**PRASHANTH S**

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**Cloud & DevOps Engineer/ System Administrator**

**SUMMARY**

* **7+ years** of extensive IT industry experience with 4 years of Linux System Administration working on **RedHat**, **CentOS**, **Ubuntu**, **Windows** environments, **VMware vSphere** and 3 years’ experience in **DevOps** environments such as (**DEV**, **TEST**, **STAGE** & **PROD**) in an all automated environment.
* Experienced in **Cloud automation** using **AWS** Cloud Formation templates. Experience in Amazon Web Services **EC2, ELB, S3, Route 53, EBS, VPC, AMI, SNS, RDS, Auto Scaling, etc.**
* Experience deploying EC2 instances with different systems like **Amazon AMI, RHEL, Open SUSE Linux, Ubuntu, Microsoft Windows 2008/2012** server and others.
* Created **Elastic Load Balancer** and **auto scaled images** to design cost effective, fault tolerant and highly available systems on multiple AWS instances. Hands on experience using **Elastic Block Storage (EBS)** and **S3** buckets for data storage.
* Experience in using Configuration management software’s like **Chef,** **Puppet,** and **Ansible** for Automation**.** Extensive hands on experience in using **Chef** attribute templates, recipes and managing On-site OS/Applications/Services/Packages using Chef.
* Used **PowerShell** to install **Chefdk** on windows 8/10 systems. Hands-on experience writing and maintaining **Ansible** and wrote build scripts for server management and deployment.
* Experience in branching, tagging, and maintaining the version across the environments using SCM tools like **Subversion** (SVN), **GIT, Visual SVN** and **Tortoise SVN**. Experience with build tools **Ant** and **Maven** for writing build**.**xml and pom**.**xml files respectively.
* Used **Docker** for packaging applications. **Deployed Docker Engines** in Virtualized Platforms for containerization of multiple apps and automated deployments, scaling and managed containerized applications using **Kubernetes.**
* Experience with CI (Continuous Integration) and CD (Continuous Deployment) methodologies using **Jenkins/Hudson**. Built **Ant scripts** to compile and test Java code in web application Hudson.
* Creating and managing Virtual Machines **VSphere4, ESXI 5.1/5.5/6.0, VMware View, vCenter Server** and Templates, worked with clones and snapshots of Virtual Machines.
* Extensive Experience in integration, deployment, and administration of J2EE Application servers WebSphere v6.0/7.0/8.0/8.5, and **JBoss** v6.0 Application Server across UNIX, Windows and Linux platforms.
* Worked with application teams to resolve issues related to Enterprise and Web Applications hosted on **WebSphere, JBoss** and **Tomcat.** Install and configure enterprise level **Apache Web servers** and **Tomcat** application containers in **RHEL Linux/CentOS**.
* Administration of **RHEL 5, 6 and 7** which includes installation, testing, tuning, upgrading and loading patches, troubleshooting virtual server issues.
* Implemented **LVM** and **RAID** level concepts within the production environment as well as configured and added **LUN’s** to the already existing Linux environment. Experience in configuring the Linux **Kickstart** servers on multiple servers for network installations.
* Experience in using bug-tracking systems like **JIRA**, **Nagios, Atlassian's Bugzilla** and **Mantis.** Expertise in design and implementation of Continuous Integration, Continuous Delivery, Continuous Deployment and **DevOps** processes for **agile** projects.
* Experience in building private cloud infrastructure of **Open Stack**, deploying through puppet and maintaining them in production, and have tested **Open Stack environment** (**Nova, Swift, Cinder, Neutron, Horizon, Keystone, & Glance**).
* Involved in Capacity planning & Performance Analysis, Uptime & Response time analysis, implementation and maintenance of **NFS, & Apache SMTP.** Experience in Centralized logging and log parsing/indexing with **Logstash** and Elastic Search.
* Worked on variety of scripting languages like **Shell, Perl, Python, PowerShell, Ruby, Bash**. Ability in development and execution of XML, Shell Scripts and Perl Scripts.
* Knowledge on the in-house monitoring tool VCMS, Experience with **Splunk, Zabbix** and **iCinga for Resource Monitoring/Network Monitoring/Log Trace Monitoring.**
* Good exposure to Software Development Life Cycle, SCM practices along with software Build and Release Management methodologies.
* Skilled with Linux Utilities: KICKSTART, SSH, User Management, Process Management, Memory Management, and Text processing tools, Log Management, Package Management, Disk Management and Swap Partition/Files Management.

