Madhu Yaramala

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**Professional Summary**

Over 11+ Years of IT Experience in SAN & Storage Administration of EMC, NetApp, IBM, Hitachi, and Backup Storage Product Lines which includes Storage Architecture, Administration, Technical design, Implementations, and Integration in Local & Geo-DR Remote Environments.

* Experience in provisioning IBM XIV, A9000, storwize V7000 V9000, SVC and Infinidat Storage systems.
* Experience in design and implementation of remote replication techniques on V7000 using GM, MM and GMCV.
* Hands on Experience with NetApp Filers **FAS 2040** and **FAS 3140/3170, FAS 3210/3240, FAS 6040, FAS 6240.**
* Experience on EMC Isilon, ECS, VNX family and VMAX family.
* Worked on EMC replication manager, Recovery point and PPME.
* Expertise in storage provisioning and monitoring of Symmetrix, VNX using Unisphere, NaviSphere for VMAX and Isilon respectively to various operating systems.
* Experience in installing and configuring storage technology such as **SAN, NAS, ISCSI**, and **RAID.**
* Expertise with local data replication solutions within the arrays and between the two arrays.
* Experience in **SAN** expansion in Brocade and **Cisco** fabrics and SAN migration between Brocade and Cisco.
* Experience in configuring **Inter Switch Links (ISL),** soft, hard, mixed zoning in Brocade 300, 4900, 5100 and **DCX-8510 switches** using Brocade DCM, CLI, Web Tools.
* Experience in generating host remediation reports using EMC Host Environment Analysis Tool (HEAT), NetApp nSANity, grab analysis reports and Brocade Health provider.
* Worked on VMware VSphere 6/6.5 installation and virtual machines setup using Virtual Infrastructure client.
* Experience in monitoring the switch ports and checking the health/status of the ports using the advanced web tools Managed 2 **Netbackup** master Servers and one **EMC** avamar Grid Taking backup of virtual machines and **UNIX** and windows servers.
* Onsite Experience with Design and establishing FC connection for **VMAX** engunity**, VNX 7600** SP's**, RPA's to Cisco** fabric manager
* Good Knowledge of virtualization (VMWare), Install, maintains, and supports VMware (ESX Servers).
* Knowledge in **ESX Architecture**, guest OS installation, setting up of VM priorities, Cloning, Snapshots, Creating Teams, Nic teaming, VM resource allocation.

**Education:**

* Bachelors in computer science from JNTU, India in 2009
* Masters in Information Technology in management from Sullivan University in 2016.

**Technical core competency:**

**Storage Technologies:** SAN, NAS, TCP\IP, FCP, iSCSI, NFS & CIFS protocols

**EMC:** Symmetrix DMX3/DMX4, VMAX 10K/20K/40K, Clarion CX120/480/960, NS960/480/120, VNX 7500/5700/5500, RecoverPoint 4.0 GEN5, SYMETRIX VMAX-10K/20/40K

**FC Switches:** Cisco MDS 9500, directors and 9124,9140 switches and Brocade 48K, DCX directors4100/4900/5100

**IBM:** V7000, DS8870, IBM DS 3000.

**NetApp:** FAS6080/6040, FAS3270/3170/3070, FAS3240/3140, FAS2040/2020, FAS270.

**Software:** Solutions Enabler, EMC Unisphere Manager, NaviCLI, SymCLI, MirrorView, SnapView, SAN Copy, TimeFinder, SRDF, Unisphere for VMAX with Performance analyzer, Open Replicator, Open Migrator, Power Path PPME, Celerra Manager, Putty, NetApp Filerview, NetApp CLI, VMware ESX Symantec Netbackup 6.x and 7.5.

