P.Machara Rao (PMR)

Cloud Solution Architect

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- Senior Solution architect with over 15+ years of experience in Infrastructure delivery, Large scale DC Migrations, Private/Public cloud Architecture and implementation. An outstanding performer in building high quality solution that is scalable, highly available and fault tolerant tailored towards an enterprise goal. Highly skilled in DevOps, Cloud Engineering and Cloud Security with proven success in automating, building and deploying process for operational excellence.

Skills

- Private Cloud: VMWARE, SDS, SDN, S3, OpenShift Container Platform,

- Public Cloud : AWS and GCP

- Linux Administration

- DevOps

- IaC: Python/Ansible/Shell Scripting

- Big Data Hadoop Cluster management

- Risk & Compliance management

- Kubernetes

Work History

Aug 2020 - Current

Cloud Solution Architect

Beyondsoft Solutions, Singapore

Client: **DBS BANK** Project: Cloud Enablement /BigData platform
- Designed and deployed Cloudera Distribution Hadoop (CDH) cluster, Alluxio and presto clusters on AWS
- Designed and implemented Kubernetes Clusters with Amazon EKS for Kubeflow deployments
- Designed and setup CI/CD pipeline for provisioning of Sagemaker notebook instances

- Leading infrastructure automation and DevOps projects with hands-on experience with ansible, shell scripting, python, Jenkins, openshift container platform , Linux, Kerberos security and TLS implementation
- Designed and led multiple software projects as a part of SRE automation

Jun 2016 - Apr 2020

Vice President/ Infra Tech Lead Analyst -Cloud

Citibank, Singapore

- Experienced in architecting and implementing AWS Identity and network services: IAM, AWS organizations, SCPs, VPC, NACLs, SG, AWS Direct connect.
- Exposure with AWS encryption and security services: AWS secret manager, AWS CloudHSM, KMS, AWS Certificate manager, AWS config
- Architecture and implementation experience with EC2, AMIs, Placement groups, Cloud watch monitoring , ASG deployments,ELB logging, ELB Health checks, ELB security.
- Architectural knowledge of Cloud front and amazon53.
- Proficiency in developing terraform modules for VPC, subnets, EC2, ECS, ELBs, S3 and other AWS resources both in manual and automated work-flows.
- Hands-on experience with S3, versioning,locking, cross-region replication, object encryption, optimizing s3 performance and AWS EFS storage.
- Well versed with monitoring and logging AWS services: Cloud watch, Cloud Trail, Route53 logging, S3 logging.
- Developed lambda functions using python to implement security guard rails for automated remediation and also to automate few system maintenance activities.
- In-depth architectural knowledge of application integration services: API gateway, SQS and ELBs.
- Architected solutions using DynamoDb service with right indexing and capacity management for consistent performance at optimized cost.
- Deep understanding of A/B testing and Blue/Green Deployments & Deployment pipelines.
- Designed and deployed open-shift container platform in hybrid cloud deployment model
- Played a key role in building CI/CD pipelines using Git,jenkins and Openshift kubernetes cluster.
- Architected migration solutions for Block Storage, object Storage and compute (VMWARE) as a part of DC migration project.
- Contributed significantly in driving cloud adoption by 40% in ASPAC region by leading various migration approaches like VMWARE HCX, Centera to S3 migrations, SRDF/OR migrations as a part of major DC migration project.
- Led the implementation of Petabyte range (~50PB) highly resilient and superior performant Software defined Cloud Block Storage, leveraging x86 commodity hardware (1000+ rhel nodes) and EMC DELL SIO (VxFlex OS).
- Deployed highly durable and very low cost, and scalable cloud S3 Storage leveraging on x86 commodity and IBM Clever safe (10PB).
- Acted as one of the escalation points for any production issues within the cloud services team.

Apr 2011 - May 2016

Assistant Vice President/Infrastructure Analyst

Citibank, Singapore

- Led a team of engineers to implement and manage Storage products (EMC VMAX, HDS VSP , VNX) for aspac region.
- Developed a product to automate Capacity and demand management for Cloud compute (VMWARE), Storage (Block Storage - SIO) and database services(oracle)
- Managed IT operations and infrastructure budgets and assets.
- Responsible for contracts, vendor negotiations, and bid proposals
- Enhanced productivity of IT Support by merging and extending infra and support duties across ASPAC, NAM And EMEA
- Played a key role in setting up first on-prem cloud solution in APAC region to deliver Database As a Service (Oracle as A service)
- Designed, planned, configured and implemented Data Center Migration for over 400 terabytes of data with no loss of data using different migration tools like EMC Open Replicator, EMC SRDF, HDS TC, HDS Virtualization.
- Build and manage a team of L2, L3 and architects to run SAN Storage function.

Dec 2007 - Apr 2011

Manager/Infrastructure Engineer

Citibank, Singapore

- Involved in design, configuration, implementation of Local DR site and Off-country DR site (Hong Kong) using Concurrent (3-site) SRDF solutions.
- Implemented storage and disaster recovery plan improvements resulting in annual testing with 100% data consistency.
- Configured and Provisioned LUNs on EMC DMX-3, DMX-4, DMX 3000's, DMX 1000's, CX 700's, CX 500's, CX3-80's, Centera and HDS USP storage boxes.
- Maintained upgrades on software, microcode and flare code on all storage related systems.

Oct 2006 - Nov 2007

Storage Consultant

Optimum Solutions, Singapore

- Day to day monitoring and operations of SAN, NAS Storage and Unix Servers
- Storage Provisioning and Server Builds
- Data Center and Tech-Refresh Data Migrations migration tools like EMC Open Replicator, EMC SRDF,HDS TC
- Involved in design, configuration, implementation of Local DR site and Off-country DR site

Apr 2004 - Oct 2006

Unix System Administrator

Tata Consultancy Services(TCS), Hyderabad, India

- Day to Day Unix system administration of Solaris, HP-UX, AIX and Linux Servers

- Maintaining UNIX systems for system up-time, patch management, user management
- Worked as part of 24x7-support team. Work in tandem with DBA's and other vendor's engineers
- Administering File Systems. Mounting and un-mounting file system. Backup and restoring file system
- Administration of Veritas Volume Manager and VCS cluster
- Involved in implementation of Oracle RAC on sun cluster and HP Service guard cluster environments

Education

Jul 1998 - Apr 2002
Bachelor of Engineering Technology: Electronics And Communication Engineering
JNTU - India

Software

Cloud Storage: Scale-IO, Cleversafe - S3

PaaS: Redhat OpenShift Container Platform 2.x, 3.x

DBaaS: Oracle 11g, 12c

GCP Services

AWS Services

IaaS: VMware vSphere 6.x

OS: Linux - Redhat 6, 7

DevOps: JIRA, BitBucket, Jenkins, Terraform, Ansible

Others: Bash, Python

Certifications

Jun 2020   HashiCorp Certified Terraform Associate

Oct 2019   Google Cloud Certified Professional Cloud Architect

Oct 2018   AWS Certified Solution Architect - Associate

Visa Status