




Vivek Sharma

 : +91 - 9650012949

 : vivisharma@gmail.com

IBM Tivoli Storage Manager (TSM) Administrator

Career Objective

Seeking assignments in the areas of TSM/Backup Administration with an organization of repute in IT sector, where there is an opportunity to share, contribute and upgrade my Technical knowledge and skills for the development of self and the organization.

Academic Qualification:

B. Tech in Electronics & Communication Engineering from Kurukshetra University, Kurukshetra, (2003-07)

Professional Synopsis

- Over 10 years of Total Experience and ~ 9 years of experience in Core Backup & Storage Administration for Clients across Multiple Geographies with IBM Tivoli Storage Manager, IBM Tape Libraries, CommVault Simpana and IBM Storage Administration.
- Presently associated with **IBM India Pvt. Ltd** as a **Team Lead – IBM Spectrum Protect (TSM)**
- Expertise on **IBM Tivoli Storage Manager** Implementation and Administration on multiple Platforms like Windows, UNIX, AIX and Linux.
- Excellent understanding of Backup architecture and Backup Operational Procedures & Processes & best practices.
- Managed Backup solutions for customers and developed winning strategies for improving technology infrastructures with special consideration given to maximizing resources and reducing costs.
- Experience on Tape libraries such as IBM 3583, TS3500 and related Storage hardware for Daily Operations and Troubleshooting Techniques.
- Working knowledge and experience in Virtual Tape Library (IBM ProtecTIER TS7650G) Operations
- Working knowledge and Experience in NDMP operation to backup and restore of NAS filer through Tivoli Storage Manager with different Retention Policy
- Expertise in Day-to-Day operations, Excellent Problem Solving skills
- Excellent communication skills and the ability to work well with Business users in a professional manner

Core Technology

Backup Tools: IBM Tivoli Storage Manager 5.X/6.X/7.1, Storage Agent, TDP SQL, LiteSpeed for SQL, TDP Exchange, TDP ORACLE, TDP for VMWare, TSM operations Center 7.1, CommVault SIMPANA 9

Server OS: - Windows Server 2003/2008 R2/2012 Enterprise, AIX 6.1/7.1, Linux

Hardware: - IBM X Series Servers, DELL PowerEdge Series Servers and IBM Power 7 Series Servers.

Tape Library: - IBM 3583, IBM TS3500. VTL- EMC Data Domain, IBM ProtecTIER TS7650G

Training & Certifications:

- IBM Spectrum Protect V8.1 Professional Certification
- IBM TSM V6.1 Administration Certified
- External Training in IBM TSM 6.X Implementation & Administration
- CommVault Simpana 9 Implementation & Administration Training & Certification
- ITIL v3 Training and certification (HCL Internal) in May 2012
- Training (HCL Internal) on VERITAS NetBackup in Sept 2012.
- C.C.N.A (640-802) Certified. Cisco ID – CSC011847837.

Work Experience:-

1. IBM India Pvt. Ltd, Gurgaon

Jan'16 – till date

Team Lead – Backup and Recovery Operations – IBM Spectrum Protect (TSM)

- **Managing TSM Enterprise environment comprising of 12 TSM servers, 12 VTLs, 4 ATLs (IBM TS3500) approximately 7000 Clients, over 50 TB nightly backup and handling over 5 Peta Bytes of backup infrastructure.**
- Ensuring Daily Health check and Performance monitoring of TSM Servers
- Installation, Configuration and Administration of TSM Servers on AIX/Windows and TSM Clients on Windows/UNIX/AIX/Linux. Defining/Extending TSM databases, Recovery Log, Storage pools, Defining and Troubleshooting Tape Storage Devices – Libraries, Tape Drives and Paths on TSM Server.
- Performed TSM Server Upgrades from 7.1.3 to &7.1.4 and 7.1.4 & 1.7
- Performed VTL (IBM ProtecTIER TS7650G) code upgrades
- Configuring TSM Server DR setup using SAN Global Mirror and Flash Copy. Preparing and performing routine TSM Server DR Tests in environment.
- Managing VTL (IBM ProtecTIER TS7650G) - define VTL Scratches & drives, Repository Space expansion and allocation to different TSM instances, VTL Replication and troubleshooting issues.
- Implemented TSM best practices to Improve TSM Server performance for Server processes, DISK I/O, Migration from DISK-VTL-ATL, Reclamation, Copy Pool Backups
- Configuring and managing NDMP Backups and restore of NAS filer through Tivoli Storage Manager with different Retention Policy
- Implementation and Administration of TDP for SQL, Exchange and Oracle. Working with Application Teams for Application Restores and ORACLE DBAs to remove Obsolete DB Backups from TSM Storage
- Handled Node Migration Projects – Migrating all Nodes, their Backups and Schedules from one TSM Server to another TSM Server
- Multiple scripts build to ensure all backup data is in 100 sync and available for DR recovery.
- Defining TSM Server-to-Server Communication. Enabling Library Sharing, Configuration of TSM Library Manger and Library Clients. Configuration of Disk Storage Pools and Tape Storage Pools Hierarchy. Adding and configuring SAN Space to DISK Pools
- Installation and configuration of Storage Agent for LAN free backups
- Defining administrative schedules and creating script at TSM Server for Administrative Operations on TSM Server for Migration, Backup Storage pools, TSM DB Backup, Volhist backup, devconfig backup, Expire Inventory process, Reclamation, Collocation.
- Library and Media Management. Identifying Tape volume errors, Restore Volumes from offsite volumes. Recycling and Auditing Library as required.
- Root cause analysis for issues pertaining to backup and recovery.
- Participating in BUR Governance meetings with Client to discuss and track progress on all ongoing TSM issues, Activities, Projects and new requirements from Client. Participating in CAB Meeting to present all TSM Changes to the Change committee for Approval

