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| Pradeep  Kumar | Telephone: 510-516-9140  [pradeepkumar.bele@ymail.com](mailto:pradeepkumar.bele@ymail.com) |

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7 Years of IT Industry experience| SAN|NAS| disaster recovery |Professional Counseling and Training| Team Leadership and Supervision| Communication Skills

## **SUMMARY OF QUALIFICATIONS**

* SANand Storage Administrator possessing almost**7 Years** of IT Industry experience including in SAN, NAS, Backup and Disaster recovery.
* NetApp Certified Data Management Administrator Professional (**NCDA**) with solid experience on **NetApp** and **EMC** storage products including DMX,FAS, CLARiiON and Celerra/VNX Systems.
* Experience in administering, maintaining and troubleshooting of Enterprise Storage Arrays V-MAX, DMX-2/3/4, mid-range storage arrays VNX 5500/5700/7500, EMC NS120/480/960, CX4-120/480/960, and also **Brocade** and **CiscoFCSwitches**.
* Experienced in Zoning, Mapping, Masking, Meta creation, Device group creation, Continuous Data Protection (TimeFinder, Snapview), Continuous Remote Replication (SRDF, Mirrorview), and Remote Synchronous and Asynchronous Replication using SRDF-S and SRDF-A.
* Migrated hundreds of TB of data, using array based tools Open Replicator, **SANCopy** and using Host based tools Open Migrator and **PPME**.
* Experienced in migrating data from Symmetrix DMX to VMAX and **CLARiiON** to VMAX using both Hot-pull/push and Cold push/pull technology.
* Hands-on experience in configuring FASTVP in V-MAX with Enginuity 5876. Solid knowledge on VNX Block Storage Provisioning and Management, Configuring RAID Groups and LUNs, configuring storage pools and creating thick/thin LUNs, configuring metaLUNs, Configuring FAST-VP, Configuring FAST Cache.
* Experience with auto-provisioning in **V-MAX** and virtual provisioning in **DMX-4**, V-MAX storage array systems using SYMCLI, Symmetrix Management Console (UNISPHERE FOR VMAX).
* Expertise in storage provisioning, monitoring, reporting of EMC Symmetrix (including VMAX) and **CLARiiON** using ECC/IONIX, **UNISPHERE** FOR VMAX and Unisphere.
* Hands on Experience with NetApp Filers FAS 2040 and FAS 3240/3270, FAS 3210/3210, FAS 6040, FAS 6240.managing volumes, Qtrees and Quotas.
* Thorough knowledge in **VNX** Managing Host Access to File Storage, Configuring devices, interfaces, configuring a file system, exporting an **NFS** file system, configuring a **CIFS** server, Configuring CIFS features (Home Directory, Anti-virus, and File Extension Filtering).
* Hands on experience with EMC and NetApp management tools like Navisphere, ECC, UNISPHERE FOR VMAX , Snapview snapshot/clone, Mirror View, Filerview, Snapmirror, SnapVault and PowerPath.
* Proficient in using Cisco Fabric Manager and Brocade WebTools /CLI.
* Experience and involvement in Installation, configuration and administration of PowerPath on UNIX and Windows servers for Path Failover and Load Balancing.
* Solid experience in identifying and analyzing technical issues and troubleshooting them. Supported 24X7 Production environments and supported on call duties.
* Experienced in Drafting the Data Center Audit reports and Performance reports.
* Experience of implementing SAN and NAS primarily in NetApp environments using NFS, CIFS, FCP, iSCSI protocols; Data OnTap**7 mode**&**OnTap Cluster-Mode** (cDOT).

AREAS OF EXPERTISE

* Storage Arrays: Symmetrix: VMAX40K/20K, 20K / DMX-4 / DMX-3 / DMX-2 | VNX 7500,5700,5500,5300 and VNXe | FAS 2000/3000/6000/8000.

