

Gopi Desaboyina

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Summary:

Over 20 years of strong systems engineering experience which primarily focuses on Linux system administration in SAN/NAS environment. Expert knowledge on containers using Kubernetes and Docker swarm. Prefer to automate everything instead of doing it manually. Strong experience with Middleware and web technologies such as WebLogic Server, Oracle Service Bus, Tuxedo, IBM WebSphere MQ, Siteminder and Apache/Tomcat. Version control all the automation in BitBucket and Azure DevOps repos. I have experience in working with some of the most complex and fast paced 24x7 work environments across the globe. My diverse profile is supported by experience letters and strong references (available upon request) from my managers and peers.

Education Details:

1997 April – 2000 Nov – Diploma in Electronics with Specialization
in computer Engineering

From Govt Institute of Electronics (India)
(Three- and Half-year course with 6 months Practical Training)

2014 Oct -2019 Jan – B.S in Software Development from Western Governors University,
U.S.A

Professional Experience

SEI Investments Company (April 2013 – Till Date)

Sr. Systems Administrator/Engineer/Automation lead

As a Sr. System Engineer and automation lead, I'm responsible for Develop, Configure, Support and maintenance of SEI Infrastructure in following areas in Production/Pre-Production and Development.

Hardware:

- CISCO UCS (Using Currently for Oracle RAC DBs and Redhat Virtualization for Kubernetes cluster)

OS:

- Linux (Oracle/Redhat, Ubuntu)
- Windows 2012 R2, Windows 2016, Windows 2019, Windows 2022 datacenter versions
- Installing blades and boot strapping the operating systems. Connecting the blades to SAN and configuring storage multipath.
- Creating the KVM and VMWare VMs via automated Ansible playbooks
- Apply the customizations via custom Ansible roles and playbooks
- Harden the images via Ansible playbooks

- Scanning the OS image via OpenScap
- Attach systems to Spacewalk and patching them

Virtualization:

- VMware. Use Packer to create VMware VM templates, Ansible to create VMs via vSphere API.
- KVM (Redhat Virtualization), Ansible ovirt Module to manage the KVM life cycle.

Containers:

- Docker (Standalone Docker + Swarm.).

- Writing docker files
- Building and pushing images to registry
- volume mounts
- docker network bridges
- connecting containers etc.
- docker compose files

- Kubernetes (Rancher + Portworx).

- Setting up k8s cluster using rancher.
- Adding worker nodes.
- Deploying apps by creating deployment, service and Ingress manifest files and apply them via kubectl or rancher UI

Azure Public Cloud:

- Terraform Code for below.

- Creating Linux and Windows VMs
- Creating VNETS, Subnets, NSG and ASGs
- Creating Storage accounts, securing storage accounts with the firewall rules
- Creating Private endpoints to storage accounts and creating associated DNS entries
- Creating SMB and NFS shares
- Customize the Hardened images with Packer builds
- Writing Azure DevOps pipelines, Parameterization
- Creating AKS clusters and deploy the spring boot apps
- Deploying PaaS services like AKS, Azure SQL DB, VMs in different availability zones and regions
- Monitoring and Logging via Azure native Log Analytics and Azure Monitoring
- Private DNS zones
- Setting up VPN gateway to connect on-prem to Azure
- Azure Firewall for HUB-Spoke model.

AWS Public Cloud:

- Terraform code for EC2 instance orchestration.
- Setting up and configure EKS Kubernetes environment.
- Writing pipelines using AWS code pipeline
- Using Auto scale to scale up/down web tier EC2's
- Using AWS EFS for shared filesystem between nodes.
- Creating VPN tunnels with on-prem.

Web:

- Apache and Nginx

- creating apache virtual URLs
- Customizing config
- SSL config
- backend server config
- adding custom headers

- Agent installation and config like siteminder agent, dynatrace agent, signal science etc.
- Jinja templating and automate the URL creation via Ansible playbook

- SQUID

- writing proxy pacs
- creating ACLs
- SSL bump to intercept the https traffic
- Writing Custom block pages.

