



Australian Government

Assessment Requirements for ICTNWK617 Configure and manage a storage area network

Release: 1

Assessment Requirements for ICTNWK617 Configure and manage a storage area network

Modification History

Release	Comments
Release 1	This version first released with ICT Information and Communications Technology Training Package Version 2.0.

Performance Evidence

Evidence of the ability to:

- determine and document the specifications for a Storage Area network (SAN) solution
- select the appropriate SAN solution to meet the client requirements
- document and design a SAN solution that includes backup, security and redundancy
- install and configure a storage cluster, either physically or in a simulated/virtualised environment
- configure network settings to facilitate management of a SAN
- verify and troubleshoot network connectivity
- configure network protocols to facilitate storage access via a client/server environment
- provision shared storage using suitable protocols
- configure and use advanced SAN features if available
- monitor and report on capacity utilization
- resize existing storage to increase the size of existing datastores
- create new datastores utilising capacity on a storage system.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- describe the function and applications of the following network protocols:
 - common internet file system CIFS
 - sever message block (SMB)
 - network file system (NFS)
 - internet small computer system interface (iSCSI)
 - fibre channel (FC)

- fibre channel over Ethernet (FCOE)
- describe the advanced SAN features including:
 - snapshots
 - data deduplication
 - flexible volumes
 - replication
 - backup and restore
- describe the advantages and disadvantages of storage area networks (SAN) versus direct attached storage (DAS) devices
- identify and describe common hard drive types including:
 - serial attached SCSI (small computer system interface) -SAS
 - serial ATA (SATA)
 - solid state disk (SSD)
- identify and describe common network cable types and connectors
- outline the common network topologies
- describe the implementation and configuration of SANs
- recognise and describe redundant array of independent disks (RAID) configurations and state their application in data storage
- describe which features of advanced storage systems can be applied in server and/or virtualized environments
- describe the functional and interconnection relationship between storage systems and servers in server and/or virtualized environments
- describe how storage systems can protect against data storage failures and the functional process for recovering data.

Assessment Conditions

Gather evidence to demonstrate consistent performance in conditions that are safe and replicate the workplace. Noise levels, production flow, interruptions and time variances must be typical of those experienced in the networking field of work and include access to:

- site or prototype where a storage area network may be implemented
- storage area network appliance or simulated appliance
- network technical requirements
- appropriate software.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a53af4e4-b400-484e-b778-71c9e9d6aff2>

