# **ASHOK RAJA R**

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# **Summary**

- Over 10+ years of industry expertise in capacity planning, performance tuning, trouble shooting, debugging, backtracking of operating systems and applications.
- Managed operations of a multi-datacenter Linux private cloud with thousands of physical hosts and many more virtual hosts
- Playing a role of **devops** in writing code to automate the infrastructure management, software/application deployment, monitoring, reporting and benchmarking.
- A Passionate about Ethical Hacking and System security. Posed a significant role w.r.t application hardening, network security using iptables and IDS/IPS.
- ❖ Infrastructure designing & planning with bleeding edge OSS to facilitate the engineers to connect and collaborate.

#### **Skills**

Programming Languages : BASH, django, python

Performance Tool : slamd, HP Loadrunner, Gatling, funkload, multimechanize

Cloud : AWS, Knowledge about (Heroku, Openshift)

DataBase : MySQL, MongoDB

Virtualisation Platform : xen, vmware, virtualbox, OpenVZ, vagrant

Authenticate Services : ldap, nis, kerberos

Network Services : ftp, samba, nfs, dns, dhcp, sendmail, postfix, apache, openvpn,

squid, apache traffic server, nginx

Security : iptables firewall using shorewall, selinux, apparmor,

Metasploit, SQLping2, Backtrack OS, denyhost, Snort

Monitoring Tools : nagios, zenoss, zabbix, snmp-trap, carbon, graphite

High-Availability Cluster : drbd, heartbeat

Storage Management : Hardware/Software RAID 0,1,5,10, LVM , LVM + RAID Provisioning : Kickstart, AutoYast, OS Remastering, Ansible, Puppet

#### **Education**

RedHat Certified Engineer (Cert No: 803005996514398)

March 2005

**Bachelor of Science** in **Physics** from Madurai Kamaraj University College

July 2002 – April 2005

Madurai, India

**Higher Secondary** from Tagore Vidyalayam Mat HSS School

June 2000 – April 2002 Madurai, India

Work Experience

# **Production Operations Engineer (Cloud Architect)**

Bloomreach Bangalore [Dec 2014 – Present]

Executing & owning one of the largest Cloud Infrastructure. Playing a role of cloud architect in designing the AWS cloud. Design application deployments, define & practice cloud security standards, auditing & effective cloud resource usage.

# Major Accomplishment

- Build high available Graphite cluster for Metric Store.
- S3 bucket crawler for alerting & analytics for size growth to reduce cost.
  - Challenge: crawling & reporting of 1PB of data, billions of objects in a day.

## **Senior Systems Engineer (DevOps)**

Apigee Pvt Ltd., Bangalore [Jun 2013 – Nov 2014]

Executing & owning one of the bigger AWS infrastructure. Maintenance of legacy tools. Was one of the core architect in design/architect a home grown tool for deployments/maintenance from ground up to production. Collaborate & mentor the team on the goals. Periodically refactor the codebase. R&D on bleeding edge technologies to adopt.

# Major Accomplishment

- Zero code data migration from a mysql instance to Amazon redshift using AWS DataPipeLine
- Core developer and lead on home grown deployment/maintenance/orchestration tool.
- Contributed to open source Ansible project

### **Tech Lead - Service Engineering**

Yahoo Software Development Pvt Ltd., Bangalore  $[Mar\ 2011-Jun\ 2013]$ 

As the technology lead for service engineering responsible for choosing the right platform for the project and implementing it in the right way. Also responsible for capacity planning & performance engineer for high performance sites like Yahoo vertical search platform. Active participant of yahoo internal Hack Day events.

#### Major Accomplishment

- Capacity planning for shopping.yahoo.com to serve 1000+ RPS <1sec query response on peak shopping season and for Yahoo vertical search platform to serve 4000+RPS <100ms query response with optimal hardware.
- Prototyped and implemented a zero downtime deployment architecture for a huge 1000 node search cluster across 4 data centres.
- Developed a bot for clearing the stale documents stored on the index clusters(lucene based)
- **Developed a Index Node Recovery tool** as part of a HackDay

**Senior System Engineer(DevOps)** 

Yahoo Software Development Pvt Ltd., Bangalore

As the system engineer handled development, operations, and system administrative duties to allow continuous high performance web site like shopping.yahoo.com, travel.yahoo.com & Yahoo vertical search platform. Automated deployments of application and troubleshooting on the event of issues.

## Major Accomplishment

- Design and develop Load & Performance test cases for commerce properties like shopping.y.c, travel.y.c and yahoo vertical search platform
- Maintaining uptime of few hundred servers with exceptional monitoring and maintenance activity.
- Was part of the architecture design planning team of home grown EC2 service. and have done significant contribution to the design requirements.
- Deploying and migrating hundreds of systems to new application stack with zero downtime
- Reduced the internal application timeout from 15% down to less than 0.1% by identifying some configuration discrepancy on the proxy servers.

## **System Administrator**

Verismo Networks Pvt. Ltd., Bangalore [Jan 2008 – Jan 2010]

As the system administrator at verismo networks was responsible for the entire IT infrastructure maintaining the up time of services like apache/nis/samba/routers/switches. Given the opportunity was part of the Organisations Technical R&D in application hardening and Virtualisation Technologies. Periodical security auditing & applying patches. Application hardening using apparmor & selinux.

### Major Accomplishment

- DRBD High Availability cluster for mysql & apache
- Development of VSOS/VDOS (Verismo Server/Desktop Operating System) for automated unattended installation of Verismo tailored application stack with LAMP stack tweaks
- Customised RPM package building from source for LAMP stack.
- Developed & Implementation of internal Intranet Site, customer support portal for vunow.com, (Customer Ticket Tracking System for vunow POD)
- Implemented a VPN solution for employees traveling and working from home using OpenVPN

## **System Administrator**

Winways System Pvt. Ltd., MADURAI [Jan 2005 – Jan 2008]

As the system administrator at winways systems was responsible for the entire IT infrastructure. Deploying O2(home grown ERP product) on the client servers and remote maintenance/troubleshooting. Managing single sign on using LDAP, User management( creating, managing, monitoring user activity, ACL, disk quota) & Firewall management using shorewall.