**Madhu Reddy A.**

**DevOps / AWS Engineer**

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# PROFESSIONAL SUMMARY:

* 9+ years of experience in DevOps Environment and automation on Linux Administration (**UNIX/LINUX)**
* Hands-on experience in various environments such as Red Hat Enterprise Linux (RHEL), Centos and Ubuntu. Known for Excellent **troubleshooting** skills and ability to **analyze** code and resolving the issues with immediate, responsive solutions.
* Expertise in application maintenance and support of **Linux/UNIX** production, test and development servers or environments.
* Good understanding of OSI Model, and proficient in configuring **TCP/IP, DNS, NFS, LDAP, SSH, SMTP, etc.**
* Providing steady movement of software development process between Development, Test and Production environments.
* Highly motivated and committed **DevOps Engineer** experienced in **Automating**, **Configuring** and deploying artifacts or instances on **AWS** cloud environment and Data centers.
* Experience in maintaining AWS (Amazon Web Services) **EC2** (Elastic Cloud Computing) resources like instances, **EBS** volumes, snapshots, **Elastic Load Balancers** (ELB), **VPC**, **AMI's**, **security Groups**, **elastic IP's**, Key pairs and Amazon **Cloud watch** for different zones in different environments and API Gateways.
* Ability to identify and gather requirements to define a solution to build and operate the multiple application on AWS.
* Expertise in Cloud automation using **AWS Cloud Formation Templates** (CFT).
* Hands-on experience on AWS services like **EC2**, **S3**, **VPC, IAM, ELB, Auto Scaling, Cloud Watch, Cloud Formation Templates, SNS, SQS, Route53, Cloud Front, Amazon RDS and DynamoDB, etc.**
* Proficient in handling **AWS** (Amazon Web Services) **Security Operations** (SecOps).
* Knowledgeable on Cloud technologies including Infrastructure as a Service, Platform as a Service, and Software as a Service provider (**IaaS, PaaS, and SaaS**).
* Involved in integrating mobile applications with the on-premise data servers (back end systems of the organization)
* Experience with migration to Amazon Web Services **AWS** from on-premise Datacenter.
* Experience and familiar with **Virtualization** technologies like installing, configuring, administering **VMware**. Created and managed VMs (virtual server) and involved in the maintenance of the virtual server.
* Implemented and maintained CI environments (**Jenkins**), Performing deployments, Packaging, Build optimization, Production rollouts, Staging, Defect tracking (**JIRA**), and Root cause analysis, Smoke testing, Operation support and Service Delivery over web/app servers like **Tomcat** and **WebLogic**.
* Have hands-on experience in deploying the multiple application into the JBoss Application server.
* Proficient in configuring and managing the **uDeploy** (release management tool)
* Hands on experience in creating various kinds of build jobs in Jenkins such as **pipeline project, multi-configuration**, **freestyle**, and **parameterized triggered** **builds**, etc.
* Proven exposure in Internet products **Build and Release management**, SDLC, Systems integration and Environments Management.
* Professional experience in **Software Configuration Management** (Release and Build Engineering / Configuration) on both Linux/Unix and Windows environments.
* Ability to deploy the build scripts and automated solutions using scripting languages **Shell Scripting (Bash)**.
* Experience with automation configuration tools like **Chef** &**Ansible**.
* Experience in **chef automation** including writing **cookbooks**, customized **recipes** for test driven developments.
* Experience in Ansible to manage Web applications, Environments configuration Files, Users, Groups and Packages.
* Writing and testing of Cookbooks using **Food critic** and **Test Kitchen** and running recipes on nodes managed by on premise **Chef Server** and used Chef for server provisioning and **automating the infrastructure**.
* Expertise in using build automation tools like **Maven** and **ANT** for the generation of deployable build artifacts in form of **JAR**, **WAR** and **EAR** files from the source code repositories.
* Experience with web application servers like **Apache**, **Tomcat** and **WebSphere Application Server.**
* Hands on Experience on deploying the Maven files into servers and stored the artifact files in **Nexus repository** for controlling the version of the artifacts or builds.
* Worked on the creation of custom **Docker container images**, **tagging** and **pushing** the images.
* Used Docker for **automating** the **deployment** of applications inside software containers.
* Handling and administration of **Version control** tools (**GIT**, Subversion (**SVN**), **TFVC** (Team Foundation Version Control) like Tagging, Branching, Merging and user access control.
* Competence in working on version control systems like Subversion and Git and used Source code management tools like **Git GUI (Git Hub)**, **Git Lab and**, **Git Bash**, etc.
* Maintained and configured perforce as source code repository for multiple projects.
* Apply embedded programming knowledge to the design and development of new products as well as product changes and enhancements.
* Expertise in **Agile Testing Methodologies** & **Software Test Life Cycle (STLC)**
* Excellent ability to handle significant workload with experience in managing multiple projects concurrently in a matrix process environment
* Cross-functional teamwork, communication, analytical and presentation skills Demonstrated leadership, management skills, time management, and problem-solving skills.