**EDUCATION**

**Bachelor of Technology in Computer Science & Engineering (2011)
Master of Science in Computer Sciences (2016)**

**TECHNICAL SKILLS**

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| --- | --- |
| Operating Systems | Red Hat Linux ES & Centos OS 4.X, 5.X, 6.X & 7.X, Ubuntu 10.X  Solaris 9,10, 11, Windows 2K, XP, 2003, NT, 2008, 2012,  and 6, AIX 7,  HP-UX 11.23            |
| Scripting Tools | bash, Perl, Python, Ruby, Shell |
| Cloud Administration  | AWS, Azure  |
| Application/Web servers | WAS 7.X, 8.X JBoss AS 5.x, 6.x, 7.x, JBoss EAP 5.x, 6.x, Apache, Tomcat, HTTPD  |
| E-Mail servers | Sendmail, Postfix, Zimbra |
| Monitoring | Nagios, ZABBIX, Splunk, ELK, Grafana |
| Networking | DNS, DHCP, TCP/IP, SMTP, LDAP |
| Third Party Tools | Puppet, Ansible, Chef, Jenkins, Various DevOps Tools, Git, GitHub |
| Virtualization/Containers | VMWare vSphere, ESX 5.x/6.0, Docker, Kubernetes, Mesos |

**PROFESSIONAL EXPERIENCE**

**United Parcel Service – Lutherville, MD                      Jun 2019 – Present**

**DevOps Engineer**

* Worked on deploying and troubleshooting different applications that run on both Linux and Windows Operating System, which are hosted on both on-prem and cloud.
* Used ARM template within PowerShell to create **Virtual Machines**, **Recourse Groups**, **VNets**, **Subnets** etc. Worked on backup of hosts and the disks, used MARS to back up our on-prem Machine, for file level backup.
* Worked on managing disks in Azure, including adding disks to a Virtual Machine and enabling **Disk Caching** and enabling the correct set of permissions depending on the type of disk (OS/Data).
* Configured and Managed Azure **AD roles**, **Resources**, **IAM** to approve requests and review access and assess security policies.
* Used Ansible for deployments which include deploying RPM’s and WAR’s and other configuration management including installing any new software or changing password for all the users on the production servers etc. Used Ansible Tower for any configuration changes, deploying new certs on web server.
* Used **TFS** as well as **Jenkins** for building **CI/CD** environments, to build and deploy the applications that are running in **OpenShift**, which retrieves the docker images from **nexus**.
* Configured and Maintained **Docker** container clusters managed by **OpenShift** and Docker on Microsoft Azure for creating run time environments and to test the CI/CD environments along with creating unit test cases to evaluate the builds.
* Worked on increasing the Capacity, including both Web and App servers for Peak, which involves configuring the server and requesting **VIP’s** and **pluming** them to the server and adding **VIP’s** to **Load Balancer**.
* Monitoring and supporting all the Production Applications/Servers performance 24-7 by using different tolls, that include **CAAPM**, **Opsview**, **Grafana** etc.
* Involved in the Migration of applications from Tomcat to OpenShift and supported Blue-Green Deployment for OpenShift Environment.
* Provide production support for installation, configuration, management and troubleshooting of applications like Apache, PHP, My SQL and Tomcat.
* Automate processes to overcome day to day tasks and adapt to new tools and technologies in order to address server automations when needed.
* Lead and co-ordinate the Go-Live activities including the execution of the deployment Plans and checklists. Develop scripts and automation tools used to build, integrate, and deploy software releases to various platforms.
* Measure and monitor progress to ensure application releases are delivered on time and within budget, and that they meet or exceed expectations. Excellent communication, interpersonal, analytical, and quick problem-solving skills.