CLARiiON**:** CX600/CX700/ CX3-40/CX3-80/CX4-480

* Software:ONTAP 7.2/7.3/8.0.7/8.1/8.2,DART5.6/6.0,OM3.7/3.8/4.0, Oncommand,System Manager , Filerview,ECC 6.1, SymCLI, Unisphere,Celerra Manager, Navisphere Manager, NaviCLI, MirrorView, SnapView, **SAN** Copy, SRDF,TimeFinder, StorageScope, Celerra Replicator, Data, SnapMirror, SnapVault, SyncMirror, SnapDrive, SnapManager, FlexShare, , Legato Networker, VMware ESX 3.0, Tivoli Storage Manager, VERITAS Volume Manager, VERITAS Backup Exec and VERITAS Netbackup.
* **SAN** Switches: Cisco MDS 9509, 9506, 9140 and 9120 and Brocade 48k / 4900 / 4100
* Storage/**SAN** Software: EMC Solutions Enabler SYMCLI 7.0,7.2,7.4,7.5

EMC Symmetrix Management Console,

Symmetrix Performance Analyzer,

EMC Unisphere for VMAX with Performance Analyzer,

EMC Unisphere for VNX Unified Administration

EMC Navisphere Manager, NAVI SEC CLI

BROCADE CLI, BROCADE WEB TOOLS,

CISCO MDS CLI, CISCO FABRIC MANAGER,

CISCO Device Manager.

* Storage Replication and Migration Tools: EMC Open Replicator,

EMC Open Migrator,

EMC Powerpath Migrations Enabler,

SRDF/S, SRDF/A, Timefinder Clone, BCV, VP SNAP

SANCOPY, Vplex Data Mobility

* Hardware: IBM P series | SUN SunFire| HP9000 series, Qlogic and Emulex HBAs.
* Operating Systems: Solaris 8/9/10, AIX 5L v5.1/5.2, RedHat EL 4/5, Windows NT/2000/2003