**TECHNICAL SKILLS:**

* **Operating Systems:** Linux (Centos, Ubuntu, RHEL 5/6/7), Windows 7,8,10 and Mac OS X
* **Version Control Tools:** Git, Perforce, Subversion, TFVC (Team Foundation Version Control).
* **Build Tools:** Ant, Maven, Jenkins, and Bamboo.

# Configuration Management Tools: Chef, Ansible.

# Programming & Scripting Languages: SQL, Shell Scripting, Ruby, Python, VB.Net.

# Cloud Computing Services: Amazon Web Services (AWS), Azure.

# Networking: TCP/IP, SSH, Telnet, DNS, DHCP, NFS, FTP, SMTP.

# Monitoring: Nagios, Splunk.

# Ticketing: Jira, ServiceNow

# Web Servers: Apache, Tomcat, Nexus Repository, WAS8, JBoss, JFrog, etc.

# Containers: Docker, Vagrant, Oracle Virtual Box, VMWare.

# Databases: Oracle DB, MySQL Server, RDS, DynamoDB, Microsoft SQL Server

# Other Skills: SDLC, Agile, Eclipse, Lean Six Sigma.

**WORK EXPERIENCE:**

**Role: Sr. DevOps / AWS Engineer**

**T-Mobile, WA Apr’2016 – Till Date**

**Responsibilities:**

* Experience in maintaining applications written in AWS **Elastic Compute Cloud**(Ec2), AWS **Cloud Formation**, AWS databases such as **Dynamo** and **Redshift**.
* Having a good knowledge of services like **ELB, RDS, SNS, SWF,** and **EBS** etc. in Amazon Web Services.
* Experience in setting up **VPN** environment for Client and Configuring and launching AWS EC2 instances as per requirement.
* Configuring AWS IAM and Security Group in Public and Private Subnets in VPC.
* Monitoring Resources and Applications using AWS **Cloud Watch**, including creating alarms to monitor metrics such as EBS, EC2, ELB, RDS, S3, and configured notifications for the alarms generated based on events defined.
* Created Cloud Watch alerts for instances and using them in **Auto scaling launch configurations**.
* Monitoring the server alerts through Nagios for on-premise servers, Cloud Watch and troubleshooting the alerts in the cloud environment (AWS).
* Responsible for handling **AWS** (Amazon Web Services) **Security Operations** (SecOps)and troubleshooting, fixing the network related issues.
* Deployment in the cloud using **Docker** containers using automation of **Elastic Container Service** schedule.
* Worked on user administration setup, maintaining account, Monitor system performance using Nagios.
* Installing, configuring and administering **Jenkins** (Continuous Integration Tool) on Linux/Windows machines along with adding/updating plugins such as **Build Pipeline**, **SVN**, **SSH Agent**, **GIT Hub**, **Maven**, **ANT**, **SonarQube**, **Thin** **Backup**, and **Junit** etc.
* Building the deployment process for application and building a continuous integration system for all our products using Jenkins.
* Expert in building and performing continuous integration using **Jenkins** and deploying the build artifacts into the **JBoss** application server
* Managing and Creating a **pipeline** for custom application images in the cloud using Jenkins.
* Improving the Performance of Jenkins by implementing the setup of **Master-slave architecture**.
* Setting up the jobs for Continuous integration process, also to execute test cases using Jenkins.
* Architected and designed Rapid deployment method using **Ansible** to auto **deploy servers** as needed.
* Extensive experience using **Maven** and **ANT** as a Build Tool for the building of deployable artifacts (JAR, WAR & EAR) from source code.
* Developed Chef **Cookbooks** and recipes to automate the deployment procedure and to coordinating Chef Cookbooks into Jenkins employments for a **continuous delivery** framework.
* Managing **Chef** Nodes using Linux cron jobs.
* Involved in migrating mobile applications from on-premise data centers to the cloud environment such as **AWS**
* Experience in **managing configuration** of web applications and **Deploying** through AWS cloud server by the **Chef**.
* Working on creating and uploading the **cookbooks** and **recipes**.
* Maintaining and setting up the **Chef server** and **chef nodes**.
* Installing and configuring **Docker**.
* Experience working on **Docker Hub**, creating Docker **images** and handling multiple images primarily for middleware installations and domain configurations.
* Experience in working knowledge of Docker and container management systems like **Docker Swarm**.
* Expert of creating image-based containers by using Dockers in lifecycle management.
* Experience on Production systems troubleshooting, root cause analysis, performance monitoring, and improvements.
* Implemented a **Nagios** monitoring system to notify of system issues.
* Expertise in understanding web services, Linux skills, MySQL, and HTTP servers.
* Experience in architecting large applications and object-oriented programming related to **Python**.
* Worked on writing multiple **Python**, **Shell** scripts for internal applications for various organizational tasks
* Expertise in developing and collaborating with other members of the organization to develop new-technologies utilizing Python.
* Experience as a Python developer to work with analytics tasks and API implementations of web crawling projects.
* Responsible for maintaining the **Subversion/GIT Repositories**, also access control strategies.
* Expertise in creating Labels, Branches and performed Merges in Stash and GITHUB.
* Used Subversion repositories as a source code, and deployment processes for Pre-production environments.
* Experience of solutions for software integration with different systems.
* Experience in integrating the data storage solutions, security protections in **Python**.
* Monitoring the **UAT/Production** Environments for any down time issues
* Setting up of Site to Site **VPN** between different regions on AWS.
* Monitor all AWS instances and services through cloud watch.

