



Australian Government

Department of Education, Employment and Workplace Relations

ICTPMG5027A Develop customer premises equipment installation project plans

Release: 1

ICTPMG5027A Develop customer premises equipment installation project plans

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit describes the performance outcomes, skills and knowledge required to plan installation of customer premises equipment (CPE). This can include customer premises cabling and CPE. 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	Technical planners, designers and supporting administration staff apply the skills and knowledge in this unit. It may apply to technical staff moving into planning and management positions. Installation projects may be new installations, upgrade of capacity or technology for an existing network or subsystem for convergence to Next Generation Networks (NGN).
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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. Assess project requirements	1.1. Discuss and clarify project deliverables with customer using available documentation 1.2. Determine the type of CPE project required for the installation 1.3. Evaluate access, occupational health and safety (OHS) and environmental issues and include in job specification 1.4. Quantify and source equipment required 1.5. Estimate costs using organisational costing guidelines
2. Prepare detailed equipment, system design and configuration	2.1. Capture data necessary to the project design brief 2.2. Negotiate system specifications based on project requirements with customer and sales staff 2.3. Translate available data into a detailed system design and configuration 2.4. Verify deliverables with customer
3. Detail project and quality plans	3.1. Develop project plan to meet customer's needs with detailed task list, resource needs and timeframes 3.2. Develop contingency plans to meet problems that may arise 3.3. Produce a quality plan incorporating flow process charts 3.4. Verify plans with customer and appropriate personnel

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

- analytical skills to compare and evaluate most effective technical solutions
- communication skills to:
 - liaise with customers to ensure requirements are known and can be met within timeframes
 - negotiate approvals and contract arrangements with suppliers and contractors
- literacy skills to:
 - interpret technical specifications and manuals

REQUIRED SKILLS AND KNOWLEDGE

- document technical requirements and procedures
- numeracy skills to:
 - analyse and confirm capacity requirements
 - calculate budget requirements and limitations
- planning and organisational skills to:
 - make site access and equipment delivery arrangements
 - set out project requirements and priorities
- problem solving skills to account for unexpected variations to requirements
- research skills to gain and maintain relevant and current technical product knowledge

Required knowledge

- cabling types, structures and connectors
- common customer telecommunications applications and related equipment
- connections to carrier infrastructure or equipment
- current legislation relating to installation of telecommunications equipment and connection to carrier services
- CPE
- environmental impacts including options for green ICT installations
- cost-effective solutions in installation:
 - leasing
 - purchase
- network and transmission equipment
- network topologies, interface and interconnect solutions
- OHS requirements:
 - electrical safety
 - materials handling
 - physical hazards
 - confined spaces
 - heights
 - lifting
- power requirements
- typical performance parameters and typical faults that may be encountered in customer equipment and related connection and transmission media
- warranty information for equipment supplies and contractor work guarantees

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:

- assess CPE project requirements
- prepare detailed system design and configuration
- develop project and quality plans for CPE installation.

Context of and specific resources for assessment

Assessment must ensure:

- site on which CPE installation can be planned
- relevant documentation, data, technical manuals and other site related documentation.

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:

- direct observation of the candidate undertaking practical planning
- review of plans completed by the candidate
- oral or written questioning to assess knowledge of installation issues, types of systems and applications.

Guidance information for assessment

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

- ICTPMG5031A Prepare a project brief
- ICTPMG5039A Prepare project specifications.

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

Access must be provided to appropriate learning and 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.

EVIDENCE GUIDE

	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.

<i>Customer</i> may include:	• architects • building construction managers • companies • home owners • third parties: • communications consultant • contractor to a major supplier.
<i>Documentation</i> may include:	• quotation forms • sales orders • specification lists.
<i>Type of CPE project</i> may include:	• cabling • new equipment installation • equipment upgrade.
<i>OHS and environmental issues</i> may include:	• confined spaces • electrical safety • hazardous material • height hazards • trip hazards

RANGE STATEMENT

- waste disposal.

RANGE STATEMENT	
Equipment may include:	• alarm equipment • bandwidth managers • biometric systems • closed circuit TV (CCTV) • cordless private automatic branch exchange (PABX) and business systems • digital subscriber line (DSL): • asymmetrical DSL (ADSL) • cable TV (CATV) • fibre to premises terminal equipment • internet protocol TV (IPTV) • modems • network equipment • PABX • peripherals • radio frequency identification (RFID) • security systems • voice over internet protocol (VoIP) phones.
Data may include:	• applications: • hotel • redundancy • voice mail • barred services • competitive call billing data • class of service • extension relationship • international and national dialling access details • operational configuration.
System design and configuration may involve:	• architecture • compatibility • competing technologies • firmware • hardware • interoperability • longevity • performance • return on investment • scalability • software

RANGE STATEMENT	
	• topologies.
<i>Project plan</i> may include:	• checklists • Gantt charts • PERT charts • software-based programs.
<i>Quality plan</i> may include:	• dependencies • inspection • manufacturer's technical manuals • responsibilities • technical standards • testing and related procedures • work instructions.

Unit Sector(s)

Unit sector	Telecommunications
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Co-requisite units

Co-requisite units		

Competency field

Competency field	Project management
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