



Australian Government

Department of Education, Employment and Workplace Relations

ICAS4114B Implement maintenance procedures

Release: 1

ICAS4114B Implement maintenance procedures

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit defines the competency required to set up maintenance procedures to keep equipment and software operating effectively. The following units are linked and form an appropriate cluster: • ICAA4041C Determine and confirm client business expectations and needs • ICAS4116B Undertake capacity planning No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.
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Application of the Unit

Application of the unit	
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Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Prerequisite units		
	ICAT3025B	Run standard diagnostic tests

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Determine best practices for equipment and software maintenance	1.1. Identify equipment and software that is to be maintained and implement processes to ensure future acquisitions of equipment and software are identified 1.2. Identify vendor documentation, peer organisations or research information detailing best practices in equipment and software maintenance to improve system performance and reliability 1.3. Develop recommended maintenance and operations guidelines for equipment and software maintenance based on the above research 1.4. Obtain requirements from user in the area of equipment maintenance and reliability 1.5. Document procedures for maintenance based upon best practices
2. Identify resources to provide equipment and software maintenance	2.1. Identify and record the level of support that can be provided by in-house resources 2.2. Identify and record the support to be supplied by external or third-party organisations 2.3. Develop or update service-level agreement with internal user and third-party suppliers
3. Revise practices, where appropriate	3.1. Monitor and review maintenance operation 3.2. Identify problem areas including failures to meet service-level agreements, and consider changes to maintenance procedures 3.3. Assess changes in consultation with user, support staff and third party suppliers 3.4. Design and implement improvements to maintenance procedures

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- Problem solving skills for a defined range of unpredictable problems involving participation in the development of strategic initiatives

REQUIRED SKILLS AND KNOWLEDGE

- Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information
- Teamwork skills involve the contribution to solutions and goals of a non-routine or contingency nature
- Negotiation skills in relation to other team members and applied to a defined range of predictable problems
- Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas
- Change management skills in relation to maintaining the continuity of IT operations and business functions
- Customer service skills
- Skills in handling difficult clients
- Conflict resolution skills
- Risk analysis skills
- Low-level training needs analysis skills
- Low-level programming skills

Required knowledge

- Broad understanding of help desk and maintenance practices
- Current industry-standard hardware and software products, with broad knowledge of general features and capabilities and detailed knowledge in some areas
- Broad knowledge of the role of stakeholders and the degree of stakeholder involvement
- Broad knowledge of the client business domain
- Detailed knowledge of the system's current functionality
- Broad knowledge of quality assurance practices
- One or more change management tools
- Broad knowledge of system performance
- Broad knowledge of maintenance procedures
- Business scheduling requirements
- Broad knowledge of diagnostic tools

Evidence Guide

EVIDENCE GUIDE	
The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Evidence of the following is essential: - Assessment must confirm the ability to set up efficient and responsive maintenance procedures to keep equipment and software operating. To demonstrate competency in this unit the learner will require access to: - Technical environment with a variety of operational equipment - Technical manuals and tools
Context of and specific resources for assessment	The breadth, depth and complexity of knowledge and skills in this competency would cover a broad range of varied activities or application in a wider variety of contexts most of which are complex and non-routine. Leadership and guidance would be involved when organising activities of self and others as well as contributing to technical solutions of a non-routine or contingency nature. Assessment must ensure: - Performance of a broad range of skilled applications including the requirement to evaluate and analyse current practices, develop new criteria and procedures for performing current practices and provision of some leadership and guidance to others in the application and planning of the skills would be characteristic. - Applications may involve responsibility for, and limited organisation of, others.
Method of assessment	The purpose of this unit is to define the standard of performance to be achieved in the workplace. In undertaking training and assessment activities related to

EVIDENCE GUIDE

	this unit, consideration should be given to the implementation of appropriate diversity and accessibility practices in order to accommodate people who may have special needs. Additional guidance on these and related matters is provided in ICA05 Section 1. • Competency in this unit should be assessed using summative assessment to ensure consistency of performance in a range of contexts. This unit can be assessed either in the workplace or in a simulated environment. However, simulated activities must closely reflect the workplace to enable full demonstration of competency. • Assessment will usually include observation of real or simulated work processes and procedures and/or performance in a project context as well as questioning on underpinning knowledge and skills. The questioning of team members, supervisors, subordinates, peers and clients where appropriate may provide valuable input to the assessment process. The interdependence of units for assessment purposes may vary with the particular project or scenario.
Guidance information for assessment	Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example: • ICAA4041C Determine and confirm client business expectations and needs • ICAS4116B Undertake capacity planning An individual demonstrating this competency would be able to: • Demonstrate understanding of a broad knowledge base incorporating some theoretical concepts • Apply solutions to a defined range of unpredictable problems • Identify and apply skill and knowledge areas to a wide variety of contexts, with depth in some areas • Identify, analyse and evaluate information from a variety of sources

EVIDENCE GUIDE

	• Take responsibility for own outputs in relation to specified quality standards • Take limited responsibility for the quantity and quality of the output of others • Maintain knowledge of industry products and services
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Range Statement**RANGE STATEMENT**

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Equipment may include but is not limited to:

- workstations
- personal computers
- modems and other connectivity devices
- printers
- DSL modems
- hard drives
- monitors
- switches
- hubs
- personal digital assistants
- other peripheral devices

Software may include but is not limited to:

- commercial, in-house, packaged or customised software

Documentation may follow:

- ISO/IEC/AS standards
- audit trails
- naming standards
- version control
- project management templates and report writing
- maintaining equipment inventory
- client training

RANGE STATEMENT	
	• satisfaction reports
Requirements may be in reference to:	• business • system • application • network • people in the organisation
User may include:	• a person within a department • a department within the organisation • a third party
Service-level agreement may exist for:	• many different infrastructure services, including communications carriers, ISPs, ASPs and SLAs for vendor products, workload and performance considerations, expectations regarding servicing, penalties, charge back to business units
Best practices may include:	• schedule of maintenance • user recommended activities • technical specialist activities • identification and supply of parts • repair of parts

Unit Sector(s)

Unit sector	Support
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Co-requisite units

Co-requisite units	

Competency field

Competency field	
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