



Australian Government

ICANWK615A Design and configure desktop virtualisation

Release 1

ICANWK615A Design and configure desktop virtualisation

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 design and configure desktop virtualisation technologies to support an enterprise implementing a virtualisation business solution.

Application of the Unit

This unit applies to senior networking staff responsible for increasing the sustainability of an enterprise by using desktop virtualisation technologies.

Licensing/Regulatory Information

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement but users should confirm 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 design specifications and plan to implement enterprise desktop environments	1.1. Research available desktop virtualisation software vendors 1.2. Evaluate desktop virtualisation environment 1.3. Analyse and compare features and components of desktop virtualisation environment 1.4. Identify desktop-specific design objectives, requirements and limitations 1.5. Document design infrastructure according to enterprise requirements 1.6. Plan the implementation and deployment using the recommended design
2. Implement and configure desktop virtualisation infrastructure and services	2.1. Assess desktop virtualisation software and analyse its relevance to enterprise requirements 2.2. Install and configure desktop virtualisation environment 2.3. Implement specific features and functions to provide suitable solution to identified problems 2.4. Implement and manage the testing process 2.5. Demonstrate depth of knowledge in enabling desktop virtualisation to an accepted industry standard
3. Implement application virtualisation	3.1. Plan the implementation and deployment of application virtualisation software 3.2. Configure and test application virtualisation system components 3.3. Maintain, update and tune system components

Required Skills and Knowledge

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

Required skills

communication skills to liaise with internal and external personnel on technical, operational and business-related matters

- literacy skills to:
 - interpret technical documentation
 - write reports as required
- numeracy skills to:
 - evaluate performance and interoperability of network
 - take test measurements and interpret results
- planning and organisational skills to:
 - coordinate the configuration process in liaison with others
 - plan, prioritise and monitor own work
- problem-solving and contingency-management skills to:
 - adapt configuration procedures to requirements of network
 - reconfigure depending on differing operational contingencies, risk situations and environments
 - troubleshoot virtual software components
 - apply solutions in networks, including virtualised desktop environments
 - deploy rapid solutions to problems involving virtualised desktop environment
- technical skills to:
 - apply current best practice to implementing sustainability options through virtualisation methodologies and technologies
 - assess and implement virtualisation requirements
 - select and assess suitable virtualisation software
 - install, configure and manage server virtualisation

Required knowledge

- overview knowledge of:
 - current government and industry policies and guidelines relating to developing efficient and reliable information and communications technology (ICT) environments
 - current technologies and processes designed to produce an efficient and reliable ICT environment
- structure, function and business organisation of client
- available tools and software applications required to manage virtual desktop environment
- configuration of software applications required to manage virtual desktop environment
- configuration required to integrate virtual machines into existing network design

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	<p>Evidence of the ability to:</p> <ul style="list-style-type: none"> design, configure and manage the implementation of virtualised enterprise desktop environment analyse and critically evaluate features and functions of virtualised enterprise desktop environment plan, configure and maintain application virtualisation software.
Context of and specific resources for assessment	<p>Assessment must ensure access to:</p> <ul style="list-style-type: none"> site where industry-specific technologies may be used industry-specific technologies currently used in industry documents detailing workplace health and safety (WHS) standards, environmental guidelines and enterprise requirements. <p>Where applicable, physical resources should include equipment modified for people with special needs.</p>
Method of assessment	<p>A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:</p> <ul style="list-style-type: none"> verbal or written questioning to assess candidate's knowledge of features and functions of industry-specific technologies direct observation of candidate managing the implementation of industry-specific technologies simulation of industry-specific uses of the industry-specific technologies.
Guidance information for assessment	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, where appropriate.</p> <p>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.</p> <p>Indigenous people and other people from a non-English speaking background may need additional support.</p> <p>In cases where practical assessment is used it should be</p>

	combined with targeted questioning to assess required knowledge.
--	--

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.

<i>Virtualisation software vendors</i> may include:	<ul style="list-style-type: none"> • Citrix • KVM • Microsoft • Oracle • Parallels • VMware.
<i>Virtualisation environment</i> may include:	<ul style="list-style-type: none"> • Citrix Online Plug-In • Citrix XenServer • Desktop Delivery Controller • Linux Desktop • Microsoft MED-V server, MED-V client, and MED-V management • Red Hat enterprise • Virtual Desktop Agent • Virtual Desktop Provisioning powered by Citrix Provisioning Services • VMware View Enterprise: VMware vSphere Desktop, VMware vCenter Desktop, and VMware View Manager • VMware View Premier: VMware vSphere Desktop, VMware vCenter Desktop, View Persona Management, VMware vShield Endpoint, VMware View Manager, View Client with Local Mode, VMware View Composer and VMware ThinApp • VMware View suite: VMware View Manager, VMware View Composer, and VMware ThinApp.
<i>Design infrastructure</i> may include:	<ul style="list-style-type: none"> • application pools (desktop) • application pool design • authentication solution • client device access • central processing unit (CPU) allocations • desktop operating system choice • end-user session management • management infrastructure • memory allocations • networking design • pod configurations

	<ul style="list-style-type: none"> • pod and block design • security design and implementations • storage allocations • storage design.
Enterprise requirements may include:	<ul style="list-style-type: none"> • how and what the enterprise wants regarding the work environment • preventative maintenance and diagnostic policy • problem-solving processes • roles and technical responsibilities in network management • vendor and product service level support agreements.
Specific features and functions may include:	<ul style="list-style-type: none"> • creating images • updating software • implementing workspace policies • reporting and troubleshooting • administrating users • managing fault tolerance • managing pods • managing security features • managing profiles • managing storage • managing resource pools.
Application virtualisation software may include:	<ul style="list-style-type: none"> • App Zero • Ceedo • Evalaze • Citrix XenApp • Novell ZENworks Application Virtualization • Microsoft Application Virtualization • Software Virtualization Solution • Spoon (former Xenocode) • VMware ThinApp.
System components may include:	<ul style="list-style-type: none"> • Application deployment - Microsoft • Application Virtualization Management Server - Microsoft • Application Virtualization Sequencer - Microsoft • Citrix licensing server - Citrix • Citrix profiler - Citrix • Citrix web interface - Citrix • Content Share - Microsoft • File Share - VMware • Login script - VMware • Setup Capture - VMware • SQL database instant

	<ul style="list-style-type: none">• Virtualization Client - Microsoft• Virtualization Data Store - Microsoft• Virtualization Management Console - Microsoft• Virtualization Management Web Server - Microsoft• Virtualization Streaming Server - Microsoft• XenApp Client for hosted APPS - Citrix• XenAPP Client for Streaming - Citrix• XenApp-Server - Citrix.
--	--

Unit Sector(s)

General ICT