



Australian Government

Department of Education, Employment and Workplace Relations

ICAPRG602A Manage the development of technical solutions from business specifications

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 manage the process of compiling client business specifications to produce business solutions for consideration.

Application of the Unit

Project managers are responsible for the overall design and development process within any project and need to review, manage and approve the planned solutions.

Their job roles combine high-level management, business and technical skills necessary to manage complex technology projects within the information and communications technology (ICT) industry.

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. Obtain business requirements</p>	<p>1.1 Ensure that <i>business requirements</i> and <i>business specifications</i> have been obtained from the client or <i>appropriate person</i></p> <p>1.2 Manage the team's identification of the client's business model</p> <p>1.3 Ensure technical specifications for business <i>problem</i> have been determined</p> <p>1.4 Manage the confirmation of key <i>stakeholder requirements</i> with stakeholders</p> <p>1.5 Confirm the documentation of business objectives, technical requirements and problem</p>
<p>2. Evaluate the impact of the technical requirements</p>	<p>2.1 Review the business problems, opportunities and objectives</p> <p>2.2 Confirm that the <i>technical requirements</i> are complete</p> <p>2.3 Review <i>hardware, software</i> and <i>network</i> requirements</p> <p>2.4 Coordinate investigation into the processes to be changed by the business solution</p> <p>2.5 Review an evaluation document on the <i>impact</i> of the technical requirements on the business</p>
<p>3. Produce technical business solutions</p>	<p>3.1 Confirm the <i>technical solutions</i> produced in response to problems and business requirements</p> <p>3.2 Review the costs involved to implement</p> <p>3.3 Review the recommendation from a range of supplier products to determine which one best meets technical requirements</p> <p>3.4 Review a report on the technical solutions addressing the business specifications and recommendations against business requirements</p>
<p>4. Document and validate the agreed solutions</p>	<p>4.1 Ensure report is forwarded to appropriate person for feedback</p> <p>4.2 Manage the feedback and incorporate changes as required</p> <p>4.3 Coordinate redistribution of adjusted reports to appropriate person</p> <p>4.4 Obtain sign-off on final business solution</p>

Required Skills and Knowledge

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

Required skills

- communication skills to liaise with internal and external personnel on technical, operational and business-related matters
- literacy skills to:
 - interpret technical documentation
 - write reports, design solutions, technical specifications and recommendations in required formats
- numeracy skills to:
 - interpret business requirements and specifications
 - evaluate possible technical design scenarios for optimum solution
- planning and organisational skills to plan, prioritise and monitor team members work
- problem-solving and contingency-management skills to adapt varied business procedures to requirements
- research skills to interrogate vendor databases and websites in order to implement different solutions that meet client business specifications
- technical skills to:
 - evaluate optimum solutions
 - produce technical solutions
 - review technical specifications.

Required knowledge

- business processes
- client business domain, including client organisation structure and business functionality
- compatibility issues and resolution procedures
- configuration of internet protocol (IP) networks
- customer and business liaison
- desktop applications and operating system (OS) as required
- procedures for linking processes
- project-management methodologies and processes
- security protocols, standards and data encryption
- technologies, such as:
 - access networks
 - core networks
 - ICT network topologies
 - mobile cellular networks
 - network protocols and OS
 - optical networks and principles
 - radio frequency (RF) networks and principles
 - radio frequency identification (RFID) hardware and software.

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"> • adapt technologies to specified technical solutions • use site-design software and hardware • evaluate client specifications against accepted industry practices • produce technical solutions from business specifications • produce information that can be shared between businesses • apply design concepts to business solutions • produce technical reports • make recommendations and offer optimum design solutions.
Context of and specific resources for assessment	<p>Assessment must ensure access to:</p> <ul style="list-style-type: none"> • client functional requirements • business specifications • database and simulation software • organisational guidelines • network or computer layout • site-design software and hardware • information on a range of ICT business solutions • 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"> • direct observation of the candidate carrying out project work • verbal or written questioning to assess required knowledge and skills • review of reports and implementation plans prepared by the candidate for the project • review of a portfolio of the project work undertaken. <p>Note: The preferred assessment method is through a workplace project or through a simulated medium to large enterprise workplace.</p>
Guidance information	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, where</p>

for assessment	<p>appropriate.</p> <p>Assessment processes and techniques must be culturally 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.

<i>Business requirements</i> may include:	<ul style="list-style-type: none"> • business application • business plan • existing system • mission statement • nature of the business • network or people in the organisation.
<i>Business specifications</i> may include:	<ul style="list-style-type: none"> • budget allocation • budget costs estimate • future plan • growth forecast • technical requirements • timeline.
<i>Client</i> may include:	<ul style="list-style-type: none"> • external organisation • finance company • health industry • ICT company • individuals • internal department • internal employee • manufacturing company • service industry.
<i>Appropriate person</i> may include:	<ul style="list-style-type: none"> • authorised business representative • client • ICT network administrator • ICT network manager • ICT support manager • small or medium enterprise (SME) customer • small office home office (SOHO) customer • supervisor.
<i>Problem</i> may refer to:	<ul style="list-style-type: none"> • application • business need or opportunity that needs to be addressed • network or people in the organisation • system.

<p>Stakeholders may include:</p>	<ul style="list-style-type: none"> • development team • project team • sponsor • user.
<p>Requirements may refer to:</p>	<ul style="list-style-type: none"> • application • business • database • network • people in the organisation • platform • system.
<p>Technical requirements may refer to:</p>	<ul style="list-style-type: none"> • bandwidth • hardware problems • input and output • interface • network: <ul style="list-style-type: none"> • growth • security • traffic congestions • new technologies • power usage • process flow • quality requirements • software problems • transmission dropouts • upgrades.
<p>Hardware may include:</p>	<ul style="list-style-type: none"> • cabling networks • internet protocol TV (IPTV) • multimedia • network elements: <ul style="list-style-type: none"> • gateways • local area network (LAN) switches • routers • servers • wireless networks • optical networks • radio networks • equipment: <ul style="list-style-type: none"> • RFID • switching

	<ul style="list-style-type: none"> • transmission • voice and data.
Software may include:	<ul style="list-style-type: none"> • commercial • customised software • in-house • packaged.
Network may include:	<ul style="list-style-type: none"> • broadband • data • ICT networks • internet • intranet • media • radio • RFID • security • switching • telecommunications • transmission.
Impact may refer to:	<ul style="list-style-type: none"> • fewer downtimes • improved efficiency • improved response times • increased return on investment (RoI) • lower operational costs • more user-friendly network.
Technical solutions may include:	<ul style="list-style-type: none"> • audit requirements • changes to: <ul style="list-style-type: none"> • network infrastructure • security or privacy provisions • ebusiness or e-commerce solution • hardware upgrades • implementing a new system • inventory management • new hardware • new software • OHS and quality requirements • software upgrades • user training.

Unit Sector(s)

Programming and software development