2. TATA Consultancy Services, Gurgaon

Feb'15 to Jan'16

Sr TSM Administrator (IBM Tivoli Storage Manager)

- Monitoring Daily Operations and TSM Server Health Check to ensure the Tivoli Storage Manager system is functioning properly. Examining Server Processes, TSM Server Database, Recovery Log, Storage Pools utilization, Scheduled Operations, managing Tivoli Storage Manager Tape inventory, Utilization, Migration, Tape Reclamation, Collocation, Storage Pool and TSM Database Backup. Monitor and manage library drives and paths.
- Troubleshooting for all File System, DB and CIFS Nodes backup failures/misses. Analyzing & Working on VMs (TSM for VE) Backup failures and coordinating with OS Teams so that reported errors can be addressed.
- Implementation & Administration of TDP for SQL, TDP for Exchange, TDP for Oracle and LiteSpeed for SQL.
- Implementation and Administration of Disaster Recovery Manager (DRM), TSM recovery Planning, DR restoration Drills.
- Defining TSM Server-to-Server Communication. Enabling Library Sharing, Configuration of TSM Library Manger and Library Clients. Configuration of Disk Storage Pools and Tape Storage Pools Hierarchy.
- Installation and configuration of Storage Agent for LAN free backups.
- Defining administrative schedules and creating script at TSM Server for Administrative Operations on TSM Server for Migration, Backup Storage pools, TSM DB Backup, Volhist backup, devconfig backup, Expire Inventory process, Reclamation, Collocation.

- Configuration of Policy domains, Policy Sets, Management Class, Backup Copy Group, Archive Copy group.
- Working on TSM Node commissioning/Decommissioning CTASKs. TSM Node data Export-Import. Backup Data Deletion from TSM Storage on requests from Application Teams. Working with DBAs to remove Obsolete DB Backups from TSM Storage
- Hardware/Software fault detection and vendor liaison.
- Performing Restores based on requests raised by users, working closely with DBAs/Application owners for Database Restores/Refresh Activities..
- Manage TSM Instance configuration level changes/Upgrades & Patch Management of TSM Server/Client versions through effective Change Management process. Upgrade/Downgrade of Library and Drive Firmware
- Library and Media Management. Identifying Tape volume errors, Restore Volumes from offsite volumes. Recycling and Auditing Library as required.
- Preparing Daily Backup Exception Reports as per SOX Compliance. Providing Data for quarterly SOX Audits in Account. Periodic Operational Reports on TSM backups, Restores, Change Requests, Problem Tickets and Analysis. Participating in business calls, process meeting on weekly basis to analyze and review the Change Requests, Business critical incidents.

