SAN COURSE CONTENT

STORAGE FUNDAMENTALS

- Introduction to information storage
- Data center environment
- Intelligent storage systems & components of storage system
- Raid concepts
- Storage protocols and topologies
- Direct attached storage (das)
- Network attached storage (nas)

Storage area network (SAN)

- Difference between san & nas
- FC san & IP san technologies
- Introduction to fiber channel and how it works in san
- FC layers &fabric port types
- Fiber connectors, cables & FC well-known addresses.
- FC topologies & terminology
- Architecture of a storage subsystem
- Storage management softwares
- Multi pathing softwares
- Storage virtualization
- Storage tiering
- Introduction to business continuity management.
- Backup and archive
- Local replication and remote replication
- Cloud computing
- Securing and managing storage infrastructure

Brocade & cisco switch management

- Introduction to brocade and cisco switches and various models
- Installation of new switches
- Switch firmware upgrade
- User account management
- Fabric-wide settings & local switch settings.
- Zoning & types of zoning
- Creating device alias.
- Device and fabric manger management
- Generating reports

- Monitoring switch logs
- Inter switch linking (ISL) and trunking

Emc clariion

- Introduction to emc clariion cx series architecture
- Clariion features
- Clariion management utilities (navi sphere manager, navicli)
- Clariion storage provisioning
- Traditional (raid groups) and thin (thin pools) provisioning
- Solaris and windows integration
- Access logix
- Power path
- Snap view snapshots
- Snap view clones
- Mirror view configuration & management
- Sancopy configuration & management.
- Advanced LUN management
- Lun migration
- Data migration
- Event monitor
- Navisphere analyzer

EMC VNX

- Introduction to unified storage & VNX.
- VNX management utilities (unisphere & CLI environment)
- Basic architecture of VNX and VNXE series
- VNX models and features
- VNX basic components
- VNX modular architecture
- DAE and drive options for VNX series
- VNX features
- VNX software and their components
- VNX storage provisioning
- Thin provisioning in VNX

EMC SYMMETRIX (DMX AND VMAX)

- Introduction to symmetric DMX and VMAX series
- DMX and VMAX storage architecture
- Differences between DMX and VMAX storage systems

- DMX director pairing and rule 17

FA, DA & CACHE CONCEPTS

- Symmetrix mirror positions
- Symmetrix device attributes
- Dynamic LUN addressing
- Symmetrix management software
- Symmetrix solutions enabler (symcli)
- Symmetrix management console (SMC)
- Emc control center (ECC)
- Configuration manager
- Symmetrix storage provisioning
- Symmetrix device creation/deletion
- Forming & dissolving Meta devices
- Mapping & unmapping
- Masking & unmasking
- Symmetrix thin provisioning
- Monitoring thin pools
- VMAX auto provisioning groups
- VMAX fully automated storage tiering (fast & fast VP)
- Virtual LUN migration
- Time finder configuration and management
- Mirror/BCV
- Clone
- Snap
- SRDF overview and concepts
- SRDF configuration and management
- SRDF synchronous operations
- R1/r2 device pairs creations using configuration manager
- Dynamic SRDF pairing