



Australian Government

ICANWK419A Identify and use current virtualisation technologies

Release 1

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Modification History

Release	Comments
Release 1	This version first released with ICA11 Information and Communications Technology Version 2.

Unit Descriptor

This unit describes the performance outcomes, skills and knowledge required to use virtualisation technology in line with identified industry standards. The unit emphasises the importance of constantly reviewing and demonstrating work processes, skills and techniques to ensure that the quality of the entire business process is maintained at the highest level possible through the appropriate application of virtualisation technology.

Application of the Unit

This unit applies to those engaged in ongoing review and research in order to identify and apply industry technologies or techniques to improve aspects of the enterprise's activities.

Licensing/Regulatory Information

Users should confirm licensing, legislative, regulatory, or certification requirements with the relevant federal, state or territory authority.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

ELEMENTS	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes of a unit of competency.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.</i>

Elements and Performance Criteria

1. Prepare to use virtualisation technologies	1.1. Identify enterprise requirements and determine the need for desktop virtualisation software 1.2. Identify virtualisation vendors and the different types of virtualisation technology they offer 1.3. Identify, review and select desktop virtualisation software where appropriate 1.4. Select suitable desktop virtualisation software
2. Use desktop virtualisation software to assist in solving organisational problems	2.1. Test desktop virtualisation software 2.2. Use features and functions of desktop virtualisation software in an organisational context, in line with environmental factors 2.3. Demonstrate depth of knowledge of the desktop virtualisation technologies to an accepted industry standard 2.4. Access and use sources of information relating to the desktop virtualisation technology
3. Evaluate desktop virtualisation software performance	3.1. Review the effect of desktop virtualisation software on the benefits to the enterprise 3.2. Seek feedback from users, where appropriate, and update desktop

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills

research skills to locate appropriate sources of information regarding virtualisation technology

- communication skills to:
 - communicate with peers and supervisors
 - seek assistance and expert advice
 - seek feedback from users
- literacy skills to interpret technical documentation, equipment manuals and specifications
- safety awareness skills to work systematically with required attention to detail without injury to self or others, or damage to goods or equipment
- technical skills to:
 - identify features of virtualisation technology
 - test and evaluate virtualisation technology
 - use virtualisation technology

Required knowledge

- current technology trends and directions in information and communications technology (ICT), specifically in the major industry technology standards used in virtualisation technology
- vendor product directions relating to virtualisation technology
- current industry hardware and software products and their general features, capabilities and application
- information-gathering techniques
- environmental and sustainability policies of own workplace

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Evidence of the ability to: • identify current new and emerging virtualisation technology • identify and use features and functions of industry-specific virtualisation technologies.
Context of and specific resources for assessment	Assessment must ensure access to: • site where industry-specific technologies may be used • industry-specific technologies currently used in industry • documents detailing work health and safety (WHS) standards, environmental guidelines and enterprise requirements • appropriate learning and assessment support when required • modified equipment for people with special needs.
Method of assessment	A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit: • verbal or written questioning to assess candidate's knowledge of features and functions of industry-specific virtualisation technologies • direct observation of candidate using industry-specific technologies • simulation of industry-specific uses of the industry specific technologies.
Guidance information for assessment	Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, where appropriate. Assessment processes and techniques must be culturally appropriate, and suitable to the communication skill level, language, literacy and numeracy capacity of the candidate and the work being performed. Indigenous people and other people from a non-English speaking background may need additional support. In cases where practical assessment is used it should be combined with targeted questioning to assess required

	knowledge.
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Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Desktop virtualisation software may include:	• Elasticity • Hyper V (Microsoft) • KVM • measured usage • Microsoft Virtual PC • multi-tenancy • Parallels Desktop for Mac • resilient computing • Sun Virtual Box • VMware fusion (Mac) • VMware player • VMware workstation.
Virtualisation vendors may include:	• Citrix • Microsoft • Oracle • Parallels • Proxmox • Red Hat • Virtual Bridges • VMware.
Virtualisation technology may include:	• application virtualisation • data virtualisation • desktop virtualisation • network virtualisation • server virtualisation • storage virtualisation.
Environmental factors may include:	• correct disposal by an authorised body of redundant hardware • energy efficient consumption • green technology • recycling.
Sources of information may include:	• appliance software and technical connections guidance and other outputs supplied by vendors • documents • test pages • web pages.

Feedback may include:	• interviews • meetings.
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Unit Sector(s)

Networking