## **PROFESSIONAL EXPERIENCE**

Sr. Storage administrator

***Citi Group–Irving, TX Jan 2014-present***

* Configured and allocated storage **on EMC VMAX 40k, 20K, 10K, DMX-4 / DMX-3, DMX 1000, DMX 2000, VNX 7500,5700,5500,5300, CX3-80/CX using SYMCLI and NaviCLI**.
* Implementing/Configuring VMAX 40K/20K/10K.
* Performed installation of **Solutions Enabler** v7.1.1 and **Unisphere for VMAX** with Performance analyzer on several UNIX and Windows management servers.
* Performed **Auto-provisioning** for VMAX by creating, initiator groups, port groups, storage groups and masking views using UNISPHERE FOR VMAX and Solution Enabler SYMCLI.
* Implemented Virtual Provisioning with Thin Pools providing oversubscription for applications with similar performance requirements from VMAX to hosts.
* Installed and configured the Unisphere Agent/CLI on UNIX and Windows Servers.
* Presented virtual volumes configured independently for each server using VPLEX.
* Moved data between different devices or between different extents, while maintaining I/O access to the data using VPLEX.
* Created file systems using **NFS** and **CIFS** protocol and exported them to UNIX clients and shared them to Windows clients respectively.
* Allocated storage to **VMware ESX, ESXi server, Windows, HP/AIX/HP servers**.
* Configured **FAST-VP** and **FAST Cache** in Storage arrays.
* Depending on the customer’s downtime acceptance, migrated data from **DMX-3** to **V-MAX**, **IBM FastT** arrays to V-MAX using array based Open Replicator with Hot Pull or Cold Pull method
* Migrated Logical volumes between any source and EMC storage with less disruption and highly automated using host based software **Open Migrator/LM**
* Consolidated storage by migrating from **CLARiiON**  CX 700 to higher capacity and improved throughput **CLARiiON**  CX 4-120 using **SAN** copy
* Implemented data migration of TBs of data using **SANCOPY** between **CLARiiON**  arrays and between v**CLARiiON**  and **Symmetrix, HP-EVA** Storage arrays
* Implemented and tested **SRDF/A** for selected high performance Tier 1 applications from DMX4 to V-MAX including creation of dynamic RA groups, dynamic RDF pairs and device groups
* Based on the analysis, implemented a disaster recovery solution between DMX-4 and V-MAX based New York and New Jersey data centers located in same metro area using SRDF/S and SYMCLI
* Implemented Business Continuity solutions for production data using TimeFinder Clone Emulation, Time Finder/Snap on V-MAX.
* **NetApp** 2000, 3000, 6000 Series and Latest **Clustered OnTap** 8.X latest deployment.
* Participated in transition phase from **7mode** to **cDOT.**
* Plan for migration **of FAS 31xx, 32xx, and 62xx** running **ONTAP 8x 7** mode to 8.2 cluster mode
* Configure lab environment with install and configuration of 4 node 3240/6240 ONTAP 8.2 cluster mode
* Document installation and configuration of ONTAP 8.2 cmode including vServers, LIF's, and peers
* Test and document **NAS** file migrations utilizing **7-Mode Transition Tool**(7MTT) from 8.1.3 7 mode to 8.2 cluster mode.
* **NetApp** Filer build **7-Mode or Clustered Ontap**(C-Mode)
* Test and document data migration size and duration time utilizing **Cutover Estimate Tool** (CET) in conjunction with 7MTT
* Test and document the **Clustered ONTAP SnapMirror Toolkit** to facilitate **SnapMirror**/**SnapVault** relationships and policies.
* Configured and scheduled **Snapshots** and determined the data growth using delta option.
* Created snapmirror relationship from source to destination in C-Mode
* Prepare presentations on technical subject matter - **DataMotion**, **QoS**, **Deduplication** - for senior management.
* Worked on Snapmirrors, Snapshots, OnTap upgrades, firmware upgrades, and regular storage provisioning (**NAS** - NFS/CIFS) on **NetApp** Filers
* Worked on updating OnTap OS from 7.3 to 8.1 (7-mode).
* Administer **NAS** and **SAN** connectivity from storage array to Unix and Linux server clusters.
* Install, Configure, and Manage C-Mode in Lab Environment.
* Subject Matter Expert for **NetApp**, N-Series.
* Used 7MTT tool (7Mode translation tool) migrate data between 7 mode to C-mode.
* Extensive experience in monitoring and alerting on NetApp filers using OnCommand Core Package for 7 mode and OnCommand Unified Manager for cDOT.
* Performance analysis on NetApp filers using Performance Manager and Performance Advisor.
* Troubleshooting critical issues including threshold optimization, server throughput, ports availability, meeting zoning requirements, one-path down, host not seeing storage management problems.
* Configured **Cisco MDS 9000 switches**.
* Worked on **Cisco MDS 9506, 9509 and 9513 Multilayer Directors**.
* Configured **Brocade 4100, 4900, 48k** switches using Brocade CLI, Web Tools by creating aliases, zones and configurations.