**Caterpillar Inc – Chicago, IL                      Mar 2018 – Mar 2019**

**Cloud / DevOps Engineer**

* Involved in Designing and deploying of multiple applications utilizing almost all the AWS Services (Including **EC2, Route53, S3, RDS, Dynamo DB, SNS, SQS, IAM** focusing on high availability, fault tolerance and auto scaling.
* Setting up and configuring **AWS VPC** commonness: **Subnets**, **Security** **Groups**, **EC2**, **ELB** for **Elastic** **map** **reduce** clusters as well as Applications.
* Worked with **business units, software developers, security**, to design and build applications and services within **AWS** and/or other cloud providers for automation using **Cloud Formation Templates** and **Python.**
* Designed and developed **AWS Cloud Formation templates** to create custom **VPC**, Subnets, NAT to ensure deployment of web applications
* **Analyzing** and **monitoring** performance bottlenecks and key metrics to optimize software and system performance and providing with enough system resources if necessary.
* Worked in all areas of **Jenkins** setting up CI for **new branches, build automation, plugin management** and securing Jenkins and setting up master/slave configurations.
* Integrating various **Version control tools, build tools, nexus** and deployment methodologies (scripting) into **Jenkins** to create an end to end orchestration build cycles.
* Virtualized servers using **Docker** for test and dev-environments needs, also configuration automation using **Docker** containers. Creating **Docker Containers** leveraging existing Linux Containers and AMI's in addition to creating **Containers** from scratch.
* Maintained **Mesos** and **Kafka** for managing the real-time data streamlines under proper environments and depended on **Zookeeper** for any assistance. Used **Grafana** for monitoring and created graphs, dashboards and alerts for analytics.
* Designed **Docker** for continuous integration and automatic deployment running all the build jobs and integrated the deployments with **Apache Mesos**.
* Extensively worked on  **Ansible**  deployments, written various **Ansible playbooks** with multiple roles, tasks with **loops** , **templates** , service management, host variables, group variables etc.
* Used **Ansible** to manage Web applications, Environments configuration Files, Users, Mount points and Packages for all the operations related tasks.
* Working with **JFROG Artifactory** to deploy artifacts. Configured **remote repository** serves as a caching proxy for a **repository** managed at a **remote** URL.
* Created multiple **Terraform** modules to manage configurations, applications, services and automate installation process for **web servers** and **AWS** instances.
* Used **GIT, JIRA & Confluence administration** involving creation and management of custom, complex projects, workflows, security schemes, custom fields, dashboards and reports configurations.
* Work in a highly process driven **Agile** **SDLC** environment with daily scrum meetings and integrated various bug tracking tools such as **JIRA** into the release activities for collaboration and documented work spaces in **Confluence**.

