



Australian Government

ICTNWK558 Monitor and troubleshoot virtual computing environments

Release: 1

ICTNWK558 Monitor and troubleshoot 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 monitor and troubleshoot virtualisation technologies to provide a more efficient and reliable Information and Communications Technology (ICT) environment.

It applies to those who work as senior networkers and administrators, and responsible for increasing the sustainability of an enterprise or similar environment.

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 monitor and troubleshoot virtual computing environment	1.1 Determine environment optimal performance requirements 1.2 Determine, list and categorise required resources according to organisational requirements 1.3 Identify virtual environment's critical activity level and assign resources 1.4 Review system's logs and alerts and facilitate virtual environment tuning 1.5 Develop and document virtual environment performance monitoring plan according to organisational requirements

ELEMENT	PERFORMANCE CRITERIA
2. Manage virtual environment performance	2.1 Monitor and diagnose memory central processing unit (CPU) and distributed power management performance 2.2 Review storage and cluster performance and maximise operational efficiency 2.3 Monitor tasks, events, alarms and network activity and make optimal operation adjustments
3. Analyse and troubleshoot virtual environments	3.1 Review and identify performance issues in virtual machine capacity, application, storage, input and output (I/O) performance 3.2 Resolve identified performance issues according to organisational requirements and technical specifications 3.3 Test, analyse and troubleshoot identified virtual network performance issues 3.4 Analyse high availability and troubleshoot identified performance 3.5 Consult with the virtualisation software vendors to provide solutions, where required
4. Diagnose virtual environment faults and provide solutions	4.1 Use virtualisation client and server management software tools and diagnose virtual environment problems 4.2 Install and configure external virtualisation management tools and diagnose virtual environment problems 4.3 Identify and resolve alerts and system logged errors 4.4 Document solution outcomes and submit to required personnel 4.5 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	Investigates new and innovative ideas, as a means to continuously improve work practices and processes, through consultation, formal and analytical thinking
Oral	Use listening and questioning techniques for seeking and responding

SKILL	DESCRIPTION
communication	to feedback
Reading	• Critically analyses documentation from a variety of sources and records and consolidates information, to determine requirements
Writing	• Writes, edits and proofreads documents to confirm clarity of meaning and accuracy and the consistency of information
Planning and organising	• Accepts responsibility for planning and sequencing complex tasks and workload, negotiating key aspects with others, taking into account capabilities, efficiencies and effectiveness • Monitors the progress of plans and schedules and reviews and changes them, to meet new demands and priorities
Problem solving	• Applies systematic and analytical decision- making processes for complex and non-routine situations

Unit Mapping Information

Supersedes and is equivalent to ICTNWK534 Monitor and troubleshoot virtual computing environments.

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 ICTNWK558 Monitor and troubleshoot 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:

- monitor, manage, analyse and troubleshoot a medium-sized virtual computing environment.

In the course of the above, the candidate must:

- document finalised process and solutions.

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 relating to the development of efficient and reliable Information and Communications Technology (ICT) environments
- industry standard technologies and processes designed to produce an efficient and reliable ICT environment
- client organisational structure and functions applicable to ICT environments
- industry standard tools and software applications used to manage virtual machines
- configuration of software applications used to manage virtual machines
- configuration required to integrate virtual machines into an existing network design.

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
- network technical requirements

- industry standard software and hardware.

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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