



Australian Government

ICTTEN602 Undertake system administration

Release: 1

ICTTEN602 Undertake system administration

Modification History

Release	Comments
Release 1	This version first released with ICT Information and Communications Technology Training Package Version 2.0.

Application

This unit describes the skills and knowledge required to maintain the integrity of network support systems and software, for both system platforms and applications of computer systems, including local area networks (LAN) and wide area networks (WAN).

It applies to individuals, working as system administration support officers for service providers and large organisations, who manage and administer networks and make recommendations for improved customer support.

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

Unit Sector

Telecommunications – Telecommunications Networks Engineering

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. Undertake proactive maintenance of system	1.1 Prepare methodology to undertake platform database optimisation and administration effectively 1.2 Produce a cost-benefit analysis of database optimisation schedule to evaluate the effective return on investment (RoI) benefit to the organisation 1.3 Produce training instructions for new users on methodology to ensure effective database optimisation and administration 1.4 Interrogate and monitor system platforms to determine error logs, aging time on processes, database checks and system loadings

ELEMENT	PERFORMANCE CRITERIA
	1.5 Notify appropriate personnel of problems and provide advice and guidance on likely solutions 1.6 Conduct system measurements from a user perspective on response times, and initiate investigations on problems where specifications are not being met 1.7 Assess availability of data storage space and initiate appropriate action where required 1.8 Develop procedures for system backup and restoration, review for efficiency of operation and amend where required
2. Provide application support to system users	2.1 Produce a set of procedures for formal meetings with users on a regular basis for effectiveness to discuss user issues and provide support 2.2 Set up a user support network to provide responsive system administration to users on an ongoing basis as critical issues arise
3. Create and delete user accounts	3.1 Create a hierarchical user profiling system to manage user accounts effectively according to enterprise policy 3.2 Establish and monitor security procedures relating to access according to policy 3.3 Assess grounds for deletion of user accounts and determine necessary action
4. Undertake special investigations	4.1 Evaluate requests for investigation to determine detail of action required 4.2 Prepare activity plan including timelines, specific goals, investigative team and resources required to conduct an investigation 4.3 Conduct investigation methodically according to plan and record findings 4.4 Analyse findings and prepare and forward reports, including recommendations to the requesting body

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
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Reading	3.1, 3.2, 4.4	Organises, evaluates and interprets technical specifications and related documentation from a range of complex texts
Writing	1.2, 1.3, 1.8, 2.1, 4.2-4.4	- Prepares clear and concise workplace documentation including training instructions - Produces reports on system administration and investigations, incorporating technical language, to communicate complex information clearly and effectively
Oral Communication	1.5	- Provides verbal instructions and guidance using specific and relevant language suitable to audience - Employs listening and questioning techniques to confirm understanding
Numeracy	1.2, 1.6	- Uses mathematical formulae to make statistical calculations about traffic predictions - Uses mathematical formulae to complete cost-benefit analysis
Get the work done	1.1, 1.4-1.7, 2.2, 3.1-3.3, 4.1-4.3	- Uses a combination of formal, logical planning processes and an increasingly intuitive understanding of context for complex, high-impact activities with strategic implications - Considers the strategic and operational potential of digital technologies to achieve work goals, enhance work processes and enhance solutions - Uses digital systems and tools to enter, store and monitor data - Recognises and addresses some unfamiliar problems of increasing complexity within own scope - Uses formal processes to monitor implementation of solutions and reflect on outcomes

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICTTEN602 Undertake system administration	ICTTEN6042A Undertake system administration	Updated to meet Standards for Training Packages.	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet -

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

Assessment Requirements for ICTTEN602 Undertake system administration

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Performance Evidence

Evidence of ability to:

- prepare a methodology for system maintenance
- produce cost-benefit analysis and training for database optimisation and administration
- review development of training instructions
- conduct system measurements
- develop support processes for system users
- manage user accounts and security procedures
- investigate potential system administration problems and make recommendations.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- summarise back-up systems
- demonstrate a deep knowledge of computer systems
- outline meeting procedures
- outline the common methodology for system administration
- summarise optimisation and administration of a database
- provide a summary of telecommunications monitoring tools
- explain the process for investigation requests and actions
- outline user account security and profiling system.

Assessment Conditions

Gather evidence to demonstrate consistent performance in conditions that are safe and replicate the workplace. Noise levels, production flow, interruptions and time variances should be typical of those experienced in the telecommunications networks engineering field of work and include access to:

- a network for maintenance and analysis of special investigations
- equipment and systems manuals, specifications and enterprise policy.

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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