**Operating Systems:** Windows Server 2016, Windows Server 2019, UNIX.

**Work Experience:**

**Ford Oct 19 - Present**

**Storage Admin**

**Detroit, MI.**

**Environment:** EMC Isilon, ECS, VMAX, VNX, NetApp, solar-winds, Nagios, Power shell, Brocade.

**Responsibilities:**

* Responsible for managing different kinds of Isilon, VNX and VMAX **SAN/NAS** environment.
* Support for Isilon code upgrade, drive firmware upgrades.
* Administrated Isilon NAS products.
* Administered and maintained EMC VPLEX, VMAX, DMX-4, VNX, CLARIION CX4 and CX3 arrays.
* Installed and configured the new EMC/Netapp/Cisco hardware and designed as per the customer design guidelines.
* Provide detailed design documents for all new systems implementation.
* Provide Disaster Recovery design diagrams.
* Designed and implemented and administrated the EMC-Isilon as part of implementation configured the initial node and added the second and third nodes and applied the license, configured smart connects, smart connect zones, smart pools, smart quotas, snapshotIQ, SyncIQ.
* Consolidated quotas from Isilon using Curl, producing a single report which is used by upper management for capacity planning and charge back to divisions.
* Experience in Tech Refresh of old Isilon (X210) to New Isilon (H400).
* Developed scripts for automating quote administration of 16 Isilon, standardizing servers globally.
* Sharing on Isilon to connect client to the cluster via SMB/NFS for windows and UNIX operating environment using smart connect.
* Rack and Stack of Data mover and control stations for **VNX 7500** block to Unified storage platform.
* Adding new DAE’s in **VNX** **7500** and **Cx4** for storage expansion
* Worked on ECS to integrate the Isilon cloud pools to archive.
* Performing daily VMAX operational tasks such as storage provisioning/reclamation, this pool reporting/monitoring, performance health check.
* Experience in replication SYNCIQ in Isilon and SRDF in VMAX.
* Installed and Configured EMC VMAX Storage arrays and implemented different replication technologies like SRDF/open Replicator and also configured FASTVP technology.
* Maintained and administered the brocade switches using web tool and command lines.
* Experience in DR activities in VMAX and Isilon.
* VNX and VMAX health checks are done by using the storage device grab to know the performance issues.
* Implementing, Managing and administration NetApp 7-mode and C-mode storage arrays.
* Using the On Command System Manager created lifs, Aggregates, Vserver on Cluster mode (C-mode)
* Creating the volumes, CIFS, NFS, luns, snapshots and cloning on C-mode and 7-mode.
* Extensively worked on NetAppmigrations both volume and qtree level migrations.
* Configured Snap mirror between the two filers and migrated the data from one filer to another.
* Creating point snaps, clones and remote snaps assigning to hosts as per the requirement.
* Used Snap mirror to transfer data across filers at volume and qtree level. Snap mirror was used mainly for replication and disaster recovery.
* Designing, architecting and implementing bunker and remote replication using NetApp.
* Created snapshots in required intervals of time like hourly, nightly, weekly and monthly for maintaining the backup and recovery in case of accidental deletions and data corruptions.

**American Express Nov 17 – Oct 19**

**Storage Administrator**

**Phoenix,AZ.**

**Environment:** NetApp FAS series, EMC ECS, VNX UNITY, VNXe family**,** Isilon, VMAX, Vplex, IBM XIV, V7000, solar-winds, Nagios, Power shell, Brocade DCX, 320 Cisco MDS 9148.