**Kohl’s Innovation Center – Milwaukee, WI                      Aug 2017 – Feb 2018**

**Cloud Engineer/ DevOps Engineer**

* Designing and deploying of multiple applications utilizing almost all the AWS Services (Including **EC2, Route53, S3, RDS, Dynamo DB, SNS, SQS, IAM** focusing on high availability, fault tolerance and auto scaling.
* Worked on **AWS Cloud watch** which monitors Live Traffic, logs, Memory utilization, Disk utilization and various other factors which are important for deployment. Experienced in performance monitoring tools like **AWS Cloud Watch** and **Stack driver.**
* Automated the cloud deployments of services using **Python** **Boto** and **fabric** along with **AWS Cloud Formation Templates.**
* Worked on Installing, configuring to make the **Open shift** cloud setup to manage our **Docker** and **kubernetes** cluster and created JSON templates.
* Strong experience with **Docker containers** and experience working on **Docker** to build images at root of the repository and clustering the containers with **Docker Swarm** and **Kubernetes.**
* Worked with Red Hat **Open Shift** Container Platform for **Docker** and **Kubernetes**. Used Kubernetes to manage containerized applications using its nodes, Config Maps, selector, Services and deployed application containers as Pods.
* Installed and configured **Open Shift** as part of **PAAS** on google cloud Vms. Deployed pods in **Open Shift**, created services, exposed routes, set quotas and limits per project and created role binding for users
* Manage architecture of **Jenkins** and integration with Confluence for release management and documentation assets. Re architect a Maven based system reducing build times.
* Modeled and automated the End to End **Continuous Integration/Deployment/Delivery pipeline** which included building a Continuous Integration server utilizing tools like **Jenkins, Nexus, maven, Git,** and **Sonar**.
* Researched and implemented code coverage and unit test plug-ins with **Maven/Jenkins** and Installed **Groovy plugin** to Jenkins and worked on **groovy scripts** to add support for groovy projects.
* Created Post Commit and pre-push hooks using **Python** scripts in SVN and GIT repos and also created various scripts in **Python** to automate the build processes.
* Setup and configured Cruise Control for **Continuous Integration** and **Release Management** as well as maintained Repository management in Maven to share **snapshots and releases** of internal projects using **Nexus**.
* Used **AWS EC2** to create Test kitchen in order to test the **cookbooks** before they are updated to the Git. Involved in the migration from VMWARE to AWS and managed Services like **EC2, S3 Bucket, Route53, ELB, EBS** etc with **Opscode Chef Cookbooks/Recipes.**
* Used chef for automation of repetitive tasks, quickly deploy critical applications, and proactively manage changes, worked on the modifications and the development of some **Chef Cookbooks** and recipes to automate deployment environment configuration.
* Built and deployed **EAR** and **WAR** files with custom configuration settings using Maven Tool Kit and further deployed the archives into **Apache Tomcat Web Server** and **WebSphere Application Servers.**
* Created the **Clustering Topology** in **WebSphere** Application Server ND 8.5.5 to achieve **Work Load Management (WLM), High availability, Load Balancing** and **Hardware fail over** and implemented horizontal clustering.
* Production support of **Apache** and **JBoss** including installation, management and troubleshooting. Worked on the administration of the **JBoss 4.2.2** servers including installation and deployments.
* Production support for installation, configuration, management and troubleshooting of applications like **Apache, PHP, My SQL** and **Tomcat.**
* Worked with **Splunk Enterprise Security** to monitor the applications, capacity planning, checking the Splunk logs for hidden application errors, and also configured Splunk Database connector.
* Integrated **Splunk** with **Active directory** and **LDAP** authentication and Performed Splunk administration tasks such as installing, configuring, monitoring and tuning.
* Work in a highly process-driven agile environment with daily scrum meetings using **JIRA,** **Confluence** and other collaboration tools.

**Capital One – Plano, TX                      Dec 2016 – July 2017**

**Cloud/ DevOps & Release Engineer**

* Used AWS services/tools include but not limited to **IAM, S3, Cloud Front, EC2, Route53, CodeCommit, CodeDeploy, CodePipeline, Cloud Trail, EBS, AMI, ELB, CLI, Cloud Watch, VPC, Auto Scaling, ELB** and **Cloud Formation.**
* Used some predefined **CFT’s** to create local **EC2** instances for daily deployments. Designed roles and groups for users and resources using AWS **Identity Access Management** (**IAM**).
* Installed **AWS CLI** on different windows platforms and used it to generate basic EC2 instances for regular BAU and performed operations only on single files and **S3** objects using various commands. Created **S3** buckets and managed policies for S3 buckets and utilized S3 bucket Glacier for storage and backup on **AWS**.
* Implementation of developer instances using **AWS EC2** instances and **Docker** containers for local code development. Configured an AWS **Virtual Private Cloud (VPC)** and Created Public and Private **subnets, NAT gateways, VPN IPSec tunneling,** defined **NACL’s** and **Security Group** for securing AWS services within private and public Subnets in VPC.
* Migrated **VMware** VMs from on premise to **AWS** cloud and migrated applications using **AWS** services like **EC2, S3 Bucket, Route53, ELB, EBS** and monitored scalable infrastructure on Amazon web services (**AWS**) & configuration management.
* Used **AWS lambda** functions and server less code execution that can be triggering to run code by **S3, SNS or** other events from **cloud watch**. Moved data from Local System to **S3 bucket**.
* Designed, Installed and Implemented **Ansible** configuration management system. Used **Ansible** to manage Web applications, Environments configuration Files, Users, Mount points and Packages.
* Configured **Ansible** to manage **AWS** environments and automate the build process for core AMIs used by all application deployments including **Auto scaling** and **Cloud Formation** scripts.
* Involved in writing **Ansible** playbooks for setup and configuration of tools including **Jenkins** and **Artifactory** on remote servers using **REST API** protocol. Used **Ansible** **Tower** to automate Provisioning and Deployments for our project and integrated it with LDAP to manage access with increase security.
* Created multiple **dockerfiles** for different **microservices** such as **MySQL**, **apache**, **tomcat**, **NodeJS**, **php**, **Redis**, **JBoss** and managed **Containers, Images, Compose.**
* Implemented **zero downtime** deployment process in **WebLogic** using **python** and **shell script** and automated it using **Docker, Jenkins and GitHub and AWS AMI’s**.
* Implemented **Docker**-**maven**-plugin in and **maven** pom to build **Docker** images for all microservices and later used **Docker** file to build the **Docker** images from the java jar files.
* Participated in the release cycle of the product which involved environments like **Development**, **QA**, **SIT, UAT** and **Production**.
* Migration of code repository from Subversion to **GitHub** as a first step in creating a **CI/CD pipeline**, also assisted the developers in Rebasing their branches with the release candidate. Installed and Configured the **Nexus repository** manager for sharing the artifacts within the company.
* Managed build results in **Jenkins** and deployed using Jenkins Jobs, migrate all of my Jenkins jobs (or my entire Jenkins configuration) from one instance to another. Supported implementation of **Continuous Integration**, DevOps, **Release Management**, Environment Management and Production Support processes.
* Installed, configured **Nginx** as **webserver** and **reverse proxy** for multiple sites. Worked with **location**, **SSL** configurations, **server** in **nginx.** Upgrading the Application as per Application team requirements, Scheduling jobs using **crontab**.
* Deployed and configured **Elastic search, Log stash** and **Kibana (ELK)** for log analytics, full text search, application monitoring in integration with **AWS Lambda**.
* Developed automation and deployment utilities using **Bash, PowerShell,** **Rundeck,** scheduled tasks and system backups using **Python** on **RHEL.**

