

# CompTIA Cloud+, Part 2 of 8: Data Storage and Networking

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**Meet the expert:** Patrick Loner has certifications for MCSA, MCSE, MCITP, A+, Network+, Security+, and more. He has been working as a Microsoft Certified Trainer, network administrator, and network consultant for over ten years. He has over a decade of experience working with and teaching about Windows networks with client and server operating systems. He has guided many students toward Microsoft and CompTIA certifications. Most recently, he has worked as a freelance trainer and network consultant specializing in Windows Server 2008 and Microsoft Exchange 2007 and Exchange 2010 implementations, design, and upgrades. Patrick continues to branch out now working with and training on Windows Server 2012, Windows 8, Exchange 2013, and System Center Configuration Manager 2012.

**Prerequisites:** There are no Prerequisites for this course.

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**Course description:** Uncover the very foundation of a cloud computing environment: data storage and storage networking. Part of the fabric, the underlying framework on which cloud computing models are built, the fundamentals of storage including disk types, configurations, RAID levels, and redundancy implementation will be examined. With regard to storage networking, this course will discuss the two primary access technologies available, Channel and iSCSI, and help guide you in determining which is the best given a set of business requirements.

## Course outline:

### Disk Types and Configurations

- Introduction
- Disk Types and Configurations
- Hard Disk Drive
- Interface Types
- Advantages and Disadvantages
- Access Speed
- Solid State Drive
- SSD Advantages and Disadvantages
- SSD vs. HDD
- USB Drives
- Tape
- Tiering
- Policies
- Summary

### Understanding RAID

- Introduction
- Understanding RAID
- RAID
- RAID 1
- RAID 0
- RAID 1+0
- RAID 5
- RAID 6
- Summary

### Examining File Systems

- Introduction
- Examining File Systems
- Unix File System

- EXT and FAT

- NTFS
- VMFS
- ZFS
- Summary

### Storage Technologies

- Introduction
- Storage Technologies
- DAS
- NAS
- SAN
- Summary

### Accessing Storage

- Introduction
- Accessing Storage
- Fibre Channel
- Network Topologies
- Internet SCSI (iSCSI)
- Summary

### Provisioning Storage

- Introduction
- Provisioning Storage
- Logical Unit Numbers (LUN)
- Network Shares
- Zoning and LUN Masking
- Summary