



Australian Government

ICTTEN824 Manage network testing strategies

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 plan and manage a test regime for evaluation of application software for a network.

It applies to individuals with high-level technical skills working as network engineers or senior technical staff within project management roles.

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. Plan test effort and develop test strategy for an application software	1.1 Analyse functionalities of an application software from the system design document and create test strategy for new network product lines 1.2 Produce steps for test strategy, including attributes of each step according to enterprise policy 1.3 Produce test strategy for evaluating suitability of application software for integration into networks 1.4 Analyse test strategy and identify types of risks that would hinder test performance or reality
2. Plan test strategy for regime	2.1 Produce phases of a test cycle for a test regime according to system design document 2.2 Assess a range of tests required to evaluate performance and functionality of application software and determine tests required

ELEMENT	PERFORMANCE CRITERIA
	<p>to suit the test regime</p> <p>2.3 Evaluate features of testing tool and debuggers and select a required tool to test software application and detect faults</p> <p>2.4 Evaluate elements of test plan that cover testing functionality of the application software</p>
3. Design test plan and produce test reviews	<p>3.1 Determine forecast time, effort and cost for low and medium intensity projects to perform testing</p> <p>3.2 Develop a test case or test scenario with prerequisite states based on requirements to generate expected test results for test plan</p> <p>3.3 Produce test plan for specific phases based on requirements of project specifications for the application software</p> <p>3.4 Produce test reporting associated with particular test phases within test plan</p> <p>3.5 Analyse test reports and evaluate impact of test plan on the testing environment</p> <p>3.6 Manage progress of test plan to minimise risks associated with testing and confirm test compliance with test requirements</p> <p>3.7 Report any detected defects to relevant personnel, and prepare a strategy to manage defects</p>
4. Manage test traceability	<p>4.1 Create a traceability matrix to correlate relationship between marketing requirements and detailed requirements of software product to matching parts of design, test plan and test cases</p> <p>4.2 Analyse testing metrics produced by test tool to manage tracking of defects and plan process improvements based on the metrics</p> <p>4.3 Produce an evaluation report from traceability matrix to manage defects or failures from the test plan</p>

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
Numeracy	<ul style="list-style-type: none"> Uses numerical information to interpret and evaluate different types of technical data, take measurements and determine cost-effective outcomes
Reading	<ul style="list-style-type: none"> Organises, evaluates and critiques ideas and information from a wide range of complex texts
Writing	<ul style="list-style-type: none"> Prepares workplace documentation including reports and recommendations incorporating technical language to

SKILL	DESCRIPTION
	communicate complex information clearly and effectively
Teamwork	<ul style="list-style-type: none"> • Selects and uses required conventions and protocols when communicating with relevant personnel in a range of work contexts
Planning and organising	<ul style="list-style-type: none"> • Uses a combination of formal, logical planning processes and an understanding of context for complex, high impact activities with strategic implications • Takes responsibility for high-impact decisions in complex situations involving many variables and constraints
Self-management	<ul style="list-style-type: none"> • Adheres to organisational procedures and protocols
Technology	<ul style="list-style-type: none"> • Applies formal analytical and lateral thinking techniques for resolving software, hardware and logistics problems • Demonstrates a sophisticated understanding of principles, concepts, language and practices associated with the digital world and uses this to devise strategies

Unit Mapping Information

Supersedes and is equivalent to ICTTEN808 Manage network testing strategies.

Links

Companion Volume Implementation Guide is found on VETNet -

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