



Australian Government

ICTNPL403 Evaluate the capability of access networks

Release: 1

ICTNPL403 Evaluate the capability of access networks

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 gather information on the types of access networks and evaluate their capability to meet present and future demands, including evaluation and comparison of competing access network technologies.

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. Scope the project	1.1 Prepare for given work according to site-specific safety requirements and enterprise work health and safety (WHS) processes and procedures 1.2 Determine types of access networks currently deployed by accessing and using network information sources 1.3 Determine nature, quantity, architecture and condition of existing network equipment and their attributes 1.4 Produce a brief on deployment scope of current access networks,

	including geographical limitations and their contribution to the larger network
2. Assess capability and technologies of current and future access networks	2.1 Produce layout of the topology of identified types of access networks with network elements clearly indicated 2.2 Evaluate equipment type and technologies of the access network to determine compatibility with existing network equipment and interoperability with other networks 2.3 Assess current and future capability and limitations of the network to ensure potential growth of the network 2.4 Determine future offerings of product and services outlining product offerings allowable over each network
3. Document capability evaluation	3.1 Assess capability of current access networks to deliver products and services to customers 3.2 Recommend preferred solutions for network growth with future capabilities

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, 2.2-2.4, 3.1	Identifies and evaluates written and visual text in specialised workplace documentation to determine key information and specific requirements
Writing	1.4, 2.1, 3.2	Develops material for a specific audience using clear and detailed language and expected forms and conventions
Oral Communication	1.3, 1.4, 3.2	Articulates technical information using an appropriate tone and vocabulary for intended audience
Numeracy	1.4, 2.1, 2.2	Employs mathematical calculations to determine features and limitations of different networks and equipment
Navigate the world of work	1.1	Takes personal responsibility for following explicit and implicit policies, procedures and legislative requirements
Interact with	3.2	Selects and uses appropriate conventions and protocols when communicating with

others		clients and co-workers in a range of work contexts
Get the work done	1.1-1.3, 2.2-2.4, 3.1, 3.2	• 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

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICTNPL403 Evaluate the capability of access networks	ICTNPL4109A Evaluate the capability of access networks	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 ICTNPL403 Evaluate the capability of access networks

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Performance Evidence

Evidence of ability to:

- evaluate capability and limitations of the various access network technologies for present and future needs
- determine and source equipment that will be used across the spectrum of access network technologies
- outline product offerings allowable across all competing access network technologies.

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 access networks from information sources
- explain access networks in terms of:
 - common attributes and features
 - typical access network technologies and topologies
- explain how to assess capability and limitations of a network including:
 - its contribution to the boarder network; and,
 - its capacity to deliver customer products and services
- outline typical problems and challenges that arise from working with access network technologies
- explain the basis on which various network technologies are selected.

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:

- network design documentation and other site related documentation
- equipment specifications
- live network or training facilities
- organisational guidelines
- networked computers
- networked telecommunications components.

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

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