



Australian Government

Department of Education, Employment and Workplace Relations

ICASAD505A Develop technical requirements for business solutions

Release: 1

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Modification History

Release	Comments
Release 1	This Unit first released with <i>ICAI1 Information and Communications Technology Training Package version 1.0</i>

Unit Descriptor

This unit describes the performance outcomes, skills and knowledge required to develop technical and related requirements that will enable business solutions to be implemented in an organisation.

Application of the Unit

This unit applies to system analysts in a range of information and communications technology (ICT) areas who are required to produce technical specifications.

Licensing/Regulatory Information

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement but users should confirm requirements with the relevant federal, state or territory authority.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Element	Performance Criteria
<i>Elements describe the essential outcomes of a unit of competency.</i>	<i>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.</i>

Elements and Performance Criteria

<p>1. Research business requirements</p>	<p>1.1 Define <i>hardware</i> and <i>software</i> requirements of the business solution</p> <p>1.2 Determine model of business</p> <p>1.3 Determine <i>technical specifications</i> for business</p> <p>1.4 Establish <i>interface requirements</i> for end users and external parties</p> <p>1.5 Document business solution <i>requirements</i> for approval from <i>stakeholders</i></p> <p>1.6 Determine IT security requirements</p>
<p>2. Analyse the impact of technical solutions</p>	<p>2.1 Identify hardware, software and <i>network</i> requirements</p> <p>2.2 Identify software solutions to build business platform</p> <p>2.3 Identify processes to be changed by the business solution</p> <p>2.4 Determine the effect changes will have on the value or supply chain</p> <p>2.5 Research a range of <i>security protocols</i> suitable for business solutions</p> <p>2.6 Document impact of changes and submit to relevant stakeholders</p>
<p>3. Develop and test business solutions</p>	<p>3.1 Implement hardware and software solutions for testing purposes</p> <p>3.2 Identify training needs to update personnel skills</p> <p>3.3 Plan timelines and allocation of resources for business solution</p> <p>3.4 Develop performance <i>standards</i> and benchmark results</p> <p>3.5 Determine costs involved to implement business solution</p> <p>3.6 Document the business solution</p>
<p>4. Secure sign-off of validated solution</p>	<p>4.1 Test, validate and document results of the business solution</p> <p>4.2 Provide results to appropriate person for verification</p> <p>4.3 Obtain sign-off on business solution</p>

Required Skills and Knowledge

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

Required skills

- analytical skills to analyse business requirements
- communication skills to communicate with clients, stakeholders and technical staff
- literacy skills to:
 - produce technical requirements document
 - understand business requirements
- planning and organisational skills to plan timelines and resource allocation
- research skills to research appropriate hardware and software
- technical skills to:
 - implement hardware and software
 - produce technical architecture of business solutions.

Required knowledge

- business-process design
- copyright and intellectual property relating to IT systems development
- customer and business liaison
- implications of technology connectivity
- potential business solutions
- prevailing corporate strategies that may influence business solutions.

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	<p>Evidence of the ability to:</p> <ul style="list-style-type: none"> • identify the internal and external technical environments required to provide a business solution • develop a corresponding list of technical requirements • analyse the impact of the technical solution • ensure that the nominated hardware and software are functional.
Context of and specific resources for assessment	<p>Assessment must ensure access to:</p> <ul style="list-style-type: none"> • business model • business requirements documentation • customer relationship model • appropriate learning and assessment support when required • modified equipment for people with special needs.
Method of assessment	<p>A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:</p> <ul style="list-style-type: none"> • written or verbal questioning to identify candidate’s knowledge of: <ul style="list-style-type: none"> • process of producing technical requirements • business processes • review of candidate’s documentation, specifically: <ul style="list-style-type: none"> • hardware, software and network requirements • software solutions to build business platform • processes to be changed by the business solution • effect that changes will have on the value or supply chain • security protocols suitable for business solutions • training requirements • timelines • required resources.
Guidance information for assessment	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, where appropriate.</p> <p>Assessment processes and techniques must be culturally</p>

	<p>appropriate, and suitable to the communication skill level, language, literacy and numeracy capacity of the candidate and the work being performed.</p> <p>Indigenous people and other people from a non-English speaking background may need additional support.</p> <p>In cases where practical assessment is used it should be combined with targeted questioning to assess required knowledge.</p>
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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.

<p>Hardware may include:</p>	<ul style="list-style-type: none"> • variety of hardware, such as: <ul style="list-style-type: none"> • systems units • monitors • keyboards • mice • personal digital assistants (PDA) • printers • smart phones • laptops • identifying key hardware characteristics of internally used hardware and external hardware that must be interfaced with.
<p>Software may include:</p>	<ul style="list-style-type: none"> • commercial • customised software • in-house • packaged.
<p>Technical specifications may include:</p>	<ul style="list-style-type: none"> • brochures • help references • online help • project specifications • reports • technical manuals • training materials and self-paced tutorials • user guides.
<p>Interface requirements may include:</p>	<ul style="list-style-type: none"> • command line • graphical user interface (GUI): <ul style="list-style-type: none"> • application-based • web-based • variety of communication options.
<p>Requirements may relate to:</p>	<ul style="list-style-type: none"> • application • business • network • people in the organisation • system.

<p><i>Stakeholders</i> may include:</p>	<ul style="list-style-type: none"> • community groups • corporate body • end users • government body • internal or external clients.
<p><i>Network</i> may include:</p>	<ul style="list-style-type: none"> • data • large and small local area networks (LANs) • private lines • the internet • use of the public switched telephone network (PSTN) for dial-up modems only • voice • virtual private network (VPN) • wide area networks (WANs).
<p><i>Security protocols</i> may include:</p>	<ul style="list-style-type: none"> • data over cable-service interface specification • domain name system security extensions • IEEE 802.11 Protocol standard for secure wireless local area network products • IP security protocol • point-to-point network tunnelling protocol • secure electronic transactions • secure multi-purpose internet mail extensions • secure shell • secure socket layer (SSL) and transport layer security.
<p><i>Standards</i> may include:</p>	<ul style="list-style-type: none"> • International Organization for Standardization (ISO), International Electrotechnical Commission (IEC) and Australian Standards (AS) standards • organisational standards • project standards.

Unit Sector(s)

Systems analysis and design