



Australian Government

ICTNPL410 Plan the telecommunications access network for an estate

Release: 1

ICTNPL410 Plan the telecommunications access network for an estate

Modification History

Release	Comments
Release 1	This version first released with ICT Information and Communications Technology Training Package Version 2.0.

Application

This unit describes the skills and knowledge required to plan access networks delivering voice, data and video services to customers, and involves the collation and evaluation of data relating to network shortfalls and projected usage, leading to the development of solutions and ultimately network plans for an estate.

It applies to individuals with a range of telecommunications skills and extensive knowledge of core and access network capabilities of the service provider. It prepares individuals for entry into planning and design for network additions and implementations to accommodate network growth and new technologies within the industry.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Telecommunications – Network Planning

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. Gather data on network usage for planning activity	1.1 Determine the type of access network by accessing and using network information sources 1.2 Collect planning data using network information sources to determine network trends 1.3 Evaluate new and emerging technologies to determine availability

	and compatibility with existing network equipment 1.4 Access relevant legislation and associated regulatory and operational codes
2. Evaluate need for network growth	2.1 Evaluate capacity of the existing network to absorb planned growth 2.2 Identify need and likely timing of necessary network increments 2.3 Assess new or alternate technologies to rectify network shortfall 2.4 Identify barriers relating to planned network extensions impacting planning the network realisation 2.5 Assess the impact of not meeting network shortfall needs and long term ramifications on the business
3. Develop solution and network plan to address network shortfall	3.1 Review overall planning parameters prior to commencement of the planning process to produce forecasts for specific network area and cost-benefit analysis 3.2 Establish the optimum solution to address network shortfall with justification for the proposal 3.3 Determine project details and ascertain preliminary costing and resource requirements 3.4 Determine availability of required technology or technology features within the specified timeframe 3.5 Produce a specific network plan with solution and recommendations for anticipated projects for approval according to enterprise procedures

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, 2.1-2.5, 3.1, 3.3, 3.4	- Analyses and evaluates complex written and visual text in specialised workplace documentation to determine key information and specific requirements - Evaluates complex text to determine legislative, regulatory and project requirements
Writing	1.3, 2.3, 2.5, 3.2, 3.3, 3.5	Develops complex material for a specific audience using clear and detailed language and visuals while employing expected forms and conventions

		Prepares reports which incorporate evaluation of information and specialised and cohesive language
Oral Communication	2.3, 2.4, 3.2-3.5	Clearly articulates requirements using language appropriate to audience and environment and participates in a verbal exchange of ideas and solutions
Numeracy	1.2, 2.1, 2.5, 3.1, 3.3, 3.4	Interprets numerical information and applies basic mathematical calculations relating to time durations and budgetary information
Navigate the world of work	1.4	Takes personal responsibility for following explicit and implicit policies, procedures and legislative requirements
Get the work done	1.2, 1.3, 2.1-2.5, 3.1, 3.2, 3.4	- Takes responsibility for planning, sequencing and prioritising tasks and own workload for efficiency and effective outcomes - Makes routine decisions and implements standard procedures for routine tasks, using formal decision-making processes for more complex and non-routine situations - Addresses less predictable problems and initiates standard procedures in response, applying problem-solving processes in determining a solution - Contributes to continuous improvement of current work practices by applying basic principles of analytical and lateral thinking

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICTNPL410 Plan the telecommunications access network for an estate	ICTNPL4151A Plan the telecommunications access network for an estate	Updated to meet standards for Training Packages	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 ICTNPL410 Plan the telecommunications access network for an estate

Modification History

Release	Comments
Release 1	This version first released with ICT Information and Communications Technology Training Package Version 2.0.

Performance Evidence

Evidence of ability to:

- implement planning processes including associated monitoring and control mechanisms
- develop effective solutions to address access network shortfalls that satisfy customer and enterprise needs
- develop network plans with consideration of appropriate technological developments and product implementation
- produce accurate forecasts for a specific network including cost-benefit analysis.

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:

- identify and summarise legislation affecting the telecommunications industry
- outline the features of an access network and the influence on:
 - cost estimates and operating budgets according to enterprise policy
 - telecommunications industry in Australia
- describe the theory of project management and associated databases and project management software programs
- describe the process and features of planning for an access network on an estate
- determine the economic and political influences on public and commercial enterprises
- describe the financial authorities and delegations associated with an access network plan
- define the influence of the local and international economic conditions on the telecommunications industry
- describe the typical challenges and limits facing technology today and the consideration of future needs

- describe the process of collating and writing project briefs, reports and project charters.

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 must be typical of those experienced in the Telecommunications – Network Planning field of work and include access to:

- a network planning area systems and deployment
- rules and standards
- relevant databases
- licensing requirements and other site related procedures.

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

Links

Companion Volume implementation guides are found in VETNet -

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