ICAS3032B Provide network systems administration

Release: 1

ICAS3032B Provide network systems administration

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit defines the competency required to technically manage elements of a network including contribution to disaster recovery plan. The following units are linked and form an appropriate cluster: • ICAI3020B Install and optimise operating system software • ICAS3120C Configure and administer a network operating system *No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.*

Application of the Unit

Application of the unit	

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Prerequisite units		
	ICAI3101B	Install and manage network protocols

Prerequisite units		
	ICAS3024B	Provide basic system administration

Employability Skills Information

Employability skills	This unit contains employability skills.

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.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Provide client access and security	1.1. Provide logons, passwords and applications file access to *users* and prepare *documentation* in line with *organisational requirements*
	1.2. Evaluate records of *user* accounts to determine access privileges and usage
	1.3. Take necessary action to ensure maintenance of *system* integrity and security
2. Input into and disseminate disaster recovery plan	2.1. Provide input for the organisation's disaster recovery plan
	2.2. Disseminate disaster recovery plan to *user* as required
3. Monitor network performance	3.1. Perform diagnostic tests associated with administering the network or system
	3.2. Analyse and respond to diagnostic information
	3.3. Monitor *software* usage including inappropriate or illegal use
	3.4. Delete illegal *software* from the system
	3.5. Monitor *hardware* response time and other performance indicators
	3.6. Determine and action methods for improving network and systems efficiency according to *organisational guidelines*

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE
This section describes the skills and knowledge required for this unit.
Required skills
• Interpretation of technical manuals • One-to-one instruction • Questioning and active listening for conveying and clarifying information • Client needs assessment methods • System administration skills • Customer service skills in a range of contexts at various levels • Diagnostic skills

REQUIRED SKILLS AND KNOWLEDGE

Required knowledge

- Organisational and technical systems
- Organisational access and security procedures
- Software copyright responsibilities
- Operating systems supported by the organisation
- Operating systems functions and basic features
- Organisational procedures for protection against and elimination of computer viruses
- Advanced knowledge of software features supported by the organisation
- Security and network guidelines and procedures
- Policy and procedures for deleting, restoring and archiving of files
- Approaches to back-up and restoring computer data
- Disaster recovery policy
- Procedures for creating logons
- File access
- In-house and vendor support
- OH&S legislation relating to the use of equipment

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 competency in sustaining the operation of the network through maintenance of network integrity and the performing of diagnostic tests. Assessment must also confirm competency in contributing to the formulation of a disaster recovery plan and providing the client with an optimised network that complies with organisational guidelines. To demonstrate competency in this unit the learner will require access to: - Peers and supervisors for obtaining information on the extent and quality of the contribution made - Live network
Context of and specific resources for assessment	Demonstrating competency in network systems administration would include knowledge by recall in a narrow range of areas; and demonstrate basic practical skills, such as the use of relevant systems administration tools. Breadth, depth and complexity of knowledge and skills would prepare a person to perform in a range of varied activities or knowledge application where there are clear guidelines on managing a network system and associated software and hardware. The breadth, depth and complexity of knowledge and skills in this competency would cover selecting, adapting and transferring skills and knowledge to new environments and providing technical advice and some leadership in resolution of specified problems. This would be applied across a range of roles in a variety of contexts with some complexity in the extent and choice of options available.

EVIDENCE GUIDE

	Assessment must ensure:
	• Performance of a defined range of skilled operations, usually within a range of broader related activities involving known routines, methods and procedures, where some discretion and judgement is required in the section of equipment, services or contingency measures and within known time constraints would be characteristic.
	• Applications may involve some responsibility for others. Participation in teams including group or team coordination may be involved.
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 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	Holistic assessment with other units relevant to the

EVIDENCE GUIDE	
assessment	industry sector, workplace and job role is recommended, for example:
	• ICAI3020B Install and optimise operating system software
	• ICAS3120B Configure and administer a network operating system
	Demonstration of competency would involve:
	• Demonstrating basic operational knowledge of a network system in a range of areas
	• Applying appropriate knowledge and skills in managing and administering a network within a limited range of predictable outcomes
	• Performing a range of tasks where choice between options for network performance is required
	Additionally, an individual demonstrating this competency would be able to:
	• Demonstrate some relevant theoretical knowledge
	• Apply a range of well-developed skills
	• Apply known solutions to a variety of predictable problems
	• Perform processes that require a range of well-developed skills where some discretion and judgement is required
	• Interpret available information, using discretion and judgement
	• Take responsibility for own outputs in work and learning
	• Take limited responsibility for the output of others
	• Maintain knowledge of industry products and services

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

RANGE STATEMENT

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.

User may include:	• a person within a department • a department within the organisation • a third party
Documentation may follow:	• ISO/IEC/AS standards • audit trails • naming standards • version control • project management templates and report writing • maintaining equipment inventory • client training • satisfaction reports
System may include but is not limited to:	• network • application • software • business • computers • financial system • management system • information system
Hardware may include:	• Workstations, personal computers • Modems or other connectivity devices • Networks • Remote sites • Servers
Software may include but is not limited to:	• commercial, in-house, packaged or customised software
Organisational requirements may be in reference to:	• work environment • problem solution processes • preventative maintenance • diagnostic policy • roles and technical responsibilities in the IT department • vendor and product service-level support agreements

RANGE STATEMENT	
Organisational guidelines may include but are not limited to:	• personal use of emails and internet access • content of emails • downloading information and accessing particular websites, opening mail with attachments, virus risk, dispute resolution, document procedures and templates • communication methods • financial control mechanisms
OH&S standards may include:	• correct posture • lighting • type of desk • type of monitor • style of chair • typing position • repetitive strain injury prevention • ventilation • light position • correct lifting method • length of time in front of computer

Unit Sector(s)

Unit sector	Support

Co-requisite units

Co-requisite units		

Competency field

Competency field	