



Australian Government

ICTTEN803 Translate domain and solution architectures into platform requirements and designs

Release: 1

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Modification History

Release	Comments
Release 1	This version first released with ICT Information and Communications Technology Training Package Version 1.0.

Application

This unit describes the skills and knowledge required to develop, deploy, manage and optimise the entire solution life cycle via translation for an existing or new infrastructure of Next Generation Technology (NGN).

It applies to individuals with highly developed technical skills who use design software and simulation to test system performance to a manufacturer's or design specification.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Telecommunications Networks Engineering

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Develop system design requirements	1.1 Produce system requirements specifications for a complex project involving enterprise and technology issues using the simplest possible technology and making the system modular 1.2 Resolve and negotiate requirement conflicts to establish a complete and consistent requirement set 1.3 Produce and develop acceptance criteria for requirements 1.4 Design a requirements management plan with categorisations, structures and sources of complexity 1.5 Develop a process to manage requirements, enabling users to

ELEMENT	PERFORMANCE CRITERIA
	influence future improvements
2. Produce system design based on requirements	2.1 Evaluate strengths and weaknesses of relevant technologies in context of the design requirement and needs for systems integration 2.2 Create range of alternative interdisciplinary concepts and assess their attributes 2.3 Plan for incorporation of later life-cycle design attributes while developing design requirements 2.4 Devise a system design strategy and approach, using tools and techniques to conduct functional analysis 2.5 Produce a set of parameters to track critical aspects of the design 2.6 Use documentation, modelling and simulation tools and techniques to represent a system or system element 2.7 Use complex simulations to evaluate design concepts for a system or system element 2.8 Produce a report to evaluate and advise on risks, suitability and limitations of models and simulations 2.9 Identify underlying domain-specific issues, strategy and approach to be adopted for ensuring system robustness 2.10 Produce a robust design using domain-specific strategy and approach for platform requirements and designs
3. Verify solution design and traceability	3.1 Align specific aspects of the design to original intent 3.2 Verify and track specific aspects of current design against original intent throughout the supply chain 3.3 Compare verification requirements with system requirements 3.4 Use change control and configuration management to implement remedial actions and change control for inconsistencies

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description

Reading	2.6	Organises, evaluates and critiques ideas and information from a wide range of complex texts
Writing	1.1, 1.3-1.5, 2.5, 2.8, 2.10	Demonstrates sophisticated writing skills by selecting appropriate conventions and stylistic devices to express precise meaning
Oral Communication	1.2	- Participates in verbal exchanges using appropriate tone and clear language to address key personnel - Uses listening and questioning skills to confirm understanding
Interact with others	1.2	Collaborates and negotiates to achieve agreeable outcomes in potentially contentious situations
Get the work done	1.1, 1.5, 2.1-2.4, 2.6, 2.7, 2.9, 2.10, 3.1-3.4	- Uses a combination of formal, logical planning processes and an increasingly intuitive understanding of context for complex, high-impact activities with strategic implications - Demonstrates a sophisticated understanding of principles, concepts, language and practices associated with the digital world and uses this to analyse and design solutions - Uses systematic, analytical processes in complex, non-routine situations, setting goals, gathering relevant information and identifying and evaluating options against agreed criteria - Uses formal analytical and lateral thinking techniques for diagnosing problems and generating and evaluating possible solutions

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICTTEN803 Translate domain and solution architectures into platform requirements and designs	ICTTEN7220 A Translate domain and solution architectures into platform requirements and designs	Updated to meet Standards for Training Packages. Recoded to meet AQF	Equivalent unit

Code and title current version	Code and title previous version	Comments	Equivalence status
		requirements.	

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a53af4e4-b400-484e-b778-71c9e9d6aff2>

Assessment Requirements for ICTTEN803 Translate domain and solution architectures into platform requirements and designs

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Performance Evidence

Evidence of the ability to:

- develop system design requirements
- evaluate design concepts for system or system element using complex simulations
- produce a system design using domain specific strategy to platform requirements and design
- use functional analysis tools
- verify solution design and traceability.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- explain complex simulation techniques
- summarise current enterprise platforms and designs
- outline design of management plans
- explain domain and solution architectures
- determine and summarise technological issues for a specified enterprise
- outline information required to simulate computer system elements according to a test specification
- explain interdisciplinary concepts and attributes
- explain life cycle design attributes
- contrast remedial actions and select control for inconsistencies
- explain solution design and traceability
- provide a detailed summary of tools required to conduct functional analysis.

Assessment Conditions

Gather evidence to demonstrate consistent performance in conditions that are safe and replicate the workplace. Noise levels, production flow, interruptions and time variances should be typical of those experienced in the Telecommunications – Telecommunications Networks Engineering field of work and include access to:

- a site where development, deployment, management and optimisation of domain and solution architectures into platform requirements and designs can be undertaken
- documentation, modelling and simulation tools currently used in industry
- tests and equipment currently used in industry.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

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