**Environment:** Subversion, Jenkins, GIT, Chef, Docker, JBoss, Python, Shell Scripting, Nagios, Ansible, MySQL, AWS (EC2, RDS, S3, VPC, Cloud Watch and Route 53, SecOps).

**Role: DevOps/AWS Engineer**

**The Home Depot, GA Aug’2014 - Apr’2016**

**Responsibilities:**

* Managed **Amazon Web Service**s (AWS) projects while coaching the agile process and help implementing the agile methodology.
* Understanding of **secure-cloud configuration**, **cloud-security technologies** (VPC, Security Groups, etc.) and **cloud-permission systems** **(IAM)**.
* Add project users to the AWS account with Multifactor Authentication (MFA**)** enabled and least privilege permissions.
* Leveraged AWS cloud services such as **EC2**, **auto-scaling**, and **VPC** to build secure, highly scalable and flexible systems that handled expected and unexpected load bursts.
* Used **AWS Beanstalk** for deploying and scaling web applications and services developed with Java, PHP, Python, Ruby, and Docker on familiar servers such as Apache, and IIS.
* Designed **AWS Cloud Formation templates** to create custom sized **VPC**, **subnets**, **NAT** instance to ensure successful deployment of Web applications and database templates.
* Setup and build **AWS infrastructure** using various resources like **VPC**, **EC2**, **S3**, **IAM**, **EBS**, **Security Group**, **Auto Scaling**, and **RDS** in **Cloud Formation JSON templates,** etc.
* Maintained the **user accounts** (IAM), **Route 53**, **DynamoDB**, **Cloud Watch**, **SQS** and **SNS** services in AWS cloud.
* Used and configured different plugins like **Delivery Pipeline Build**, **Green Ball Plugin**, **Maven Build** plugin, **SSH** **Agent**, **Thin Backup**, **Git**, **Junit**, **Git** **Web hooks**, **Workspace cleanup**, etc.
* Worked on setting up **Jenkins** server and integrated with **Git**, **Maven**, **JIRA,** and **Email Servers**.
* Designed **Delivery pipeline** in Jenkins based on different Environments like **Dev**, **SIT**, **UAT** and **Production**.
* Configured Jenkins **Master** and **Slave** for RPD and deployment on **WebLogic** and **Oracle Enterprise Manager.**
* Creating and managing the schedule for **periodic backups** of Jenkins, JIRA, and PostgreSQL.
* Developed Chef **Cookbooks** and **recipes** to automate the deployment procedure and to coordinating Chef Cookbooks into Jenkins employments for a continuous delivery framework.
* Development and rendition control of Chef Cookbooks, testing of Cookbooks utilizing **Food critic** and **Test Kitchen** and running recipe on nodes managed by on premise **Chef Server.**
* Experience with **automation/configuration** management using **Chef**.
* Hands-on experience on the application release automation tool such as **uDeploy.**
* Installed and configured **Nexus** repository for sharing the artifacts between the internal teams.
* Worked on the transition project which involves migration activities from **ANT to Maven** to standardize the build across all the applications.
* Recognize, adopt, and install the best practices in **security** **engineering** fields throughout the organization such as development, cryptography, network security, security operations, and incident response.
* Perform non-technical security tasks such as contributing technical information to sections of the **System Security Plan** (SSP).
* Provided DevOps teams with clear direction - including appropriate **governance** and **decision making**.
* Used and written **Python scripts** to deploy build artifacts to **WebLogic**
* Worked on integrating **Selenium** with Jenkins and creating cronjobs to automate daily and weekly jobs.
* Also written shell scripts to automate the Deployment of **Artifacts** to **Linux** boxes.
* Integrated Dockers with Jenkins using the **Dockers plugin**.
* Support containerization through Dockers and maintain **snapshots** of Jenkins.
* Owner of Jenkins, GitHub, Chef, Artifactory, and all internal build systems for the core development team on an enterprise-level Java-based **cloud orchestration/automation** tool.

