



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **ICTNPL4107A Apply business acumen to network planning**

**Release: 1**

## ICTNPL4107A Apply business acumen to network planning

### Modification History

Not Applicable

### Unit Descriptor

<b>Unit descriptor</b>	<p>This unit describes the performance outcomes, skills and knowledge required to consider business drivers in a decision-making process for network planning.</p> <p>The business processes and strategies form part of the model to justify investment in planning projects.</p> <p>No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement but users should confirm requirements with the relevant federal, state or territory authority.</p>
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### Application of the Unit

<b>Application of the unit</b>	<p>Technicians or technical officers from private and public organisations apply the skills and knowledge in this unit to plan developments in Core or Access networks.</p> <p>They combine technical design skills with organisational and business skills to apply business acumen to network planning for service providers and asset owners.</p>
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### Licensing/Regulatory Information

Refer to Unit Descriptor

## Pre-Requisites

<b>Prerequisite units</b>		

## Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Analyse forecasts using customer demand	1.1. Gather and organise information concerning customer service and usage data to determine customer demand 1.2. Determine <b>trends in customer demands</b> in specific customer operating environment and markets 1.3. Assess <b>key measures of capacity</b> and customer demand for forecast
2. Build models to develop business cases	2.1. Construct a model to represent key options to formulate strategic proposals in network planning 2.2. Access the <b>legislation</b> that govern carriers in Australia to determine the rights of carriers and service providers in installing facilities under Commonwealth legislation 2.3. Produce a strategic network plan using <b>key variables</b> and communicate them to <b>intended audience</b> 2.4. Apply business case methodology to determine <b>key economic measures</b> and risks to business success 2.5. Evaluate business value and options to recommend appropriate planning strategy
3. Apply financial analysis	3.1. Use a <b>financial investment tool</b> relevant to the business environment to determine financial viability of the planning project 3.2. Apply key economic measures in an analysis process and develop business strategy 3.3. Determine relevant level of financial analysis required to optimise network planning
4. Analyse demographic trends for strategy development	4.1. Gather demographic data and determine impact of <b>demographic diversity</b> on planning strategies 4.2. Analyse data and produce <b>demographic trends</b> for use in strategy developments in network planning
5. Assess technology implementation	5.1. Determine unit costs associated with technologies and products by using lifecycle of technologies 5.2. Research what different technology bases can deliver and the circumstances and locations in which they should be successfully deployed
6. Evaluate network deployment architecture	6.1. Evaluate network deployment architecture using network deployment rules and reasoning behind architecture rules 6.2. Produce a business model of network planning applying <b>commercial considerations</b> and <b>exemption</b>

ELEMENT	PERFORMANCE CRITERIA
	<i>process</i>

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

#### Required skills

- analytical skills to:
  - evaluate technical and financial models
  - interpret, analyse and evaluate data
- communications skills to liaise with internal and external personnel on technical and operational matters
- literacy skills to read and interpret technical and financial information from a range of sources
- planning and organisational skills to prioritise and monitor own work
- research skills to gather information on a range of network planning issues
- technical skills to:
  - carry out financial analyses
  - use emerging technologies in network planning

#### Required knowledge

- business modelling
- commercial considerations:
  - capital expenditure (CAPEX)
  - operational expenditure (OPEX)
  - product revenue and demand versus network cost
  - return on investment (RoI)
  - time to market
- demographics
- emerging technologies of telecommunications
- financial investment tools:
  - cost-benefit analysis
  - investment management system
  - net present value (NPV)
- financial models
- forecasting of trends

**REQUIRED SKILLS AND KNOWLEDGE**

- legislation:
  - Australian Competition and Consumer Commission (ACCC)
  - Telecommunications Industry Regulatory Accounting Framework (RAF)
  - Universal Service Obligation (USO)
- network planning processes

## Evidence Guide

### EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

#### Overview of assessment

#### Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence of the ability to:

- analyse forecasts using customer demand
- build models to develop business cases
- apply financial analysis
- analyse demographic trends for strategy development
- assess technology implementation
- evaluate network deployment architecture.

