



Australian Government

ICTTEN822 Manage application layer solutions

Release: 1

ICTTEN822 Manage application layer solutions

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

It applies to individuals with highly developed technical skills working as network engineering staff or senior technical officers with relevant 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 requirements 1.5 Develop application architecture solution specifications using an

ELEMENT	PERFORMANCE CRITERIA
	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 confirm complete integration and compatibility of application solution with existing system 1.9 Complete configuration management and provide complex input network design requirements
2. 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 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 those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria.

SKILL	DESCRIPTION
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SKILL	DESCRIPTION
Numeracy	Analyses and synthesises highly embedded mathematical information in a broad range of tasks and texts
Reading	Organises, evaluates and interprets a range of complex technical documentation including software and hardware manuals
Writing	Prepares workplace documentation including complex plans incorporating technical language to communicate complex information clearly and effectively
Planning and organising	- Operates from a broad conceptual plan, developing operational detail in stages, regularly reviewing priorities and performance during implementation, and identifying and addressing issues - Takes responsibility for high-impact decisions in complex situations involving many variables and constraints - Monitors outcomes of decisions, considering results from a range of perspectives and identifying key concepts and principles and their impact on customers and enterprise
Problem solving	Uses formal analytical and lateral thinking techniques to resolve logistics problems
Technology	- 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 - Demonstrates a sophisticated understanding of principles, concepts, language and practices associated with the digital world and uses this to devise solutions

Unit Mapping Information

Supersedes and is equivalent to ICTTEN806 Manage application layer solutions.

Links

Companion Volume Implementation Guide is found on VETNet -

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

Assessment Requirements for ICTTEN822 Manage application layer solutions

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Performance Evidence

The candidate must demonstrate the ability to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including evidence of the ability to:

- manage at least two application layer solutions.

In the course of the above, the candidate must:

- produce test management schedules
- develop application architecture solution specifications
- produce software deployment mapping and version control
- analyse test results of application layer solutions
- prepare evidence for customer acceptance and certification
- prepare installation failure procedures
- manage ongoing monitoring activities
- produce tuning activities
- produce capacity plans, predicting infrastructure resource needs.

Knowledge Evidence

The candidate must be able to demonstrate knowledge to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including knowledge of:

- required legislation, codes, company work practices, regulations and standards, workplace health and safety (WHS) requirements for scoped work
- installation failure procedures
- important tenets of managing change
- different planning documents including:
 - organisational change implementation plan
 - capacity plan
- new applications layer solutions

- software and hardware resources required by an application layer
- system integration techniques
- test management scheduling
- tuning activities to maintain currency
- use of forecasting demand data
- use and purpose of test management tools.

Assessment Conditions

Skills in this unit must be demonstrated in a workplace or simulated environment where the conditions are typical of those in a working environment in this industry.

This includes 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 of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

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