**Environment:** Java/J2EE, Ant, Maven, Subversion, UNIX, GIT, Nexus, uDeploy, SonarQube, Jira, Remedy, Python, Ruby, Shell Scripts, Tomcat, Jenkins.

**Role: DevOps Engineer**

**General Motors, MI Nov’2013 – Aug’2014**

**Responsibilities:**

* Worked as a **DevOps Engineer** for a team that involves three different development teams and multiple simultaneous software releases.
* Developed and implemented **software release management strategies** for various applications according to agile process
* **Deployed Java applications** to application servers in agile continuous integration environment also automated the total process of application deployment.
* Creating S3 buckets also managing policies for **S3** buckets and Utilized **S3 bucket** and Glacier for storage and backup on **AWS.**
* Involved in deploying the content cloud platform on Amazon Web Services using **EC2, S3,** and **EBS**.
* Experience in creating alarms and notifications for **EC2** instances using **Cloud Watch**.
* Setup **Elastic Load Balancer** for distributing traffic among multiple **WebLogic servers**.
* Configure, monitor and automate **Amazon Web Services**.
* **Monitoring** and **administering** the automated build and performed continuous integration process to ensure correct build execution, and facilitate resolution of build failures.
* Responsible for installing Jenkins **master** and **slave nodes**.
* Configured **Git** with Jenkins and schedule jobs using **POLL SCM** option.
* Managed **Nexus** repositories to download the artifacts **(JAR, WAR & EAR)** during the build.
* Writing **Shell scripts** to automate the deployment process.
* Build scripts using **ANT** and **Maven** build tools in Jenkins to move from one environment to other environments.
* Involved in setting up builds using **Chef** as a configuration management tool.
* Manage the configurations of more than 40 servers using **Chef**, configured Jenkins builds for continuous integration and delivery. Automated web server content deployments via shell scripts.
* Established Chef Best practices approach to system deployment with tools with Vagrant and managing **Chef Cookbook** as a unit of software deployment and independently version controlled.
* Used **Cookbooks**, **Recipes**, **Roles**, **Data-bags**, **Run-lists,** etc. to deploy **web applications** into **applications** **servers**.
* Used **Test Kitchen** to test the scripts.
* Followed agile principles and used **JIRA** for maintenance and Bug development tasks.
* Deployed the build artifacts into environments like **QA, UAT,** and **Prod** according to the build life cycle.
* Created and managed custom **CentOS** and Linux based AMIs
* Used **SVN** as source code repository.
* Involved in installing and configuring **Perforce** as version control systems and part of migration team to migrate to the **Git** from perforce.
* Created the branches in **Subversion** to implement the parallel development process.
* Involved in migrating from **SVN** to **GIT.**
* Create and setup automated nightly build environment for Java projects using **Maven.**
* **Developed**, **maintained** and **distributed** release notes for each scheduled **release**.
* Kept track of all releases and request of the developers through **infrastructure management tool**.

**Environment:** Subversion, Perforce, GIT, Shell scripts, bash, ANT, Maven, Apache Tomcat6.x/7.x, Jenkins, Chef, JIRA, Nexus, Splunk, Nagios4.x/5.x, Linux/Unix, Windows, Java, J2EE, Docker, AWS.

