



Australian Government

ICTNWK554 Manage enterprise virtual computing environments

Release: 1

ICTNWK554 Manage enterprise 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 manage virtualisation technologies, with the goal of enhancing sustainable Information and Communications Technology (ICT) environments.

It applies to individuals who work in ICT roles where they are responsible for managing virtualisation technologies.

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 manage resources	1.1 Analyse environment and determine organisational virtual computing environment outcome requirements 1.2 Test, verify and document required functionality of virtual environment 1.3 Determine virtual environment maintenance and upgrades according to organisational requirements and technical specifications 1.4 Implement required upgrades and maintenance and restore to organisational requirements
2. Manage virtual machines	2.1 Convert physical machine to a virtual machine 2.2 Select virtual machine deployment methods according to organisational requirements

ELEMENT	PERFORMANCE CRITERIA
	2.3 Create and deploy virtual machine and use installation media and automated templates 2.4 Deploy virtual machine snapshots and reverse and implement virtual machine changes according to organisational requirements
3. Confirm high availability	3.1 Plan and design high availability strategy according to organisational requirements 3.2 Identify required high availability implementation resources according to organisational and technical requirements 3.3 Implement and configure virtual machine environment and confirm high availability and live migration
4. Backup virtual environment	4.1 Plan and document backup strategy according to organisational and technical requirements 4.2 Backup and recover virtual machine and use required integrating third-party tools 4.3 Document backup and recovery outcomes and submit to required personnel 4.4 Seek and respond to feedback from 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 the outcomes of decisions, considering the results from a range of perspectives and identifying key concepts and principles that may be adaptable in the future
Oral communication	Uses listening and questioning techniques to confirm knowledge of requirements to articulate and present complex concepts to the client
Reading	Gathers, interprets and analyses technical and organisational data to determine requirements, according to client needs
Writing	- Prepares documentation that expresses ideas and explores complex issues and is constructed logically, succinctly and accurately - Writes and edits computer code and technical data, ensuring the correct syntax and accuracy
Planning and organising	Operates from a broad conceptual plan, developing operational detail in stages and regularly reviewing priorities and performance, during implementation and identifying and addressing any issues

SKILL	DESCRIPTION
Problem solving	Recognises anomalies and subtle deviations to normal expectations, focusing attention and quickly remedying any problems as they arise
Self-management	Takes full responsibility for identifying and considering, the required policies and legislative requirements in the management of an enterprise's virtual computing environment
Technology	Identifies and applies complex principles, concepts, language and practices associated with the digital world and understands the uses and potential, of new technology

Unit Mapping Information

Supersedes and is equivalent to ICTNWK527 Manage an enterprise virtual computing environment.

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 ICTNWK554 Manage enterprise virtual computing environments

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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:

- create, deploy, back up and recover virtual machines on at least one occasion.

In the course of the above, the candidate must:

- document plans and 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:

- government and industry policies and guidelines, in relation to development of sustainable Information and Communications Technology (ICT) environments
- industry standard and current technologies and processes designed to produce a sustainable ICT environment
- structure, functions and business organisation of organisation
- application and deployment of virtual machine management tools
- virtual machine configuration and integration options.

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
- industry standard technical specifications
- required hardware and software.

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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