



Australian Government

ICTNWK422 Install and manage servers

Release: 1

ICTNWK422 Install and manage servers

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 install and manage a server. It includes the ability to conduct initial configuration and testing, administration, software distribution and updates, profiling and troubleshooting.

It applies to individuals with Information and Communications Technology (ICT) skills, involved in network management, server administration and similar roles.

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. Prepare to install a server	1.1 Identify required server applications and features according to organisational requirements 1.2 Determine required operating system features and network service outputs according to task requirements 1.3 Access and back up local data according to organisational policies and procedures 1.4 Arrange access to site and advise users of deployment and down time expectations
2. Install server	2.1 Create disk partitioning scheme, file systems and virtual memory according to business needs 2.2 Install and configure network operating system, server applications and network services according to task

ELEMENT	PERFORMANCE CRITERIA
	requirements 2.3 Reconnect and reconfigure connectivity devices 2.4 Patch operating system and applications, restore security and reliability requirements 2.5 Restore local data to new server according to organisational requirements
3. Configure and administer the server	3.1 Configure network directory service according to organisational requirements, policies and procedures 3.2 Create and manage security and network access to users according to organisational requirements 3.3 Configure user environment using operating system policies and scripts 3.4 Create directory structure and quotas according to organisational requirements
4. Test server	4.1 Test server against task requirements 4.2 Seek and respond to feedback on server performance from required personnel 4.3 Test and validate any changes or additions against organisational requirements
5. Finalise documentation and clean-up worksite	5.1 Document configuration and operational changes made to server according to organisational policies and procedures 5.2 Document server status according to organisational procedures 5.3 Dispose of excess equipment according to organisational and e-waste policies

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria.

SKILL	DESCRIPTION
Learning	Keeps up to date with organisational and e-waste recycling policies and procedures relevant to own rights and responsibilities
Numeracy	Identifies and interprets numerical data associated with devices, networks, servers and component specifications
Oral communication	Uses listening and questioning techniques to confirm information and requirements and gather feedback

SKILL	DESCRIPTION
Reading	Identifies, interprets and analyses online and hard copy documentation containing complex ICT related terminology, acronyms and concepts
Writing	Prepares required documentation conveying explicit recommendations, requirements and information using specific and relevant language
Planning and organising	Uses organisational policies and procedures in context when negotiating, planning and undertaking work
Problem solving	Responds intuitively to problems requiring immediate attention, quickly drawing on experience to devise solutions
Technology	Identifies purpose, needs and limitations when selecting devices and applications for different tasks

Unit Mapping Information

Supersedes and is equivalent to ICTNWK401 Install and manage a server.

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 ICTNWK422 Install and manage servers

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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:

- install and manage at least one server
- document and lodge outcomes and process.

In the course of the above, the candidate must:

- manage server operating system, including user accounts, file, network directory and print services
- perform backup and recovery
- update operating system and software
- troubleshoot server and network failures.

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:

- industry standard network hardware and software systems and their requirements, including:
 - network operating systems (NOS)
 - server applications including compatibility issues and resolution procedures
- desktop applications and operating systematic server installation and maintenance processes and procedures, including:
 - documentation skills for networks
 - error logging and reporting
- high availability options for file systems, including redundant array of independent disks (RAID) and replication
- network directory services and network service configuration options for performance tuning user authentication

- processes and procedures required to support and manage a server, including:
 - best practice for implementing backup and recovery procedures
 - boot process
 - operating system help and support utilities
 - operating system installation methods, including installation from CD or DVD, universal serial bus (USB) boot disk, network and script (automated install) printer management
- process and task management, including:
 - process termination
 - task scheduling utilities
- troubleshooting tools and techniques including:
 - network diagnostic utilities user account and password management.

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 site where server installation may be conducted
- relevant server specifications including:
 - cabling
 - local area networked (LAN) computers
 - server diagnostic software
 - switch
- client requirements
- wide area network (WAN) service point of presence
- workstations
- relevant regulatory documentation that affects installation activities.

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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