Authstack:

- CA Siteminder

- Siteminder Policy creation via automated perl API
- creating GET,POST rules via perl API
- Attaching AD/LDAPs for Auth and Authorization stores.
- Parsing siteminder logs

AppServers:

- WebLogic (Java based)

- Installing WebLogic
- Creating Weblogic domains
- Creating Weblogic Managed servers
- Deploying apps
- Validating datasources
- Automate all of the above tasks via WLST/Jython scripting.

- Tomcat (Java based)

- Installation, configuration and troubleshooting.

- Oracle Tuxedo (C++ based)

- installation, configuration and troubleshooting.

Database:

- Oracle

- Oracle Client installations.
- Oracle Connection Manager Proxy for proxying oracle DB connections.
- Developed Ansible oracle module to run SQL queries.
- Creating ASM lables on multipath devices
- Oracle data on demand DB creation via automated Ansible playbooks.

Automation/DevOps:

- Jenkins

- Setting up Jenkins
- Writing Jenkins DSL for job creation
- Writing pipeline groovy to create a complex pipelines
- Setting up agents
- Jenkins CLI for triggering jenkins jobs via CLI or Control-M
- Integrating with AD
- Creating credentials
- Configuring Bitbucket repos and Git hooks
- Backup and restore.
- Notification libraries to notify on Team Channels and send Emails.

- Ansible/Bash/PowerShell/Python

- Ansible is the Go to tool for me to automate anything in SEI.
- created dynamic inventory python to code to generate host list from DNS, oVirt, VMWare
- All the Linux config management is done via Ansible jinja2 template and playbooks and roles.
- package installation
- autofs configuration

- local user creation
- SSH keys setup
- CIS compliance
- Agent installation
- Patching.
- Microsoft Windows customizations also done by Ansible.
- SEI application stack also automated via Ansible. There is NO Linux based apps without Ansible automation. I'm the designer for the automation and reviews all the Ansible PRs.

Git/BitBucket

- Familiar with all the Git workflows and use them religiously every day.
- Responsible for setting up BitBucket datacenter and scaling it. Have expert knowledge on troubleshooting BitBucket Administration

LogAggregation:

- Logstash

- parsing the logs, output both elastic search and graylog2

- ElasticSearch

- setting up clusters
- creating indexes
- monitoring
- Elasta alert to generate the alerts based on specific string in logs

- Filebeat

- tail and pump OS logs, app logs to Logstash

Monitoring and Alerting:

- Prometheus

- Node exporters
- Apache/Nginx/SQUID exporters
- JMX exporters
- Kafka exporters
- Win Exporters
- Automation of configs via Ansible
- Custom exporter using shell scripts, python.
- Blackbox exporters to probe TCP Ports, Processes, HTTP Ports

- Grafana

- Creating dashboards with prometheus datasource

- Prometheus Alert Manager

- Send alerts using prometheus alert manager when they reach threshold
- automate the config managedment thresholds via jinja templates

Programming used in some of the automation:

- Python
- Java
- Perl

ORACLE (Dec 03 2012 – April 2013)
Sr. Member Technical Staff.

As a senior member Technical Staff at Oracle Communication, I'm responsible for

- Multiple Oracle Blade Server Installation/Configuration
- Automating the Server Installation through Shell/Perl/Expect scripting.
- Administering the Oracle Enterprise Linux systems for Oracle communication integration product.
- Writing Scripts to automate the Xen/KVM VM on Oracle Enterprise Linux
- VM Cloning using backup and restoration method.
- Following Agile methodologies for development process.

DEHIN SYSTEMS [May 2012 – Dec 2012]:

Unix/Linux Consultant to YAHOO

At Y! As a Senior Service Engineer responsible for

- Consolidating their multiple Data centers in to 6 data centers across Globe without downtime
- Upgrading some of the apps to latest version RedHat Linux 6.2
- Automate some of the tasks through Shell/Perl Scripting.
- Creating VM's through Redhat KVM & OpenStack Cloud Infrastructure.
- Supporting their Hadoop Instances.
- Supporting their in housed Java/python based applications.