**Responsibilities:**

* Responsible for managing different kinds of NetApp FAS series, EMC VNXe family and Isilon Gen 5/6 in **SAN/NAS** environment.
* Experience in design a SAN Fabric.
* Configured VPLEX cluster witness on third Domain failure.
* Performed Zoning Vmax VNX with VPLEX on Brocade Switch
* Experience in creating distributed volumes across data centers using VPLEX Metro.
* Performed Daily Health check status on VPLEX using performance-monitoring dashboard.
* Provide detailed design documents for all new systems implementations.
* Design Disaster Recovery plans in conjunction with other stakeholders to meet SSC Disaster recovery policies.
* Support for Isilon code upgrade, drive firmware upgrades.
* Administrated Isilon NAS products.
* Planned /Build and installed the private Ethernet Network Interface between the NetAPP Filters and HP’s C-class servers using **CISCO 3750** Ethernet Switches.
* Involved in Migration of **NFS and CIFS** data from **Celerra** to **NetApp** filers.
* Experience in creation of cloud pools, VDC and buckets in ECS.
* Worked on ECS to integrate the Isilon cloud pools to archive.
* Consolidated quotas from Isilon using Curl, producing a single report which is used by upper management for capacity planning and charge back to divisions.
* Developed scripts for automating quote administration of 16 Isilons, standardizing servers globally, training India operation to use new scripts and freeing up senior staff to work on more complex tasks.
* Designed and implemented and administrated the EMC-Isilon as part of implementation configured the initial node and added the second and third nodes and applied the license, configured smart connects, smart connect zones, smart pools, smart quotas, snapshotIQ, SyncIQ.
* NAS environment to Isilon 6-node cluster under for prod and non-prod and DR env.
* Sharing on Isilon to connect client to the cluster via SMB/NFS for windows and UNIX operating environment using smart connect.
* Configured NAS migration from almost any NAS devices having CIFS/NFS to Isilon.
* Migrated the data from VNX to Isilon using the Datadobi tool.
* Configuring, managing and troubleshooting Commvault backup and media servers and adding new client for the commvault.
* Backup, Restore, Archive VM’s using Commvault and perform config of client backups utilizing commvault simpana.
* Implementing, Managing and administration NetApp 7-mode and C-mode (9.1) storage arrays.
* Creating the volumes, CIFS, NFS, luns, snapshots and cloning on C-mode.
* Creating the access for Shares in NetApp and restoring the files using the shadow copy.
* Performed Health check on NetApp storage using the NetApp Operation Manager.
* Configured Snapmirror between the two filers and migrated the data from one filer to another.
* Implemented Virtual Provisioning from VMAX array to host by creating Data Devices, thin devices, thin pools, binding thin devices to pool and masking the thin devices to the host using Unisphere.
* Knowledge on FAST-DP and FAST-VP in VMAX with Enginuity 5875.
* Administrated the EMC VNX 5600, 5800 of storage devices. And as part of implementation created FAST Cache, FAST VP, storage pools, RAID Groups, LUNS, Snapshots, File pool creation, Device creation, CIFS and NFS, Checkpoints, Quotas.
* Responsible to configure Thick/Thin provisioning and FAST VP on VNX arrays.
* Implemented FAST VP and data compression for LUNS and configuring FAST cache on VNX.
* Migrated data by using EMC-VNX methods like IP Replicator, EMCopy, SANCopy, Mirror view, Snap view, OR (Open Replicator)
* VNX and VMAX health checks are done by using the storage device grab to know the performance issues.
* Working on brocade switches to create the zones for new servers using CLI and web Tools.
* Experience on racking and cabling to new servers to switch.
* Allocation and resolve issue with in specified SLA’s.
* Cabling between the storage array and new servers.
* Finding the root cause and resolve the alerts the in Netapp and EMC and Isilon
* Implement the powershell scripts to automate the infra tasks and strengthening departmental audit capabilities.
* Experience on VIPR SRM, Netapp unified manager, Nagios, Splunk monitoring tools.

**Aptar Group/CDW Jun 17 – Oct 17**

**Storage Administrator**

**Chicago,Illinois.**

**Environment:** NetApp FAS series, EMC VNX UNITY, VNXe family**,** Isilon Gen 5/6, IBM XIV Gen3, A9000, storwize V7000,v3700, Flash System 840, Dell MD 320i, ViPR SRM, Unified Manager, Vplex, Nagios, Splunk, Power shell,Brocade DCX, 320 Cisco MDS 9148.

