



Australian Government

ICTSUS502 Install and test virtual infrastructure

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 7.0.

Application

This unit describes the skills and knowledge required to install and test virtual servers in networks. It also involves replacing multiple physical servers, reducing power requirements of individual servers and meeting sustainability targets.

It applies to individuals with a high level of specialist technical skills and knowledge in information and communications technology (ICT) networks.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Telecommunications – sustainability

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. Plan to install virtual server	1.1 Obtain work details and scope and arrange for site access in compliance with required security arrangements, legislation, codes, regulations and standards 1.2 Analyse use of server virtualisation infrastructure and discuss implementation needs with relevant personnel 1.3 Research and analyse alternative virtualisation scenarios and produce a risk analysis and comparisons for each consideration 1.4 Create and distribute a feasibility report to required personnel and determine required resources for server implementation 1.5 Obtain recommendations and approval for implementation plans from relevant personnel and stakeholders
2. Design virtual server	2.1 Confirm network operating systems, server applications and

ELEMENT	PERFORMANCE CRITERIA
specification	<p>server designs with relevant personnel</p> <p>2.2 Determine product, vendor architecture and equipment specifications</p> <p>2.3 Determine technology and resources according to business requirements and budgets</p> <p>2.4 Complete design plan and obtain approval from required personnel</p>
3. Install virtual server	<p>3.1 Identify installation change management requirements</p> <p>3.2 Create detailed task lists and specify sequence of required work</p> <p>3.3 Review hardware and software and confirm compatibility with ICT system</p> <p>3.4 Install required operating system, additional tools and third-party software as specified in design</p> <p>3.5 Patch operating system and applications and confirm compliance with organisational security and reliability standards</p>
4. Integrate and test virtual server	<p>4.1 Determine virtual server integration (VSI) tests in consideration of resources and network impact</p> <p>4.2 Run VSI tests according to plan and record outcomes</p> <p>4.3 Create error reports and communicate test outcomes to required personnel</p> <p>4.4 Test required changes and additions</p> <p>4.5 Validate changes and additions against specifications</p>
5. Document completion activities	<p>5.1 Document installation and integration process according to organisational guidelines</p> <p>5.2 Provide user documentation to required personnel</p> <p>5.3 Notify required personnel and obtain sign off</p>

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria.

SKILL	DESCRIPTION
Oral communication	<ul style="list-style-type: none"> • Articulates using specific language suitable for technical, operational and business audiences to convey requirements • Uses listening and questioning techniques to confirm knowledge
Reading	<ul style="list-style-type: none"> • Identifies, analyses and evaluates technical installation manuals and other texts to determine regulatory and technical requirements

SKILL	DESCRIPTION
Writing	<ul style="list-style-type: none"> • Prepares reports and design solutions in required formats for diverse audiences • Conveys knowledge of outcomes and alternatives using terminology to present to required personnel
Planning and organising	<ul style="list-style-type: none"> • Develops plans to manage relatively complex, non-routine tasks with an awareness of how they may contribute to longer term operational and strategic goals • Takes responsibility for own workload, negotiating some key aspects with others • Systematically gathers and analyses all required information and evaluates options to make informed decisions
Problem solving	<ul style="list-style-type: none"> • Uses analytical processes to decide on a course of action, establishing criteria for deciding between options
Self-management	<ul style="list-style-type: none"> • Recognises and responds to both explicit and implicit organisational procedures and protocols, and legislative and regulatory requirements • Selects the required form, channel and mode of communication for a specific purpose required to own role
Technology	<ul style="list-style-type: none"> • Identifies key principles and concepts underpinning the design and operation of digital systems and tools, and applies these when troubleshooting existing technology and when seeking to identify the potential of new technology

Unit Mapping Information

Supersedes and is equivalent to ICTSUS501 Implement server virtualisation for a sustainable ICT system.

Links

Companion Volume Implementation Guide is found on VETNet -

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