



Australian Government

ICTSAS437 Optimise ICT system performance

Release: 1

ICTSAS437 Optimise ICT system performance

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 identify, modify, improve and monitor Information and Communications Technology (ICT) system performance.

It applies to individuals who apply experienced technical support knowledge to maintain computer system performance, and operate in roles such as help desk supervisors, ICT support technicians and user support specialists.

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

Unit Sector

Systems administration and support

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. Determine ICT system performance	1.1 Access ICT system according to organisational procedures 1.2 Determine client requirements and ICT system performance benchmarks 1.3 Collect ICT system performance data 1.4 Analyse collected system performance data according to performance benchmarks and client requirements 1.5 Identify and document areas of poor ICT system performance
2. Investigate methods to improve ICT system performance	2.1 Discuss ICT system performance findings with required personnel 2.2 Identify performance improvement options and determine required technical resources

ELEMENT	PERFORMANCE CRITERIA
	2.3 Create ICT system report for required personnel 2.4 Submit report to required personnel
3. Develop implementation plan for ICT system optimisation	3.1 Develop optimisation implementation plan according to task requirements 3.2 Submit implementation plan to required personnel and seek approval
4. Modify ICT system to optimise performance	4.1 Install ICT system improvements according to installation procedures and implementation plan 4.2 Configure ICT system components according organisational procedures and implementation plan 4.3 Measure and record change in performance resulting from ICT system modification 4.4 Assess optimisation against required level of optimisation 4.5 Update required documentation according to organisational procedures
5. Monitor ongoing ICT system performance	5.1 Implement and maintain performance register 5.2 Confirm all optimisation procedures have been performed according to task requirements 5.3 Review and assess benchmarks and impact of implemented optimisation procedures 5.4 Evaluate and report on optimisation procedures

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
Reading	Analyses and evaluates technical and non-technical information and numerical data from a range of sources to determine benchmarks and performance indicators
Writing	Accurately records information and numerical data and prepares material using clear and accurate language to convey explicit information, requirements and recommendations
Oral Communication	Uses active listening and questioning techniques and participates in verbal exchanges with a range of stakeholders to obtain information and express requirements
Numeracy	Uses mathematical equations to calculate and compare numerical and financial data to determine required actions and

SKILL	DESCRIPTION
	for preparing technical reports
Initiative and enterprise	• Takes personal responsibility for following explicit and implicit policies and procedures
Teamwork	• Selects and uses required conventions and protocols when communicating with co-workers and others in a range of work contexts • Collaborates with others to achieve shared goals
Problem solving	• Applies analytical processes to resolve technical or conceptual problems
Self-management	• Takes responsibility for planning, sequencing and prioritising tasks and own workload for efficiency and effective outcomes
Technology	• Uses main features and functions of digital tools to complete work tasks

Unit Mapping Information

Supersedes and is equivalent to ICTSAS415 Optimise ICT system performance.

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 ICTSAS437 Optimise ICT system performance

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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:

- optimise the performance of two different ICT systems, on separate occasions.

In the course of the above, the candidate must:

- collect usage and time conditions and analyse ICT system data and performance
- identify and document areas of poor ICT system performance
- identify options to improve performance and determine required technical resources
- access required technical resources
- create optimisation implementation plan to improve performance and submit to required personnel for approval and feedback, including:
 - disruption minimisation plan
 - project budget
 - staff availability
- create ICT system report, including:
 - cost analysis
 - identified improvements
 - alternate options
- develop plan for implementing approved optimisation
- modify and tune ICT system to ensure system balance and performance
- record changes in performance.

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:

- report development including:

- cost analysis
- identified options for alternative courses of action designed to measurably improve ICT system performance
- business scheduling requirements, including the role of stakeholders and the degree of stakeholder involvement
- industry standard hardware and software monitoring tools and the information produced from monitoring
- optimum system performance, change-control procedures and theoretical concepts
- change management tools that may be used in optimising ICT system performance
- quality assurance practices with regard to proposed changes of ICT systems
- ICT system functionality and performance indicators
- ICT system performance improvement and optimisation strategies
- features and functions of ICT system under modification.

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:

- tools, equipment and materials required to optimise ICT systems
- industry software packages, including:
 - system components
 - software for performance tuning
 - technical manuals and resources
 - fault logs
 - diagnostic tools.

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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