 10 and build servers using Kickstart and Jumpstart server.
* Built Yum and RPM repository server for Development team to upload packages, Written UNIX Shell scripts for monitoring and clean up old files.
* Prepared specs for new infrastructure and VMware servers, disk storage, routers, firewalls and VPN.
* Monitored CPU, Memory, physical disk, Hardware and Software RAID, multipath, file systems, network using Nagios.
* Performed Kernel and database configuration optimization such that it limits I/O resource utilization on disks.
* Responsible for the upgrades to AIX and software packages and maintained them in accordance with established policies, procedures and Service Level Agreements.
* Administered Linux servers for several functions including managing Apache/Tomcat server, mail server and MySQL databases in both development and production.
* Involved in Disk management like adding, deleting and replacing of hot swappable drives on existing servers, partitioning per requirement and creating new file systems.
* Managed systems routine backup, scheduling jobs like disabling and enabling cron jobs, enabling system logging, network logging of servers for maintenance, performance tuning and testing.

**Environments:** RedHat, CentOs, Kickstart, Shell scripts, Nagios, MySQL