Australian Government

ICTTEN819 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 7.0.

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
Elements describe the essential outcomes.	*Performance criteria describe the performance needed to demonstrate achievement of the element.*
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 influence future improvements
2. Produce system design	2.1 Evaluate strengths and weaknesses of required technologies in

ELEMENT	PERFORMANCE CRITERIA
based on requirements	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 those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria.

SKILL	DESCRIPTION
Oral communication	• Participates in verbal exchanges using relevant tone and clear language to address relevant personnel • Uses listening and questioning skills to confirm understanding
Reading	• Organises, evaluates and critiques ideas and information from a wide range of complex texts
Writing	• Demonstrates sophisticated writing skills by selecting required conventions and stylistic devices to express precise meaning

SKILL	DESCRIPTION
Teamwork	• Collaborates and negotiates to achieve agreeable outcomes in potentially contentious situations
Planning and organising	• Uses a combination of formal, logical planning processes and an understanding of context for complex, high-impact activities with strategic implications
Problem solving	• Uses systematic, analytical processes in complex, non-routine situations, setting goals, gathering required 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
Technology	• Demonstrates a sophisticated understanding of principles, concepts, language and practices associated with the digital world and uses this to analyse and design solutions

Unit Mapping Information

Supersedes and is equivalent to ICTTEN803 Translate domain and solution architectures into platform requirements and designs.

Links

Companion Volume Implementation Guide is found on VETNet - https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a53af4e4-b400-484e-b778-71c9e9d6aff2