



Australian Government

ICTNWK533 Configure and manage advanced virtual computing environments

Release: 1

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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 configure and manage, advanced virtual computing environments to provide a more efficient and reliable information and communications technology (ICT) environment.

It applies to senior networking staff responsible for increasing the sustainability of an enterprise.

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 the virtual network, according to enterprise requirements 1.2 Configure virtual local area networks (VLANs) and security, and virtual switch (vSwitch) ports 1.3 Implement security policies, traffic-shaping and network interface controller (NIC) teaming 1.4 Manage distributed vSwitch connections, vSwitch physical and vSwitch storage adapter connections 1.5 Configure and manage multiple networks

ELEMENT	PERFORMANCE CRITERIA
2. Configure and manage core infrastructure storage and services	2.1 Obtain the technical storage specifications and system requirements, from the virtualisation software vendors 2.2 Plan and design, the core infrastructure storage environment 2.3 Create, configure and secure the virtual storage connection 2.4 Manage and secure the virtual storage connection 2.5 Install and manage the local and shared data store, including the data store clusters and resource pools 2.6 Configure and manage provisioning services and templates
3. Secure virtual environment	3.1 Plan and design the administrative strategies 3.2 Configure the user roles to administer the virtual environment 3.3 Set up user privileges and permissions, according to the enterprise environment

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	1.1, 2.1, 3.1	Draws on a broad range of strategies, in order to build and maintain understanding throughout complex texts
Writing	1.1, 2.2, 3.1	Prepares documentation that expresses ideas, explores complex issues, and is constructed logically, succinctly and accurately
Navigate the world of work	1.1, 1.3, 3.3	Modifies or develops organisational policies and procedures, to comply with legislative requirements and the organisation's goals
Get the work done	All	- Monitors the progress of plans and schedules, and reviews, and changes them, to meet new demands and priorities - Makes critical decisions quickly and intuitively in complex situations, taking into consideration a range of variables, including outcomes of previous decisions - Investigates new and innovative ideas as a means by which to continuously improve work practices and

		processes through consultation, formal and analytical thinking • Applies systematic and analytical decision- making processes for complex and non-routine situations • 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
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Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICTNWK533 Configure and manage advanced virtual computing environments	ICANWK533A Configure and manage advanced virtual computing environments	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 ICTNWK533 Configure and manage advanced virtual computing environments

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Performance Evidence

Evidence of the ability to:

- plan and design a virtual network, using the available advanced technologies
- configure the virtual network's security and storage requirements
- manage and administer the virtual network at an advanced level.

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:

- define current government and industry policies, and guidelines, relating to the development of efficient and reliable, information and communications technology (ICT) environments
- determine the current technologies, and processes, designed to produce an efficient and reliable ICT environment
- describe the structure, functions, and business organisation of the client
- identify the benefits and costs of virtualisation
- summarise the procedures and processes for planning, designing and securing virtual environments
- specify the design, and configuration, of the available tools and software applications required to manage virtual machines
- specify the configuration required to integrate virtual machines into the existing network design
- describe the configuration and management of the storage infrastructure.

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 site or prototype, where virtual machine environments may be implemented
- the network's technical requirements
- a range of suitable software.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

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