Raja Anthati

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Senior System Admin/Hadoop Platform engineer

Having overall 6.5 years of experience in Planning, Building, Installing , Maintaining and Administering IT Infrastructure in different verticals like Financial, Retail, Insurance, Banking, High-tech, Oil and Gas and Networking/Telecom. Having started my career as Graduate Systems Engineer with TCS, I have involved in platform design, installation, migration, virtualization of physical hardware and incident report management activities as per the agreed SLA and strictly adhering to ITIL foundation principles.

Planned, built and Monitored several Virtualized Hadoop Clusters on various Enterprise Linux Editions like Ubuntu, CentOs, RHEL and Windows Operating System. Through the end to end Administration activities, I have gained in depth knowledge of cluster parameters, node hardware configuration, network bandwidth, scalability of the cluster, Fail safe precautions, cluster administration and support skills. Planned and Built highly scalable and available clusters using open source cluster tools like Ambari or Apache and also Pre packaged cluster solutions like Cloudera and Horton works for various purposes on Commodity Hardware, Racks and Amazon EC2.

Worked around programming languages like Java, Scala, Python, C, Shell scripting. Hands on experience in network administration, server administration, storage management activities. Successfully involved in various infrastructure development activities like Managing user groups, Maintaining, enhancing and developing server systems, network and related infrastructure to the customers. Worked on various rdbms like mysql, postgres,oracle ,ms-sql, web services deployment.

Successfully Configured highly available clustered web servers, ftp servers and svn servers ,Involved in Infrastructure automation using puppet and chef like version upgrades ,software deployment across the developer groups, back up management, Desktop support, Patch and Security management, Dev Change Management (git,svn).

Technical Skills Summary:

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| --- | --- |
| Type of Skill | List |
| Operating Systems | RHEL 5,6,7, Mac, Ubuntu, Microsoft Windows, CentOs, Solaris. |
| Infrastructure administration/Automation tools | LAMP, Puppet, Chef, Ansible, Salt,Jenkins |
| Programming languages/tools | Java, C, Python |
| Servers | DHCP, ftp, svn, LDAP |
| BI Tools | Hadoop Analytics Platform, SSIS, Google Analytics platform. |
| Server Vendors | PXE Boot , Hypervisor , DELL, HP, IBM, Cisco, Lenovo |
| Virtualization tools | KVM, VirtualBox, VMWare |
| Data Warehousing | pl/sql, sql, t-sql, Hive, Pig, Flume, Kafka, Impala, Postgres,HBase. |
| Scripting Languages | Shell, perl, node.js |
| Web/Application Servers | Apache Tomcat, JBoss, Weblogic, Glass Fish. |
| Sys Admin skills | EOD, Veritas, Jumpstart, NFS |
| Version control tools | git-hub, SVN, sftp etc |
| Performance Tuning | Jmeter,monitorix,iptraf ,monit,tcpdump,Vaidya |
| Mail Servers | Postfix, Squirrel |
| Cluster Configuration  Tools | Apache, Cloudera (CDH -5.0+),Horton works(HDP-2.x), Ambari and Amazon EC2 |
| Server Monitoring tools/Gateways,Load balancers | Nagios, Munin,Nginx,Ganglia |
| Networking tools | Cisco routers and switches, Cisco IOS, TCP/IP4&IP6 Networking, VPN, HTTP, SSH |
| Networking/Management | Setting up Internal lan/Desktop Support, Building Hadoop Cluster, Spark Clustering framework, Application Build and Management. |
| Bandwidth monitoring tools | Bandwidthd, bwm, bmon.iptraf |
| Networking protocols | TCP/IP, UDP, POP, SMTP, HTTP |
| Cloud configuration tools | Openstack, opennebula, AWS and exposure to Microsoft Azure |
| Integration tools/Project management tool | Apache Jenkins, Jira, Confluence |
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PROJECT # 1:

Solera Holdings

From: Feb 2016 to Current .

Environment: Linux (CentOs6.7),AIX, Windows

Technologies:-Hadoop,sqoop,R,Kite,HDP2.4, Spark,oozie,Solr,pig,Valuation and estimation algorithms ,Paxata, Scala, PrestoDb ,Ansible.