**Ford – Dearborn, MI                                Jan 2016 – Dec 2016**

**Cloud Engineer/ DevOps Engineer**

* Involved in designing and deploying a multitude of applications utilizing almost all of the AWS stack (Including **EC2, Route53, S3, RDS, Dynamo DB, SNS, SQS, IAM**) focusing on high-availability, fault tolerance and auto-scaling.
* Build and configure a virtual data center in AWS cloud to support Enterprise Data Warehouse hosting including **VPC, Public and Private Subnets, Security Groups, Route Tables, Elastic Load Balancer, CloudWatch, CloudTrail** and **Security Management VPC.**
* Designed a **Cloud Formation Template** with built in **VPC, S3, RDS, DynamoDB** with reliability to provision instances quickly.
* Created **SNS** notifications and assigned **ARN** to **S3** for object loss notifications. Created **load balancers (ELB)** and used **Route53** with failover and latency options for **high availability** and **fault** **tolerance**. Created **AWS Multi-Factor Authentication (MFA)** for instance RDP/SSH logon, worked with teams to lock down **security groups**.
* Worked on **Docker** container snapshots, attaching to a running container, removing images, managing director structures and managing containers. Worked on several **Docker** components like **Docker Engine, Hub, Machine, Compose and Docker Registry**.
* Deployed, configured and maintained open source project with **Kubernetes** to manage a **cluster of containers,** running **Docker containers** across multiple hosts.
* Implemented a **CI/CD (Continuous Integration /Continuous Delivery)** framework using **Jenkins**, **Maven** & Artifactory in Linux environment and Integration of **Maven/Nexus, Jenkins, Git, Confluence, Jira** and **Cloud Foundry.**
* Installed and configured **Jenkins** for Automating Deployments and providing a complete automation solution. Maintained build related scripts developed in **ANT** and shell. Modified build configuration files including **Ant**’s build.xml.
* Worked with development team to migrate **Ant** scripts to **Maven** and Worked on authoring pom.xml files, performing releases with the **Maven** release plugin and managing **Maven** repositories.
* Applied patches every quarter regularly to meet audit requirements using **Oracle Ops Center, Red Hat Satellite server, Up2Date, YUM, RPM tools.** Deployed, configured, troubleshoot web-based applications on the specific requirements with **WebSphere Application Server** and **DB2**, **Oracle** configurations.
* Installation and configuration of **Puppet** including configuration of **Puppet master, agent nodes** and **admin control** workstation. Wrote some puppet manifests for deploying, configuring and managing collected for metric collection and monitoring.
* Managed **VMware** administration including **deploying**, **cloning**, creating **templates** from **virtual machines** on Linux and Windows. Used **Red Hat volume manager** forcreating file systemsand performing health check on regular basis for all Linux servers.
* Worked with **JIRA** for creating Projects, assigning permissions to users and groups for the projects & created Mail handlers and notification Schemes for **JIRA.**
* Managed, configured, installed Sudo for root privileges also familiar with powerbroker environment for role-based privileges.