#### Context of and specific resources for assessment

Assessment must ensure:

- access to network planning data, relevant databases, business and financial models
- systems and deployment rules
- relevant legislations, planning processes and Telecommunications Industry Regulatory Accounting Framework (RAF).

#### Method of assessment

A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:

- review of business models and strategic network plans completed by the candidate
- oral or written questioning to assess required knowledge that applies to the business acumen for network planning
- review of demographic data and research collected by the candidate.

#### Guidance information for assessment

Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example:

- ICTNPL4108A Plan the deployment of access network architectures
- ICTNPL4113A Plan the deployment of core network
- ICTNPL4151A Plan the telecommunications access network for an estate.

**EVIDENCE GUIDE**

	<p>Aboriginal people and other people from a non-English speaking background may have second language issues.</p> <p>Access must be provided to appropriate learning and assessment support when required.</p> <p>Assessment processes and techniques must be culturally appropriate, and appropriate to the oral communication skill level, and language and literacy capacity of the candidate and the work being performed.</p> <p>In all cases where practical assessment is used it will be combined with targeted questioning to assess required knowledge. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency.</p> <p>Where applicable, physical resources should include equipment modified for people with special needs.</p>
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**Range Statement****RANGE STATEMENT**

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<b><i>Trends in customer demands</i></b> may include:	<ul style="list-style-type: none"> <li>• demands for new services</li> <li>• demographic trends</li> <li>• growth in customer demand</li> <li>• service level forecast</li> <li>• technology upgrade.</li> </ul>
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<b><i>Key measures of capacity</i></b> may	<ul style="list-style-type: none"> <li>• available bandwidth</li> </ul>
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<b>RANGE STATEMENT</b>	
include:	<ul style="list-style-type: none"> <li>• available headroom in infrastructure</li> <li>• available outlets or ports</li> <li>• spare channels.</li> </ul>
<b>Legislation</b> may include:	<ul style="list-style-type: none"> <li>• ACCC</li> <li>• ACMA legislations</li> <li>• Telecommunications Act 1997</li> <li>• RAF</li> <li>• telecommunications ombudsman</li> <li>• Trade Practices Act</li> <li>• USO.</li> </ul>
<b>Key variables</b> may include:	<ul style="list-style-type: none"> <li>• deployment rate</li> <li>• growth rate</li> <li>• high output sensitivity</li> <li>• time to market.</li> </ul>
<b>Intended audience</b> may include:	<ul style="list-style-type: none"> <li>• customers</li> <li>• decision makers</li> <li>• financial managers</li> <li>• planners.</li> </ul>
<b>Key economic measures</b> may include:	<ul style="list-style-type: none"> <li>• macro-economic environment</li> <li>• market trends.</li> </ul>
<b>Financial investment tools</b> may include:	<ul style="list-style-type: none"> <li>• cost-benefit analysis</li> <li>• investment management system</li> <li>• NPV.</li> </ul>
<b>Demographic diversity</b> may include:	<ul style="list-style-type: none"> <li>• cultural diversity</li> <li>• non-homogenous customer demand</li> <li>• socioeconomic diversity.</li> </ul>
<b>Demographic trends</b> may include:	<ul style="list-style-type: none"> <li>• ageing population</li> <li>• forecast non-homogenous demand</li> <li>• increase in cultural groups</li> <li>• technology poor.</li> </ul>
<b>Commercial considerations</b> may include:	<ul style="list-style-type: none"> <li>• CAPEX</li> <li>• OPEX</li> <li>• product revenue and demand versus network cost</li> <li>• RoI</li> <li>• time to market.</li> </ul>
<b>Exemption process</b> may include:	<ul style="list-style-type: none"> <li>• financial impediments</li> <li>• network deployment rules</li> </ul>

**RANGE STATEMENT**

	<ul style="list-style-type: none"><li>reasoning behind architecture rules.</li></ul>
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**Unit Sector(s)**

<b>Unit sector</b>	Telecommunications
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**Co-requisite units**

<b>Co-requisite units</b>		

**Competency field**

<b>Competency field</b>	Network planning
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