Storage Management Analyst

***Archer Daniels Midland, MI, USA Aug 2012-Dec 2013***

* Configured and managed **EMC VNX, VMAX and VPLEX**
* Implemented **Unified storage** with VNX created **Homogeneous/Heterogeneous Pools**, Created **RAID protection**, assigned Thin LUNs and Traditional LUNs to Pools
* Creating new aggregates on FC and SATA drives. Adding the disks to existing aggregates.
* Configured FAST Cache and FAST VP in VNX Environment.
* Configured Snap view Snapshots, Snap view Clones and MirrorView S/A in VNX Series.
* Configured Initiator groups, Port groups, Storage groups and Masking views to allocate storage in a VMAX environment.
* Configured FAST, Virtual Pools and performed Auto provisioning for mapping and masking in VMAX Environment using SYMCLI / UNISPHERE FOR VMAX.
* Created Open Replicator Sessions using UNISPHERE FOR VMAX to perform migration from **CLARiiON CX 3-80** to VMAX.
* Involved in configuring various VNX business continuity solutions.
* Performed configuration changes with **ECC / SYMCLI**.
* Involved in choosing best practices for storage systems like implementing data protection type of logical volumes.
* Migrated Data from **NS480 to VNX5700** using **SANCOPY** and **Open Migrator**.
* Implementing, Managing and administration NetApp **7 mode** and 8.1/8.2 **C-mode** storage arrays.
* Implementing **7mode** - SAN and NAS primarily using FCP, NFS, CIFS, iSCSI protocols.
* Manage **SAN** and **NAS** solutions globally on 54 **NetApp3260/6280 HA controllers**, with **3+PB storage capacity**.
* Participate in Architecture Reviews with IT Architecture and Engineering group, ensure supportability requirements and standards are followed
* Install, patch and upgrade **NetApp** OnTap versions for all production storage systems.
* Experience in building the cDOT filers and implementation.
* Created SVMs and implemented Namespace for NAS SVMs.
* Designed LIFs and performed the LIF migrations for testing purpose.
* Configured Failover groups on the CDOT.
* Capacity planning, provisioning and load management with associated documentation utilizing Operations Manager, OnCommand Core and System Manger
* Generating Historical Performance Reports for **VNX 5500/5700/7500** storage arrays using **Archive (NAR)Files** in both Production and DR for troubleshooting purpose.
* Generating Capacity planning reports for **VNX 5500** storage array for monitoring the growth of each Server for Budget planning.
* Provisioned block storage from **VNX 5500/5700/7500** by registering hosts, Creating Storage Pools/Raid groups, Creating LUN, creating Storage Groups, and adding hosts to the storage group using Unisphere.

Data Storage Specialist

***City National Bank, Los Angeles, CAJune 2012-Aug 2012***

* Administered and maintained **EMC VMAX, DMX-4, VNX,CLARiiON Storage Arrays**.
* Responsible for infrastructure tasks including provisioning storage, connectivity issues, upgrades, and day-to-day issues and audits.
* Involved in configuring, administering zones/zone sets on Cisco, **McDATA**, Brocade switches using **Fabric Manager, Connectrix Manager and Brocade Fabric Manager** respectively.
* Administered **VPLEX** with **VMAX** environments by provisioning volumes from backend to VPLEX head.
* Configured **FAST VP** for migration targets as per best practices.
* Worked on Symmetrix V-max in Thin Provisioning, Virtualization and Auto provisioning.
* Used **Open Replicator** (**Hot Pull & PPME**) to migrate from **DMX to VMAX**.
* Configured, Created, push and pull sessions to migrate devices.
* Implemented Virtual Provisioning from VMAX array to hosts by creating Data devices, thin devices, Thin Pool, binding Thin devices to Pool and masking the Thin devices to the host, using Unisphere.
* Extensively worked on SymCLI to implement concurrent SRDF and successfully replicated the storage to the remote site using SRDF solutions (SRDF/S and SRDF/A).
* Worked on Technology Refresh from old filers to new filers
* Integrated existing infrastructure to achieve highest level of performance and data availability.
* NFS, CIFS migration using **NetApp** and host based tools (Robocopy, rsync, secure copy)
* Create, configure, and manage CIFS & NFS shares, quotas, groups, and permissions after migrating the data.
* Configuring SnapMirror, SnapReserve, allocating & deallocating shares to UNIX and Windows Clients.
* Configured and Administered Open System SnapVault and SnapRestore for backup and restore operation in **NetAppNAS** Environment.
* Administer **NAS** Environment using DataFabric Operations Manager.
* Device administration & File systems administration.
* Installation and configuration of desktop computers, operating systems).
* Implementation of RAID for Data Security & Availability
* Documented all the technical problems attended during the course of the system administration
* Migrated data from EMC to **NetApp** filers.
* Migrated NFS data from standalone servers to **NetApp** Filers.
* Maintaining Storage units using Mapping, Masking and Zoning.
* Created **FAST TIERS** policies, associated Storage groups to FAST Policies. Used **SPA** to monitor Symmetrix performance issues.
* Troubleshoot the **SAN** connectivity on different Operating Systems like Windows, VMware ESX, Linux and Solaris.
* Performed touch support work during the cabling that ran from servers to switch in the process of switch migration.
* Managing the trouble ticket queue, and responsible for monitoring, troubleshooting, cabling and resolving routine issues like one-path-down, hosts not seeing storage, HBA failures, zoning/masking/storage allocation & performance issues etc.
* Configured **Brocade 7800 switches** for Long Distance Replication and migration of **SAN** between two different fabrics located at different datacenters. Created Trunking, FCIP Circuits.
* Provided On Call Support & day-to-day troubleshooting **SAN**/**NAS** related issues.
* Working on the error tickets generated by system monitoring tools.

