



Australian Government

Department of Education, Employment and Workplace Relations

ICTTEN7228A Manage project requirements and process implementations

Release: 1

ICTTEN7228A Manage project requirements and process implementations

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit describes the performance outcomes, skills and knowledge required to analyse forecast data, develop specifications and resource requirements and plan implementation of the process solution for products and services. 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.
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Application of the Unit

Application of the unit	Network engineering staff or senior technical officers with project management roles and authority to direct the activities of implementation staff apply the skills and knowledge in this unit. This unit is relevant when providing customers with products and services in new and emerging technologies.
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Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	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. Manage forecast service demand requirements	1.1. Develop a project plan to review forecasting data and generate planning forecasts using forecasting tools 1.2. Analyse and review forecasts according to enterprise policy and produce forecasts figures considering new developments in the area and technological changes where appropriate
2. Manage network development growth requirements	2.1. Analyse market intelligence on customer demand and demand data to plan for potential network traffic quantity and flow 2.2. Assess overall planning parameters, including approved business plan prior to commencing planning process 2.3. Analyse gathered information and produce a project plan with specifications to meet network growth
3. Manage project resources requirements	3.1. Assess the resource requirements to manage the project from scoping phase through to project completion 3.2. Analyse the outcomes of the project deliverables to determine the effectiveness of the project process
4. Develop process solutions	4.1. Produce the requirements for process solutions for the delivery of product and services to customers using forecasting demand data 4.2. Prepare a plan for the organisational change control process and the integration of new solutions within a complete network infrastructure 4.3. Produce a test management schedule for the testing process of the product solution 4.4. Develop solution specifications using industry process according to design requirements 4.5. Develop software and hardware resource profiling and select suitable vendor for negotiations 4.6. Complete configuration management and provide complex input design requirements
5. Analyse test results for process solutions	5.1. Use design document and integration document software to replicate issues exhibited in test environment 5.2. Certify software solution compatibility and compliance with requirements using web based test management tool to conduct performance

ELEMENT	PERFORMANCE CRITERIA
	<i>evaluation tests</i> 5.3. Analyse test reports to evaluate compatibility and security issues in a test environment 5.4. Resolve complex issues in interface to isolate defects
6. Manage process implementation	6.1. Plan and prepare evidence for customer acceptance and certification 6.2. Plan and manage <i>transition to operation activities</i> required for transition to operation of integrated IP solution 6.3. Prepare an installation failures procedure to make changes whilst maintaining service levels 6.4. Manage <i>change implementation plan</i> to maintain system stability

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

- analytical skills to use information and data to manage network growth
- communication skills to discuss project brief with enterprise personnel, customers and other contractors
- literacy skills to read and write reports and project briefs
- numeracy skills to:
 - apply forecasting techniques
 - assess planning parameters
 - work with statistical data
- planning and organisational skills to consider current and new technology, facilities and features when developing options
- problem solving skills to account for unexpected changes in demand requirements
- research skills to:
 - obtain and study information relating to new technology or technology features
 - review forecasting data
- technical skills to:
 - use integration software

REQUIRED SKILLS AND KNOWLEDGE

- conduct performance evaluation tests

Required knowledge

- change management
- customer applications and usage levels
- forecasting techniques
- industry processes
- integration of new solutions
- market intelligence
- performance evaluation
- planning procedures
- product integration
- products and services
- project management
- sources of data to aid forecasting
- test management

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:

- manage forecast service demand requirements
- manage network development growth requirements
- manage project resources requirements
- develop process solutions.

Context of, and specific resources for assessment

Assessment must ensure:

- forecast data and tools involved in planning
- a range of software and hardware currently used in industry
- relevant regulations, specifications that impact on forecasting activities.

Methods of assessment

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

- direct observation of the candidate implementing process solutions
- review of planning forecasts, specifications and evidence for customer acceptance completed by the candidate for different scenarios and situations
- oral or written questioning to assess required knowledge.

Guidance information for assessment

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

- ICTTEN7230A Scope project requirements and process solutions.

