



Australian Government

ICTNWK524 Install and configure network access storage devices

Release: 1

ICTNWK524 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 1.0.

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 install, configure and test a NAS device.

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 specifications for NAS	1.1 Determine and document the topology of the local area network (LAN) 1.2 Investigate and determine current and future storage requirements according to current and future business needs 1.3 Determine the number and type of NAS devices required, and refer to current and future network requirements 1.4 Determine the requirements for network management, backup, security and redundancy according to organisational policy
2. Select appropriate hardware and software	2.1 Select the hardware and operating system software version with the appropriate features according to required specifications

ELEMENT	PERFORMANCE CRITERIA
	2.2 Choose storage applications to determine access and response times
3. Install hardware and software	3.1 Install required level of RAID hardware or software 3.2 Install hard disks as specified by manufacturer instructions 3.3 Install operating system software according to manufacturer instructions 3.4 Connect to network media using media that meets required standard 3.5 Connect power, power it up and check operation
4. Configure NAS	4.1 Configure a network address and hostname 4.2 Establish and test a valid network connection with other LAN devices 4.3 Configure hard disks according to RAID requirements and format with appropriate 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 requirements and organisational guidelines 5.2 Ensure access and response times are acceptable to required applications, users and organisational policy 5.3 Make adjustments to the configuration, depending on test and troubleshooting results

Foundation Skills

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

Skill	Performance Criteria	Description
Reading	1.2, 1.4, 2.1, 3.2, 3.3, 4.4, 5.1, 5.2	Recognises and interprets technical, manufacturer and organisational documentation to determine and confirm job requirements
Writing	1.1, 4.1	Develops a range of workplace documentation for a specific audience, using clear and detailed language to convey explicit information, requirements and

		recommendations
Numeracy	1.2, 1.3, 5.2	• Uses mathematical formulae to calculate required equipment, undertake measurements and determine response times
Navigate the world of work	1.4, 3.4, 5.1, 5.2	• Takes full responsibility for identifying and considering relevant organisational protocols and requirements
Get the work done	1.1-3, 2.1, 2.2, 3.1-3.5, 4.1-4.4, 5.2, 5.3	• Demonstrates a sophisticated understanding of principles, concepts, language and practices associated with the digital world • May operate from a broad conceptual plan, developing the operational detail in stages, regularly reviewing priorities and performance during implementation, and identifying and addressing issues • Monitors outcomes of decisions, considering results and identifying key concepts and principles that may be adaptable in the future • Uses nuanced understanding of context to recognise anomalies and subtle deviations to normal expectations, focussing attention and remedying problems as they arise

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICTNWK524 Install and configure network access storage devices	ICANWK524A Install and configure network access storage devices	Updated to meet Standards for Training Packages	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet -

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

Assessment Requirements for ICTNWK524 Install and configure network access storage devices

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Performance Evidence

Evidence of the ability to:

- determine the specifications for a network access storage (NAS)
- select the appropriate hardware and software requirements
- install a network access storage (NAS) device without interruption to other local area network (LAN) services
- configure LAN services accessing the NAS to allow user-less intervention for normal operation
- test and resolve configuration problems.

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 advantages and disadvantages of NAS versus direct attached storage (DAS) devices
- identify and summarise the legislative, regulatory, standards and codes of practice related to NAS
- Identify and describe common hard drive types and connectors
- identify and describe common network cable types and connectors
- outline the common network topologies
- describe the implementation and configuration of networks
- recognise and describe redundant array of independent disks (RAID) configurations and state their application in data storage.

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 network industry, and include access to:

- a NAS device or basic components to build a NAS, such as personal computer, operating system, hard disk, and network connection
- network devices, such as switches and routers
- workstations and servers
- cabling access points and a wireless access point.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

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