Storage Operations Engineer

***Propipe Services Corporation Inc, Exton, PA Aug 2011-June 2012***

* Planned, Commissioned and Configures new VMAX and deployed all the agents for ECC administrators.
* Used Open Replicator software to execute data migration from existing DMX to new VMAX storage arrays and **CLARiiON**  to VMAX arrays.
* Extensively worked on SymCLI to implement concurrent SRDF, Setup the **SAN** environment for migration, disaster recovery test procedures for V-MAX and successfully replicated the storage to the remote site using SRDF solutions (SRDF/S and SRDF/A).
* Implementation of Symmetrix V-max Thin Provisioning, **FAST VP** and Auto provisioning by creating initiators, storage groups and masking views in our environment.
* Implemented and maintained zoning, performed firmware upgrades, and integrated all **SAN** connected hosts on Brocade Directors using Fabric Manager and Cisco MDS switches using Fabric manager.
* Created Standard Operating Procedure documents, Run books for EMC Symmetrix V-Max’s Virtual Provisioning (VP), SRDF (S/A), HP Blade Servers and TimeFinder Mirror/Clone.
* Used tools like **Navisphere Analyzer**, SPA, ECC Performance Manager, **HEAT** reports to analyze performance issues.
* Daily administration and maintenance on Celerra integrated and gateway models and VNX (file & block) level arrays.
* Storage provisioning on both VNX and Celerra by creating file systems, quotas; NFS exports.
* Configured CIFS server and created CIFS shares for Windows and Linux servers.
* Configured Standby Data movers for the Primary Data movers on VNX and Celerra arrays.
* Recovery of corrupted/backup data from NFS and CIFS file systems from the checkpoints.
* Backend storage allocation to the Celerra’s from **CLARiiON** and creation of pools and their maintenance.
* Involved in the migration of **NS40 to NS700 and NS80** to VNX Series: data mover pre-migration checks, creating Virtual data mover and data mover failovers; cleanup of the **Celerra box** to be decommissioned.
* Configured and Tested Data Mover Failover configuration during the implementation test.
* Implement **Virtual Data Movers**.
* Created CIFS servers on VDMs and joined them to the Domain.
* Used snap sure to create point-in-time image of production file systems and also provide online access to historical data from clients. Also used it as a source for backups.

