



Australian Government

Department of Education, Employment and Workplace Relations

ICAA5035C Research and review hardware technology options for organisations

Release: 1

ICAA5035C Research and review hardware technology options for organisations

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	<p>This unit defines the competency required to apply research skills in conjunction with reviewing hardware solutions, as part of an analysis of emerging technology.</p> <p>The following unit is linked and forms an appropriate cluster:</p> <ul style="list-style-type: none"> ICAA5044C Develop system infrastructure design plan <p>No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.</p>
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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		

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 organisational needs	1.1. Establish organisational needs and selection criteria 1.2. Determine future requirements in accordance with strategic goals 1.3. Assess physical infrastructure and financial parameters
2. Evaluate and report on options	2.1. Review and test <i>hardware</i> against organisational requirements 2.2. Report findings to <i>appropriate person</i> according to their suitability for organisational requirements 2.3. Document information in a report and submit to <i>appropriate person</i>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE
This section describes the skills and knowledge required for this unit.
Required skills
<ul style="list-style-type: none"> Solving unknown problems in a range of contexts, particularly in developing new approaches with new technology (this includes problem solving skills for resolving unpredictable problems, with reference to the new technology) Basic planning skills in relation to scope, time, cost, quality, communications and risk management Participating in the development of reports and summary findings Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information, such as when presenting the results of testing new technology and proposing new potential directions as a result of this Teamwork skills, involving the contribution to solutions and goals of a non-routine or developmental process, such as investigating new technology for new roles in the workplace Group facilitation and presentation skills in relation to transferring and collecting information and gaining consensus on concepts and new proposals Communication skills to convey complex and abstract concepts and information
Required knowledge
<ul style="list-style-type: none"> Current industry and technology information sources (e.g. vendor seminars, expert email groups) Current business practices in relation to preparing reports

REQUIRED SKILLS AND KNOWLEDGE

- Components of the business planning process relevant to the development of data and voice integration and remote access business solutions
- Current industry-accepted hardware, cabling and software products, including broad knowledge of general features and capabilities, with particular reference to emerging trends and product design
- Broad knowledge of vendor product directions such as self-configuring ADSL or cable modem-router-switch for the Small Office Home Office (SOHO) market, next generation networks, wireless standards, access and security products
- High level knowledge of the client business needs, with a view to expanding into new possibilities, as presented by new technology
- Basic knowledge of quality assurance practices, to promote reliable investigation processes
- Basic knowledge of information gathering techniques
- Industry networks
- Key individuals and organisations within the IT industry

Evidence Guide

EVIDENCE GUIDE	
<p>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.</p>	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of the following is essential:</p> <ul style="list-style-type: none"> • Assessment must confirm the ability to apply technical knowledge in the preliminary analysis of emerging technology according to organisational requirements or practices • Assessment also must confirm the ability to convey and access conceptual information regarding emerging technology in relation to organisational needs <p>To demonstrate competency in this unit the learner will require access to:</p> <ul style="list-style-type: none"> • Internet • Journals of industry/professional associations
Context of and specific resources for assessment	<p>The ICT industry is constantly changing with technologies being developed and introduced with increasing rapidity. It is essential that ICT professionals constantly review emerging trends and technologies in the context of current processes and designs, with an eye to improving or synthesising better ways of completing tasks. Businesses are reliant on ICT expertise to apply world-class standards which will underpin the achievement of organisational goals.</p> <p>The breadth, depth and complexity covering planning and initiation of alternative approaches to skills or knowledge applications across a broad range of technical and/or management requirements, evaluation and coordination would be characteristic.</p> <p>The demonstration of competency may also require self-directed application of knowledge and skills, with substantial depth in some areas where judgement is required in planning and selecting appropriate equipment, services and techniques for self and others.</p>

EVIDENCE GUIDE	
	<p>Assessment must ensure:</p> <ul style="list-style-type: none"> • Applications involve participation in development of strategic initiatives as well as personal responsibility and autonomy in performing complex technical operations or organising others. It may include participation in teams including teams concerned with planning and evaluation functions. Group or team coordination may also be involved.
Method of assessment	<p>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 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.</p> <ul style="list-style-type: none"> • 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	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended. In the case of this unit, it could be assessed in a holistic manner with:</p> <ul style="list-style-type: none"> • ICAA5044C Develop system infrastructure design plan

EVIDENCE GUIDE

	<p>An individual demonstrating this competency would be able to:</p> <ul style="list-style-type: none"> • Demonstrate understanding of a broad knowledge base incorporating theoretical concepts, with substantial depth in some areas • Analyse and plan approaches to technical problems or management requirements • Transfer and apply theoretical concepts and/or technical or creative skills to a range of situations • Evaluate information, using it to forecast for planning or research purposes • Take responsibility for own outputs in relation to broad quantity and quality parameters • Take some responsibility for the achievement of group outcomes • 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.

Hardware may include but is not limited to:

- workstations,
- personal computers,
- modems and other connectivity devices,
- networks,
- cabling infrastructure,
- Internet access,
- wireless networks,
- remote sites
- servers

Appropriate person may include:

- a supervisor,
- teacher,
- authorised business representative

RANGE STATEMENT	
	• client

Unit Sector(s)

Unit sector	Analyse and Design
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Co-requisite units

Co-requisite units		

Competency field

Competency field	
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