**Role: Build Engineer and Release Engineer**

**United Health Group Oct’2011 – Sep’2013**

**Responsibilities:**

* As **DevOps/Build & Release Engineer** extensively involved in release management, environment management, deployments, continuous integration, continuous deployment, incident management.
* Responsible for **Software Configuration Management** (Build and Continuous Integration using ANT, Jenkins & Git).
* Deploying the **JAR**, **WAR**, **EAR** files in **Apache** **Tomcat** and **JFrog** artifactory storage.
* Taking weekly back-ups of Jenkins home directory using **plugins** in **Jenkins**.
* **Design** and **create** automated **Build** and **Deployment** process using **Jenkins build pipeline** and writing the Jenkins file using **Groovy Script**.
* Automated **Application deployments** using Jenkins and **uDeploy.**
* Automate the build Process Using **Jenkins** byapplying **Poll SCM, parameterized triggers,** andscheduling **croon** jobs**.**
* **Building** and **Deploying** **War** files of the applications into **Nexus** repositories using Shell scripts.
* Responsible for **fetching** the source code and compiling using **ANT** and package it in its distributable format, such as a JAR, WAR, EAR.
* Experience in **User Management** and **Plug-in Management** for Jenkins.
* Involved in **creating** and **maintaining** code deployment pilot automation project documents.
* **Installing** and Managing plugins in Jenkins such as SSH, Git, Git Web hooks, and Thin Backup, etc.
* Used **Shell** scripting to deploy artifacts that are built by Maven.
* Responsible for **tagging** and **maintaining** code on **version control system** and providing the access permissions to the development teams.
* Setting up **SSL** certificates to use DNS for the tools.
* Writing **Shell scripts** to automate the deployment process and take the backups of Git repository.

**Environment:** Git, SVN, Nexus, Perforce, ANT, Maven, Jenkins, JFrog, Apache, Tomcat, MySQL, uDeploy, Shell scripting, Linux, SCRUM.

**Role: Linux System Administrator**

**SatNav Technologies Jul’2008 – Oct’2011**

**Responsibilities:**

* Installation of patches and packages using **RPM** and **YUM** in Red Hat Linux.
* Created and modified application related objects, created **profiles**, **users**, **roles** and maintained **system** **security**.
* Maintain 99.98% uptime of **Linux production servers** and follow proper escalation.
* Responsible for setting up **cron** jobs scripts on production servers.
* Monitored System Activities like **CPU, Memory**, **Disk** and **Swap space** usage to avoid any performance issues.
* Maintaining and Troubleshooting **Samba** server of the client.
* Responsible for **writing/modifying** scripts using **bash** for day-to-day **administration**.
* Handling the day-to-day Operations, **installing** the software, **applying** **patches**, manage file systems, **monitoring performance** and **troubleshooting** the errors or problems.
* Managing **Red Hat Cluster, HPC environment** etc.
* Installed and maintaining protocols like **DNS**, **FTP**, **NFS**, **SSL**, **SSH**, **TCP/IP** and **DHCP** Installed Web servers like **Apache Tomcat** on **Red Hat Linux**
* Building & configuring **Red Hat Linux** systems over the network, implementing automated tasks through **crontab**, resolving tickets according to the priority basis.
* Installed and configured **VNC server/client**.
* **Handling** the day-to-day Operations, **Troubleshooting & Resolving** in the **Server** using **LINUX**.
* Implemented automation tools like **Jenkins** and installed monitoring tools like **Nagios**
* **Managing** (adding/removing) **disks and partitions (LVM)** and overall file systems
* Interacting with **DBA** team for **performance issues**, **network related issues** on Linux Servers.
* Maintained **proper documentation** of all the activities carried out during the project.
* Maintaining **Server** and **Systems**, providing **IT support** to User.
* Monitoring **system performance**, **Server load,** and **bandwidth** issues.
* Regularly manage **backup** process for Server and Client data.
* Modified **Kernel** parameters to improve the server performance in **Linux**.
* Involved in design, configuration, installation, implementation, management, maintenance and support for the Corporate Linux servers **RHEL 4x, 5.x, CENTOS 5.x.**
* Coordinating with 24 x 7 **on-call support** for **debugging**.

**Environment:** UNIX/Linux, Windows, Centos 5.7/6, Red Hat Linux 5.7/6, Ubuntu 10.04/10.10/11.10, VNC, Bash, Apache Tomcat, MySQL, Networking.

# EDUCATION

**Jawaharlal Nehru Technological University, Hyderabad Oct’2004 - May’2008**

*Bachelor of Technology in Computer Science and Engineering.*

# CERTIFICATIONS

* Certified as an **Amazon Web Services (AWS) Developer – Associate** (License No: QM5Z4XDC1BR4QBSH)
* Certified as an **IBM WebSphere Application Server N/W Deployment** and **Liberty Profile V8.5.5 System Administrator** (C9510-401-ENU).
* **Lean Six Sigma Green Belt** Certified Professional from **Central Michigan University.**