



Australian Government

ICTNWK552 Install and configure network access storage devices

Release: 1

ICTNWK552 Install and configure network access storage devices

Modification History

Release	Comments
Release 1	This version first released with ICT Information and Communications Technology Training Package Version 6.0.

Application

This unit describes the skills and knowledge required to select, install and test a network access storage (NAS) device in a local area network (LAN).

It applies to individuals who work in roles that involve installing, configuring and testing NAS devices in the workplace environment.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Networking

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Determine NAS specifications	1.1 Determine and document topology of local area network (LAN) according to organisational requirements 1.2 Determine current and future organisational storage requirements 1.3 Determine number and type of required NAS devices according to organisational requirements 1.4 Determine requirements for network management, backup, security and redundancy
2. Select hardware and software	2.1 Select required hardware according to organisational requirements and technical specifications 2.2 Select required operating system software version according to organisational requirements and technical specifications 2.3 Select required storage applications according to technical

ELEMENT	PERFORMANCE CRITERIA
	specifications
3. Install hardware and software	3.1 Install required level of Redundant Array of Independent Disks (RAID) hardware and software 3.2 Install hard disks according to manufacturer specifications 3.3 Install operating system software according to manufacturer specifications 3.4 Connect required network media according to manufacturer specifications 3.5 Test functionality of hardware and software according to technical specifications
4. Configure NAS	4.1 Configure required network address and hostname 4.2 Establish and test required network connection with other LAN devices 4.3 Configure hard disks according to RAID requirements and format with required file system 4.4 Configure access and security according to application and organisational requirements
5. Test and troubleshoot NAS	5.1 Test NAS according to manufacturer and organisational requirements 5.2 Test access and response times aligned to required applications, users and organisational requirements 5.3 Make required adjustments to configuration according to organisational requirements 5.4 Document finalised process and outcomes and submit to required personnel

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

SKILL	DESCRIPTION
Learning	Monitors outcomes of decisions, considering results and identifying key concepts and principles that may be adaptable in the future
Numeracy	Uses mathematical formulae to calculate required equipment, undertake measurements and determine response times
Reading	Recognises and interprets technical, manufacturer and organisational documentation to determine and confirm job requirements

SKILL	DESCRIPTION
Writing	Develops a range of workplace documentation for a specific audience, using clear and detailed language to convey explicit information, requirements and recommendations
Planning and organising	Operates from a broad conceptual plan, developing the operational detail in stages, regularly reviewing priorities and performance during implementation and identifying and addressing issues
Problem solving	Uses nuanced knowledge of context to recognise anomalies and subtle deviations to normal expectations, focussing attention and remedying problems as they arise
Self-management	Takes full responsibility for identifying and considering required organisational protocols and requirements
Technology	Identifies and applies complex concepts, language and practices associated with the digital world

Unit Mapping Information

Supersedes and is equivalent to ICTNWK524 Install and configure network access storage devices.

Links

Companion Volume Implementation Guide is found on VETNet -

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

Assessment Requirements for ICTNWK552 Install and configure network access storage devices

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Performance Evidence

The candidate must demonstrate the ability to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including evidence of the ability to:

- determine specifications, install, configure and test at least three network access storage devices on at least one occasion.

In the course of the above, the candidate must:

- troubleshoot performance issues where required
- document finalised outcomes.

Knowledge Evidence

The candidate must be able to demonstrate knowledge to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including knowledge of:

- advantages and disadvantages of NAS versus direct attached storage (DAS) devices
- legislative, regulatory, standards and codes of practice related to NAS
- industry standard hard drive types and connectors
- industry standard network cable types and connectors
- common network topologies
- process for implementation and configuration of networks
- redundant array of independent disks (RAID) configurations and their application in data storage.

Assessment Conditions

Skills in this unit must be demonstrated in a workplace or simulated environment where the conditions are typical of those in a working environment in this industry.

This includes access to:

- a NAS device and basic components to build a NAS including:

- industry standard personal computer
- industry standard operating system
- hard disk and network connection
- network devices
- workstations and servers
- cabling access points and a wireless access point.

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

Links

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