**Responsibilities:**

* Responsible for managing different kinds of NetApp FAS series, EMC VNXe family, Isilon Gen 5, IBM XIV Gen3, A9000, Storwize v7000, Flash system 840, Dell MD 320i in **SAN/NAS** environment.
* Allocating LUNS for all the storage boxes and troubleshooting the problems which are caused by the fabric and storage boxes.
* Experience in design and implementation of H/W and equipment commonly used in backup and recovery environments such as tapes drives/libraries and storage devices.
* Based on EMC recommendation, updated patches and HBA drivers on all the systems that are part of migration
* Migrated data from VMAX to VNX through VPLEX Metro using Device Mobility jobs.
* Performing replications and migrations using **VPlex** (Local) and RecoverPoint, on migrations from **VNX to VMax**, Cx (300/340) to VMax .
* Implementing, Managing and administration NetApp 7-mode and C-mode (8.3.2) storage arrays.
* Created the lifs using the On Command system manager in cluster mode (C-mode).
* Creating the volumes, CIFS, NFS, luns, snapshots and cloning on C-mode.
* Maintenance and support for **NetApp** filers including F2040, F3120, FAS3140, and FAS3170
* Configured Snapmirror between the two filers and migrated the data from one filer to another.
* Creating point snaps, clones and remote snaps assigning to hosts as per the requirement.
* Implemented Virtual Provisioning from VMAX array to host by creating Data Devices, thin devices, thin pools, binding thin devices to pool and masking the thin devices to the host using Unisphere.
* Administrated the EMC VNX 5600, 5800 of storage devices. And as part of implementation created FAST Cache, FAST VP, storage pools, RAID Groups, LUNS, Snapshots, File pool creation, Device creation, CIFS and NFS, Checkpoints, Quotas.
* Responsible to configure Thick/Thin provisioning and FAST VP on VNX arrays.
* Implemented FAST VP and data compression for LUNS and configuring FAST cache on VNX.
* Migrated data by using EMC-VNX methods like IP Replicator, EMCopy, SANCopy, Mirror view, Snap view, OR(Open Replicator)
* Performing backup version upgrades on both master and media servers.
* Installing and configuring new clients including VM’s into BE and NBU.
* Adding and configuring BE media servers into CAS (Central Administration server) server.
* Adding new clients into backup rotation with proper approvals and downtimes.
* Coordinating with Client and vendor for licenses for new backup versions.
* Installing and configuring the new tape libraries coming into environment and following barcode rules
* Disk allocation from both XIV, storwize, flash system and Hitachi.
* Replication concepts like metro mirroring, Global mirroring, GMCV and Flash copy services.
* Upgraded the drive firmware version on V7000.
* Upgraded the system code from 7.2.0.4 to 7.8.1.1 on storwize V7000.
* Upgraded the brocade **switch firmware version** from 7.2.2a to 7.3.2b.
* Designed and implemented and administrated the EMC-Isilon as part of implementation configured the initial node and added the second and third nodes and applied the license, configured smart connects, smart connect zones, smart pools, smart quotas, snapshotIQ, SuncIQ.
* Sharing on Isilon to connect client to the cluster via SMB/NFS for windows and UNIX operating environment using smart connect.
* Configured NAS migration from almost any NAS devices having CIFS/NFS to Isilon.
* Migrated the data from VNX to Isilon using the Datadobi tool.
* Administrated Isilon NAS products.
* Consolidated quotas from Isilon using Curl, producing a single report which is used by upper management for capacity planning and charge back to divisions.
* Adding the new storage space to existing pool on V7000.
* Finding the root cause and resolve the alerts the in XIV,A9000 and V7000.
* Implement the **Powershell** scripts to automate the infra tasks and strengthening departmental audit capabilities.

**AAA Automobile Club of Southern California Apr 16 – May 17**

**Storage Admin**

**Environment:** NetApp FAS 3040,3070,8040,8060, Hitachi AMS 2500/2100, VSP, USP V, EMC VNX UNITY, VNX 5500, VPLEX, Isilon, Brocade 3900 Cisco MDS 9513 Windows2000/2003 VMWARE ESX Servers.