**Avention Inc – Austin, TX                                       Oct 2013 – Nov 2014**

**Build & Release Engineer**

* Managed **SVN** branching and merging for old projects in multiple releases. Configured Source Code Management tools with **Bamboo** and executed triggers in **SVN**. Maintained Source code in **GIT** and deployed to DEV, QA, UAT and PROD Environments.
* Wrote **shell** scripts to handle server processing Migrating applications from .**Net** to **Python** monitoring applications/servers performance. Performed unit tests and debugging **Python** applications reviewing and enhancing existing code, fix bugs and create system documentation.
* Merged generated reports based on request using **UNIX Shell Scripts, Awk and SED.**Monitoring the servers using **Nagios** and providing 24x7 support on call rotation basis.
* Installed and configured **IBM HTTP Server 8.x/7.x, WebSphere, Jboss, Tomcat** and **Apache Web Servers**, configured plugin-cfg.xml file along with session management and virtual hosts with HTTP transports of Application Server instances and applications
* Coordinate/assist developers with establishing and applying appropriate branching, labeling/naming conventions using GIT source control.
* Executed functional tests that identified performance issues at the client level and worked with Ops team to improve the end user experience.
* Modified the existing ANT scripts to suit the project requirements. Setting up Jenkins master, adding the necessary plugins and adding more slaves to support scalability and agility.
* Installation/Activation **of F5 Load balancers** to configure routing logic, creation of **new service pools, members, virtual servers** and performance tuning of **VMware servers, Virtual sessions and management of servers resources between Virtual Machines.**
* Installed JON Agent and configured dashboards, alerts for **JVM monitoring.** Performance tuning included tuning the existing heap values, DB Connection settings etc.

**Ally Financial – Fort Washington, PA                                                                            Nov 2011 – Aug 2013**

**Implemented by Value Momentum – Hyderabad, India**

**Systems Administrator**

* Provided support in fixing issues related to Linux, Solaris, HP-UX Installation and Maintenance of Hardware in Production and development Environment as an integral part of the Unix/Linux Support team.
* Worked on **installing and configuring VMware/ESX Servers for virtualizations.** Supported Oracle RAC (Real Application Cluster) Servers running on **Linux with GFS and Solaris with SFRAC.**
* Experience in **maintaining/tuning/upgrading Web logic/Web sphere/JBoss and Web based applications like Java & Tomcat/Apache.**
* Creation and management of user accounts and groups according to the security needs and adding the packages and patches when needed and Permissions policy management and quota implementation.
* Installing, configuring and monitoring **VERITAS** **Cluster Server** (**VCS**) and **Redhat Cluster Server** in **High** **Availability** Environment. Installation and monitoring of **Veritas Volume Manager, Veritas NetBackup** and **Veritas Cluster Server** on **SAN Environment.**
* Implemented Backup and Restore by using procedures like **Ufs dump, Ufs restore, Tar” and “Cpio”.**
* Configured the **NIS, NIS+** and **DNS** on **Red Hat Linux 5.1** and update **NIS** maps and Organize the **RHN Satellite** Servers in combination with **RHN Proxy Server.**
* Used **YUM** Software manager for installing and configuring the **RPM Packages. Configured logical volumes using logical volume manager (LVM**) and also configured mirroring.
* Automated jobs by developing custom scripts using **Shell (bash, ksh).** Defining and Develop plan for Change, Problem & Incident management Process based on **ITIL**.
* Formatted data into required format using **UNIX Shell Scripts, SED** and **Awk.** Networking communication skills and protocols such **as TCP/IP, Telnet, FTP, NDM, SSH, rlogin**.
* Extensive experience in Security Patching. Also coordinating with storage team and networking teams. Configured and installed **HP-UX, Solaris** and **Redhat Linux Servers** with the help of **Ignite, jumpstart** and **Kickstart.**