



Australian Government

ICTTEN806 Manage application layer solutions

Release: 1

ICTTEN806 Manage application layer solutions

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, evaluate, manage, deploy and maintain application layer solutions for new solutions or existing network telecommunications service.

It applies to individuals with highly developed technical skills working as network engineering staff or senior technical officers with appropriate project management roles and authority to direct activities of installation staff, manufacturers and vendors.

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 application layer solutions	1.1 Produce requirements for applications layer solutions for delivery of new applications layer solutions to customers using forecasting demand data 1.2 Prepare a plan for an organisational change control process and integration of new solutions within a complete network infrastructure 1.3 Produce a test management schedule for the testing process of application product 1.4 Translate complex design and architecture requirements to traceable application characteristics according to design

ELEMENT	PERFORMANCE CRITERIA
	requirements 1.5 Develop application architecture solution specifications using an industry process according to design requirements 1.6 Develop application software resource profiling and select suitable vendor for negotiations 1.7 Translate complex requirements into software packaging 1.8 Produce software deployment mapping and version control to ensure complete integration and compatibility of application solution with existing system 1.9 Complete configuration management and provide complex input network design requirements
2. Critically analyse test results of application layer solutions	2.1 Use design document and integration document software to replicate issues exhibited in test environment 2.2 Certify software solution compatibility and compliance to requirements using a web-based test management tool (quality centre) to conduct performance evaluation tests 2.3 Critically analyse test reports to evaluate load balancing and network security issues in test environment 2.4 Resolve complex issues in interface to isolate defects
3. Manage deployment of application layer solutions	3.1 Plan and prepare evidence for customer acceptance and certification 3.2 Plan and manage transition to operation activities required for transition to operation of integrated application layer solution 3.3 Prepare installation failures procedure to make changes while maintaining service levels 3.4 Manage change implementation plan to maintain system stability
4. Maintain currency of application layer solutions	4.1 Manage ongoing monitoring activities to prolong new applications layer solution life cycle for cost-effective business reasons 4.2 Produce tuning activities to make efficient use of resources 4.3 Analyse current demands for resources to derive forecasts and future requirements 4.4 Produce a capacity plan predicting infrastructure resource needs to achieve agreed service levels

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	1.1, 1.4, 1.5, 2.3	Organises, evaluates and interprets a range of complex technical documentation including software and hardware manuals
Writing	1.2, 1.3, 1.8, 3.3, 4.4	Prepares clear and concise workplace documentation including complex plans incorporating technical language to communicate complex information clearly and effectively
Numeracy	1.1, 2.3, 4.1	Analyses and synthesises highly embedded mathematical information in a broad range of tasks and texts
Get the work done	1.4-1.6, 1.8, 1.9, 2.1-2.4, 3.1, 3.2, 3.4, 4.1-4.4	- Operates from a broad conceptual plan, developing operational detail in stages, regularly reviewing priorities and performance during implementation, and identifying and addressing issues - Demonstrates a sophisticated understanding of principles, concepts, language and practices associated with the digital world and uses this to devise solutions - Uses a broad range of strategies to store, access and organise virtual information, recognising design choices will influence what information is retrieved and how it may be interpreted and used - Takes responsibility for high-impact decisions in complex situations involving many variables and constraints - Uses formal analytical and lateral thinking techniques to resolve logistics problems - Monitors outcomes of decisions, considering results from a range of perspectives and identifying key concepts and principles and their impact on customers and enterprise

Unit Mapping Information

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

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ICTTEN806 Manage application layer solutions	ICTTEN7223A Manage application layer solutions	Updated to meet Standards for Training Packages. Recoded and minor changes to elements and PCs to meet AQF requirements.	Equivalent unit

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 ICTTEN806 Manage application layer solutions

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Performance Evidence

Evidence of the ability to:

- produce a test management schedule for testing process of application product
- develop application architecture solution specifications using an industry process
- produce software deployment mapping and version control
- analyse test results of application layer solutions
- prepare evidence for customer acceptance and certification
- prepare an installation failures procedure
- manage ongoing monitoring activities
- produce tuning activities
- produce a capacity plan predicting infrastructure resource needs.

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 installation failure procedures
- summarise legislation, codes of practice and other formal agreements that directly impact activity
- explain important tenets of managing change
- explain new applications layer solutions
- define software and hardware resources required by an application layer
- outline specific workplace health and safety (WHS) requirements that impact activity in terms of safety of self and the public
- outline system integration techniques
- explain test management scheduling
- summarise tuning activities to maintain currency

- explain use of forecasting demand data
- explain use and purpose of test management tools.

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 management of application layer solutions may be conducted
- software tools currently used in industry
- vendor products, specifications, equipment and enterprise policy required for the activity.

Assessors must satisfy NVR/AQTF assessor requirements.

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