Role: Hadoop Solution Architect

Project Description :

Solera is multi-disciplinary organization operating in 19 + countries in different verticals like Insurance, automobile engineering, software operations, 3d vehicle design and impact analysis etc. The project is to develop a humongous data lake that can store data from all the countries across the world and single point of contact for data store .The platform has various use cases to develop a web service platform to provide vehicle information and identification data ,customer data .customer insurance claims and transactions to the operating business units and secondary operating business clients .The project has various use cases to develop fraud events related to insurance claims and other transactional based events using Spark and R .

Roles & Responsibilities:

* Worked on system architecture and deciding best suitable hardware for Hadoop components and nodes.
* Developed a high availability cluster configuration with various high available services on a need basis.
* Implemented security model using LDAP,AD and Kerberos .
* Implemented pre,post hadoop configuration deployments with Ansible.
* Implemented secured access to cluster using Ranger Tool.
* Distributed and scheduled cluster resources among various teams and workloads.
* Worked on data imports from various rdbms systems like mysql, oracle and ms-sql servers.
* Created various permissions levels on various databases in the digital lake using Sentry.
* Responsible for planning and installing RHEL on physical servers with virtualization.
* Worked on deciding various hardware infrastructure and node specific configuration for various memory intensive and IO intensive components of Hadoop eco system.
* Worked on various Lambda architectures for large scale Hadoop clusters.
* Deployed Secondary data storage hadoop clusters in the cloud using AWS.
* Worked on authenticated user management by setting up Kerberos integrated with Active Directory.
* Designed and implemented storage architecture .worked on various data storage formats like parquet,avro ,rcfiles,sequence format.
* Created various user groups like dev group and analytical groups and managed strict permissions.
* Worked on setting up load balancers, proxy servers and webservers.
* Managed application access logs using the flume and kafka .Monitored daily access logs and average service response time using flume.
* Worked on assisting data ingestion activities in incremental manner.
* Worked on hardware changes and managing various configurations for Hadoop eco system.
* Worked on continuous monitoring of Hadoop cluster components, publishing KPI’s and Metrics.
* Worked on component version upgrades, backup, commissioning and decommissioning Hadoop eco system components.
* Setup a continuous integration and delivery pipeline using Jenkins and Git hub.
* Configuring and managing the user groups with constrained access to highly available cluster with distributed roles and concurrent restricted access.
* Developed shell script for process automation and wrote cron jobs.
* Implemented in house mail servers like postfix and squirrel.
* Supported on call on issues in the production and administration support to the high degree of SLA.
* Installed and configured various development stack and involved in upgrade activities.
* Monitored the server logs and managed zero downtime upgrade on Hadoop cluster.
* Supported in version controlling, continuous build and management activities.
* Over see the network administration for all corporate information systems including support, trouble shooting, maintenance and upgrades.
* Managed system configuration using tools like Puppet ,Salt and Ansible .

PROJECT # 1:

SiliconIntegraLimited

From: Aug 2015 - Present

Role: Systems engineer/Hadoop Administrator

Project Description:

Hadoop,sqoop,R,KiteSDK,Kudu,hive,CDH5.4,CDH5.6,hbase,Impala,Hue,Spark,oozie,Solr,pig,Valuation and estimation algorithms ,Paxata,Scala,PrestoDb,QlikSense.

Capital One is financial organization which provides various financial services like credit cards, home loans, auto loans, and banking and savings products to the customers. The project is intended to develop a data platform infrastructure on RHEL servers and creating various user groups with constrained access, incident management and version upgrades.

Roles & Responsibilities:

* Worked on system architecture and deciding best suitable hardware for Hadoop components and nodes.
* Developed a high availability cluster configuration with various high available services on a need basis.
* Distributed and scheduled cluster resources among various teams and workloads.
* Worked on data imports from various rdbms systems like mysql, oracle and ms-sql servers.
* Created various permissions levels on various databases in the digital lake using Sentry.
* Responsible for planning and installing RHEL on physical servers with virtualization.
* Worked on deciding various hardware infrastructure and node specific configuration for various memory intensive and IO intensive components of Hadoop eco system.
* Worked on various Lambda architectures for large scale Hadoop clusters.
* Deployed Secondary data storage hadoop clusters in the cloud using AWS.
* Worked on authenticated user management by setting up Kerberos integrated with Active Directory.
* Designed and implemented storage architecture .worked on various data storage formats like parquet,avro ,rcfiles,sequence format.
* Created various user groups like dev group and analytical groups and managed strict permissions.
* Responsible for backups using Legato Net-worker.
* Worked on setting up load balancers, proxy servers and webservers.
* Managed application access logs using the flume and kafka .Monitored daily access logs and average service response time using flume.
* Worked on assisting data ingestion activities in incremental manner.
* Worked on hardware changes and managing various configurations for Hadoop eco system.
* Worked on continuous monitoring of Hadoop cluster components, publishing KPI’s and Metrics.
* Worked on component version upgrades, backup, commissioning and decommissioning Hadoop eco system components.
* Setup a continuous integration and delivery pipeline using Jenkins and Git hub.
* Set up the following servers print, DNS, NIS, NFS, LSF and Bugzilla.
* Set up ftp servers, svn servers and continuous integration with git. Supported continuous build and management.
* Configuring and managing the user groups with constrained access to highly available cluster with distributed roles and concurrent restricted access.
* Developed shell script for process automation and wrote cron jobs.
* Implemented in house mail servers like postfix and squirrel.
* Supported on call on issues in the production and administration support to the high degree of SLA.
* Installed and configured various development stac  
  k and involved in upgrade activities.
* Monitored the server logs and managed zero downtime upgrade on Hadoop cluster.
* Supported in version controlling, continuous build and management activities.
* Managed system configuration using tools like Ansible.

PROJECT # 2:

Client: Citi Group, UK.

From: Jan 2015 to July 2015.

Environment: Linux (CentOs6.5), Windows

Role: Systems engineer/Hadoop Administrator

Technologies:

Hadoop, sqoop, R, Spark, Scala, Qlikview, HDP-2.0+, QlikSense.

Project Description:

Citi bank group provides various applications for the customers to support various registration tasks and account related self-help portals. The project is aimed to develop virtualized environment to accommodate data platform for the operational groups supported by RHEL servers developed on physical RACS or Workstations.

Roles & Responsibilities:

* Analyzing the network bandwidth requirements, size and volume of the cluster.
* Plan the design and Implementation of the Hadoop cluster and critical appreciation of open source tools or prepackaged solutions for cluster configuration.
* Configuring each individual node for Hadoop environment deployment and installation of Hadoop eco system on each workstation, setting up Kerberos principles and testing Hadoop eco system for new users.
* Monitoring, managing, commissioning and decommissioning of various nodes and analyzing scalability problems.
* Maintaining groups for the Teams and allocating constrained and authenticated access to the Hadoop Infrastructure.
* Continuously monitoring server health status and security by checking edit logs.
* Collaborating with application teams to install operating system and hadoop updates, patches, version upgrades when required.
* Diligently teaming with the infrastructure, network, database, application and business intelligence teams to guarantee high data quality and availability.
* Providing on call support for any issues.
* Configured users work space environment with developer tools on call basis.
* Configured highly available web servers using clustered weblogic servers and domains.
* Configured DHCP servers for internal network management.
* Configured static IP’s for static internal routing of the services.
* Designed and implemented storage architecture .worked on various data storage formats like parquet,avro ,rcfiles,sequence format.

PROJECT # 3: Financial utilization and management system

Client: Nortech Solutions Group, UK.

From: May 2014 to Jan 2015

Environment: Linux (CentOs6.5), Windows

Role: Systems engineer/Hadoop Administrator

Technologies: Hadoop, sqoop, R, Spark, Scala, Qlikview, HDP-2.0+, QlikSense.

Project Description:

Nortech solutions group is concept engineering industry in the field of oil and gas .It Provides design engineering solutions and carries out basic design of entire oil and gas rigs platform. The project is support and provide infrastructure to accommodate highly available web service.

Roles & Responsibilities:

* Worked on deciding various hardware infrastructure and node specific configuration for various memory intensive and IO intensive components of Hadoop eco system.
* Worked on various Lambda architectures for large scale Hadoop clusters.
* Deployed Secondary data storage hadoop clusters in the cloud using AWS.
* Worked on authenticated user management by setting up Kerberos integrated with Active Directory.
* Responsible for backups using Legato Net-worker.
* Worked on setting up load balancers, proxy servers and webservers.
* Worked on data imports from various sources like click stream and RDBMS.
* Managed application access logs and monitored daily access logs using flumes.
* Worked on assisting data ingestion activities in incremental manner.
* Worked on hardware changes and managing various configurations for Hadoop eco system.
* Designed and implemented storage architecture .worked on various data storage formats like parquet,avro ,rcfiles,sequence format.
* Developed holistic solutions by analyzing client needs and employing critical thinking in the development of specifications and the evolution of design, implementation and test.
* Planning, configuring and installing dev environment using virtualization tools on physical servers.
* Designed systems utilizing Centos6.7, Red Hat Enterprise Linux 6 and AIX 5L.
* Significantly increased storage space; analyzed and matched workloads to a cost effective solution.
* Created shell scripts and cron jobs that monitored and reported security issues
* Resolved security vulnerabilities by analyzing and recommending improvements in communications and network security at the component level.
* Ensured business continuity by designing, implementing and testing disaster recovery systems.
* Managed, monitored and tested individual and group user access privileges and security.
* Created checklists and collected audit data for compliance with SOX and PCI certifications.
* Developed, implemented and verified security policy and access management compliance.
* Monitored system performance and prevented resource exhaustion using ssh, sar, vmstat, iostat, netstat and nmon.
* Resolved trouble tickets quickly and efficiently, dropping backlogged tickets from 1,000+ to under 100.
* Wrote custom scripts and automated tasks to free up research and project time.
* Eliminated extended downtime of network and processes by installing and configuring Nagios server to monitor Windows/Linux servers.
* Raised the level of expansion and research by automating tasks freeing up time for research and testing
* Installed and configured database servers and created database users with restricted permissions.
* Worked on version upgrades and database backup and roll back activities.
* Writing the automation script to automate deployment activities.
* Monitored web servers to ensure zero downtime and managed load balancing.

PROJECT # 4: Customized Hadoop Analytics Platform

Client: Nextgen Solutions, UK.

From: Aug 2013 to Jan 2014

Role: Systems engineer/Hadoop[[1]](#endnote-1) Administrator

Technologies: Hadoop, Hbase, J2SF, Mysql, Python, Twitter, Facebook Api.

Project Description:

Nextgen solutions group at UK is a part of the TCS organization (horizontal) to deliver digital media solutions to the clients which is newly established. This project was planned to customize the client specific requirements that deals with the analytics of the data taken from Log Servers ,Transaction logs, Social Media and different Blogs. The analysis shows benefits for business development for the customer based on the end user responses in the social media sites and application access logs. Extracted data from different sources like face book, twitter and logs is stored into HDFS for performing Opinion/Sentiment analysis using text mining algorithms to find out the sentiment/emotions & opinion of the company/product in the social circle.

Based on these analytics the customer can take business decisions on the Opinion/sentiment of the end users for the business improvement.

Roles & Responsibilities:

* Provisioned new servers, imaging, and daily monitoring and maintenance of over 50 servers.
* Performed back up, file replications and script management for the servers.
* Tested and applied new software and programs.
* Planed and expanded current service offerings.
* Quickly resolved all IP network issues.
* Provided customer support via telephone, e-mail, knowledge base program and other tools.
* Jumpstart, configured, updated Solaris servers with Solaris 8, 9, and 10.
* Installed, configured, and updated Linux machines, with Red Hat, Debian, and CentOS.
* Troubleshoot, analyze and resolve computer problems related to both hardware and software.
* Deploy new equipment and install applications, which enable the customer to perform their job function on updated equipment which leads to higher work output.
* Researched and consulted with customer on new hardware purchases to insure that the proper equipment was purchased which provided high productivity within their budget.

PROJECT # 5: Network Data Management System

Client: Tata Telecom

From: Mar 2012 to August 2013

Environment: Windows, CentOs6.5

Role: Systems engineer/System Administrator

Technologies:

Project Description:

Calls logs are generated and stored in CDR (Call data recorder). With the subscriber base being huge the CDRs generated are huge in size and volumes. These CDRs are processed and stored in an OLAP system for further analysis. As the data is growing in size the OLAP system is also growing in the same manner and due to this the analysis of the data is getting delayed. To address this big data tools are used to fasten the analysis. The data is extracted from the OLAP system using pentaho and stored in HDFS. The HDFS stored data is processed using Pentaho and loaded into Hive. The reports are generated as per the requirement using Pentaho reports capability.