3. HCL Technologies Ltd, Noida as Technical Specialist

March'09 to Feb'15

Backup Administrator (IBM TSM & CommVault Simpana)

- Proactively Monitoring TSM Server Health Check and taking preventive/corrective action as required ensuring the Tivoli Storage Manager system is functioning properly. Examining Server Processes, TSM Server Database, Recovery Log, Storage Pools utilization, Scheduled Operations, managing Tivoli Storage Manager Tape inventory, Utilization, Migration, Tape Reclamation, Collocation, Storage Pool and TSM Database Backup
- Daily Backup Failures/Misses Analysis & Troubleshooting. Generating Daily Backup Exception Report and sharing with stakeholders.
- Administering and managing the DRM pool of TSM. Sending Copy Pool Tapes Offsite (Vaulting) and Reclamation of Offsite Tape Volumes. DR restoration Drills
- Library and Media Management - Manage availability of Scratch volumes, check-in and check-out of Tapes. Labelling new Tape Volumes. Working on damaged/bad Tapes/Tapes stuck in Tape Drives. Audit volume, Restore volume, Auditing Library.
- Working on File Level Restores & DB Restores/Refresh requests/tickets raised by users (Application owners/DBAs/System Administrators) within the SLAs.
- Installation, Configuration and Administration of TSM Servers on AIX/Windows and TSM Clients on Windows/UNIX/AIX/Linux. Defining/Extending TSM databases, Recovery Log, Storage pools, Defining and Troubleshooting Tape Storage Devices – Libraries, Tape Drives and Paths on TSM Server.
- Defining TSM Server-to-Server Communication. Enabling Library Sharing, configuration of TSM Library Manger and Library Clients. Configuration of Disk Storage Pools and Tape Storage Pools Hierarchy.
- Installation and configuration of Storage Agent for LAN free backups.
- Implementation and Administration of TDP for SQL, Exchange and Oracle Servers.
- Defining administrative schedules and creating scripts at TSM Server for Administrative Operations on TSM Server for Migration, Backup Storage pools, TSM DB Backup, Backup of Volhist, devconfig files, Expire Inventory process, Reclamation, Collocation etc.
- Configuration of Policy domains, Policy Sets, Management Class, Backup Copy Group, Archive Copy group with required retention parameters as per Business/Customer requirement. Registering and managing Nodes - Associating a node with a Schedule, Locking/unlocking the node, reset node password, creating Client schedules for backup, configuring TSM schedulers and updating schedules for Client data backup. Binding of Client's data to required management class as per requirement.
- Hardware/Software fault detection and Vendor coordination.
- Manage TSM Instance configuration level changes & Patch Management of TSM Server/Client versions through effective Change Management process. Upgrade/Downgrade of Library and Drive Firmware
- Configuring and Allocation/de-allocation of Storage. Enable/Disable SAN Mirroring. Upgradation of the FOS version of Production SAN Brocade switches.

Onsite Roles:

HCL Great Britain (UK)

Nov'10 to Dec'10

- Media Management i.e. Vaulting, Inserting/Ejecting Tapes into/from Library Slots.
- Single point of contact for Vendor Co-ordination in case of hardware issues (Library hardware/Homing Picker failure, Tape Drive Crash, Power Supply Failure and Hard Disk Failure).

4. Sept'08 to March'09 with Convergys India Services Private Ltd as Technical Support Officer

- Providing technical Support for a US ISP - AT&T at end user level, providing resolution to users regarding any Local Area Network access related issue within defined area of support. Troubleshooting for all errors related to connectivity - No surf, No route, slow speed etc.
- Configuring Dialers, Email-clients (Microsoft Outlook Express, Windows Mail and resolving all relevant errors.
- Personal WebPages configuration. Configuring and troubleshooting of email clients like Microsoft Outlook Express, Windows Live. Portal and Software configuration. Installation/uninstallation and troubleshooting of Antivirus Softwares.

5. Sept'07 to Sept'08 with Wipro Ltd as Technical Support Associate

- Providing Level 2 Technical Support for a US ISP – Verizon. Supporting end user computers in a networked environment.
- Troubleshooting Local Area Network access issues within defined area of support. Worked on tools like NxTT for running line tests between CPE and Exchange to isolate issues between no sync and no route. Also worked on remote access tools like GTA (Go to Assist) for troubleshooting/ installation/ configuration on user's machine remotely. Arranging for a Dispatch Technician as and when required.
- Installing/configuring Modems & Routers (Linksys, Netgear, Belkin, and D-Link), upgrading modem GUIs as and when required. Configuration and troubleshooting Wireless (Local Area Network). Configuring and troubleshooting of email clients like Microsoft Outlook Express, Windows Live. Portal and Software configuration. Installation/uninstallation and troubleshooting of Antivirus Softwares.

Awards & Recognitions:

- Awarded with Silver Club Membership as a part of the Comnet Jewel Community in HCL.
- Got the award for the Best Performer in the Backup & Restore Team in R&R in HCL.
- Awarded with the O4 Trophy (Outstanding Performer for 4 consecutive years) in HCL

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