



Australian Government

ICTTEN823 Manage voice, data and internet protocol network solutions

Release: 1

ICTTEN823 Manage voice, data and internet protocol network 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 integrate new solutions to an existing network and manage change implementation.

It applies to individuals with excellent technical skills working as network engineering or senior technical staff within project management roles with 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 voice, data and IP network solutions	1.1 Produce requirements for voice, data and IP network solutions for delivery of new voice, data and IP networks to customers using forecasting demand data 1.2 Prepare plan for organisational change, control process and integration of new solutions within a complete network infrastructure 1.3 Produce test management schedule for testing process of network product solution 1.4 Translate complex design and architecture requirements to traceable software application characteristics according to design requirements

ELEMENT	PERFORMANCE CRITERIA
	1.5 Develop network architecture solution specifications using industry process according to design requirements 1.6 Develop software and hardware 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 network application solution to existing system 1.9 Complete configuration management and provide complex input network design requirements
2. Analyse test results of voice, data and IP network 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 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 voice, data and IP network 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 IP network 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 voice, data and IP network solutions	4.1 Manage ongoing monitoring activities to prolong new IP network solution life cycle for cost-effective business reasons 4.2 Produce tuning activities to make efficient use of resources 4.3 Analyse current demand 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	• Uses numerical information to interpret results, evaluate different types of technical data, take measurements and determine cost-effective outcomes
Reading	• Organises, evaluates and interprets complex technical documentation, such as software and hardware manuals and design specifications
Writing	• Prepares workplace documentation including reports and recommendations incorporating technical language to communicate complex information clearly and effectively
Planning and organising	• Uses a combination of formal, logical planning processes and an understanding of context for complex, high-impact activities with strategic implications • Uses formal analytical and lateral thinking techniques for identifying issues, and developing and evaluating procedures for network solutions
Technology	• 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 ICTTEN807 Manage voice, data and internet protocol network 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 ICTTEN823 Manage voice, data and internet protocol network 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:

- develop and manage at least two voice, data and IP network solutions.

In the course of the above, the candidate must:

- produce test management schedules
- develop network architecture solution specifications
- develop software and hardware resource profiling and select suitable vendor for negotiations
- conduct configuration management of voice, data and IP network and provide complex input network design requirements
- analyse test reports
- prepare installation failures procedure
- produce tuning activities to enable efficiencies
- produce capacity plan 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
- functions and features of capacity plans
- installation failure procedures
- change management strategies required for the introduction of new technologies
- software application characteristics
- new IP network solutions
- software and hardware resources required to project

- system integration techniques
- test management scheduling
- detailed summary of tuning activities necessary to maintain currency
- use of forecasting demand data
- 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 voice, data and IP network solutions can be conducted
- software and hardware resources suitable for developing, deploying and managing voice, data and IP network solutions
- tests and equipment currently used in industry.

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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