Oracle India Pvt. Limited, Bangalore, India (Jan 2011 - April 2012)

Sr. Systems Support Engineer (OS)

As a Senior Tech Support engineer at Oracle, I am responsible for supporting and providing quick resolution to several and Solaris OS & Linux related issues of all severity for AMER, JAPAC, EMEA region customers opening service requests with oracle support. This was a highly visible & demanding position within Oracle and this work gave me a unique opportunity to handle engineering level technical issues from numerous Oracle customers in different geos.

Achievements in Oracle:

- Oracle Spot Award [Aug 2011]
- Oracle Pace Setter Award [Oct 2011]
- Diamond in the SAND [Solaris and Networking domain] [Feb 2012]
- Outstanding Contributor Award for Customer Service Excellence [April 2012]

Formal Training at Oracle

- Solaris 11 Training
- Solaris Internals
- Oracle Exadata h/w setup [Singapore] with Oracle Enterprise Linux.

- ZFS/Zones Administration
- Various Solaris courses on Oracle University.

Responsibilities

- LDOM Primary/Guest installation and configuration.
- Configuring vcpu/vnet/vdisk to guest domains & provisioning OS to the guests.
- Multipathing of LDOM Guests using mpgroups.
- Consolidating legacy sun machines to LDOM environment using p2v/v2v migration.
- Consolidating Solaris 8/9 machines to Solaris 8/9 containers.
- Support ZFS calls. ZFS boot related issues. Snapshots/Cloning using zfs.
- Support Solaris Live Upgrade & UFS to ZFS migration, zones & zfs issues.
- Solaris zone installation/configuration. Patching zones and migrating/attaching zones.
- Setting resource control/limits for zones. Adding zfs datasets/Physical LUNs/exclusive IPs to zones.
- User/Role Administration/RBAC/sudo and ACL setup. Setting up projects and project based resource controls.
- Dealing with Booting/Patching issues for all Solaris environments and ZFS root and mirrored boot file systems.
- Cluster patch set installation and troubleshooting. Installing/upgrading OS using Jumpstart.
- SMF/FMA administration, Solaris networking issues support.
- Analyzing Solaris crash Dumps and find out the root causes for various crash/panic/reboots etc.
- Setup & configure iSCSI and CIFS through ZFS.
- Support Customers printing issues.
- Handling Performance related issues. Going through the Sun Explorer/GUDs data.
- Handling Solaris 11 calls on IPS, Networking, SRUs & other Admin related issues.
- Simulate the customer problems and emulate the issues and open bugs/defects with engineering based on results.
- Going through source code and advice engineering to locate the possible place of bug etc.

Tata consultancy Services, Tech consultant to SEI Investments, Philadelphia, USA

April 2004 – Oct 2005 [Bangalore offshore]

Nov 2005 – April 2010 [Client Location, Philadelphia]

May 2010 – Jan 2011 [Bangalore Offshore]

The Global Wealth Platform, SEI's new wealth processing platform, is a J2EE based distributed web/messaging system for providing front-office capabilities to big banks and other financial institutions. As a systems administrator in GWP, I was responsible for providing system and application support at the infrastructure level for the Global Wealth Platform.

Responsibilities:

System Support

- Installation and configuration of Unix & Linux on bare-metal hardware, OS Hardening and Patching.
- Solaris container management, creating and migrating zones/LDOMS.
- Tuning system by applying kernel parameters, IPCS and other resource controls as needed by applications like MQ, Oracle DB, Control-M etc.
- HBA and Path management for SAN attached storage with Mpxio and Veritas Dynamic Multi pathing (DMP) in Solaris and DMP in Oracle Linux Systems.
- Volume management with file-system technologies like Veritas VxVM, ZFS and Solaris DiskSuite in Solaris based systems & LVM Management using Linux.
- Did a Oracle RAC POC on HP servers and implemented RAC 11g with Oracle Enterprise Linux.
- Setting local Linux yum repositories.
- Setting up Legato Networker server and configuring clients for daily backups.
- Create NFS NAS shares off of an EMC Celerra NS-120 and deploy automounter configuration on the Unix and Linux clients to automount shared file-systems.
- Design, support and automate backup and recovery strategy for disks in the order of terabytes by using block-level cloning of SAN based Logical volumes (LUN) using EMC Symclone.
- Capacity planning of servers for storage/memory/cpu to accommodate applications.
- Setting up VMWare on ESX and Virtualization of various Windows and Linux based applications in VMWare.
- Yearly disaster recovery offsite test for entire production servers.
- Installation of Active directory on Windows server. Creating DNS domains in Windows.
- Creating application specific users in Active directory and authenticating application users through AD.

Application Support:

- Install and deploy software applications like BEA Weblogic Application Server, BEA Tuxedo, CA SiteMinder, CA Wily, IBM Websphere MQ
- Setup custom startup run scripts (using rc, SMF) for starting applications like Control-M agents, Weblogic managed servers using NodeManager, MQ Listeners etc.
- Planning and writing a test cases to automate startup/shutdown environments and validating them.
- Performance and monitoring scripts for detecting the presence of running

applications and resource consumption. Ex. WLST for Weblogic, jstatd for java garbage collection information and DTrace scripts for resource utilization.

- Deploy, configure and protect load balanced Internet facing URL's using Cisco CSM Load Balancer, Apache and CA SiteMinder Web Access Management. Configuring the Weblogic Proxy http plugin for apache to load-balance web applications deployed to a weblogic cluster.
- Cluster Applications using VCS and configuring VCS based cluster agents for Oracle, MQ and BEA Tuxedo and as well as built-in clustering for Weblogic, MQ and Oracle RAC.
- Support the Messaging infrastructure by creating MQ SEND/RECV channels and queues between multiple Queue Managers and JMS queues on the application servers.
- Installation of Siteminder, Weblogic, Apache, MQ, Tuxedo on Solaris & Oracle Enterprise Linux.
- Configuring Windows to Unix service on Windows VMs to access shared NAS.

Formal Training at TCS/SEI

- Tuxedo Administration from BEA
 - CA Netegrity SiteMinder
 - CA Identity Minder
 - CA Wily Introscope to monitor Java based application servers.
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NCR Corporation India Pvt. Ltd., Bangalore India (Jan 2001 – April 2004) Systems Support Engineer

NCR is one of the leading companies in providing kiosk solutions for various industries like banking, retail, entertainment and the primary self-service ATM solutions provider for banks in India. As an onsite Unix engineer at NCR, I was primarily responsible for the administration and support of the Unix Servers, Print Servers and Check clearing machines and troubleshooting communication issues between ATM's and central management stations.

Responsibilities:

- Support and maintenance of NCR UNIX nodes S25, S26, S27, S29, S40.
- Switching over to redundant backup servers using NCR Life keeper software via TCP or
Using Serial communication.
- Configuring NFS, Sharing Resources, Sharing privileges, Debugging NFS and RPC issues
Among the inter-networked nodes.
- Cloning/mirroring working hard disk drives to facilitate creation of Unix station copies.
- Installation of Software Packages on the Unix stations.

- Monitoring System Resources and utilization like swap, CPU usages, disk space, and Memory.
- Configuring D-link Print servers, Jet Printers, and Sharing printer resources between Two UNIX Boxes.
- Configuring and troubleshooting network and serial communication issues between UNIX servers and remote ATM's.
- Supporting HP/DELL Servers and configuring, maintaining Internal RAID using Mega RAID card, HP Smart Array, Dell RAID controllers and Configuring RAID-0, RAID-3, RAID-5 Models.
- Installation and Support of Win2K Servers and configuring them to support MSSQL Clustering.
- Install and setup of MSSQL DBMS in a clustered environment as well as Oracle SQL Client setup on Unix nodes.