



Australian Government

ICTTEN7227B Analyse business specifications to produce technical solutions

Release 1

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Modification History

Release	Comments
Release 2	This version first released with <i>ICT10 Integrated Telecommunications Training Package Version 3.0</i>. Minor changes to performance criteria. Outcomes deemed equivalent.
Release 1	This version first released with <i>ICT10 Integrated Telecommunications Training Package Version 1.0</i>.

Unit Descriptor

This unit describes the performance outcomes, skills and knowledge required to model and analyse business specifications and produce a technical solution that satisfies customers' business needs.

Application of the Unit

Telecommunication officers in service and provision work who carry out design and implementation of technical solutions of ICT networks apply the skills and knowledge in this unit for a practical solution in network design.

They would be employed by telecommunications and IT networking provisioning companies specialising in integrating the converging and emerging technologies of ICT networks.

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

Nil

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements	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

1. Prepare to analyse business specifications	1.1 Research the application of a suitable business model for telecommunication service provisioning that meets agreed customer requirements 1.2 Obtain business requirements and business specifications to provide data for the model 1.3 Determine the business drivers and key stakeholder/customer requirements with internal and external stakeholders 1.4 Evaluate business objectives and customer requirements for input into the model
2. Produce technical solutions to meet business imperatives	2.1 Research tools and templates for analysing business models and provide reports on technical design and specifications 2.2 Develop technical solutions for customer in response to drivers and business requirements 2.3 Evaluate costs involved to implement the IT/ICT technical solutions for customer 2.4 Produce a cost benefit analysis to assess the viability and optimum timing for deploying the technical solution for maximum return on investment (RoI) 2.5 Investigate a range of vendor products to determine the most suitable to meet technical requirements and customer needs 2.6 Produce a report document on the technical solutions addressing the business specifications and recommendations against customer requirements
3. Evaluate the impact of the technical requirements on the business	3.1 Review and assess business constraints, opportunities and objectives 3.2 Determine technical requirements according to input-output, interface, process flow or quality requirements 3.3 Analyse hardware, software and network requirements to suit the business plan 3.4 Build business platform based on IT/ICT technical solutions 3.5 Investigate processes to be changed by the business solution 3.6 Produce an evaluation document on the impact of the technical requirements on the business
4. Document and	4.1 Submit technical requirements and solution overview to

validate the agreed solutions	management for feedback 4.2 Analyse feedback and incorporate change as required 4.3 Document changes and distribute final business solution to internal and external stakeholders
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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:
 - design solutions and recommendations in required formats
 - interpret technical documentation and write reports
- numeracy skills to:
 - evaluate possible technical design scenarios for optimum solution
 - interpret business requirements and specifications
- planning and organising skills to plan, prioritise and monitor own work
- problem-solving and contingency management skills to adapt varied business procedures to requirements
- research skills to interrogate vendor databases and websites to implement different solutions to meet client business specifications
- technical skills to:
 - produce optimum technical solutions
 - use software business tools.
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Required knowledge

- business models and tools
- business processes
- client business domain, business function and organisation
- compatibility issues and resolution procedures
- configuration of internet protocol (IP) networks
- customer and business liaison
- desktop applications and operating systems as required
- documenting technical specifications
- linkage between processes
- security protocols, standards and data encryption
- technologies:
 - access networks
 - core networks
 - ICT network topologies
 - mobile cellular networks
 - network protocols and operating systems
 - optical networks and principles
 - radio frequency (RF) networks and principles.

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 ability to: • evaluate client specifications against accepted industry practices • produce technical solutions from business specifications • analyse feedback from client and make adjustment to the proposal • apply design concepts to business solutions • produce technical reports • make recommendations and offer optimum design solutions • produce an evaluation document on the impact of the technical requirements on the business.
Context of and specific resources for assessment	Assessment must ensure: • client functional requirements • business specifications • database software • simulation software • organisational guidelines • network and computer layout • site design software and hardware • information on a range of ICT business solutions.
Method of assessment	A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit: • direct observation of work processes and procedures and/or performance in a project context • oral or written questioning on required knowledge and skills • evaluation of research methodologies and the final proposal prepared by the candidate outlining solutions and recommendations.

Guidance information for assessment	Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example: • ICTTEN7220A Translate domain and solution architectures into platform requirements and designs. Aboriginal people and other people from a non-English speaking background may have second language issues. Access must be provided to appropriate learning and assessment support when required. Assessment processes and techniques must be culturally appropriate, and appropriate to the oral communication skill level, and language and literacy capacity of the candidate and the work being performed. In all cases where practical assessment is used it will be combined with targeted questioning to assess required knowledge. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency. Where applicable, physical resources should include equipment modified for people with special needs.
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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 model</i> includes:	• customers: • customer relationship • distribution channel • target customer • finances: • cost structure • revenue • infrastructure: • business partnerships • core capabilities • value configurations • offering: • customer preference • value proposition.
<i>Business requirements</i> may include:	• business application • business plan • existing system • mission statement • nature of the business • network or people in the organisation.
<i>Business specifications</i> may include:	• budget allocation • budget costs estimate • future plan • growth forecast • technical requirements • timeline.
<i>Business drivers</i> may be in reference to:	• application solutions • business need or opportunity that needs to be addressed • business partnerships and associations • network or people in the organisation • system.
<i>Requirements</i> may be	• application • business

in reference to:	• database • network • people in the organisation • platform • system.
Stakeholders may include:	• development team • project team • sponsor • user.
Technical solutions may include:	• audit requirements • changes to: • network infrastructure • security or privacy provisions • e-business or e-commerce solution • hardware upgrades • implementing a new system • inventory management • new hardware • new software • occupational health and safety (OHS) requirements • quality requirements • software upgrades • user training.
Technical requirements may be in reference to:	• bandwidth • hardware problems • network growth • network security • network traffic congestions • new technologies • power usage • software problems • transmission dropouts • upgrades.
Hardware may include:	• internet protocol TV (IPTV) • multimedia • network elements: • gateways • local area network (LAN) switches • routers • servers • wireless networks

	• optical networks • radio networks • switching equipment • transmission equipment • voice and data equipment.
Software may include:	• commercial • customised software • in-house • packaged.
Network may include:	• broadband • data • ICT networks • internet and intranet • media • radio • security • switching • telecommunications • transmission.
Impact may refer to:	• fewer downtimes • improved efficiency • improved response times • increased return on investment • lower operational costs • more 'user friendly' network.

Unit Sector(s)

Telecommunications - Telecommunications networks engineering