ICAI3110C Implement system software changes

Release: 1

ICAI3110C Implement system software changes

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit defines the competency required to implement system software changes and to handover the modified system to the client's operational area.
	The following units are linked and form an appropriate cluster:
	• ICAI4029C Install network hardware to a network • ICAS3034B Determine and action network problems • ICAS3121B Administer network peripherals

Application of the Unit

Application of the unit	

Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units		
	ICAI3020B	Install and optimise operating system software

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. Determine system changes required	1.1. Determine and record the required changes to **system** 1.2. Ensure that documentary evidence exists to support changes and evaluate changes required 1.3. Complete all **documentation** required in accordance with maintenance methodologies 1.4. Clarify and confirm the nature of the changes with the **client** 1.5. Obtain technical data from reliable sources and request other resources that may be required to complete the changes
2. Carry out system changes	2.1. Plan the procedure to effect intended changes 2.2. Confer with colleagues and **users** involved in the proposed changes and agree a mutually acceptable timeline and method of **implementation** 2.3. Copy initialisation or configuration files prior to **implementation** 2.4. Create a roll-back path in the event of failure 2.5. Ensure that changes required in **software** are made according to project or **organisational guidelines** 2.6. Test and verify that the changes have been made according to implementation guides and **organisational standards**
3. Present changes to client	3.1. Demonstrate changes to the **client** and explain the impact of these changes 3.2. Work towards making these changes acceptable to the **client** if changes are rejected, or making further modifications if required 3.3. Update **documentation** and repositories in accordance with standards and update modifications made to the change management system
4. Perform handover to client's operational	4.1. Update **documentation** and **client** procedures to reflect changes made 4.2. Secure sign off of acceptance documents by client 4.3. Facilitate handover of modified system to client's operational area

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

- System software installation and configuration
- Problem solving skills for a defined range of unpredictable problems
- Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information
- 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
- Risk analysis skills in relation to reviewing change procedures
- Basic training needs analysis skills
- Basic programming skills

Required knowledge

- Broad knowledge of vendor software services
- Broad knowledge of emerging standards for data and voice communications
- Current industry-accepted hardware and software products, with basic knowledge of general features and capabilities and detailed knowledge in some areas
- Broad general knowledge of the client business domain
- Detailed knowledge of the system's current functionality
- Basic knowledge incorporating some change control procedures
- Detailed knowledge of the system under modification, including policies and procedures of the organisation
- Business scheduling requirements

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 implement changes to the system with minimum disruption to the system and client users. All changes are to be documented. • Whilst this competency is primarily about software implementation, a competent individual needs to demonstrate effective planning and communication skills to ensure client agreement to changes and minimisation of disruption to the business. To demonstrate competency in this unit the following resources will be needed: • Technical specifications and documentation • Organisational requirements • Live system
Context of and specific resources for assessment	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. 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.

EVIDENCE GUIDE	
	• Applications may involve some responsibility for others. Participation in teams including group or team coordination may be involved. • It may include participation in teams, including those concerned with software changes and planning. 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 to 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.
Guidance information for assessment	The interdependence of units for assessment purposes may vary with the particular project or scenario. Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example: • ICAI4029C Install network hardware to a network • ICAS3034B Determine and action network problems • ICAS3121B Administer network peripherals

EVIDENCE GUIDE	
	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 Additionally, an individual demonstrating this competency would be able to: • Demonstrate broad knowledge of theoretical concepts, with substantial depth in some areas • Analyse and plan approaches to technical problems and management requirements • Transfer and apply theoretical concepts and technical or creative skills to a range of situations • Evaluate information in relation to implementing software changes • Take responsibility for outputs in relation to broad quantity and quality parameters

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

RANGE STATEMENT

situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

System may include but is not limited to:	• network • application • software • business • computers • mobile equipment • financial system • management system • information system
Documentation for version control 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
Organisational guidelines may include but are not limited to:	• personal use of emails and internet access • content of emails • making voice or video calls • downloading information and accessing particular websites • opening mail with attachments • virus risk • dispute resolution • document procedures and templates • communication methods • financial control mechanisms
Client may include but is not limited to:	• internal departments • external organisations • customers • individual people • internal employees
User may include:	• a person within a department • a department within the organisation • a third party

RANGE STATEMENT	
Implementation may include:	• implementing the entire system • formulating methods for standby operations or contingency plans
Software may include but is not limited to:	• commercial software applications • organisation-specific software, packaged software, in-house or customised software
Organisational standards may include:	• formal procedures that must be adhered to, such as check points and sign-offs with documented procedures and templates • implementation of financial control mechanisms; communication with stakeholders • dispute resolution and modification procedures • processes for determining size and cost

Unit Sector(s)

Unit sector	Implement

Co-requisite units

Co-requisite units	

Competency field

Competency field	