# **Jyotir Bhandari**

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## **System Specialist**

Insightful, results-driven IT professional with notable success directing a broad range of corporate IT security initiatives while participating in planning, analyzing, and implementing solutions in support of business objectives. Excel at providing comprehensive secure system design, systems analysis, and full lifecycle project management. Hands-on experience leading all stages of system development efforts, including requirements definition, design, architecture, testing, and support. Outstanding project and program leader; able to coordinate and direct all phases of project-based efforts while managing, motivating, and guiding teams.

## **Areas of Expertise**

- System Administration
- Cost Benefits Analysis
- Policy Planning / Implementation
- Research and Development
- Virtualization and Cloud Technologies
- Data Integrity / Disaster Recovery
- Team and Project Leadership

#### **Technincal Proficiencies**

Platforms: Linux - Red Hat, Debian (Red Hat, CentOS, Fedora, Ubuntu, Debian)

Cloud: Amazon Web Services, Rackspace

Cloud Services: VPC, EC2, RDS, Elasticahe, S3, Autoscaling, SES, Route53

Languages: Bash

Virtualization Tools: Xen, Vmware, Docker, Vagrant

Monitoring Tools: Riemann, Grafana, ELK (Elasticsearch, Logstash & Kibana), Nagios, Cacti

Automation Tools: Terraform, Ansible, Packer, Puppet

Databases: MySQL, Oracle

Web Server: Nginx, Lighttpd, Apache Email: Postfix, Sendmail and Qmail

Networking and Security: Iptables, Cryptography, SSL/TLS, Kerberos, Selinux Protocols: IP, TCP, UDP, DHCP, DNS, FTP, HTTP, SMTP, POP, IMAP, LDAP

#### **Education & Credentials**

## **Bachelor of Commerce (Hons.)**

Delhi University New Delhi, India

#### **Professional Certificates**

Red Hat Certificate of Expertise in Performance Tuning (100-028-596)

Red Hat Certificate of Expertise in Directory Services and Authentication (100-028-596)

Red Hat Certificate of Expertise SELinux Policy Administration (100-028-596)

Red Hat Certificate of Expertise in Security: Network Services (100-028-596)

# **Professional Experience**

## UXCam/Stuxbot, Nepal

June,2017 - Present

Sr. DevOps Engineer

Recruited to make everything systematic. Also, to do cost analysis, maintenance, configuration, migration and manage systems based on Google Cloud and Amazon Web Services.

# Key Achievements:

- Used tools like Terraform, Packer and Ansible to automate infrastructure in Amazon Web Services (AWS) and migrate infrastructure from Google Cloud Platform (GCP).
- Migrated API server from GAE to AWS and reduce cost to 5 times. Used nano instance and fine tuned Nginx for better performance and then auto-scaled based on metrics.
- Implementation of monitoring using Elasticsearch Logstash Kibana (ELK) stack, prometheus along with alertmanager, blackbox, redis exporter, grafana, netdata and telegraf.
- Researched and implemented Postgresql (Citus DB) with DRBD for high availability failover cluster, thereby, cutting down huge cost.
- Researched and implemented Docker in AWS, production as well as development.
- Implemented CI/CD bitbucket-pipeline and automated build and deploy procedure on AWS Elastic Container Service (ECS) and EC2 with autoscaling.

#### Worldlink Communications (ISP), Nepal

2016 - 2017

System Officer

Promoted to officer position to recruit, train and supervise team members in Linux administration and Data Center operations.

# Key Roles:

- Facilitate weekly team meetings, individual consulting, semi-annual performance evaluations to motivate team members and foster cohesive work environment.
- Communicate regularly with senior management and both technical and non-technical personnel to build effective cross-functional teams and ensure accuracy, consistency, problem solving and on-time project completion.

 Continuation of Linux day to day tasks, which include automation via ansible, GIT version control system using GITLAB, Oracle 11g, Elastic, monitoring using Nagios and Cacti, backup and restoration.

#### Key achievements:

- Planned and managed Data Center for IPTV. The project included setting up UCS servers UCS-240 M4 as Encoder/Trans-coder, Streaming, VOD and and Middle Ware.
- Planned and managed H/O Data Center relocation from Jawalakhel to Patan, including facilities planning and configuration. Hardware which included Dell R610, Dell 1950, Dell 1850, Dell 1750, Supermicro, Dell MD 3000i Storage, UCS Cluster, Database cluster, Peer App, Akamai Caching Servers and Google Caching Servers.

# Worldlink Communications (ISP), Nepal

2014 - 2016

System Engineer

Recruited to do research, maintenance, configuration, migration and manage systems based on Linux. Supervise team members on daily activities of monitoring, backup and restoration, queries raised and escalation related to mail, web, and dns through ticketing system.