**Responsibilities:**

* Responsible for managing different kinds of NetApp FAS series, Hitachi AMS 2500/2100, VSP, USP V, EMC Isilon, VNX family in **SAN/NAS** environment.
* Worked on both SAN and NAS environments.
* Knowledge of VPLEX scale-up architecture and advanced data cache.
* Establish active/active Oracle RAC environment using VPLEX Metro.
* Troubleshoot the server performance issues using Hitachi Tuning manager by generating Ldevs/LUNs Read/Write IOPs or target port CPU Utilization reports and movingthe host groups to a less busy target/storage port if necessary.
* Installed VPLEX witness server to overcome non Zero RTO and RPO.
* Configured VPLEX cluster witness sever on third domain failure.
* Mirrored data from cluster 1 to cluster 2 on VPLEX.
* Allocating LUNS for all the storage boxes and troubleshooting the problems which are caused by the fabric and storage boxes.
* Disk allocation from both Hitachi and NetApp FAS series.
* Storage provisioning on Hitachi VSP G series using HCS 8.x
* Storage provisioning on Hitachi USP V using Storage Navigator.
* Installation and configuration of Hitachi Shadow Image.
* Configured and managed Hitachi Universal Replicator.
* Performance monitoring and capacity monitoring using HTnM.
* Experience with virtualizing External Storage to Hitachi using Hitachi Universal Volume Manager and migrating data using HTSM from HCS.
* Experience working on DR replication technologies like Hitachi TC and HUR.
* Implementing, Managing and administration NetApp 7-mode and C-mode (8.2.2) storage arrays.
* Created the lifs using the On Command system manager in cluster mode (C-mode).
* Creating the volumes, CIFS, NFS, luns, snapshots and cloning on C-mode.
* Migrating the data from 7-mode to c-mode using 7MTT.
* Extensively worked on NetAppmigrations both volume and qtree level migrations.
* Performed Health check on NetApp storage using the NetApp Operation Manager.
* Configured Snapmirror between the two filers and migrated the data from one filer to another.
* Zoned the hosts and NetApp filers through Cisco fabric manager. Worked with Operationsmanager, provisioning manager, performance manager.
* Responsible for replication related issues of NetApp based storage using Snapmirror.
* Backed up data for Disaster Recovery purposes using snap vault Qtree replication.
* Experience with multiple backup and recovery technologies like Cloning, Snapshots, and Disaster Recovery technology.
* Sharing on Isilon to connect clients to cluster via SMB/NFS for windows and UNIX operating using smart Connect.
* Configured NAS migration from almost any NAS device to Isilon.
* Implemented and administrated EMC-VPLEX local as a part of administrating created CG’s, Virtual Volumes, devices, extents.
* Migrated data by using EMC-VPLEX data mobility and data encapsulation.
* Involved in migrating Celerra/Netapp File to Data to Isilon OneFS using host based tools like Rsync, emccopy, Robocopy and isi volcopy.
* Responsible to configure Thick/Thin provisioning and FAST VP on VNX arrays.
* Created pools, NFS/CIFS, Raid groups and Fast Cache/pool on VNX.
* Implemented FAST VP and data compression for LUNS and configuring FAST cache on VNX.
* Administered VNX file-based system including creation of file systems, exporting and mounting CIFS, NFS shared and configuring network shares using UniSphere.
* Created dozens of powershell scripts to automate the various features of system administration and configuration.
* Experience on Unified Manager, nagios and splunk.

