



Australian Government

ICTNWK557 Configure and manage advanced virtual computing environments

Release: 1

ICTNWK557 Configure and manage advanced virtual computing environments

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 configure and manage advanced virtual computing environments and to provide a more efficient and reliable Information and Communications Technology (ICT) environment.

It applies to senior networking staff who are responsible for increasing the sustainability of an organisation.

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. Configure and manage core virtual networks	1.1 Plan and design a virtual network according to organisational requirements 1.2 Configure virtual local area networks (VLANs) and required security and virtual switch (vSwitch) ports 1.3 Implement required security policies, traffic-shaping and network interface controller (NIC) teaming 1.4 Manage required distributed vSwitch connections, vSwitch physical and vSwitch storage adapter connections 1.5 Configure and manage required multiple networks according to organisational requirements

ELEMENT	PERFORMANCE CRITERIA
2. Configure and manage core infrastructure storage and services	2.1 Obtain vendor provided virtualisation software technical storage specifications and system requirements 2.2 Plan, design and document core infrastructure storage environment according to organisational requirements 2.3 Create, configure, manage and secure virtual storage connection according to technical specifications 2.4 Install and test local and shared data store, data store clusters and resource pools according to technical specifications 2.5 Configure required provisioning services and templates according to organisational requirements and technical specifications
3. Secure virtual environment	3.1 Plan and document administrative strategies according to organisational requirements 3.2 Configure required user roles and administer virtual environment according to organisational requirements and technical specifications 3.3 Set up and secure required user privileges and permissions 3.4 Submit documents to required personnel, seek and respond to feedback

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 the progress of plans and schedules and reviews and changes them, to meet new demands and priorities • Investigates new and innovative ideas as a means by which to continuously improve work practices and processes through consultation, formal and analytical thinking
Oral communication	• Articulates requirements and responsibilities clearly and distinctively, using industry standard technical language intended for audience and environment
Reading	• Draws on strategies, in order to build and maintain knowledge throughout complex texts
Writing	• Prepares documentation that expresses ideas, explores complex issues and is constructed logically, succinctly and accurately

SKILL	DESCRIPTION
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	- Makes critical decisions quickly and intuitively in complex situations, taking into consideration a range of variables and previous decisions - Applies systematic and analytical decision-making processes for complex and non-routine situations
Self-management	Modifies or develops organisational policies and procedures, to comply with legislative requirements and the organisation's goals
Technology	Uses and investigates, new digital technologies and applications to manage and manipulate data and to communicate effectively with others, in a secure and stable digital environment

Unit Mapping Information

Supersedes and is equivalent to ICTNWK533 Configure and manage advanced virtual computing environments.

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 ICTNWK557 Configure and manage advanced virtual computing environments

Modification History

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

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:

- plan, design and configure a medium-size virtual network.

In the course of the above, the candidate must:

- document finalised plans and processes.

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:

- government and industry policies and guidelines, relating to the development of efficient and reliable, Information and Communications Technology (ICT) environments
- industry standards technologies and processes, designed to produce an efficient and reliable ICT environment
- structure, functions and business organisation of the client
- benefits and costs of virtualisation
- procedures and processes for planning, designing and securing virtual environments
- design and configuration of industry standard tools and software applications required to manage virtual machines
- configuration required to integrate virtual machines into the existing network design
- configuration and management of industry standard storage infrastructure.

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 or prototype, where virtual machine environments may be implemented
- network technical requirements
- a range of suitable 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 Guide is found on VETNet -

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