#### Key Achievements:

- Company wanted to shutdown their old data center and get their critical systems migrated, so planned and migrated systems using technologies like Clonezilla, disk dump (dd), migration of tower servers to Xen based VM's on stable OS like CentOS.
- Research and implemented Logstash for switch loop and port flapping.
- Configured Load Balancer based on nginx, with health check and ssl offload.
- Configured Oracle 11g database and implemented backup, migrated rhel 4 based oracle from an end of life hardware.
- Installation of Elastic Asterisk, setting up of t1/e1 card and compiling dahdi drivers for t1/e1 card.
- Configured Dell MD 3000i for backup storage, multipathing.

#### **Continuation of freelance**

- Implementation of architecture in AWS for different clients, using services like EC2, RDS, VPC, Elasticache, Autoscaling, SES.
- Automating system tasks using Ansible.
- Monitoring systems using new technologies, tools like riemann, granfana, influxdb and ELK, as well as using outdated tools like nagios.

## Self Employed: Track Nepal

2014 - 2014

Track Nepal – Initiated complete project on Track Nepal, a GPS Tracking Project which used Noran and TK devices. The project was developed using OpenGTS (Open Source). This project aimed at tracking vehicles, real time tracking, reports that included distance traveled, odometer and address location etc. The project was stopped as the marketing company backed out.

Sr. Operations Engineer

Recruited to setup a secure architecture on AWS for school management application. The application infrastructure was setup in AWS Singapore, which was in US to reduce latency for India clients. Infrastructure was setup in VPC ( Virtual Private Cloud ) to enable maximum security.

## Key Achievements:

- Doing root cause analysis by identifying, investigating, and analyzing the operational issues and apply best practices followed by business procedures.
- Used python boto utility for automation of Route53.
- Created and modified shell scripts for the infrastructure.
- Resolving issues related to Cloudfront caching.
- Researched and implemented scribe, thrift and fb303 for detailed logging
- Researched SQS (Simple queuing service) service of AWS and implemented along with developer.
- Configured monitoring tools like nagios, awstats and monit.
- 24 x 7 Availability Management, i.e. monitoring of the storage environment and analysis and remediation of issues or incidents.

# Novatium Solutions, Gurgaon, India

2011-2012

Sr. System Administration

Managed and led a team of system administrator for a project based on open source thin clients. The duty of the team was to troubleshoot and resolve the issue related to the custom open source based thin clients.

#### Key Achievements:

- Managed instances on AWS in Gurgaon, India. This include setting up instances with SUSE operating system.
- Managed dedicated servers based on SUSE operating system.
- Configured advanced firewall in SUSE, to function efficiently and with an ease.
- Doing root cause analysis by identifying, investigating, and analyzing the operational issues in thin clients based on open source.
- Played a supervisory role in migration of mail accounts from exchange to ZOHO.
- Configured open source clonezilla software to clone image of hardware having custom based operating system and restore it on more than 100 notebooks.

## Tekriti Software, Gurgaon, India

2010

Asst. System Administrator

Managed day to day operations of Red Hat Linux (Redhat, Fedora & CentOS) and Debian (Ubuntu). Also, attained training on AWS and later managed EC2 instances on Amazon Web Services along with other services.

#### Key Achievements:

- Managed AWS (Amazon Web Services) instances for more than 20 clients.
- Managed and configured MySQL replication for one of the client.

- Managed Apache web servers, postfix/sendmail mail servers and DNS (Domain Name Server) for most of the clients.
- Configured openLdap server as per the requirement of the client.
- Researched and implemented caching server for Ubuntu packages repositories to reduce the bandwidth uses.
- Managed repositories server based on SVN(subversion).
- Troubleshooted linux based desktop for web developers.

# Bajaj Capital Limited, New Delhi, India

2008-2010

Jr. System Administrator

Recruited to perform daily tasks on linux based servers. Priority was to manage third party based mail server in office data center and coordinate with vendor for complex issues in the mail server.

#### Key Achievements:

- Setting up postfix mail server and dns server for bulk mailing for marketing purpose in the office data center.
- Shell scripting for oracle backups and other day to day activities related to open source.
- Setting up oracle server on RHEL 4 in the office data center.
- Tape backups of the critical server in the office data center.
- Setting up blade server hardware and configuring it in the office data center.

# FOSTERing Linux, Gurgaon, India

2007-2008

Junior Faculty, Linux

Recruited to conduct Red Hat courses RHEL 5. As as faculty at FOSTERing Linux was provided with projects related to Linux system administration at the client sites of Keen & Able Computers, in order to bring practical experiences to the classroom.

## Key Achievements:

- Configured postfix mail server with mysgl authentication as per client requirements.
- Setup paravirtualization and full virtualization on RHEL 5.x as per client requirements.
- Migration of Physical to Virtual server on RHEL 5.x.