**Coach NEW JERSY, NJ June 15 – Mar 16**

**Storage Admin**

**Environment:** NetApp FAS Series, IBM XIV, SVC, Cisco MDS 9513, Windows2000/2003 VMWARE ESX Servers

**Responsibilities:**

* Responsible for managing different kinds of IBM XIV, storwize V7000, Hitachi AMS 2500 and NetApp FAS series.
* Provisioned storage and crated pools on IBM XIV Gen3.
* Zoning on IBM brocade and Cisco SAN switches.
* Troubleshooting of IBM SAN using recovery guru and analyzing event logs, ASD logs and taking backup.
* Configuration mail alerts to mail recipients for any H/W failures for IBM storage.
* Responsible includes analyzing the space in the storage array and allocating LUNS accordingly for the request from the platform team.
* Allocation of new disk in SVC as well as expanding the existing disk in SVC.
* Finding and fixing the errors in the SVC.
* Configuring the new Storage array from raw disk to usable disk by creating extent pools when required.
* Involved in the migration of disks through SVC.
* Gathering TPC reports for the disk array to monitor the I/O performance between the disk and the server.
* Worked with Brocade and IBM support in any part replacement in Fabric or in the storage.
* Configuring & maintaining the IBM storwize v7000 subsystems.
* Worked on replication between enterprise boxes, XIV, V7000 and SVC.
* Setting up for alerts for any failures in the storage arrays.
* Creating the volumes, CIFS, NFS, luns, snapshots and cloning on C-mode.
* Migrated data from 7-mode to C-mode using 7MTT.
* Extensively worked on NetApp migrations both volume and qtree level migrations.
* Configured Snapmirror between the two filers and migrated the data from one filer to another.
* Worked with Operations manager, provisioning manager, performance manager.
* Creating point snaps, clones and remote snaps assigning to hosts as per the requirement.
* Created CIFS servers, CIFS shares managed CIFS Files permissions and share permissions.
* Designing, architecting and implementing bunker and remote replication using NetApp.
* Extensively worked on Snap Mirror and Snap Vault technologies.
* Created snapshots in required intervals of time like hourly, nightly, weekly and monthly
* Backed up data for Disaster Recovery purposes using snap vault Qtree replication.
* Experience with multiple backup and recovery technologies like Cloning, Snapshots, and Disaster Recovery technology.
* Worked with snap protect software which combines NetApp snapshot copies and replication with tape in a single backup solution to improve speed and efficiency.
* Configure the Auto Support on the filers.
* Zoned the host and NetApp filers through Cisco Fabric Manager.

**Shura Technologies Pvt. Ltd, India Sep 11 – Apr 14**

**Storage Engineer**

**Environment:** EMC VNX Unified, VPLEX, NetApp FAS Series, Hitachi VSP, AMS 2500/2100, HUS 130, Brocade 3900, Cisco MDS 9513, VMWARE ESX Servers.

**Responsibilities:**

* Responsible for managing different kinds of FAS series 6080/6240/3270/30250, IBM XIV and Hitachi in **SAN/NAS** environment.
* Performed installation and implementation of NetApp FAS 3070 and FAS 6040
* Worked on both SAN and NAS environments.
* Managed and administrated Hitachi HUS 130, AMS 2500/2100.
* Installation and configuration of Hitachi Command Device Manager.
* Worked on DR replication technologies like Hitachi TC and HUR.
* Worked on ISR like Hitachi Shadow Image.
* Worked on virtualizing External Storage to Hitachi using Hitachi Universal Volume Manager and migrating data using HTSM from HCS.
* Implementing, Managing and administration NetApp 8.1 C-mode storage arrays.
* Administered tools like Filer View, Data Fabric Manager for managing the arrays
* Provisioned storage and created pools on IBM XIV Gen3.
* Integrated IBM DS 4400 and XIV storage subsystems.
* Implemented IBM’s Storage performance tool total storage productivity Center for Disk.
* IBM XIV administration through GUI and CLI.
* TSM Client server administration.
* Operated on Command System Manager which integrates NetApp Operations Manager, Provisioning Manager, and Snap Manager.
* Extensively worked on NetAppmigrations both volume and qtree level migrations. Migrated data from FAS 960 to FAS 6030. Exported the snaps to the hosts and extensively worked with filer view.
* Worked with Operationsmanager, provisioning manager, performance manager. Performed DR testing and resync and fall back on NetApp filers
* Worked on Creation of aggregates, volumes, qtrees, quota management, NFS exports and Data Migration administration.
* Creating point snaps, clones and remote snaps assigning to hosts as per the requirement.
* Created CIFS servers, CIFS shares managed CIFS Files permissions and share permissions.
* Provisioned storage to customers using both ISCSI and Fiber Channel provisioning.
* Provisioning of data for testing purposes using Snap view/Snapshots and Clones data replication
* Performed Health Check on NetApp storage using the NetApp Operation Manager.
* Responsible for replication related issues of NetApp based storage using Snapmirror.
* Backed up data for Disaster Recovery purposes using snap vault Qtree replication.
* Configured Snap View, Snapshots and Snap View Clones on CLARIION CX series sub systems.
* DecommissionedNetAppfilers by destroying all volumes, aggregates. Added the disk sanitize license to the filer for sanitizing the disks and power off the filer head and shelf as a part of decomm process.