Aboriginal people and other people from a non-English speaking background may have second language issues.

Access must be provided to appropriate learning and

EVIDENCE GUIDE

	assessment support when required. 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. 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. Where applicable, physical resources should include equipment modified for people with special needs.
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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.

Forecasting data may be:

- collated by:
 - directories
 - examining plans
 - historical usage data
 - interviews
 - maps
 - network management tools
 - reports
- collected from:
 - customers:
 - actual
 - prospective

RANGE STATEMENT	
	• economic planners • internal organisational groups • marketing organisations • real estate agents • sales organisations • state/territory and federal governments • statutory bodies • traffic management systems • changing customer use patterns • customer access planning • demographic changes • economic forecasts • industry trends • influence of technology on traffic demand • land developments • local industry • marketing programs • population trends • possible environmental impacts • re-zoning • sales forecasts • shire planning • telecommunications history in the area • traffic patterns.
Forecasting tools may include:	• specialist forecasting software • spreadsheets • statistical tools: • graphical estimation • moving averages: • simple • weighted • Poisson distribution • probability • queuing theory • regression analysis • trend analysis.
New developments may include:	• commercial • communications construction occurring directly or concurrently with primary activity

RANGE STATEMENT	
	• domestic • industrial.
Market intelligence may include:	• customer: • demand • feedback • projections • specific technology needs • impact of new technology • vendor forecasts.
Demand data may be:	• collected from: • customers: • actual • prospective • economic planners • internal organisational groups • marketing organisations • real estate agents • sales organisations • state/territory and federal governments • statutory bodies • traffic management systems • in relation to: • access transport planning • changing customer use patterns • demographic changes • economic forecasts • industry trends • influence of technology on traffic demand • land developments • local industry • marketing programs • population trends • possible environmental impacts • re-zoning • sales forecasts • shire planning • traffic patterns.

RANGE STATEMENT	
<i>Planning</i> can relate to:	• buildings • network change • network growth and network reduction • priorities which are driven by: • customer demand • legislative requirements • marketing initiatives • revenue projections • sites • structures.
<i>Specifications</i> may include:	• availability of equipment and resources • costing • funding • infrastructure developments • priority • risk assessment • technology requirements • timeframe.
<i>Resource requirements</i> may refer to:	• communications strategies • contracting and procurement • cost • human resources • quality • risk assessment • time • validation processes.
<i>Requirements for process solutions</i> may include:	• diagnostic software tools • hardware resources • management software tools • protocol management • software resources.
<i>Product</i> may include:	• broadband connections • business solutions • iPhone • mobile internet • optical network • phone conferencing • wireless services.

RANGE STATEMENT	
Services may include:	• assisting customer with new applications • assisting new product sourcing • business customer service • coverage • customer service • database hosting • international roaming • just-in-time deliveries • mobile service • quality of service (QoS) • service restoration.
Integration of new solutions may include:	• hardware compatibility • no contentions • platform compatibility • protocol compatibility • signalling contention • software compatibility • system interoperability • technology compatibility.
Test management schedule may include:	• post-installation test procedures • pre-installation test procedures • profiling of software solution • risk defects report • simulation testing • test process for testable network software built • test summary report.
Industry process may include:	• complex architectural input • complex constructor table input • idea consultation.
Integration document software may include:	• fine-tuning capabilities in multi-operating environments • integration with existing system • links to legacy systems.
Performance evaluation tests may include:	• defects detected, logged and mapped to failed cases • releases to manage software releases and iterations • requirements for traceability and management • test lab to execute test cases from test plan • test plan to create and update test cases.
Transition to operation activities	• installation procedures

RANGE STATEMENT	
include:	• operations and maintenance (OM) expenses • OM • project scope • schedule and milestones • training procedures.
<i>Change implementation plan</i> may include:	• back out procedures • pre-validate changes prior to the change to assess environment stability • test process pre and post scheduled change to identify success.

Unit Sector(s)

Unit sector	Telecommunications
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Co-requisite units

Co-requisite units		

Competency field

Competency field	Telecommunications networks engineering
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