Roles & Responsibilities:

* Implemented a solid backup and recovery procedure which minimized data loss.
* Improved company website user experience by designing and engineering webservers using Apache, MySQL database with instant replication for global sites, implementing WordPress, phpMyAdmin, interface, PHP, running on Centos 6.5.
* Configured secure http, for SVN source control, and back-end communication with Progress Database.
* Planned and configured high availability NFS servers using Keepalived for auto-failover running on RedHat 5.6.
* Deployed and maintained Samba servers authentication using Ldap, and Active Directory for different departments.
* Installed and configured Linux servers hosting Oracle 11g on Redhat 6x for use by Human Resources.
* Supported SAN, NAS, Fiber Channel, LUNS, LVM, like EMC ClariiON CX3\_20C using Navisphere Management Console, NetAPP and Qlogic.
* Participated in compiling and deploying several business cases, such as business continuity and global high availability.
* Built multiple server systems and installed into racks.
* Completed remote repairs involving software solutions and hardware repairs.
* Allocated SAN drives to systems.
* Maintained System patch levels and system security via OPSWARE.
* Performed VCS cluster failover and managed the single server VCS cluster.
* Provided technical leadership for the team to build and configure new DNS server and setup static routes for internal and external internet facing IP addresses on the DNS server.
* Built and installed PXE boot server, DHCP server, Kickstart and XCAT server to automatically load OS on test machines in the LAB environment.
* Maintained Kickstart server, used Advanced Linux System Administration, and authored K-shell scripts.

PROJECT # 6:

Client: Motorola Mobility Solutions Group

From: May 2011 to till March 2012

Role: Systems Engineer/System Administrator

Technologies:

Roles & Responsibilities:

* Develop standards for installation and configuration.
* Orchestrated and performed upgrade of Linux servers from 32-bit RHEL4 to 64-bit Centos5.
* Defined timing and versions for software and hardware upgrades.
* Initiated, designed, and implemented complete system configuration framework and change.
* Architected and implemented virtualization solution.
* Implemented central system log server with appropriate log file analysis.
* Lead project to implement a better solution for alerting and trending of systems and services.
* Managed the build environment and the IBM Clearcase source code control system. Implemented automated solutions with PERL and CMD scripts to prevent and identify build issues.
* Created Solaris Jumpstart and Linux Kickstart servers and processes to automate and standardize the installation process, reducing installation time by 35% and post-installation errors by 50%.
* Developed and maintained the Inventory and Service History System using Microsoft Access and ASP for real-time asset management. Reduced the asset administration effort by 65%.
* Researched, evaluated and implemented new technology solutions, such as the

capital one migration from IBM Clearcase to Subversion. Reduced maintenance cost while achieving equal level of service.

* Documented and implemented a disaster recovery plan that included backup schedule policies, regular testing, and off-site recovery plans to ensure data integrity and assurance.

PROJECT # 7:

Client: BT-British Telecom, UK.

From: Dec 2009 to May 2011

Environment: Windows, RHEL6

Role: Systems engineer/System Administrator

Technologies:

British Telecom is a global telecommunications services company and is one of the largest telecommunications services companies in the world. BT acts as a re seller of DSL products of different service providers in various countries. The actual service is being provided through third party suppliers. During the bidding stage of an order the account managers of BT Global Services verify if the service is available for the customer sites and for their specific phone types. This activity is referred to as pre-qualification check.

The DSL Availability Checker helps the user to check the DSL connection availability with a Service provider in a particular country. Currently the application has 17 DSL Supplier interfaces. The application will interface and exchange XML and Http post messages with DSL Suppliers.

Roles and Responsibilities:

* Independently identified and performed general administrator/engineer tasks (patches, application upgrades, etc.) on over 60 Red Hat and FreeBSD servers.
* Wrote custom scripts to test the CSMC's compliance with the Defense Information Systems Agency's (DISA) Security Technical Implementation Guide (STIG) for RHEL 5.
* Installed anti-virus and rootkit checkers on all CSMC RHEL servers. Administered Sourcefire security sensors, applying database and system updates. Won two quarterly awards for my willingness and ability to work outside my specialty and assist other departments. Worked extensively with security engineers to research cybersecurity issues.
* Inventoried and administered Red Hat Enterprise Linux (RHEL), FreeBSD, and VMware ESXi servers, writing several utilities to manage them simultaneously.
* Installed and configured Nagios system monitoring, writing custom scripts for ESXi servers.

EDUCATION:

Bachelor of Technology (ECE) from JNTU University, Hyderabad, India.

CERTIFICATIONS:

Cloudera Certified Hadoop Admin (CCD).

MongoDB certification for Sys Admin.

TCS internal certification for Network & Security.

TCS internal certification for Sys Admin.

TCS internal domain certifications for banking, telecom, and Enterprise resource planning.

Completed several domain based certifications.

REFERENCES

Available upon request

1. [↑](#endnote-ref-1)