System/Storage Administrator

***Kalven Technologies Inc,Hyderabad,India Dec 2010-July 2011***

* Played a responsible role in troubleshooting problems logged by the client users in day-to-day operations of the business and providing complete technical support for the client
* Performed daily activities and checks on the **NetAppFAS3020 and FAS3070 Filers**.
* Resolved issues if any in the filers.
* Installed **NetAppNAS** clusters for production systems.
* Created Aggregates, Volumes, Luns and Qtrees, Quotas, Snap Vault and snapshots and Snap Mirroring and restored files from Snapshots.
* Migrated data’s from EMC Boxes to **NetApp** Filers.
* Configured NFS / CIFS on **NetAppNAS** Filer servers.
* Troubleshoot day-to-day problems on **SAN**/ **NAS**.
* Installed new **Symmetrix DMX 2000** and implemented **rule 17** for mapping as best practice.
* Provisioned storage to Solaris and Windows servers and assign storage according to business requirements.
* Troubleshoot and resolve storage-related performance issues.
* Create and document best practices and standards where non-existent
* Perform capacity planning of **SAN** devices.
* Install, configure, and **troubleshoot McData 3232 switches and 6064 director and MDS 9505 switches**, along with **QLogic 2340 and Emulex LP1050 HBA**.
* Administer, troubleshoot, and maintain Veritas NetBackup (v5.1 on Solaris).
* Use **ECC 5.2, Navisphere Manager, NaviCLI, and SAN Copy**.
* Installation of **Powerpath** on Windows 2000 and 2003 servers for **Load balancing**.
* Installation and management of SRDF and creating BCVs as disaster recovery solution.
* Planned and worked closely with the DBA and application owners in respect to the firmware upgrades of switch and storage equipment
* Performed firmware upgrade for Brocade switches and Flare code for **CLARiiON.**
* Installing and configuring TSM agent on the newly configured clients and tweaking the dsm.opt file for a successful backup.
* Troubleshoot the problems using logs and restore the files for the clients.
* Moved some of the servers from standalone to blade center and configured them to boot from **SAN**.
* Provide support to Production Support group who Run and Monitors all backup using **Veritas NetBackup**.
* Provided 24/7 on call support for all the **SAN** systems
* Performed filer failover activity successfully in production twice.
* Involved in day to day call handling through **a RDBMS package** called **REMEDY** in Service Level Agreements.
* Created boot Lun for the servers using image.
* Created Volumes, Luns from console
* Administered Luns and snapshots using Snapdrive.
* Restored Luns in case of any corruption using lun clone.
* Configured snapmirror
* Data movement from filer to filer using **Snapmirror** (planning)
* Configured snapmanager for SQL for taking database snapshots.
* Worked with the offshore storage team to ensure that volume configuration are as per standards
* Configured scripts for taking the snapshots on the server and also fix them if there are any issues with the current one.
* Configured scripts for taking the snapshots on the server and also fix them if there are any issues with the current one.
* Used **DFM** to collect Reports.
* Prepared Capacity report on monthly basis.
* Created implementation plan for planned and unplanned infrastructure changes and implemented successfully.
* Upgraded the firmware whenever required.
* Interacted with the Onsite team if their involvement is required.
* Involved in maintaining DR setup.
* Interface with **NetApp** for escalations

Systems Administrator

***iflex Solutions, Hyderabad - India May 2008-Nov 2010***

* Configuration, maintenance and troubleshooting of more than 20 servers & 250 Workstations. [Servers included are FTP server, SQL server, IIS server, Exchange Server, Domain server, Print server, VPN server, Linux server, VMware ESX server].
* Installing and administrating of EMC Storage arrays CX 500/600.
* Installation, configuration & maintenance of Cisco 2800 router/2960/2950 switches&1240AG Access point for WLAN and Lease line management.
* Performed patch management and installing third party software.
* Installed and configured TSM server and installed TSM agents in most of the workstations.
* Created and modify backup policy creation and Restore Operations.
* Monitored and troubleshooting all the Net backup jobs from the Activity monitor.
* Created RAID (RAID 0, 1, 5) and RAID groups on EMC storage arrays.
* Performed addition of new storage space to servers, increasing the existing storage space and maintaining the Fabric’s.
* Adding new storage includes creation of new LUN’s, storage groups, binding LUN’s and making the storage volume available to the server’s by zoning the Fabric.
* Created and configured volumes using Solaris volume manager (SVM) and Veritas volume manager (VxVm).
* Performed Performance monitoring, file system management and performed security audit.
* Maintenance of Data Storage devices for Backup & Data Collection like IBM 3590/3480/3490, Fijitsu 3480.
* Prepared Business continuity and DR Process for the company.
* Installation, configuration & maintenance of DNS, DHCP, RIS, Active Directory.
* Given Remote support for managing and troubleshooting server using Putty, Telnet, Remote desktop, VNC.
* Created documents for Backup procedures, Schedules, Failures and plan for improvement of backup strategies.

## **Education**

* ***Bachelors of EngineeringinMechanical***• Osmania University, India

***References Available Upon Request***