



Australian Government

ICTSAS439 Analyse ICT system capacity and implement enhancements

Release: 1

ICTSAS439 Analyse ICT system capacity and implement enhancements

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 assess the current and future capacity requirements of Information and Communications Technology (ICT) systems, plan future capacity enhancements and install identified capacity enhancements.

It applies to experienced individuals who work under limited supervision and use technical and specialised knowledge to undertake strategic planning and forecasting initiatives.

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. Analyse existing system capacity	1.1 Access required ICT system capacity testing hardware and software 1.2 Review existing ICT system capacity configuration information 1.3 Investigate ICT system workload and analyse effect on capacity according to organisational procedures 1.4 Examine and analyse ICT system capacity issues fault logs according to organisational procedures 1.5 Discuss and review ICT system capacity issues with users 1.6 Examine service level agreement (SLA) to determine agreed-upon capacity standards and benchmarks

ELEMENT	PERFORMANCE CRITERIA
	1.7 Document information and ICT system capacity analysis according to organisational guidelines
2. Determine and develop future system capacity requirements	2.1 Gather ICT system capacity requirements data 2.2 Organise, analyse and evaluate ICT system capacity requirements data 2.3 Develop ICT system forecast workload 2.4 Compare and evaluate existing workload against forecast workload 2.5 Estimate required resources and equipment for ICT system capacity requirements 2.6 Undertake financial analysis for ICT system capacity requirements 2.7 Organise and document ICT system capacity requirements according to organisational procedures 2.8 Prepare ICT system capacity requirements report 2.9 Present report to required personnel and seek feedback
3. Plan implementation of system capacity enhancements	3.1 Confirm ICT system capacity requirements 3.2 Prioritise and plan task implementation 3.3 Confirm availability of requirements and access required ICT system enhancement hardware and software 3.4 Document and submit implementation plan to required person and seek approval
4. Implement system capacity enhancements	4.1 Install ICT system capacity enhancements according to installation procedures, organisational procedures and implementation plan 4.2 Measure and assess increase in capacity and performance 4.3 Assess whether capacity requirements have been met according to organisational procedures, SLA standards and benchmarks 4.4 Update ICT system capacity documentation according to organisational procedures
5. Monitor ongoing capacity requirements	5.1 Implement and maintain a performance database 5.2 Monitor and assess impact of ICT system capacity enhancements 5.3 Review benchmarks and performance with work team 5.4 Implement capacity enhancements and updates of benchmarks as required

Foundation Skills

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

SKILL	DESCRIPTION
Reading	• Researches and evaluates technical and non-technical information and numerical and financial data from a range of sources to determine benchmarks and performance indicators
Writing	• Accurately records information and numerical data and prepares documentation using clear and accurate language to convey explicit information, requirements and recommendations
Oral communication	• Articulates ideas and strategies using effective communication techniques and industry standard technical language intended for audience and environment
Numeracy	• Uses mathematical equations to calculate, compare and estimate numerical and financial data required for forecasting and planning activities
Teamwork	• Selects and uses required conventions and protocols when communicating with users, 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
Technology	• Uses main features and functions of digital tools to complete work tasks

Unit Mapping Information

Supersedes and is equivalent to ICTSAS417 Undertake ICT system capacity planning.

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 ICTSAS439 Analyse ICT system capacity and implement enhancements

Modification History

Release	Comments
Release 1	This version first released with ICT Information and Communications Technology Training Package Version 6.0.

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 and assess the current and future capacity requirements and plan and implement capacity enhancements for at least two different ICT systems, on at least two separate occasions.

In the course of the above, the candidate must:

- access required hardware and software for testing and enhancement
- review ICT system configuration information, workload and fault logs
- document and analyse capacity requirements, with realistic and achievable forecasts, including financial requirements.

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:

- ICT system functionality and operating levels
- key features of:
 - component performance management
 - industry accepted hardware and software products
 - financial analysis
 - client business domain
 - performance monitoring tools
 - quality assurance practices with regard to proposed ICT capability enhancements
 - SLAs relating to proposed ICT capability enhancements
 - role of stakeholders and the degree of stakeholder involvement
- organisational procedures including:

- ICT system workload analysis
- ICT system fault log analysis
- ICT system capacity analysis documentation procedures
- ICT system requirement documentation
- ICT system capacity enhancement installation
- assessment of ICT system enhancements.

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, materials, hardware and industry software packages required for ICT system capacity analysis and enhancement implementation
- live system
- SLAs
- fault logs
- users and required person.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

Companion Volume Implementation Guide is found on VETNet -

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